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**Mathewson, Richard J.**

**A MODEL OF COST ANALYSIS OF UNDERGRADUATE DENTAL HEALTH  
EDUCATION**

*The University of Oklahoma*

Ph.D. 1985

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THE UNIVERSITY OF OKLAHOMA  
GRADUATE COLLEGE

A MODEL OF COST ANALYSIS IN UNDERGRADUATE  
DENTAL HEALTH EDUCATION

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

By  
RICHARD JAY MATHEWSON  
Norman, Oklahoma

1985

A MODEL OF COST ANALYSIS IN UNDERGRADUATE  
DENTAL HEALTH EDUCATION

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## ACKNOWLEDGMENTS

I would like to thank the following people for their efforts on my behalf:

Paul F. Sharp, Ph.D., for his sage advice, support, and counsel during the duration of the doctoral program. His warmth, sense of humor, and friendship are appreciated.

Herbert F. Hengst, Ph.D., for his generosity with his time, sharing his thoughts on the philosophy of higher education and life in general. His insight into the various roles one must play in higher education was of great help during the program's tenure.

Stanley M. Ward, J.D., for his introduction to the law as it applies to higher education. Using Socratic methods, this was one of the intellectual highlights of the doctoral program.

Ivan Hanson, Ph.D., who served as the advisor in the Department of Health Administration. His kind, but frank approach to the academic discipline required in the field of Health Administration provided an excellent experience.

Thomas W. Wiggins, Ph.D., for his pragmatic approach to educational administration. His advice and direction in the development of the dissertation prospectus was most appreciated.

Mrs. Robbie Hackler and Mrs. Wanda Gress for their patience in answering numerous procedural questions, knowledge of the University's system, and kindness.

The members of the Department of Pediatric Dentistry, O.U. College of Dentistry - J. Dean Robertson, D.D.S., Robert E. Primosch, D.D.S., William F. Waggoner, D.D.S., and Ms. Paula Salamy - for their support. These efforts involved altering clinic and lecture courses for my convenience.

Mrs. Susan Mathewson Grossman, B.A. Letters, University of Oklahoma, for first, being my loving daughter, and second, for lending her editorial expertise by reviewing my dissertation manuscript on numerous occasions.

Finally, to Alice, Stephen and Susan for their love, understanding, and warmth, which only a husband and father can receive and appreciate. As an academician, leading a nomadic life, I have disrupted their lives on several occasions, but they have always supported my career goals. Thank you so much.



Chapter I  
Introduction

Breneman describes the 1980's as a struggle for the survival of higher education;<sup>1</sup> with program cost evaluations, justifying past and future education costs, routine. This strife in higher education during the 1980's is related to the rapid over-expansion of the 1950's and 1960's.

Landry and Mebone listed the elements of the present problems as:

- (1) inflation has damaged higher education because of the effect of tuition increases on family budgets, increased costs of books and supplies, and because of the service nature of higher education;
- (2) energy increases have devastated higher education because of its dependency on outdated facilities to provide service;

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<sup>1</sup>David W. Breneman, "Strategies for the 1980's", in Challenges of Retrenchment, ed. James R. Mingle (San Francisco; Jossey-Bass, 1981), p. 18.

- (3) government regulations such as Section 504 of the 1973 Rehabilitation Act have increased costs of building maintenance and access;
- (4) the pace of changing technology has been so rapid, higher education cannot provide instructional programs with the expensive equipment needed for these laboratory courses; and
- (5) financing of renovation of older facilities has eroded, with funds more available for newer projects. The issuing of tax-exempt bonds for such renewal programs has been difficult.<sup>1</sup>

These current conflicts must be of "paramount concern to policy makers inside and outside higher education," and they advocate prudent use of funds, but warn without financial renewal efforts "higher education faces a grim future."<sup>2</sup>

Because of its uniqueness, Mortola states higher education has special cost needs:

"As a service industry, higher education is labor-intensive, and instruction is clearly the major item in personnel costs. Meaningful indicators in this area are identifiable but are often avoided. However, for decision-making purposes, the indicators must be identified and

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<sup>1</sup>Lawrence L. Landry and Rodney Mebone, "Capitol Crisis in Higher Education," Business Officer (February 1982), p. 36.

<sup>2</sup>Ibid., p. 36.

pursued. Operating officers and board members should have access to the credit-hour cost for each instructional department and school and to the credit-hour cost per student major. The indicators must be clearly defined and must be monitored carefully, accurately, and continuously."<sup>1</sup>

Reviewing the concepts of productivity in higher education, Wallhaus examined the input/process/output systems model of higher education.<sup>2</sup> By reviewing the input payments, mix of inputs, mix of outputs, and benefits of the outputs, the relationships within the system can be identified. The efficient use of resources is a concern for all involved in higher education. To make appropriate use of resources, Wallhaus stated the need for "allocative efficiency".

"Resource allocation decisions focus on another key micro-economic issue: that of allocative efficiency. Given a fixed pool of money, could output have been increased by changing the input mix -- that is, by allocating resources differently? This question is faced at all levels of higher education -- by the department chairman who needs to make trade-offs between the computing budget and new laboratory equipment, by the chief academic officer of the institution who must decide whether to strengthen one academic area at the expense of another, by the state-level

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<sup>1</sup>Edward J. Mortola, "Key Economic and Financial Indicators in Higher Education Management", Business Officer (February 1980), p. 176.

<sup>2</sup>Robert A. Wallhaus, "The Many Dimensions of Productivity," New Directions Institutional Res 2 (Winter, 1975), p. 2.

coordinating staff that must recommend approval or disapproval of a new academic program, and by the legislator or congressman who must vote on the size of the educational budget versus the welfare budget."<sup>1</sup>

Wallhaus describes "preference efficiency" as the most favorable mix of outputs (knowledge, improved health care) for the service of the community.<sup>2</sup> In higher education, the use of resources, allocative and preference efficiency address the accountability question: Is the money spent wisely?

Cherrington describes administrators as waging "a campaign of creative retreat".<sup>3</sup> To assist these academic but systematic decisions, he further suggests the need for cost analysis that is tailored to the specific decision process. With faculty mistrust of cost analysis, it is necessary for the administrator not to misuse the cost analysis data. Misuse may be devastating. Yet, despite the apparent demand and need for cost analysis, little agreement exists as to method or use. Walters, reviewing the literature of the 1970's, felt critical questions about

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<sup>1</sup>Ibid., p. 3.

<sup>2</sup>Ibid., p. 3.

<sup>3</sup>B.E. Cherrington, "Cost Analysis in Academic Decision Making," Business Officer (July 1978), p. 149.

cost analysis methods, and the relationships to program quality still exist.<sup>1</sup>

Yet, this current economic climate has increased demands from legislators, governing boards, and administrators associated with professional health education for accountability and program cost assessment. When cost questions are asked of educators in the health professions, there is often either no response or only inadequate data available. In this era of limited resources and declining enrollments, it is even more imperative that administrators in professional health education have access to cost information which will allow them to make management decisions about maximum cost efficiency. Traditionally, institutions have used rudimentary methods to calculate health program costs. Gonyea concluded that administrators have tended to exclude cost analysis from health programs, such as dentistry or medicine, due to a perceived complexity and high costs of these programs.<sup>2</sup> Yet, in its strategic plan for the 1980's, the American Dental Association's Special Committee on the Future of Dentistry identifies a

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<sup>1</sup>Donald L. Walters, Financial Analysis for Academic Units, (Washington, D.C.: ERIC, 1981), p. 2.

<sup>2</sup>Meridith A. Gonyea, "Editor's Notes", New Directions for Institutional Res, 17 (Spring, 1978): VII.

number of issues in dental education.<sup>1</sup> One of the recommendations is to "develop a model system of long-range fiscal planning that relates cost of education, type of educational program, and student enrollment. This should be the responsibility of each school."<sup>2</sup>

With the apparent need for a method of cost analysis in dental health education, none is available which outlines specific program costs within an institution of health care, nor allows comparisons between institutions on a departmental basis. If such a model were identified, it could be used in the decision process to logically reduce program costs where needed or augment programs where improvement is required. The problem is to develop a pragmatic, but inclusive cost analysis method which can be used in a college of dentistry.

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<sup>1</sup>American Dental Association, Report of the Social Committee on the Future of Dentistry: Issue Papers in Dental Research, Manpower, Education, Practice, and Public and Professional Concerns, (Chicago: American Dental Association, 1983), p. 65.

<sup>2</sup>Ibid., p. 65.

## Chapter II

### Review of the Literature

#### A. Historical Review

Morris L. Cooke, a disciple of Frederick Taylor, was commissioned by the Carnegie Foundation to review "how the American university handles money and deals with questions of effective organization and administration".<sup>1</sup> Concerns of the Carnegie Foundation included the rapid expansion of higher education with the accompanying increased educational costs. Completed in 1910, his study reviewed costs and outputs of eight departments of physics in institutions of higher education. Mr. Cooke's meticulous report was uncomplimentary in its view of management and cost determination on the departmental and central administration levels. He stated that:

"This matter of costs has been largely confused in collegiate accounting with the entirely different matter of the analysis of revenue. There is plenty of reason for believing that the desire to be over-careful in the matter of

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<sup>1</sup>Morris L. Cooke, Academic and Industrial Efficiency, (Boston, Merrymount Press, 1910), p. III.

accounting funds of all kinds has led our collegiate financiers to overlook the question of cost."<sup>1</sup>

One of the first accounting books for university administrators was written in 1922 by Trevor Arnett.<sup>2</sup> His goal was to standardize accounting procedures for higher education. Different accounting systems for the non-profit higher education sector rather than adaptation of typical business, profit motivated systems were proposed. His theory was that each university or college should adopt an accounting scheme tailored for administrative decisions within that institution.

In 1923, Kelly reported a study of costs at the University of Kansas.<sup>3</sup> He presented two questions. "First, what is the most useful unit of cost to use; and second, what items shall be admitted into total cost?" He advocated including salaries, maintenance, and overhead. Using the student-credit hour of determination, the University of Kansas used this scheme to determine budget needs of departments, but disregarded building depreciation and other indirect costs.

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<sup>1</sup>Ibid., p. 59.

<sup>2</sup>Trevor Arnett, College and University Business, (New York, General Educ Board, 1922), p. 58.

<sup>3</sup>F.J. Kelly, "Cost Analysis as a Basis for Budget Making", J Educ Res 7 (May 1923):410.



The unit cost concept (cost of departments, division, or institutions) was emphasized by Stevens and Elliot.<sup>1</sup> They attempted to relate resource distribution, its use, and measurements of output. This proved to be a difficult function of their cost concept.

In University and College Accounting, Morey described accounting methods employed by academic administrators which were of poor quality often "involving their institutions in financial difficulty".<sup>2</sup> Because of the great diversity between private and public, comparison between institutions was difficult, if not impossible.

Attempting to correlate excellence and financial management, Russell and Reaves established "subjective" criteria for costs in higher education.<sup>3</sup> This monograph, part of a study sponsored by the North Central Association of Colleges and Secondary Schools, concluded that four characteristics of fiscal responsibility determine institutional quality:

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<sup>1</sup>Edwin B. Stevens and Edward C. Elliott, Unit Costs of Education (New York, MacMillan, 1925) quoted in Carl R. Adams, Russell L. Hankins, and Roger G. Schroeder. A Study of Cost Analysis in Higher Education Vol. I, (Washington, D.C., Amer. Council Educ., 1978), p. 57.

<sup>2</sup>Lloyd Morey, University and College Accounting (New York, Wiley and Sons, 1930), p. 5.

<sup>3</sup>John D. Russell and Floyd W. Reeves, The Evaluation of Higher Institutions, (Chicago, Univ. Chicago Press, 1935), p. 110.

"(1) weighted expenditure per student for educational purposes; (2) percentage that income from students is of educational expenditure; (3) weighted income per student from stable sources; (4) debt per student. Many other items of financial information have been examined in the course of the study, but these four are found to be sufficiently comprehensive for the purpose of judging institutional excellence from financial data."<sup>1</sup>

The first extensive project of cost analysis in higher education was published by McNeely in 1938.<sup>2</sup> This two year project financed by the Office of Education reviewed unit costs in universities. Using standard accounting procedures developed by the National Committee on Standard Reports for Institutions of Higher Education (NCSRIHE), detailed data was collected and classified on student enrollments and financial expenditures. This report issued a warning [currently applicable].

"--It must be emphasized that the unit costs should be interpreted with caution. Many imponderable elements not susceptible to arithmetic measurement enter into the instruction of students. Frequently the unit cost of instruction for one department is shown to exceed greatly that of another department. A similar disparity in the unit cost figures of colleges or schools is found. Such differences should not be assumed as a justification for arbitrarily reducing expenditures of the department

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<sup>1</sup>Ibid., p. 114.

<sup>2</sup>University Unit Costs, by John H. McNeely, (Washington, D.C.: Government Printing Office, 1938), p. 28.

and college or school with the higher unit costs. Before such steps are taken, a meticulous analysis of all the elements involved in their relationship to the general educational program of the institution is essential."<sup>1</sup>

The use of unit cost methods was not universally accepted. Reservations were expressed by several authors. Beaumont, in 1941, was critical of the concept that all student-hours were equal.<sup>2</sup> Due to the variance in salaries of instructors (who teach lower level courses) and professors (who teach upper and graduate level courses), the cost per unit is higher at the upper level courses, but when averaged on a departmental basis, the effect is diluted. Further, he stated the quality of teaching is ignored.

Christensen, commenting on unit-cost, felt that any well informed administrator should know which department was functioning at optimum cost efficiency.<sup>3</sup> He continued -- "a great deal of harm and unrest may result from an application of unit cost studies."<sup>4</sup> Advocating a well documented budget and financial report, he concluded that "all any unit-cost scheme can do is to assist administrators

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<sup>1</sup>Ibid., p.

<sup>2</sup>Henry Beaumont, "The Calculation of Unit Costs", J Higher Educ 11 (March 1941):147.

<sup>3</sup>John C. Christensen, "Unit Costs", J Higher Educ 12 (December 1941):466.

<sup>4</sup>Ibid., p. 467.

in solving their problems by calling attention to places where further investigation may be necessary."<sup>1</sup>

In 1942, Stevens, a proponent of unit-cost studies, answered the critics.<sup>2</sup> Higher unit costs in one department may be the result of a greater number of distinguished faculty producing a quality student. Unit costs, he continued, can be used by laymen (trustees) to answer questions of management, from the faculty member who believes his department is not budgeted fairly, and to the administrator responsible for overall costs. Not all administrators are in favor of unit cost analysis, he concluded, especially those with higher costs, placing them in a defensive position.

Van Dyke, in 1946, described the intent of unit cost studies for better budgeting methods with reduction of wasted expenditures.<sup>3</sup> Pitfalls and problems of unit cost studies were soon apparent, with the most significant influences being salaries of faculty, class size, or the ratio of faculty to class. Unit costs were not comparable nor were they used to reduce highly expensive programs, such as medical education. The unit of value of the finished product could not be determined. He was of the opinion the

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<sup>1</sup>Ibid., p. 500.

<sup>2</sup>Edwin B. Stevens, "The Functions of Unit Costs", J Higher Educ 13 (December 1942):479.

<sup>3</sup>George E. Van Dyke, "Let's Revise our Idea of Computing Costs," College Univ. Business 1 (August 1946):35.

government education programs of WWII influenced the calculation of expenses of plant maintenance (indirect costs). "There undoubtedly is value in cost studies on the old basis of cost per student, --- but there seems to be a need for revising our ideas on the purposes of cost studies ---."1

While an advocate of unit cost studies, Jolliffe expressed concern in comparisons between institutions of administrative and general expense items (indirect costs).2 He further opposed pro-rating other expense items in the general administration budget to units or departments.

Kettler, editorializing on unit cost studies, was opposed to their use or misuse.3 He felt consistent accounting methods were lacking which made cost-unit studies inaccurate. Comparisons between institutions are impossible because costs between institutions are not comparable. "Are higher costs of producing a graduate at one institution the results of a better program or the result of poorer management?"4 Colleges only fear the misuse of cost-unit studies, he concluded.

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<sup>1</sup>Ibid., p. 36.

<sup>2</sup>E.T. Jolliffe, "How to Establish a Unit Cost Program," College Univ Business 12 (July 1951):42.

<sup>3</sup>Raymond W. Kettler, "What's Wrong with the Unit Cost Idea," College Univ Business 14 (May 1953), p. 17.

<sup>4</sup>Ibid., p. 17.

The results of the Commission on Financing Higher Education were published by Millet in 1952.<sup>1</sup> Using data provided by the Office of Education, costs per student for private and public institutions were compiled. One of the conclusions from this extensive study was that cost accounting as a systematic procedure for recording expenditures was not feasible. However, cost analysis and cost accounting were not considered interchangeable functions, with cost analysis considered vital. Caution should be used if the data were used for interinstitutional comparisons. He concluded:

- there are important cost differentials between programs
- differences in costs in levels of instruction
- cost problems are related to availability of income, and
- (in 1952) instructional expenditures are under great pressure to increase.<sup>2</sup>

Russell and Doi, publishing a series of articles in 1955-56, discussed the unit-cost method using historical budget data.<sup>3</sup> These articles described analytical methods used to compare New Mexico colleges and universities per

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<sup>1</sup>John D. Millet, Financing Higher Education (New York: Columbia Univ Press, 1952), p. 141.

<sup>2</sup>Ibid., p. 153.

<sup>3</sup>John D. Russell and James I. Doi, "Analysis of Institutional Expenditures", College Univ Business 19 (September 1955), p. 19.

student costs for instruction, administration, and general purposes. They felt that "legislative finance committees have a keen appreciation for compactly presented data on expenditures and costs" having a preference for unit cost figures.<sup>1</sup> Comparison between institutions is difficult, they concluded, because of differences in accounting methods, student enrollments, and varying administrative policies. This series by Russell and Doi was one of the few pragmatic studies to date that reviewed and demonstrated analytical methods which were applicable to college and university financial data.

Citing numerous drawbacks, Hull was hesitant to endorse the use of unit-cost analysis.<sup>2</sup> His list of undesirable characteristics of cost studies include: (1) cost study data are not qualitative, (2) inaccuracy of quantitative performance measures, (3) over-emphasis on cost, (4) obscure instructional costs, (5) misuse of the cost analysis data, and (6) over-zealous administrative use in cost reduction programs. Yet, the author, despite his concerns, believes cost analysis can have a beneficial use in budgetary decisions.

Two articles, one supporting unit costs and the other offering an alternative, appeared in 1962. Hubbard outlined

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<sup>1</sup>Idem, "Analysis of Institutional Expenditures", College Univ Business 19 (November 1955), p. 46.

<sup>2</sup>L.E. Hull, "Pitfalls in the Use of Unit-Cost Studies," J Higher Educ 32 (October 1961):371.

an extensive unit-cost analysis used at Wayne State University, Detroit, Michigan.<sup>1</sup> Mandated by the State of Michigan Legislature, this study included a faculty activity analysis, an admitted weakness.<sup>2</sup> Tyndall and Barnes were critical of the unit cost system used in the California and Western Conference Cost Study (Cal-Big Ten cost study).<sup>3</sup> Advocating a simplified approach, they believed faculty time analysis studies were inaccurate as well as the incorporation of indirect costs. The answer, according to them, was to establish arbitrary values to the work weeks, student contact hours, and semester hourly rates. They feel these methods are practical, less time consuming, and as free from bias as the comprehensive time-unit studies. In cost analysis studies, they state it may never be possible to establish objective standards for cost comparisons.<sup>4</sup>

The Office of Education, in a lengthy report on the status of higher education, felt that the faculty regarded the assessment of cost and performance as illegitimate.<sup>5</sup>

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<sup>1</sup>Robert E. Hubbard, "An Approach to Institutional Cost Analysis," J Exper Educ 31 (December 1962):109.

<sup>2</sup>Ibid., p. 113.

<sup>3</sup>Gordon D. Tyndall and Grant A. Barnes, "Unit Costs of Instruction in Higher Education", J Exper Educ 31 (December 1962):115.

<sup>4</sup>Ibid., p. 118.

<sup>5</sup>"The Illegitimacy of Cost Effectiveness," Report on Higher Education (Washington, D.C.: Government Printing Office, 1971), p. 28.



"But, before pressures for budget control are reduced, the public needs to have confidence that cost effective programs are being carried out."<sup>1</sup>

In the early 1970's, efforts were directed towards the use of computer cost simulation models to provide administrators with information of future cost patterns. The most widely publicized were models developed by the Western Interstate Commission for Higher Education (WICHE), with the Resources Requirements Prediction Model 1 (RRPM-1) one of the first. The intended purpose of this model was to "aid higher level management in rapidly determining resource implications of alternate policy and planning changes."<sup>2</sup> The intent of the RRPM-1 model was to incorporate design factors from previously constructed models such as Computer-assisted Planning for Small Colleges (CAP:SC), the Cost Simulation Model (CSM) and Campus V model from the University of Toronto.<sup>3</sup> The model's input cost determinates are those developed by WICHE. This model, using historical cost data,

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<sup>1</sup>Ibid., p. 29.

<sup>2</sup>See Warren Gulko, "A Resource Requirements Prediction Model! (RRPM-1): An Overview", Western Interstate Commission Higher Educ., (No. 16), 1971, p. 2; Ben Lawrance, George Weathersby, and Virginia Patterson, ed. Outputs of Higher Education: Their Identification Measurement, and Evaluation. (Boulder: Western Interstate Commission for Higher Education, 1970), p. 4; Sidney S. Micek, Allan L. Service, and Yong S. Lece, Outcome Measures and Procedures Manual Field Review Edition, (Boulder: National Center for Higher Education Management Systems, 1975), p. 12.

<sup>3</sup>Gulko, p. 9.

would project future enrollment fluctuations and accompanying cost changes. The RRPM and similar models were not accepted with enthusiasm by a number of critics. Balderston expressed concern because of the extensive federal support of these model development programs.<sup>1</sup> Adams and co-authors were of the opinion that many institutions have become discouraged with use of cost simulation models, returning to former cost analysis methods.<sup>2</sup> Though these systems define health professions in the coded cost index, there is no mention of measurement of monetary outputs of health educational programs. The NCHEMS costing scheme uses credit hours of instruction which is often difficult to determine in health education programs.

An extensive review of post-secondary education was published by a national commission appointed to review finances and costs in higher education.<sup>3</sup> Noting a number of obstacles, a national center for gathering information was proposed. The full annual per student costs were advocated, but administrators should not rely completely on

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<sup>1</sup>Frederick E. Balderston, "Institutional Data Systems", Managing Today's University, (San Francisco: Jossey-Bass) 1974.

<sup>2</sup>Adams, Study of Cost Analysis, p. 47.

<sup>3</sup>National Commission on the Financing of Postsecondary Education, Financing Postsecondary Education in the United States, (Washington, D.C.: Government Printing Office, 1973), p. 340.

such data. This report recommended federal government leadership in developing a national cost analysis program.

In 1979, Topping reported on the use of the National Center for Higher Education Management Systems (NCHEMS) information management system.<sup>1</sup> Difficulties in the compatibility of data were the main problems. Questions unanswered were related to comparability of student achievement levels, course contents, student outputs and institutional policies. "Many problems, both conceptual and technical, remain -- with large-scale costing models."<sup>2</sup>

In their 1978 extensive review of the cost literature, Adams, Hankins and Schroedor found that there "is no well developed or well expressed sense of purpose presented in the cost analysis literature."<sup>3</sup> They concluded:

- 1) the existence of literature on cost analysis and the internal decision process is minimal, but cost data for use in the decision process should receive more attention;
- 2) there is a lack of research on how cost analysis will influence the outcome of higher education;
- 3) little emphasis on how an institution would implement a cost analysis system;

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<sup>1</sup>James R. Topping, "Research Universities Evaluate NCHEMS Data Exchanged Procedures", Business Officer (September 1979), p. 143.

<sup>2</sup>Ibid., p. 145.

<sup>3</sup>Adams, Cost Analysis, p. 81.

- 4) that the current cost literature (1978) is fragmented; and
- 5) a lack of well defined terminology in the area of costing a cost analysis.<sup>1</sup>

Walters, in 1981, reviewed the cost analysis literature to date.<sup>2</sup> He concluded that:

"The findings show the need for further work on the technical aspects of financial analysis and for discussion of questions about the role of this type of analysis for academic units. The measurement and allocation of indirect costs, the identification of revenue, and the analysis of fixed and variable costs need refining and testing to increase their validity and reliability in financial analysis. Questions about the issues to which financial analysis is applied, who uses this type of information, and how it influences their decisions need additional study."<sup>3</sup>

This overview of the cost analysis literature supports the conclusions of Adams and co-workers.<sup>4</sup>

Since the pioneering efforts of Morris Cooke in 1910, descriptions and methods have been presented, challenged, and defended in the literature. However, there is little evidence as to methods of cost analysis application in higher education. The purpose of cost analysis, its

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<sup>1</sup>Ibid., p. 130-134.

<sup>2</sup>Walters, Financial Analysis for Academic Units, p. 1.

<sup>3</sup>Ibid., p. 2.

<sup>4</sup>Adams, Literature of Cost Analysis, p. 37.

intended uses, and doubts of its needs still have not been resolved. Despite the practical, pragmatic efforts of Russell and Doi in 1955-56, the computerized models of the 1970's, the concepts, documentation, and uses of cost analysis have evaded standardization in the financially critical 1980's.

B. Cost Analysis Methods in Health Education

1. Colleges of Medicine

Reviewing special cost problems facing higher education in the 1950's, Millet described unanimous concern expressed by administrators concerning medical education costs.<sup>1</sup> Receiving the greatest percentage of the higher education budget from state budgets, medical schools were criticized by non-medical faculty and administrators. Yet, the public was demanding an increase in the number of physicians while the Association of American Medical Colleges was demanding maintenance of current standards of medical education. However, state officials were demanding efficient use of public monies in medical school management. He concluded that "medical education became a cost problem, not because it was an expensive educational program, but because high quality, and hence high cost, was developed without a due regard for the necessary income."<sup>2</sup>

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<sup>1</sup>Millet, Financing Higher Education in the United States, p. 178.

<sup>2</sup>Ibid., p. 189.

Henricksen and Daveson reviewed cost analysis methods prevalent in the 1950's.<sup>1</sup> The intent then, as now, was to improve the economic status of undergraduate medical education. They described a simplistic method, then in vogue, which merely subtracted hospital income from the total budget. Dividing the number of medical students into this difference yielded a cost per student. Tuition and other student fees were not included. These calculations were misleading, if not inaccurate. The authors, in 1952, while not offering a solution to the cost analysis accounting problems, were of the opinion that cost analysis was dependent upon

- the accounting method used
- the type and mission of the medical school
- a simplistic approach with exclusion of other cost factors.

In a pilot program at Emory University, Knott and co-workers evaluated a cost analysis method using historical budget data.<sup>2</sup> Basic concepts included in this cost analysis were:

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<sup>1</sup>Gehard C. Henricksen and Wilburt C. Daveson, "Cost of Undergraduate Medical Instruction in an Endowed School," J Am Med Assoc 149 (May 10, 1952):99.

<sup>2</sup>Leslie W. Knott, Majorie Gooch and Hugh E. Hillard, "The Cost of Medical Education: A Pilot Study," J Med Educ 33 (May 1958):429.

- (1) use of the average cost concept -- "the cost of a given service during a specific period of time apportioned among the units served";<sup>1</sup>
- (2) use of these average costs to apportion indirect costs and overhead on a departmental basis;
- (3) use of a stepdown cost method with cost centers arranged according to service they provided other cost centers;
- (4) assignment of grant funds as departmental income; and
- (5) using these methods to assign cost per student.

The authors, using various combinations of costs, incomes, and types of medical students, calculated six cost per student options. Depending on the cost method, there was a variance of nearly 70 percent in cost per student. They concluded a goal of any cost analysis project in health education should be the development of a system that meets the need of a "reasonable cost information system."<sup>2</sup>

Carroll, in several articles on medical school cost analysis methods, reviewed data from his classic 1958 study sponsored by the Association of American Medical Colleges (AAMC).<sup>3</sup> The data represented typical costs of four year

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<sup>1</sup>Ibid., p. 431.

<sup>2</sup>Ibid., p. 435.

<sup>3</sup>See A.J. Carroll, "Education Costs in Hospitals" J Med Educ 37 (August 1962):744; A.J. Carroll and Ward Darley, "Medical College Costs", J Med Educ 42 (January 1967):1.

medical colleges including average yearly total costs over a five year span, total expenditures for sponsored programs and regular operating funds. Percentage comparison between the several budgets were used as significant cost comparisons. Ranges of these several categories were included plus total medical school enrollment. Using this data, Carroll believed that a medical school dean could determine the comparative position of his own institution. If a comparison of grant support money was lower than the AAMC average, then was the faculty spending too little time on research and why? Conversely, a medical school with a higher percentage of sponsored programs may have had an improper balance between teaching and research. Illustrating several misuses of this type of data, the most serious was dividing expenditures by total number of students. To improve the cost analysis concept, a program of cost analysis was proposed. Programs were identified as the primary program, the undergraduate medical program; or support program and research programs. By assigning expenditures, incomes, and other costs to individual programs, a program cost analysis concept would increase the reliability of the final cost per student determination. However, there was little mention of allocating indirect costs. He concluded that program costs serve as managerial guides for judgments, but not absolutes.



Smythe, using descriptive budgetary data from twenty-five medical schools, compared cost data of six typical medical school departments.<sup>1</sup> His purpose for this extensive cost study was to define, from a cost viewpoint, what an "acceptable" department was in an "acceptable" medical school. By use of a cost questionnaire, income and expenses were categorized by pre-defined cost terms. From this data, the lowest quartile mean and the median were calculated for each of the six divisions. Using percentage and ratio comparisons such as 1) percentage of departmental budget to total budget; 2) percentage of departmental budgets which are state supported or sponsor research supported; 3) medical student:faculty ratio; 4) net square footage per faculty member; and 5) a comparison of undergraduate students to sponsored research monies; he concluded all costs, space, faculty, and number of medical students were interrelated. An additional conclusion was that as sponsored research monies increased, medical student contact ratios decreased. He argued, in summary, "only in terms of allocated cost is it possible to separate what the various programs of a medical center require. However, it is not possible to separate these various component parts

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<sup>1</sup>C.M. Smythe, "Toward a Definition of Department Size: A Study Based on Six Departments in Twenty-Five Medical Schools," J Med Educ 45 (September 1970), p. 637.

physically or intellectually without destroying the integrity of the educational effort."<sup>1</sup>

Using the College of Medicine, University of Iowa, Latham attempted to identify the productive interaction between medical education, research and education.<sup>2</sup> The intent of this in-depth study of the budget of the College of Medicine was to determine per unit costs and total costs of output activities of the medical educational program. Critical of previous studies, he was of the opinion that cost of building space, contributions of residents and interns, volunteer faculty, research, and patient services should be included in any cost study. By use of the budget data, faculty effort reports, and additional records, seventeen departments were compared in the study. Using an output model, his method produced significantly different costs per unit than previous methods. A summary of his findings are that

- the optimal mix of investments in a medical educational program depends on the initial cost and the ultimate societal benefits;
- there are limitations of his method because of the uniqueness of the College of Medicine, University of

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<sup>1</sup>Ibid., p. 658.

<sup>2</sup>Robert J. Latham, "The Cost of Medical Education: An Empirical Analysis of Production, Costs, and Optimal Output Mixes in a Medical College," Ph.D. dissertation, University of Iowa, 1971, p. 15.

Iowa;

- unfortunately, there is no way to create alternative models to generate outputs (medical students) to determine optimal model comparisons; and
- in verifying the accuracy of faculty activity reports, by interviewing faculty after completion of the report, he found a low correlation between what was reported and what was done. He questioned their value.

He concluded, "further comparative studies of the costs of medical education are needed -- further estimates of production relationships are required for cross-sectional comparisons of efficiency of production activities in medical colleges."<sup>1</sup>

Attempting to answer questions on how to provide increased financial support to health science centers, the Cost Allocation Study was co-sponsored by the American Association of Medical Colleges and the federal government.<sup>2</sup> This extensive study established extensive, step-by-step cost funding procedures for all programs in health education. The second part, using sample data provided an example of how the cost finding information

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<sup>1</sup>Ibid., p. 281.

<sup>2</sup>William C. Hilles and Thomas J. Campbell, Guidelines for Academic Health Center Cost Allocation Studies. Association of American Medical Colleges. Part I. [Washington, D.C.]. p. 4.

would be calculated and summarized.<sup>1</sup> They recommended that as a minimum cost finding concept that each health science center should consider the following:

- bases of allocation should produce a valid distribution of costs among the various programs.
- bases of allocation must be documented and should be available to agencies which provide financial support.
- bases of allocation should adhere to generally accepted accounting practice. It was appropriate that the institution's external auditor examine and attest to the reasonableness of such bases.
- bases of allocation should reflect reasonable consistency from year to year and should be applied consistently among programs.<sup>2</sup>

The conclusions of the AAMC were that:

- 1) each health science center use the general cost principles established by the AAMC for allocation costs;
- 2) there were needs for constant revision of methodology;
- 3) the AAMC publications were only guidelines;
- 4) in the future, there will be a maximum degree of compatibility between different health science centers;

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<sup>1</sup>William C. Hilles and Thomas J. Campbell, Guidelines for Academic Health Center Cost Allocation Studies. Association of American Medical Colleges. Part I. Washington, D.C. . p. 4.

<sup>2</sup>Ibid., Part I, p. 2.

and

(5) that cost finding is more practical than cost accounting.

The use of cost finding or cost analysis requires estimating, which the report states "is a necessary part of even the most sophisticated cost accounting system."<sup>1</sup> Cost finding is not an exact science depending on the intelligent, good judgment of reasonable people. "Exactness is not important, and, if attempted, would be very costly itself and wasteful of time."<sup>2</sup> Proponents of faculty activity analysis, the AAMC used these reports to determine allocation of costs to education, research, and service programs.

Authors have questioned the accuracy and the dependence of faculty effort-reporting used by the American Association of Medical Colleges (AAMC).<sup>3</sup> Doubtful of the use of effort-reporting, they are critical of its use in cost analysis. The problem, they feel, is that in health education it is difficult to separate costs for patient care in the hospital and the educational process. Their

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<sup>1</sup>Ibid., Part I, p. 16.

<sup>2</sup>Ibid., Part II, p. 11.

<sup>3</sup>See John Koehler and Robert L. Sleghton, "Activity Analysis and Cost Analysis in Medical Schools" J Med Educ 48 (June 1973):531; Greg L. Stoddart "Effort-Reporting and Cost Analysis of Medical Education," J Med Educ 48 (September 1973):814; Warren G. Hilles, "Program Cost Allocation and the Validation of Faculty Involvement," J Med Educ 48 (September 1973):805.

disregard for uses of effort-analysis are related to accuracy because of

- lack of faculty interest or a feeling of infringement on academic freedom
- unwillingness of a faculty member to respond in a manner inconsistent with the sources of his/her financial support
- length and ambiguity of the forms and
- the impression that such cost analysis methods are inaccurate.

Suggested alternatives included a one-to-one interview process; linear input-output cost analysis, and methods which eliminate effort analysis.

In 1971, Congress requested the Institute of Medicine with the support of the National Academy of Sciences to review costs of health education.<sup>1</sup> Prompted by the Comprehensive Manpower Act of 1971 which disbursed federal funds to health professional schools based on enrollment, Congress wished to determine how these "capitation" monies were allocated for educational costs. The extensive three part study combined data from eight professional schools; dentistry, medicine, optometry, pharmacy, podiatry, nursing, and veterinary medicine. The overall objective was to determine annual national averages per student costs. The

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<sup>1</sup>Costs of Education in the Health Professions, National Academy of Sciences, Part I and II (Washington, D.C., 1974):p.1.

specific objectives were as follows:

- "1. Such studies shall develop methodologies for ascertaining the national average annual per student educational costs and shall, on such basis, determine such costs for school years 1971-72, 1972-73, and the estimated costs for school years 1973-74 in the respective disciplines.
2. Such studies shall also describe national uniform standards for determining annual per student educational costs for each health professional school in the future years and estimates of the cost to such schools of reporting according to these uniform standards.
3. The report shall also include recommendations concerning how the Federal Government can utilize educational costs per student data to determine the amount of capitation grants under the Public Health Service Act to each health profession school."<sup>1</sup>

The study determined costs by

- use of faculty activity analysis with one week as the sample basis.
- use of a seminar method of peers within each health profession to determine contributions of research and patient care essential for the educational process.
- and combining this data, educational costs per student for each health profession were determined. The costs and their influences on the educational cost per

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<sup>1</sup>Ibid., p. IV.

student in colleges of medicine are summarized as follows.<sup>1</sup>

1. Educational costs ranged from \$6,900 to \$18,650 with private medical schools having approximately 24 percent higher cost per student. Fifty percent of this higher cost was due to differences in research and patient care costs;
2. The number of medical students per medical school influenced cost;
3. The nature of the academic medical program. Lower faculty/student ratios seemed to produce more medical researchers and academicians upon graduation; and
4. Indirect costs seem to show lesser variations and influences on student cost than direct costs but with few overall conclusions on educational cost per student.

In 1975, Bromberg reviewed the American Association of Medical Colleges study.<sup>2</sup> Stating "it will never be possible to determine precise costs of end programs,"<sup>3</sup> he does however, present a model which attempts to overcome the shortcomings of the AAMC method of cost analysis, specifically the faculty activity analysis. The main

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<sup>1</sup>Ibid., pps. 59-89.

<sup>2</sup>Jonathan Bromberg, "A Generalized Modeling Approach to Determining Environmental Costs of Education. J Med Educ 50 (April 1975):346.

<sup>3</sup>Ibid., p. 351.



objective of his model was to include the faculty member who was completely involved in the educational process; ie. the basic science faculty member. Bromberg's formula method determined reasonable estimates of the educational cost per student.

## 2. Colleges of Allied Health

Using five selected hospitals, a study was reported on the educational costs in medical technology programs.<sup>1</sup> From questionnaires, expenses in the educational programs were calculated. The percentages of time devoted to the educational program were used to determine the salary cost factor, with the increased needs for supplies and equipment for student education as additional expense items. Dividing the total number of students into the total costs, cost per student were compiled for comparison. The costs ranged from \$5,840 to \$2,445 with a mean of \$5,100. The authors, noting wide cost per student variations, were confident in the resultant data presented.

A general model was presented which measured education costs of a physical therapy program in a hospital setting.<sup>2</sup>

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<sup>1</sup>Stephen J. Smith and Gray T. Malcom, "Education Costs for Medical Technology Programs in Hospital Laboratories," Am J Med Tech 40 (June 1974):273.

<sup>2</sup>Robert J. Halonen, John L. Fitzgerald, and Kenneth J. Simmon, "Measuring the Costs of Clinical Education in Departments Utilizing Allied Health Professionals," J Allied Health (Fall 1976):5.

Reviewing the literature to date (1976), the authors noted a lack of consideration of the influence of student clinical productivity on departmental patient income. Using a monthly report, direct and indirect costs, income from student tuition and student patient care, educational and administrative costs, and related expenses were formulated to determine a net educational cost per student. The cost method was presented as an economical way to measure in-house costs of clinical programs.

Surveying thirty-seven health care facilities, the author analyzed costs in six allied health programs which trained technicians in physical therapy, laboratory, radiology, respiratory diseases, and medical records.<sup>1</sup> Using questionnaires, respondents estimated time spent in educational activities and cost of supplies used in the educational program. The credit, a benefit, depended upon the students' contribution to the daily patient workload. The actual cost, or debit, represented the cost analysis of the specific program. In all of the programs surveyed, the debit or cost exceeded the cost benefit. Using the differences between debits and credits, an average of educational cost per student was calculated. Noting a wide variation of salary costs and educational supplies, the

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<sup>1</sup>Suzanne S. Hammersburg, "A Cost/Benefit Study of Clinical Education in Selected Allied Health Programs, J Allied Health (February 1982):35.

author cautions use of the data without further verification.

### 3. Colleges of Dentistry

The first extensive cost analysis study in dental education was inspired by the pioneering medical cost efforts of Carroll.<sup>1</sup> The American Association of Dental Schools, funded by the W.K. Kellogg Foundation, developed a manual of cost analysis for distribution to colleges of dentistry. The final study summarized returned cost data from 39 colleges of dentistry in the United States and six in Canada for the fiscal year ending June 30, 1964. This cost information plus faculty activity analysis were used to calculate dental education costs. The cost method employed summarized direct and indirect costs plus income sources (clinical, tuition, and other fees). By subtracting income from costs, a cost per full-time student was determined for each institution. As the report states "the data lend themselves to almost unlimited statistical study."<sup>2</sup> Numerous tables report mean and median costs for schools, programs, and individual student costs. Public and private institutions, geographical locations and enrollment sizes were additional divisions. Because of the wide variance in departmental descriptions, only six departmental costs were

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<sup>1</sup>George M. Norwood, Jr. ed., "Cost Study of Dental Education" Am Assoc Dental Schools (Chicago, 1966):2.

<sup>2</sup>Ibid., p. 19.

included in the report. The method of calculation of these departmental costs were not included . The conclusions were as follows:

1. A uniform method of cost analysis was advocated for all colleges of dentistry.
2. If the basic mission of a dental school is undergraduate education, then all direct and indirect costs result in a mean cost of \$4,578 per year in 1966.
3. Private schools seem to have fewer resources.
4. Private schools have a higher faculty:student ratio.
5. Indirect costs are approximately 20% of total expenditures.

The more pertinent recommendations were:

- continuous monitoring of costs for analysis would be ideal
- unit costs varied inversely with size of the student group, therefore, each college of dentistry should evaluate its resources for optimum use
- the experience seemed to suggest that in the future there be a strict definition of 1) net useable space, 2) indirect costs, 3) number of part-time faculty, and 4) basic and clinical research efforts.

In a supplement to the study, a concern was expressed over the accuracy of the faculty-effort reports.<sup>1</sup> It was

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<sup>1</sup>Idem, "Cost Study of Dental Education," Am Assoc Dental Schools, (Chicago, 1966):Supplement.

suggested that the average degree of error was between five to ten percent resulting in under-estimates of the costs in dental education.

Diana, in 1971, stressed the need for dental school administrators to become involved in cost allocation studies as part of good management.<sup>1</sup> He advocated the use of Management Information Systems (MIS) as a valuable assist in developing accountability and strengthening dental school curricula.

Warning of the need for educators in the health profession to develop legitimate cost information systems, Lyons expressed apprehension about loss of managerial autonomy due to inappropriate or nonexistent cost information models in health education centers.<sup>2</sup> Not only is it important to identify costs within educational institutions, but also is necessary to compare institutional program effectiveness for support in the management decision process.<sup>3</sup>

Two reports, sponsored by the Carnegie Commission on Higher Education, examined the future of health care needs.

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<sup>1</sup>Joseph A. Diana, "Principles and Techniques of Cost Allocation -- A Tool for Self-Management", J Dent Educ 35 (February 1971):91-100.

<sup>2</sup>John M. Lyons, "Cost Accounting: Problems and Research Related to Cost Definitions and Collection of Data", New Directions for Institutional Res, 17 (Spring, 1970):1-11.

<sup>3</sup>David J. Zaumeyer, "Cost per Student Determinations", New Directions for Institutional Res, 17 (Spring, 1970):27-32.

Fein and Weber, in 1971, argued that the distribution of funds for professional education should be determined by measuring educational output as related to allocation of resources.<sup>1</sup> They admitted to a lack of knowledge about the functional relationships between these two actions. In 1976, there was an indication of an oversupply of dental graduates, thus a need to reduce enrollment. However, there were little cost data to substantiate such curtailment.<sup>2</sup>

In 1970, McCallum presented views on the status of cost analysis in dental education.<sup>3</sup> Stating that cost analysis in dental education was very complex, yet answers must be found before cost questions are asked. He was of the opinion that it was not only inappropriate but impossible to isolate service, research and educational costs by individual cost functions. His recommendations were:

1. Because future funding will be on the basis of cost analysis, methods of cost analysis should be developed, and
2. The objectives of cost analysis should include a

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<sup>1</sup>Rashi Fein and Gerald I. Weber, Financing Medical Education: Carnegie Commission on Higher Education, (New York: McGraw-Hill, 1971), p. 213.

<sup>2</sup>Progress and Problems in Medical and Dental Education: A Report of the Carnegie Council on Policy Studies in Higher Education, (San Francisco: Jossey-Bass, 1976), p. 178.

<sup>3</sup>Charles A. McCallum and Joseph M. Fontanna, "Identification of the Need for Cost Analysis in Dental Education", J Dent Educ 35 (February 1971):17.

responsible, efficient use of resources.

Dentistry was included in the Institute of Medicine's in-depth cost study of the health profession.<sup>1</sup> Using the same methodology of cost analysis for all professions, the annual cost per dental student was calculated.<sup>2</sup> However, the peer review committee of dental educators were of the opinion that dental education was underfunded. Thus, the constructed model for dentistry was what they thought it should be, rather than what it was. The major differences in the actual and the constructed model were that

- the constructed model had more full-time faculty than existed
- the use of auxiliary aids exceeded current use
- more research was needed, thus a higher research commitment by faculty
- intramural facilities be established with time for full-time faculty to practice, with all expenses recoverable
- all faculty, both basic sciences and clinical, are self-contained within the college of dentistry.

For dentistry, the mean annual cost of education per student for fiscal year 1972-73 was \$9,050. The average net educational cost was calculated to be \$7,400. The range from the eight schools sampled was \$5,150 to \$14,150.

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<sup>1</sup>Costs of Education, Part I and II, p. 127.

<sup>2</sup>See pp. 22-23 above.

Public schools had higher average per student costs than private institutions. The average instruction costs are 88 percent of educational cost per dental student. This range was \$5,752 to \$14,198 with an average of \$8,008. The method used to determine these costs differed from other health professions because of particular relationships which exist in dental education:

1. Patient care in dental schools is performed mainly by students with faculty supervision and administration.
2. The greater percentage of faculty activity was devoted to teaching or support of teaching functions.

Gonyea outlined and compared two cost methods, the Institute of Medicine study (IOM) with the Association of American Medical Schools (AAMC).<sup>1</sup> The intent of both studies was to establish a baseline for health education on a cost per student basis. Using the methods for respective data collection, comparisons of costs showed wide variations. There was apparently a need to refine the data collection model so financial information can be uniformly collected from all institutions. Further, the author was critical of several conceptual aspects of the IOM study. There was need, she stated, to publish explicit descriptions of the judgments utilized in the methodology. The constructed dental model varied widely from data,

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<sup>1</sup>Meredith A. Gonyea, "The Cost of Dental Education -- The Challenge and the Methods of Response," J Dent Educ, 39 (April 1975), p. 202-208.



especially percentages devoted to instruction, research, and service. Caution, she concluded, should be used in drawing conclusions from the data.

A method of calculation of total department:student contact hours has been described as a use for increased (or decreased) faculty needs.<sup>1</sup> The authors' calculations included departmental administrative duties, shared time with other departments, and the ratio of part-time to full-time faculty.

In 1978, the American Association of Dental Schools reported on a management system directed towards cost analysis.<sup>2</sup> Dental schools have two particular characteristics in common, they are department-oriented and personnel-intensive with 80 percent of the schools' resources expended on faculty and support personnel. Using faculty activity analysis forms, the first phase was directed towards curricular-faculty involvement [In 1983, the project still was in the development stage or Phase I].

Gonyea and Harper have outlined a method of analyzing costs in existing and developing health programs.<sup>3</sup> The

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<sup>1</sup>George G. Burger and Ian C. Bennett, "A Method of Quantifying the Number of Faculty Members a Dental School Needs", J Dent Educ, 39 (September 1975), p. 587.

<sup>2</sup>American Association of Dental Schools, Report of the Section on Business and Financial Administration. "The Development of a Dental Management Information System," San Francisco, Ca. N. P., p. 2.

<sup>3</sup>Meridith A. Gonyea and Ronald I. Harper, "Program Cost Construction: Research in Progress," New Directions Institutional Res 17 (Spring 1978):83-90.

results of their preliminary evaluations indicated it was possible to localize factors influencing costs per student in dental school programs. There are five major divisions; program, student, faculty, cost, and income. The program and student elements contribute to the faculty contact hours. The faculty component determines the FTE available for student contact within each department. Using cost and income data, the cost per student per department was determined. This can be used to compare efficiency between departments. [However, a limitation of this method is the failure to use indirect cost information in the cost per student calculations. Income, generated from several sources, is an additional cost factor neglected.] Clinical departments in dental colleges do generate income, which can be used to determine use of resources, monetary, faculty, or curricular.

Packer, writing of the financial problems which will become evident in this decade, suggested a mandate for constant internal monitoring.<sup>1</sup> Each program within the institution must be examined for its relationship to the mission of the school. He states:

"A system of management designed to increase the efficiency of the school's operation is a critical component of dental school administration in this decade. Ultimately, administrators must

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<sup>1</sup>Merrill W. Packer, "Dental School Management in an Adverse Economic Climate", J Dent Educ, 45 (October 1981):706-710.

be accountable for the productivity of the school and each of its units."

The American Dental Association published a yearly report which describes demographic data and other information, but comparative costs of dental education are not available.<sup>1</sup>

The recent American Dental Association's strategic plan for the 1980's included an extensive review of dental education.<sup>2</sup> One of the concerns has been the increased cost of dental education. Increased costs must be balanced by increased tuition and fees plus more clinical activity with resultant higher clinic incomes. Programs which are not revenue generating or cost-efficient will be eliminated. There is a need for dental schools to develop a model for cost analysis.

From the review of the literature, the status of cost analysis in higher education is summarized as follows. In general, cost analysis still generates debate about its use. Specifically, these questions are:

1. Which method of cost analysis is most reliable; should it depend on faculty activity analysis?
2. How are direct and indirect costs apportioned equitably to various divisions?

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<sup>1</sup>Council on Dental Education, 1982-83 Annual Report Dental Education (Chicago: American Dental Association, 1983), p. 6.

<sup>2</sup>See pp. 6, above.

3. Similarly, how are fixed and variable costs assigned equally?
4. Should income from tuition, grants, and other sources be used as a credit?
5. How should cost information be used? and
6. What is the role of cost analysis in the administrative decision support process?

In the health professions, similar questions exist in the educational cost process. However, the questions are more complex because of the historical expense of professional health education and incorporation of the patient care component into teaching. Dentistry is unique because

1. The fact is that the greatest percentage of patient care is provided by students with faculty supervision;
2. This care is provided in one facility;
3. Departmentalization is the major organizational unit, usually functioning as a separate division; and
4. Similar to other areas in higher education, a practical approach to cost analysis is not available despite the need to do so.

Chapter III  
Purpose/Methodology

A. Purpose

The review of the literature, both in higher education generally and dental education, specifically, described continuous requests for a method of cost analysis. Yet, only descriptive methods and opinions are available, with little effort to identify and implement a uniform method of cost analysis in dental education. There have been few attempts to determine normative cost information by department in dental education, either by student or per hour.

First, this study defined a model of cost analysis in dental education in a single institution. Then, by reviewing budgetary data from several schools, the cost model was evaluated for its ability to establish normative data.

The following questions were considered concerning cost analysis in undergraduate dental education.

- (1) What direct and indirect costs have the greatest influence on institutional cost per student and cost per hour in dental education?

(2) Can a reliable method of cost analysis be developed to reasonably describe these costs?

The intent of the study is to examine the following hypotheses:

1. In a single institution, there is a relationship between indirect and direct costs in determination of student costs over a period of time;
2. A model of cost analysis can be developed for use within a college of dentistry which compares cost by department on a cost per student and cost per hour basis; and
3. A model of cost analysis, if applicable in one institution, can be duplicated in other colleges of dentistry. Normative data costs can be determined for typical departments.

## B. Methodology

### 1. Population and Sample

The curricula of colleges of dentistry are unique because there is little or no deviation from the established academic and clinic courses. Electives are limited, usually to the senior year. Thus, it is somewhat easier to assess curriculum:faculty:student contact hours because of this curriculum uniqueness.

The design of the model of cost analysis is a qualitative descriptive study of The College of Dentistry, departments within a college of dentistry, and between colleges of dentistry - determining cost per student and cost per hour. The variables and specific cost data items used are listed in the appendix.<sup>1</sup> The College of Dentistry, University of Oklahoma served as the initial sample, Part I, for method development and cost comparison.

Part II consisted of collecting budget, curricula, and faculty data from eight colleges of dentistry.<sup>2</sup> Five were funded from public sources, three from private funds. The data requested was for Fiscal Year 1983-84. The process for Part II consisted of:

a) A letter introducing the intent of the study, the assurance of confidentiality, and the credibility of the

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<sup>1</sup>See appendix A, p. 137.

<sup>2</sup>The colleges of dentistry sampled are listed in appendix A, p. 142.

study's purpose from William E. Brown, Dean, College of Dentistry, University of Oklahoma.

b) An accompanying letter by the investigator requesting that budget, costs, curricular, and income information be sent; again emphasizing confidentiality.

c) A form for recording the cost data information for the college and by department.<sup>1</sup> This form was returned, plus quintile rankings of the American Dental Association National Board Examinations, for basic science and clinical departments. Additional cost data, where indicated, were also included.

## 2. Treatment of the Data

### Part I

The longitudinal cost information from the College of Dentistry, University of Oklahoma (O.U.D.S.) was used to determine cost per student, both as an institutional cost and departmental cost. Fiscal data from FY 1976-77, the first fiscal year in the present dental college science building, to FY 1983-84 was entered in a computer data base management system (IDES). Calculations of the variables listed in Table 1 were used to determine direct and indirect costs on a cost per student and cost per hour basis.

Direct costs were easily identified. Indirect costs, in this study, are those which are apportioned in a logical

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<sup>1</sup>See appendix A, p. 143.



TABLE 1  
 DESCRIPTION OF COST VARIABLES GROUPED BY DIRECT AND INDIRECT COSTS, AND INCOME,  
 PLUS THE COST CENTERS OF CURRICULUM AND FACULTY/STUDENTS

| COSTS                  |   | COST CENTERS             |  |   |
|------------------------|---|--------------------------|--|---|
| DIRECT                 | INDIRECT                                      | INCOME                   | CURRICULUM   | FACULTY/STUDENTS  |
| FACULTY/STAFF<br>WAGES | ADMINISTRATION<br>A) HEALTH SCIENCE<br>CENTER | CLINIC INCOME<br>TUITION | TOTAL CURRICULUM<br>CLOCK HOURS<br>A) TOTAL LECTURE<br>HOURS | HEALTH SCIENCE CENTER<br>A) TOTAL NUMBER OF<br>STUDENTS |
| FRINGE BENEFITS        | B) COLLEGE OF<br>DENTISTRY                    | A) DENIAL<br>STUDENTS    | B) TOTAL LABORATORY<br>HOURS                                 | B) TOTAL NUMBER OF<br>FTE FACULTY                       |
| OPERATING<br>EXPENSES  | COMPUTER USAGE                                | B) DENIAL<br>HYGIENE     | C) TOTAL CLINIC<br>HOURS                                     | COLLEGE OF DENTISTRY<br>A) NUMBER OF DENTAL<br>STUDENTS |
|                        | LIBRARY                                       | INSTRUMENT<br>RENTAL     |  | B) NUMBER OF DENTAL<br>HYGIENE STUDENTS                 |
|                        | MAINTENANCE -<br>PHYSICAL PLANT               | APPLICATION FEES         |  | C) NUMBER OF FTE<br>(FULL-TIME)                         |
|                        | CLINIC-LABORATORY<br>OPERATIONS               | CAPITATION               |  | D) NUMBER OF PTE<br>(PART-TIME)                         |
|                        | BUILDING<br>DEPRECIATION                      | STUDENT STORE            |  |   |
|                        | EQUIPMENT<br>REPLACEMENT                      | EXTRAMURAL<br>GRANTS     |  |   |

manner for support services, such as patient care, curriculum time or number of students.

The following factors were used to allocate indirect costs. (Table 2)

-Net square footage - the square footage used by an academic unit (college or department) is related to that portion of the budget used to support the unit. This method, as suggested by several authors, was used to assign indirect costs of heating, cooling, janitorial and physical plant support.<sup>1</sup>

-Method 1. The ratio of number of dental and dental hygiene students: total number of students on the Health Science Center (HSC) was used as an indirect cost factor. Several authors have suggested student FTE as the basis for assignment of indirect costs.<sup>2</sup>

-Method 2. The ratio of the number of state-support full-time faculty for the dental school: to the total state support full-time faculty equivalents of the HSC following the method outlined by Gonyea.<sup>3</sup>

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1. See Carnegie Commission on Higher Education, the More Effective Use of Resources. An Imperative for Higher Education. New York: McGraw-Hill, 1972, p. 121; Latham The Cost of Medical Education, p. 19; Norwood Cost Study of Dental Education, p. 29.
  2. See Smith, Education Costs for Medical Technology Programs, p. 275; Symthe, Toward a Definition of Department Size, p. 639.
  3. Gonyea, The Cost of Dental Education, p. 204.

TABLE 2  
 HEALTH SCIENCE CENTER INDIRECT COST ASSESSMENTS  
 FACTORS USED TO ASSIGN INDIRECT COSTS AND INCOME

| COST FACTOR   | METHOD   |  |
|---|--|--|
| <u>HEALTH SCIENCE CENTER</u>                              |  |  |
| (1) COMPUTER  | $(1) \text{ NUMBER DENTAL STUDENTS } \div \text{ NUMBER HSC STUDENTS}$<br>$(2) \text{ COLLEGE OF DENTISTRY FTE } \div \text{ NUMBER HSC FTE}$<br>$(3) \text{ OUDS BUDGET } \div \text{ HSC BUDGET}$<br>$(4) \text{ OUDS BUDGET } \div \text{ HSC COLLEGE BUDGETS}$<br>$(5) \text{ (NUMBER DENTAL STUDENTS + OUDS FTE) } \div \text{ (HSC STUDENTS + HSC FTE)}$ |  |
| LIBRARY   |  |  |
| HSC ADMINISTRATION BUDGET                                 |  |  |
| (2) MAINTENANCE   |  | $(\text{OUDS NET SQUARE FOOTAGE } \div \text{ TOTAL HSC NET SQUARE FOOTAGE}) \times \text{HSC MAINTENANCE BUDGET}$ |
| (3) BUILDING DEPRECIATION<br>(35 YEARS - STRAIGHT<br>LINE |  | $\text{COST OF BUILDING } \div 35$   |
| (4) EQUIPMENT REPLACEMENT<br>(15 YEARS - STRAIGHT<br>LINE | $\text{EQUIPMENT COSTS } \div 15$  |  |

TABLE 2 (CONT'D)

| COST FACTOR               | METHOD  |
|---------------------------|---|
| <u>DEPARTMENT</u>         |   |
| (1) CLINIC SUPPORT COSTS  | (1) $(\text{DEPARTMENT LAB HOURS} + \text{DEPT CLINIC HOURS}) \div (\text{OUDS LAB HOURS} + \text{OUDS CLINIC HOURS}) \times \text{OUDS CLINIC COSTS}$  |
| (2) EQUIPMENT REPLACEMENT | (2) $(\text{DEPARTMENT LAB HOURS} + \text{DEPT CLINIC HOURS}) \div (\text{OUDS LAB HOURS} + \text{OUDS LAB HOURS} + \text{OUDS CLINIC HOURS}) \times \text{EQUIPMENT REPLACEMENT DEPRECIATION}$ |
| (3) MAINTENANCE           | (3) $(\text{DEPARTMENT SQUARE FOOTAGE} \div \text{OUDS SQUARE FOOTAGE}) \times \text{OUDS MAINTENANCE COSTS}$   |

THE FOLLOWING ASSESSMENTS ARE BASED ON EITHER METHOD A OR B

|  |                          |   |  |
|--|--------------------------|---|--|
| (4) INCOME   |                          |   |  |
| CAPITATION   |                          |   |  |
| EXTRAMURAL GRANTS                                      |                          |   |  |
| STUDENT TUITION  |                          |   |  |
| STUDENT INSTRUMENT FEES                                |                          |   |  |
| APPLICATION FEES                                       |                          |   |  |
| (5) COMPUTER   |                          | } | METHOD (A)                               |
|  |                          |   | DEPT HOURS $\div$ TOTAL CURRICULUM HOURS |
|  |                          |   | OR                                       |
| LIBRARY  |                          | } | METHOD (B)                               |
| HSC ADMINISTRATION BUDGET                              | DEPT FTE $\div$ OUDS FTE |   |  |
| (6) BUILDING DEPRECIATION                              |                          |   |  |
| (7) EDUCATIONAL,<br>ADMINISTRATIVE OUDS<br>MAINTENANCE |                          |   |  |
| (8) OUDS ADMINISTRATIVE -<br>STUDENT SUPPORT           |                          |   |  |

-Method 3. The ratio of the College of Dentistry budget to the HSC budget, as described by some authors, was used as an indirect cost determinate.<sup>1</sup>

-Method 4. Similar to Method 3, but the total budgets of the other professional schools are substituted for the HSC budget.

-Method 5. Combining Method 1 and Method 2, the number of dental students, dental hygiene students, plus the full-time O.U.D.S. faculty equivalents are divided by the total number of HSC students plus the full-time HSC faculty equivalents.

-Building depreciation and equipment replacement.

Use of assignment of building depreciation and equipment replacement was done on a straight line depreciation basis. The College of Dentistry was depreciated on a thirty-five year basis with the equipment having a life of fifteen years (The use of depreciation has not been used in cost analysis, but often suggested as a needed indirect cost.<sup>2</sup>)

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1. See Symthe, Toward A Definition of Department Size, p. 640; Edward J. Lusk and Janice C. Lusk, Financial and Managerial Control, (Germantown, MD: Aspen, 1979), p. 257.
  2. See Earl F. Cheit, The New Depression in Higher Education, (New York: McGraw-Hill, 1971), p. 5; Symthe, Toward a Definition of Department Size, p. 639; Carnegie Commission on Higher Education, The More Effective Use of Resources, p. 121.

Income - Income generated from clinic activity, tuition, instrument rental, capitation and extramural grants were assigned to each department using Method 1-Method 5. Individual grants to each department were credited as income for each department.

Department Indirect Costs - Two methods were used to further assign indirect costs to the departments:

-Method A - The departmental hours were divided by the total curriculum hours to assign these costs. This was suggested by Larimore as a means of indirect cost assessment on a departmental basis.<sup>1</sup>

-Method B. Similar to Method 2, the ratio of departmental FTE:O.U.D.S. FTE.

The influence of the cost variables on cost per student and cost per hour were calculated by the following three equations:

|   |                       |   |
|---|-----------------------|---|
| <p>(1) Direct costs</p> <p>or</p>                           | $\frac{\cdot}{\cdot}$ | <p>(a) number of = cost (a) per<br/>students                    student</p> <p>or</p> |
| <p>(2) direct costs - Income</p> <p>or</p>                  | $\frac{\cdot}{\cdot}$ | <p>(b) number of                    (b) per hour<br/>curriculum<br/>hours</p>         |
| <p>(3) (Direct costs +<br/>Indirect costs) -<br/>Income</p> |                       |   |

1. L. Keith Larimore, "Break-Even Analysis for Higher Education" Money Accounting 56 (Fall 1974), p. 275.

Both for the O.U.D.S. and each department, cost per student and cost per hour were determined by each method. Indirect costs were assigned as described in Table 1 and Table 2. To compare the effect of the various indirect costs, each indirect cost method or factor was used to determine its influence on resultant cost per student and cost per hour.

These basic cost determinations, both for the O.U.D.S. and each department, were done using the Statistical Analysis Systems (SAS) at the Research and Education Center, University of Oklahoma Health Sciences Center.<sup>1</sup> Using a linear regression model (Maximum  $R^2$ ), the independent cost variables were evaluated for their influence on the dependent variable.<sup>2</sup> The dependent variables, calculated from the three basic cost equations, were (1) number of dental students; (2) cost per student; and (3) cost per hour.

To test the application of the model, budgetary, curricula, and cost data from several colleges of dentistry were used. These data, from one fiscal year, FY 83-84, was compared using cost differences on an institutional and departmental cost per student and cost per hour basis.

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1. SAS User's Guide: Basics (Cary, North Carolina: SAS Institute, 1982), p. 14.
  2. See SAS User's Guide: Statistics (Cary, North Carolina: SAS Institute, 1982), p. 101; Rudolf J. Freund and Ramaon C. Littell, SAS for Linear Models, (Cary, North Carolina: SAS Institute, 1981), p. 22.

Chapter IV  
Research Findings

Part I

The summary of the O.U.D.S. cost data and cost centers, used to assign indirect costs and income, are listed in the appendix.<sup>1</sup>

The O.U.D.S. cost per student and cost per hour, using direct costs only, was calculated by dividing the O.U.D.S. yearly budget by either the number of undergraduate dental students enrolled or the total number of curriculum hours (A) as seen in Table 3A. Direct costs minus income was the next method (B). By combining the O.U.D.S. budget with all sources of income, similar costs were computed (C). Two previous cost analysis studies in dental education, the Institute of Medicine Study (I) and the American Association of Dental Schools (R), were used as comparisons.<sup>2</sup> These data were adjusted yearly for inflation using the Consumer Price Index (CPI).<sup>3</sup>

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<sup>1</sup>See appendix B p. 146.

<sup>2</sup>See Costs of Education in Health Professions; Norwood, Cost Study of Dental Education, p. 22.

<sup>3</sup>See appendix B p. 146.



TABLE 3 A

COMPARISON OF COST PER STUDENT AND COST PER HOUR USING  
 (A) DIRECT COST ONLY,  
 (B) DIRECT COST MINUS INCOME AND  
 (C) WITH THE O.U.D.S. BUDGET AS INCOME PLUS  
 (I) INSTITUTE OF MEDICINE STUDY AND  
 (R) THE A.A.D.S. STUDY

| FISCAL YEAR            |     | FY 76-77  | FY 77-78  | FY 78-79  | FY 79-80  | FY 80-81  | FY 81-82  | FY 82-83  | FY 83-84  |
|------------------------|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| COST<br>PER<br>STUDENT | (A) | \$ 13,288 | \$ 10,210 | \$ 11,399 | \$ 11,715 | \$ 13,744 | \$ 15,866 | \$ 17,808 | \$ 17,435 |
|                        | (B) | 10,562    | 7,538     | 7,311     | 7,280     | 9,526     | 11,387    | 13,656    | 12,567    |
|                        | (C) | 16,013    | 12,883    | 15,486    | 16,150    | 17,961    | 20,345    | 21,959    | 22,302    |
|                        | (I) | 14,159    | 15,079    | 16,240    | 18,075    | 20,516    | 22,649    | 24,251    | 25,179    |
|                        | (R) | 7,506     | 7,994     | 8,610     | 9,583     | 10,877    | 12,088    | 12,861    | 13,349    |
| COST<br>PER<br>HOUR    | (A) | 462       | 525       | 592       | 721       | 833       | 931       | 1,014     | 1,010     |
|                        | (B) | 367       | 388       | 380       | 448       | 577       | 668       | 777       | 728       |
|                        | (C) | 557       | 663       | 805       | 994       | 1,088     | 1,194     | 1,250     | 1,291     |

Figure 1 compares the previous cost studies with the three methods listed in Table 3A. The Institute of Medicine (I) and A.A.D.S. (R) studies increased in straight lines paralleling the CPI. In FY 77-78, in each of the other three methods, there are reductions in cost per student with gradual increases until FY 82-83. The FY 77-78 decrease is a function of:

- a small yearly increase in the O.U.D.S. budget (3 percent)
- 62 percent increase in student population
- an increase in total income from the previous year, with increased tuition, fees, student fees, and clinic income.

Cost per student, using direct costs only (A), is influenced by increases (or decreases) in the O.U.D.S. budget and number of students. The cost per student increased until FY 83-84 when the fiscal crisis in Oklahoma reduced legislative appropriations to higher education. When income is subtracted from the O.U.D.S. budget, (B), the average cost per student is reduced by \$3,966 with a range of \$2,622 (in FY 77-78) to \$4,868 (in FY 83-84 when compared to (A)). This increases to a mean reduction of \$7,909 per year with a low of \$5,345 in FY 77-78 to a high of \$8,958 in FY 83-84.

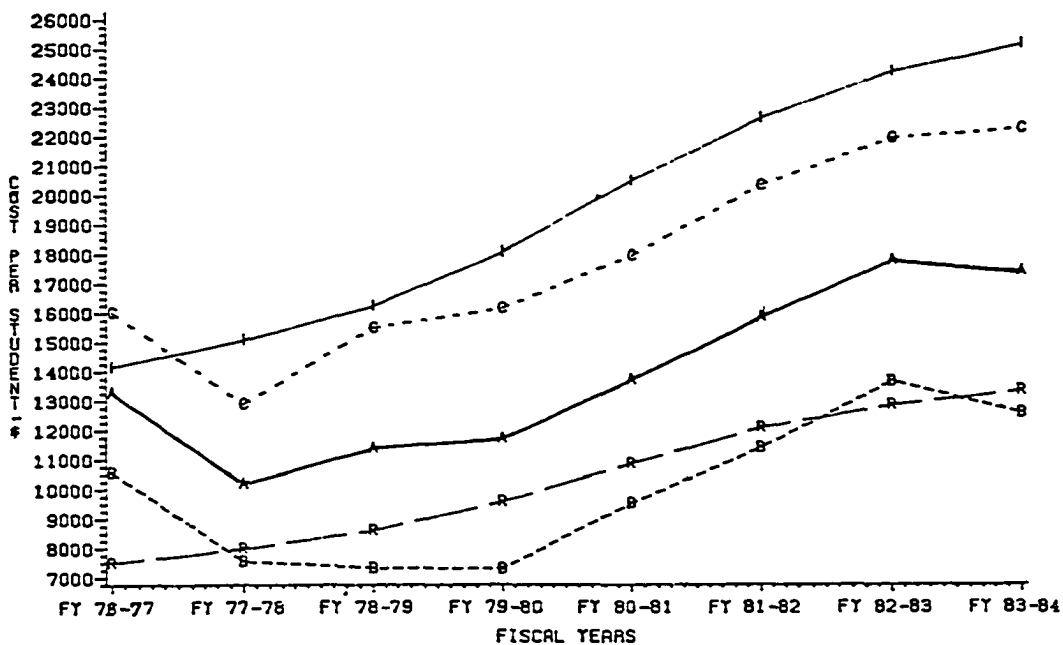


Figure 1. Costs per student using (A) Direct costs or (B) Direct costs minus income.

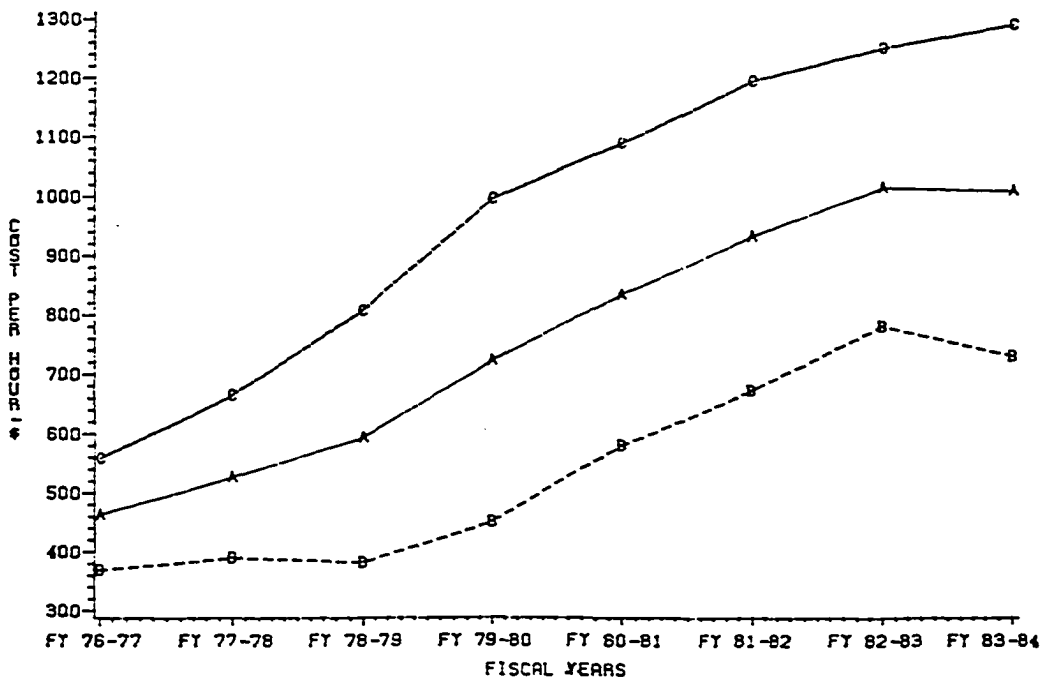


Figure 2. Costs per hour using (A) direct costs and (B) direct costs minus income.

Using similar cost comparisons, cost per hour follow a similar pattern as seen in Figure 2. Total curriculum hours have decreased by 9 percent over the eight year survey period, with little influence on cost per hour. The reduction in cost per hour is less dramatic in FY 77-78 because of this factor. The mean cost per hour with the first method (A) is \$761 with a range of \$462 to \$1,014; the second method, (B), the mean is \$541 with a range of \$367 to \$777; and the third method (C) the mean is \$980 with a range of \$550 to \$1,291.

Table 2 described the five methods used to assign indirect cost factors for the O.U.D.S. cost per student and cost per hour. It is apparent that Methods 1, 3, and 5 are similar, producing corresponding indirect cost assignments (Figure 3). Method 2 adds 11 percent when compared to Methods 1, 3 or 5. Another 6 percent increase is seen with Method 4.

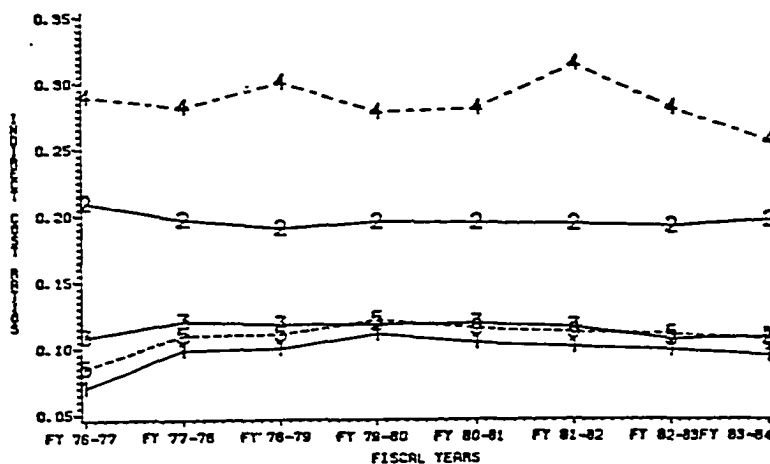


Figure 3. Indirect cost determinates.

The influences of indirect cost on the resultant/cost per student and cost per hour are illustrated in Table 3B. The summary of the actual cost values for Method 1 to 5 are in the appendix.<sup>1</sup> The results of the indirect cost assessments of data processing, library, HSC administration, and building maintenance are seen in (A), both for student (1) and hours (2). Methods 1, 3, and 5 are similar in both cost per student and hour determinations (Figures 4 and 5). As seen in the previous cost determinations, there is a reduction in cost per student in FY 77-78 with an increase for all five methods of assessment beginning in FY 80-81. However, costs per hour began to increase from FY 76-77 showing a gradual increase until FY 78-79 with costs escalating until the fiscal crisis of FY 83-84. This cost pattern was similar to the previous cost determinations, both for student and hours. With the addition of building and equipment depreciation to indirect costs (B), costs increased by approximately 10.5 percent.

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<sup>1</sup>See appendix B p. 146.

TABLE 3B

DIRECT COSTS MINUS INDIRECT COSTS (LIBRARY, HSC ADMINISTRATION BUILDING MAINTENANCE (A)  
PLUS BUILDING AND EQUIPMENT DEPRECIATION (B):  
THE RESULTANT COST PER STUDENT (1) AND COST PER HOUR (2).

| FISCAL YEAR | FY 76-77 |     | FY 77-78 |     | FY 78-79 |     | FY 79-80 |     | FY 80-81 |       | FY 81-82 |       | FY 82-83 |       | FY 83-84 |       |
|-------------|----------|-----|----------|-----|----------|-----|----------|-----|----------|-------|----------|-------|----------|-------|----------|-------|
| Method 1    | (1)      | (2) | (1)      | (2) | (1)      | (2) | (1)      | (2) | (1)      | (2)   | (1)      | (2)   | (1)      | (2)   | (1)      | (2)   |
| (A)         | 14,158   | 492 | 10,595   | 545 | 10,799   | 561 | 10,940   | 673 | 13,608   | 825   | 15,851   | 930   | 18,975   | 1,080 | 17,106   | 1,025 |
| +           |          |     |          |     |          |     |          |     |          |       |          |       |          |       |          |       |
| (B)         | 16,617   | 578 | 12,257   | 650 | 12,443   | 647 | 12,444   | 766 | 15,136   | 917   | 17,430   | 1,022 | 20,608   | 1,173 | 19,311   | 1,118 |
| Method 2    |          |     |          |     |          |     |          |     |          |       |          |       |          |       |          |       |
| (A)         | 16,729   | 582 | 11,868   | 610 | 12,017   | 625 | 12,092   | 744 | 15,078   | 904   | 17,436   | 1,023 | 20,990   | 1,195 | 19,890   | 1,152 |
| +           |          |     |          |     |          |     |          |     |          |       |          |       |          |       |          |       |
| (B)         | 19,198   | 667 | 13,530   | 696 | 13,662   | 710 | 13,596   | 837 | 16,507   | 1,006 | 19,016   | 1,116 | 22,624   | 1,228 | 21,496   | 1,245 |
| Method 3    |          |     |          |     |          |     |          |     |          |       |          |       |          |       |          |       |
| (A)         | 14,863   | 517 | 10,875   | 559 | 11,043   | 574 | 11,038   | 679 | 13,846   | 839   | 16,166   | 945   | 19,949   | 1,090 | 18,003   | 1,062 |
| +           |          |     |          |     |          |     |          |     |          |       |          |       |          |       |          |       |
| (B)         | 17,322   | 602 | 12,537   | 645 | 12,688   | 659 | 12,543   | 772 | 15,375   | 932   | 17,534   | 1,037 | 20,782   | 1,183 | 19,609   | 1,135 |
| Method 4    |          |     |          |     |          |     |          |     |          |       |          |       |          |       |          |       |
| (A)         | 18,207   | 633 | 12,964   | 667 | 13,494   | 701 | 13,214   | 814 | 16,466   | 998   | 19,484   | 1,143 | 22,906   | 1,304 | 21,153   | 1,225 |
| +           |          |     |          |     |          |     |          |     |          |       |          |       |          |       |          |       |
| (B)         | 20,666   | 719 | 14,626   | 752 | 15,139   | 787 | 14,719   | 906 | 17,995   | 1,091 | 21,063   | 1,236 | 24,539   | 1,397 | 22,759   | 1,318 |
| Method 5    |          |     |          |     |          |     |          |     |          |       |          |       |          |       |          |       |
| (A)         | 14,429   | 502 | 10,739   | 552 | 10,945   | 569 | 11,082   | 682 | 13,783   | 835   | 16,039   | 941   | 19,224   | 1,094 | 17,962   | 1,040 |
| +           |          |     |          |     |          |     |          |     |          |       |          |       |          |       |          |       |
| (B)         | 16,888   | 587 | 12,401   | 638 | 12,589   | 654 | 12,587   | 775 | 15,312   | 928   | 17,619   | 1,033 | 20,858   | 1,187 | 19,528   | 1,733 |

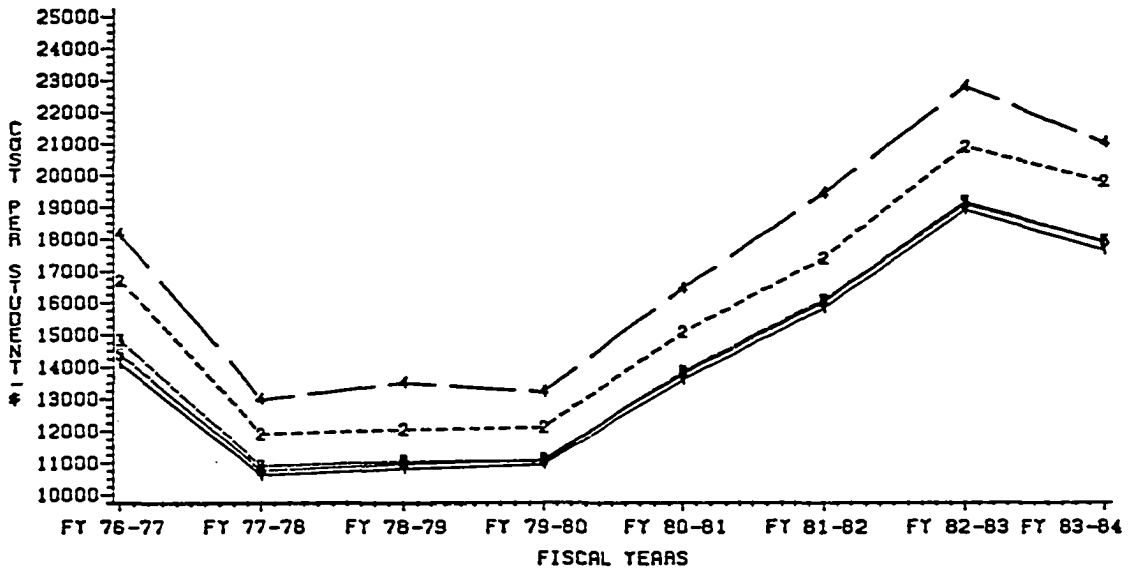


Figure 4. The influence of indirect costs on cost per student.

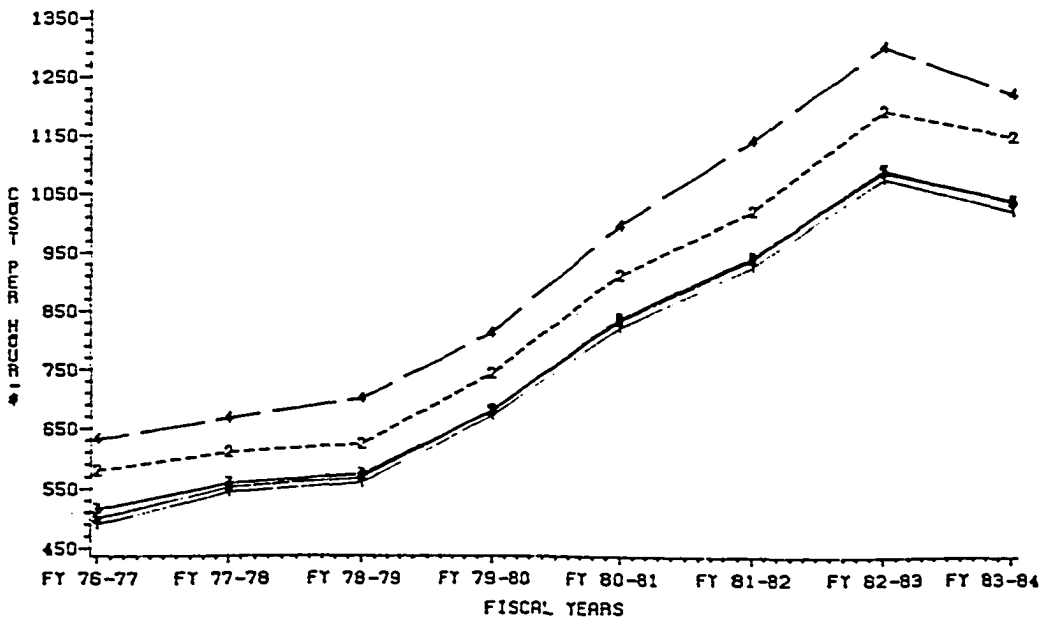


Figure 5. The influence of indirect costs on cost per hour.

To compare the differences of the three cost postulates for O.U.D.S. 1) direct costs, 2) direct costs minus income, and 3) direct costs plus indirect costs minus income; means were computed for the indirect cost variables. Means were determined for both (A) and (B) as seen in Table 3B, combining Methods 1 to 5. These comparisons are represented in Figure 6 (cost per student) and Figure 7 (cost per hour). Figures 6 and 7 compare the five different methods used to calculate costs per student and cost for the eight fiscal years. These five comparisons in Figure 6 are:

1 = direct costs plus indirect costs (excluding depreciation and equipment replacement) minus income  $\div$  total number of students;

2 = direct costs plus indirect costs (including depreciation and equipment replacement), minus income  $\div$  total number of students;

3 = direct costs  $\div$  total number of students;

4 = direct costs minus income  $\div$  total number of students;

and

5 = direct costs plus income  $\div$  total number of students.

(This key is the same for Figure 7, however, the denominator is total curriculum hours determining cost per hour).

The least costly method of cost determination is number 4, where income is deducted from direct costs, with number 5 the most expensive. Using direct costs only (number 3), cost per student is intermediary. When the



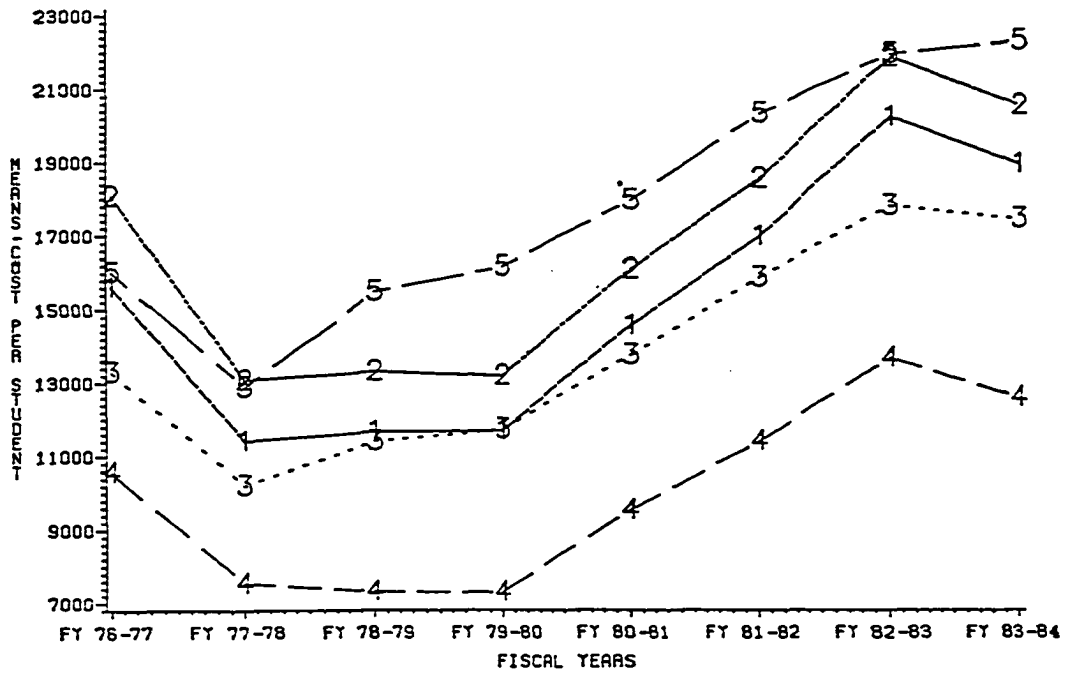


Figure 6. Cost per student using indirect costs.

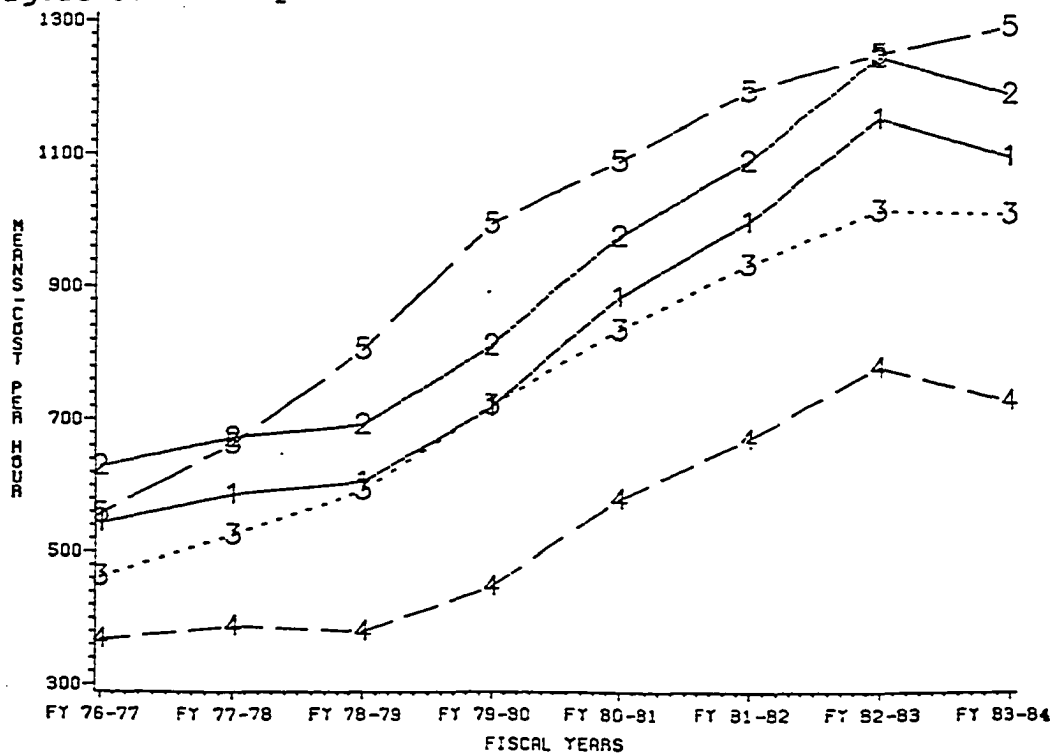


Figure 7. Cost per hour using indirect costs.

initial indirect costs are included, there is an increase as illustrated by number 1. With the inclusion of building depreciation and equipment replacement, there is an additional increase of 11 percent (number 2).

A similar method was used to determine cost per student and cost per hour comparing departments within the College of Dentistry. Direct costs for each department consisted of the budgetary items of faculty and staff salaries, fringe benefits, and operating expenses (travel, supplies, etc.). Direct income included revenue generated in clinical programs plus other sources such as grants or endowments to individual departments. A summary of these data is in the appendix.<sup>1</sup>

For each department, cost per student was determined by direct cost only (A) and direct cost minus income (B). The results are listed in Table 4. Several departmental costs per student should be discussed:

- 1) Some departments have little differences between (A) or (B) because these departments have little clinical income or extramural resources i.e., Oral Pathology, Dental Service Administration, and Occlusion.
- 2) In the large clinical departments, with greater direct costs, a higher cost per student results (A). However, because of the higher clinic income generated, the resulting

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<sup>1</sup>See appendix B p. 146.

TABLE 4

COMPARISON OF COST PER STUDENT, BY DEPARTMENT, USING  
 (A) DIRECT COSTS AND  
 (B) DIRECT COSTS MINUS INCOME

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |
| <u>PEDODONTICS</u>       |          |          |          |          |          |          |          |          |
| (A)                      | 654      | 422      | 503      | 605      | 584      | 904      | 930      | 905      |
| (B)                      | 538      | 339      | 348      | 430      | 413      | 721      | 728      | 633      |
| <u>ORTHODONTICS</u>      |          |          |          |          |          |          |          |          |
| (A)                      | 523      | 447      | 523      | 416      | 416      | 758      | 959      | 741      |
| (B)                      | 501      | 435      | 502      | 393      | 395      | 724      | 931      | 709      |
| <u>PERIODONTICS</u>      |          |          |          |          |          |          |          |          |
| (A)                      | 436      | 468      | 729      | 807      | 534      | 906      | 1,166    | 1,128    |
| (B)                      | 396      | 438      | 664      | 714      | 472      | 807      | 1,072    | 1,033    |
| <u>ORAL DIAGNOSIS</u>    |          |          |          |          |          |          |          |          |
| (A)                      | 1,041    | 687      | 696      | 752      | 776      | 1,131    | 1,190    | 1,113    |
| (B)                      | 923      | 587      | 551      | 616      | 659      | 1,001    | 1,066    | 951      |
| <u>ORAL PATHOLOGY</u>    |          |          |          |          |          |          |          |          |
| (A)                      | 502      | 363      | 544      | 563      | 651      | 769      | 852      | 823      |
| (B)                      | 502      | 363      | 544      | 563      | 651      | 769      | 852      | 823      |
| <u>DENT SERV ADMIN</u>   |          |          |          |          |          |          |          |          |
| (A)                      | 1,621    | 688      | 767      | 954      | 1,040    | 1,128    | 1,255    | 1,202    |
| (B)                      | 239      | 143      | 218      | 919      | 1,007    | 1,092    | 1,255    | 1,202    |

TABLE 4 (CONTINUED--PAGE TWO)

COMPARISON OF COST PER STUDENT, BY DEPARTMENT, USING  
 (A) DIRECT COST ONLY,  
 (B) DIRECT COST MINUS INCOME

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |
| ORAL SURGERY             |          |          |          |          |          |          |          |          |
| (A)                      | 489      | 453      | 548      | 524      | 569      | 439      | 516      | 515      |
| (B)                      | 487      | 414      | 455      | 443      | 492      | 338      | 431      | 398      |
| FIXED PROSTHODONTICS     |          |          |          |          |          |          |          |          |
| (A)                      | 1,098    | 777      | 992      | 1,129    | 1,140    | 1,370    | 1,422    | 1,463    |
| (B)                      | 815      | 591      | 698      | 599      | 572      | 807      | 796      | 815      |
| OPERATIVE DENTISTRY      |          |          |          |          |          |          |          |          |
| (A)                      | 1,073    | 719      | 831      | 834      | 878      | 1,047    | 1,357    | 1,273    |
| (B)                      | 978      | 637      | 690      | 647      | 720      | 827      | 1,117    | 970      |
| REMOVABLE PROSTHODONTICS |          |          |          |          |          |          |          |          |
| (A)                      | 986      | 671      | 942      | 910      | 1,023    | 1,348    | 1,450    | 1,393    |
| (B)                      | 757      | 508      | 693      | 563      | 729      | 1,062    | 1,169    | 1,062    |
| ENDODONTICS              |          |          |          |          |          |          |          |          |
| (A)                      | 328      | 199      | 310      | 406      | 290      | 400      | 481      | 501      |
| (B)                      | 278      | 160      | 194      | 302      | 176      | 241      | 323      | 343      |
| OCCLUSION                |          |          |          |          |          |          |          |          |
| (A)                      | 342      | 313      | 380      | 367      | 371      | 414      | 445      | 477      |
| (B)                      | 340      | 313      | 380      | 367      | 371      | 413      | 444      | 475      |

TABLE 4 (CONTINUED--PAGE THREE)

COMPARISON OF COST PER STUDENT, BY DEPARTMENT, USING  
 (A) DIRECT COST ONLY,  
 (B) DIRECT COST MINUS INCOME

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |
| DENTAL MATERIALS         |          |          |          |          |          |          |          |          |
| (A)                      | 400      | 390      | 432      | 415      | 414      | 516      | 547      | 1,202    |
| (B)                      | 355      | 362      | 410      | 413      | 414      | 504      | 547      | 1,202    |
| DENTAL HYGIENE           |          |          |          |          |          |          |          |          |
| (A)                      | 2,518    | 3,276    | 2,397    | 2,674    | 3,040    | 3,514    | 4,644    | 4,254    |
| (B)                      | 2,390    | 3,107    | 2,196    | 2,459    | 2,870    | 3,367    | 4,454    | 4,065    |
| BASIC SCIENCE*           |          |          |          |          |          |          |          |          |
| (A)                      | 1,518    | 1,440    | 1,556    | 1,512    | 1,746    | 1,868    | 1,992    | 2,104    |

cost per student (B) is less i.e., Fixed Prosthodontics, Operative Dentistry, and Removable Prosthodontics.

3) Dental Hygiene, because of the smaller number of dental hygiene students per class, has a much higher cost per student compared to the typical dental school departments.<sup>1</sup>

(In the Department of Basic Sciences, no record was available for grant income, thus no (B) for that department).

For the several departments, Figure 8 represents the comparison of means and ranges, cost per student, for the eight fiscal years surveyed. Several observations when comparing (A) with (B) are:

1) In general, there is a wider range of cost per student when (B) is compared to (A).

2) The mean is higher in (A).

3) The large clinical departments (No. 8, No. 9 and No. 10) have higher costs per student, despite higher clinical incomes, which influences this computation.

4) The loss of a large source of extramural income can cause a dramatic change in both the mean and range (B) as seen in No. 6 (Dental Service Administration).<sup>2</sup>

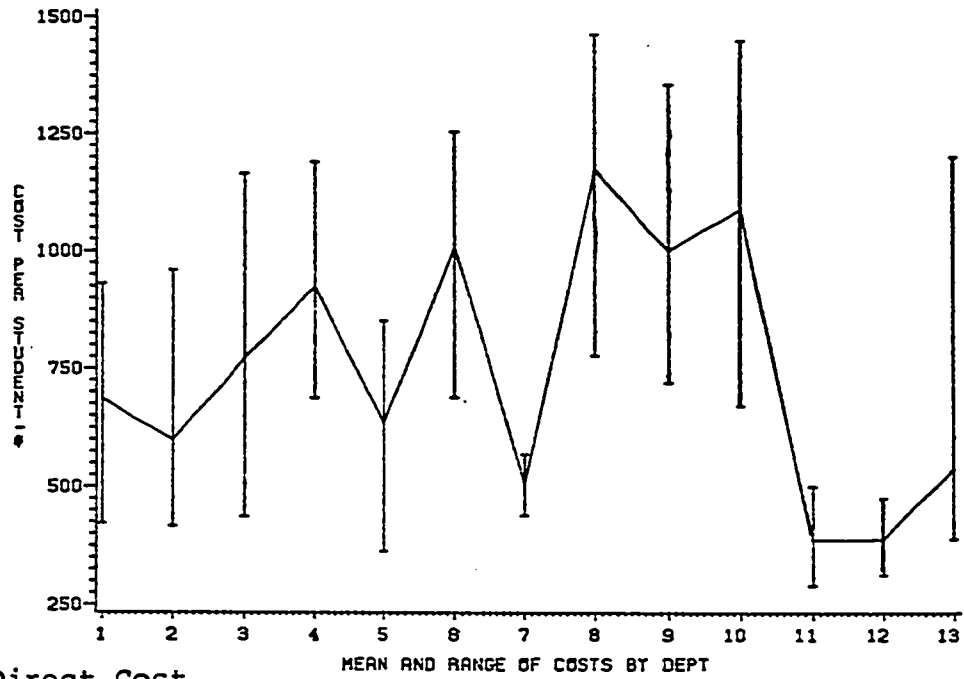
Comparisons of cost per hour for both methods (A and B) are listed in Table 5. Similar to Table 4, those departments with minimum income, either clinical or

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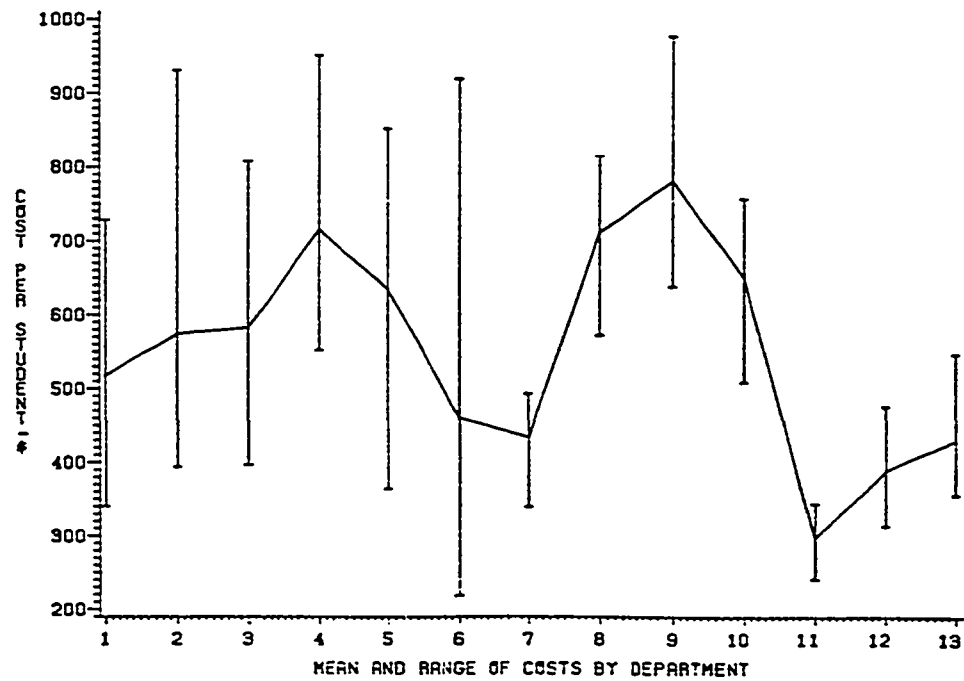
<sup>1</sup>See appendix B p. 146.

<sup>2</sup>See appendix B p. 146.

Figure 8. Means and ranges of cost per student for each department.



(A) Direct Cost



(B) Direct cost minus income.

TABLE 5

COMPARISON OF COST PER HOUR, BY DEPARTMENT, USING  
 (A) DIRECT COSTS AND  
 (B) DIRECT COSTS MINUS INCOME

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |
| PEDODONTICS              |          |          |          |          |          |          |          |          |
| (A)                      | 114      | 279      | 331      | 582      | 553      | 770      | 712      | 707      |
| (B)                      | 94       | 224      | 229      | 413      | 391      | 614      | 557      | 494      |
| ORTHODONTICS             |          |          |          |          |          |          |          |          |
| (A)                      | 247      | 337      | 393      | 305      | 301      | 532      | 590      | 465      |
| (B)                      | 237      | 328      | 377      | 288      | 285      | 508      | 572      | 445      |
| PERIODONTICS             |          |          |          |          |          |          |          |          |
| (A)                      | 178      | 305      | 473      | 551      | 359      | 591      | 656      | 647      |
| (B)                      | 162      | 286      | 431      | 487      | 317      | 526      | 603      | 593      |
| ORAL DIAGNOSIS           |          |          |          |          |          |          |          |          |
| (A)                      | 398      | 420      | 424      | 649      | 659      | 933      | 601      | 573      |
| (B)                      | 353      | 359      | 336      | 531      | 560      | 825      | 538      | 489      |
| ORAL PATHOLOGY           |          |          |          |          |          |          |          |          |
| (A)                      | 458      | 528      | 788      | 1,362    | 1,552    | 1,778    | 2,076    | 2,045    |
| (B)                      | 457      | 528      | 788      | 1,362    | 1,552    | 1,778    | 2,076    | 2,045    |
| DENT SERV ADMIN          |          |          |          |          |          |          |          |          |
| (A)                      | 662      | 449      | 499      | 823      | 884      | 931      | 1,419    | 1,386    |
| (B)                      | 97       | 93       | 141      | 793      | 856      | 901      | 1,419    | 1,386    |



TABLE 5 (CONTINUED--PAGE TWO)

COMPARISON OF COST PER HOUR , BY DEPARTMENT, USING  
 (A) DIRECT COSTS,  
 (B) DIRECT COSTS MINUS INCOME

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |
| ORAL SURGERY             |          |          |          |          |          |          |          |          |
| (A)                      | 349      | 517      | 622      | 906      | 968      | 724      | 623      | 634      |
| (B)                      | 347      | 472      | 516      | 765      | 837      | 558      | 520      | 490      |
| FIXED PROSTHODONTICS     |          |          |          |          |          |          |          |          |
| (A)                      | 304      | 344      | 437      | 572      | 570      | 664      | 615      | 646      |
| (B)                      | 225      | 261      | 307      | 304      | 286      | 391      | 344      | 359      |
| OPERATIVE DENTISTRY      |          |          |          |          |          |          |          |          |
| (A)                      | 383      | 410      | 472      | 571      | 591      | 684      | 835      | 799      |
| (B)                      | 349      | 364      | 392      | 443      | 485      | 541      | 687      | 609      |
| REMOVABLE PROSTHODONTICS |          |          |          |          |          |          |          |          |
| (A)                      | 359      | 390      | 545      | 570      | 632      | 808      | 827      | 810      |
| (B)                      | 275      | 295      | 401      | 353      | 450      | 636      | 667      | 618      |
| ENDODONTICS              |          |          |          |          |          |          |          |          |
| (A)                      | 267      | 259      | 402      | 744      | 524      | 701      | 751      | 798      |
| (B)                      | 226      | 209      | 252      | 553      | 318      | 421      | 503      | 546      |
| OCCLUSION                |          |          |          |          |          |          |          |          |
| (A)                      | 266      | 389      | 490      | 510      | 509      | 550      | 585      | 639      |
| (B)                      | 264      | 389      | 470      | 510      | 508      | 548      | 583      | 637      |

TABLE 5 (CONTINUED--PAGE THREE)

COMPARISON OF COST PER HOUR, BY DEPARTMENT, USING  
 (A) DIRECT COSTS,  
 (B) DIRECT COSTS MINUS INCOME

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |
| DENTAL MATERIALS         |          |          |          |          |          |          |          |          |
| (A)                      | 1,101    | 1,716    | 1,893    | 1,875    | 1,844    | 2,228    | 2,327    | 5,216    |
| (B)                      | 976      | 1,592    | 1,795    | 1,868    | 1,844    | 2,178    | 2,327    | 5,216    |
| DENTAL HYGIENE           |          |          |          |          |          |          |          |          |
| (A)                      | 114      | 152      | 1,225    | 139      | 155      | 171      | 180      | 165      |
| (B)                      | 108      | 144      | 1,123    | 128      | 146      | 164      | 173      | 158      |
| BASIC SCIENCE*           |          |          |          |          |          |          |          |          |
| (A)                      | 203      | 286      | 312      | 657      | 680      | 784      | 709      | 704      |

calculations. The clinical departments have lower costs per hour because of greater hours in the curriculum yielding greater clinic income. The Department of Dental Hygiene has a high cost per student, yet has a much lower cost per hour. This is related to the number of curriculum hours, approximately 1,000 hours per year.

Figure 9 graphically compares means of cost per hour for both computations. Direct cost only (A) has a much wider range in costs than (B) with the exceptions of Departments 5, 6, and 13, which are all non-clinical departments. Because of the lack of clinical income or increased extramural income, these departments have much higher costs per hour. Dental Hygiene and Basic Sciences are not included.

Indirect costs for individual departments were calculated as outlined in Table 2.<sup>1</sup> These were (A) clinic support costs, (B) equipment replacement and (C) maintenance costs, which are summarized in the appendix.<sup>2</sup> Yearly income from O.U.D.S. capitation, undergraduate grants, student tuition, instrument fees, and application fees were credited to each department by either the total department hours - total curriculum hours (Method A) or departmental FTE - O.U.D.S. FTE (Method B), also available in the appendix.<sup>3</sup>

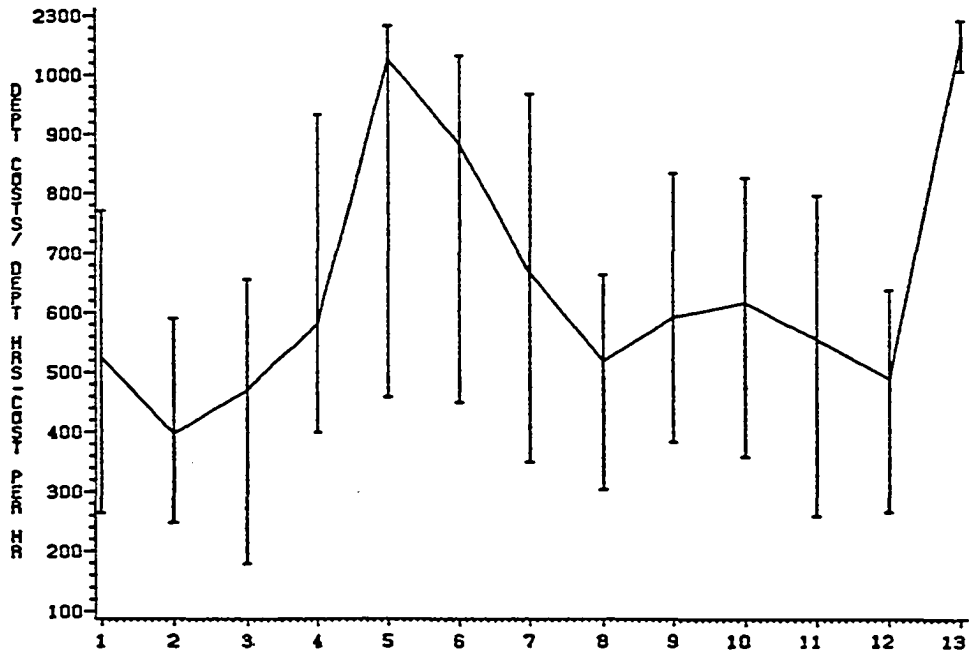
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<sup>1</sup>See Table 2 p. 51 above.

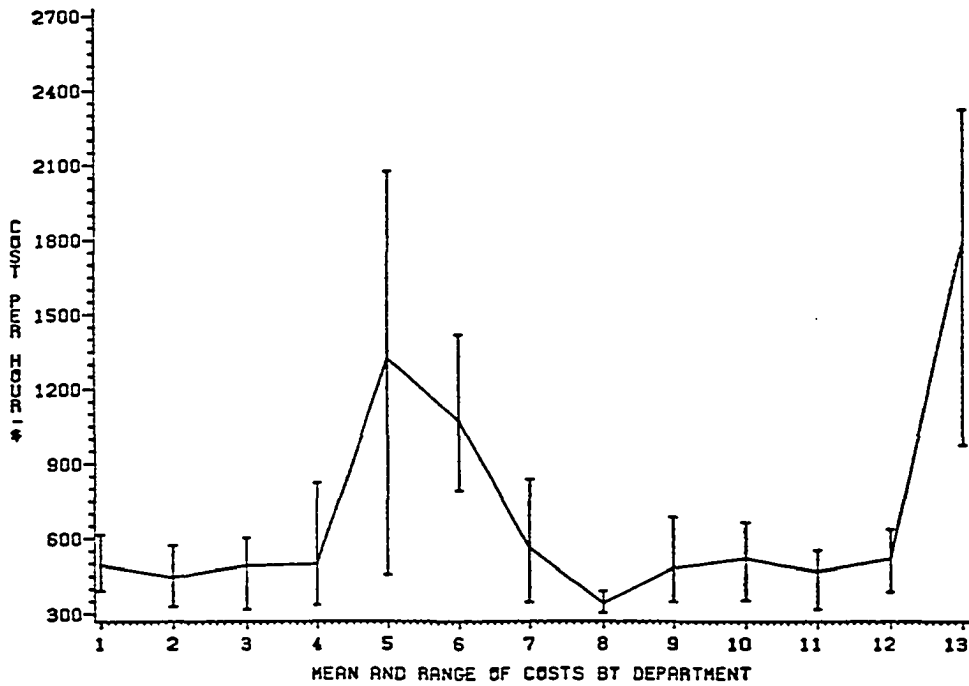
<sup>2</sup>See appendix B p. 146.

<sup>3</sup>See appendix B p. 146.

Figure 9. Measured usages of cost per hour for each department.



(A) Direct cost.



(B) Direct cost minus income.

Indirect costs from the HSC budget for computer usage, library, and HSC administration was apportioned previously by five methods. Then these five indirect cost totals were assigned to each department by either Method A or Method B. By the same methods, building depreciation, education, and administrative student support were determined. These also are listed in the appendix.<sup>1</sup> The total costs for each department were finalized by combining direct costs with indirect costs, reported in Table 22 of the appendix.<sup>2</sup> To arrive at the net cost, total net income was subtracted from the total net costs.<sup>3</sup> These totals were used for cost per student and cost per hour calculations.

The influence of indirect costs on cost per student and cost per hour are reported in Tables 6 and 7. Observations common to both costs per student and hour are:

- The addition of indirect costs increases the cost when compared to direct cost only or direct cost minus income.
- Method A produces higher costs per student and hour when compared to Method B.
- As previously suggested, generally Methods 2 and 4 yield higher costs per student and hour, irrespective of departmental indirect cost assignment by Method A or

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<sup>1</sup>See appendix B p. 146.

<sup>2</sup>See appendix B p. 146.

<sup>3</sup>See appendix B p. 146.

Method B.

- In FY 77-78 there is a reduction in cost per student, but not in costs per hour.
- By adding indirect costs, cost per student decreases when compared to previous methods. However, cost per hour increases beginning in FY 80-81, irrespective of the methods used.

As seen in previous calculations, the Department of Dental Hygiene has a large cost per student, but a comparable cost per hour to other departments.

Data from Table 6 were used to calculate the means for each department, combining fiscal years (Figure 10). The objective was to compare average costs per student and ranges for the seven different methods used. Four typical departments were selected; (A) and (B) are clinical departments with (C) and (D) representing non-clinical departments. The seven methods (on the horizontal axis, Figure 10) are the different cost factors divided by number of students. These are

- 1 - direct costs
- 2 - direct costs minus income
- 3 - Method 1 (Method A)
- 4 - Method 2 (Method A)
- 5 - Method 3 (Method A)
- 6 - Method 4 (Method A)
- 7 - Method 5 (Method A)

TABLE 6  
 COST PER STUDENT  
 INDIRECT HSC AND O.U.D.S. COSTS ASSIGNED BY METHOD 1 TO METHOD 5, THEN ASSIGNED TO EACH DEPARTMENT  
 BY METHOD A (DEPARTMENT HOURS ÷ TOTAL O.U.D.S. CURRICULUM HOURS) OR METHOD B (DEPARTMENT FTE ÷ TOTAL O.U.D.S. FTE)

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |       |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |       |
| <u>PEDODONTICS</u>       |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 2,373    | 982      | 1,033    | 956      | 1,066    | 1,449    | 1,700    | 1,541 |
|                          | METHOD 2 | 2,884    | 1,081    | 1,130    | 1,030    | 1,160    | 1,558    | 1,850    | 1,704 |
| A                        | METHOD 3 | 2,513    | 1,004    | 1,053    | 962      | 1,081    | 1,466    | 1,712    | 1,563 |
|                          | METHOD 4 | 3,178    | 1,166    | 1,246    | 1,102    | 1,249    | 1,699    | 1,992    | 1,797 |
|                          | METHOD 5 | 2,427    | 993      | 1,045    | 965      | 1,077    | 1,462    | 1,718    | 1,560 |
|                          | METHOD 1 | 2,049    | 924      | 996      | 959      | 1,046    | 1,461    | 1,688    | 1,516 |
|                          | METHOD 2 | 2,325    | 989      | 1,061    | 1,036    | 1,127    | 1,579    | 1,130    | 1,657 |
| B                        | METHOD 3 | 2,125    | 938      | 1,009    | 966      | 1,059    | 1,480    | 1,700    | 1,535 |
|                          | METHOD 4 | 2,483    | 1,045    | 1,140    | 1,111    | 1,202    | 1,731    | 1,966    | 1,738 |
|                          | METHOD 5 | 1,435    | 958      | 1,030    | 966      | 1,068    | 1,468    | 1,711    | 1,546 |
| <u>ORTHODONTICS</u>      |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 1,269    | 874      | 951      | 946      | 1,089    | 1,485    | 1,633    | 1,712 |
|                          | METHOD 2 | 1,427    | 947      | 1,036    | 1,043    | 1,212    | 1,618    | 1,820    | 1,913 |
| A                        | METHOD 3 | 1,321    | 893      | 968      | 955      | 1,109    | 1,507    | 1,650    | 1,739 |
|                          | METHOD 4 | 1,567    | 1,036    | 1,138    | 1,137    | 1,328    | 1,789    | 1,997    | 2,030 |
|                          | METHOD 5 | 1,288    | 883      | 961      | 958      | 1,103    | 1,501    | 1,657    | 1,735 |
|                          | METHOD 1 | 1,097    | 857      | 949      | 893      | 985      | 1,432    | 1,503    | 1,591 |
|                          | METHOD 2 | 1,153    | 913      | 1,018    | 943      | 1,035    | 1,527    | 1,608    | 1,695 |
| B                        | METHOD 3 | 1,115    | 872      | 963      | 897      | 993      | 1,448    | 1,512    | 1,605 |
|                          | METHOD 4 | 1,202    | 982      | 1,102    | 991      | 1,082    | 1,649    | 1,708    | 1,756 |
|                          | METHOD 5 | 1,155    | 879      | 971      | 945      | 1,054    | 1,475    | 1,577    | 1,667 |

TABLE 6 (CONTINUED--PAGE TWO)

## COST PER STUDENT

INDIRECT HSC AND O.U.D.S. COSTS ASSIGNED BY METHOD 1 TO METHOD 5, THEN ASSIGNED TO EACH DEPARTMENT  
 BY METHOD A (DEPARTMENT HOURS ÷ TOTAL O.U.D.S. CURRICULUM HOURS) OR METHOD B (DEPARTMENT FTE ÷ TOTAL O.U.D.S. FTE)

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |       |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |       |
| <u>PERIODONTICS</u>      |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 1,343    | 988      | 1,232    | 1,341    | 1,257    | 1,669    | 2,300    | 2,192 |
|                          | METHOD 2 | 1,526    | 1,072    | 1,329    | 1,445    | 1,390    | 1,811    | 2,504    | 2,412 |
| A                        | METHOD 3 | 1,403    | 1,010    | 1,251    | 1,350    | 1,279    | 1,691    | 2,318    | 2,222 |
|                          | METHOD 4 | 1,688    | 1,175    | 1,448    | 1,546    | 1,515    | 1,995    | 2,698    | 2,540 |
|                          | METHOD 5 | 1,364    | 998      | 1,243    | 1,354    | 1,273    | 1,686    | 2,325    | 2,218 |
|                          | METHOD 1 | 1,229    | 959      | 1,234    | 1,339    | 1,180    | 1,651    | 2,282    | 2,146 |
|                          | METHOD 2 | 1,344    | 1,015    | 1,348    | 1,441    | 1,258    | 1,780    | 2,474    | 2,330 |
| B                        | METHOD 3 | 1,267    | 974      | 1,257    | 1,348    | 1,193    | 1,671    | 2,298    | 2,172 |
|                          | METHOD 4 | 1,446    | 1,084    | 1,487    | 1,541    | 1,332    | 1,948    | 2,656    | 2,437 |
|                          | METHOD 5 | 1,277    | 991      | 1,233    | 1,353    | 1,237    | 1,677    | 2,314    | 2,192 |
| <u>ORAL DIAGNOSIS</u>    |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 1,836    | 1,103    | 1,070    | 1,112    | 1,283    | 1,684    | 2,346    | 2,155 |
|                          | METHOD 2 | 2,031    | 1,192    | 1,174    | 1,195    | 1,388    | 1,797    | 2,573    | 2,401 |
| A                        | METHOD 3 | 1,900    | 1,126    | 1,091    | 1,119    | 1,300    | 1,702    | 2,365    | 2,189 |
|                          | METHOD 4 | 2,204    | 1,302    | 1,301    | 1,275    | 1,487    | 1,943    | 2,789    | 2,543 |
|                          | METHOD 5 | 1,859    | 1,114    | 1,083    | 1,123    | 1,295    | 1,698    | 2,374    | 2,184 |
|                          | METHOD 1 | 1,775    | 1,080    | 1,067    | 1,110    | 1,263    | 1,731    | 2,271    | 2,049 |
|                          | METHOD 2 | 1,934    | 1,148    | 1,146    | 1,190    | 1,355    | 1,877    | 2,452    | 2,208 |
| B                        | METHOD 3 | 1,827    | 1,098    | 1,083    | 1,117    | 1,278    | 1,754    | 2,287    | 2,070 |
|                          | METHOD 4 | 2,074    | 1,231    | 1,241    | 1,269    | 1,441    | 2,066    | 2,624    | 2,300 |
|                          | METHOD 5 | 1,812    | 1,108    | 1,098    | 1,122    | 1,286    | 1,721    | 2,329    | 2,124 |



TABLE 6 (CONTINUED--PAGE THREE)

## COST PER STUDENT

INDIRECT HSC AND O.U.D.S. COSTS ASSIGNED BY METHOD 1 TO METHOD 5, THEN ASSIGNED TO EACH DEPARTMENT  
BY METHOD A (DEPARTMENT HOURS ÷ TOTAL O.U.D.S. CURRICULUM HOURS) OR METHOD B (DEPARTMENT FTE ÷ TOTAL O.U.D.S. FTE)

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |       |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |       |
| <u>ORAL PATHOLOGY</u>    |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 778      | 502      | 670      | 681      | 803      | 935      | 1,009    | 966   |
|                          | METHOD 2 | 860      | 540      | 714      | 710      | 840      | 975      | 1,056    | 1,017 |
| A                        | METHOD 3 | 805      | 512      | 679      | 684      | 809      | 941      | 1,013    | 973   |
|                          | METHOD 4 | 933      | 856      | 767      | 739      | 875      | 1,027    | 1,101    | 1,046 |
|                          | METHOD 5 | 788      | 507      | 675      | 685      | 807      | 940      | 1,015    | 972   |
|                          | METHOD 1 | 774      | 498      | 671      | 706      | 842      | 977      | 1,073    | 1,017 |
|                          | METHOD 2 | 853      | 532      | 729      | 757      | 907      | 1,048    | 1,160    | 1,108 |
| B                        | METHOD 3 | 800      | 507      | 683      | 710      | 852      | 989      | 1,081    | 1,029 |
|                          | METHOD 4 | 923      | 574      | 798      | 807      | 968      | 1,139    | 1,244    | 1,162 |
|                          | METHOD 5 | 785      | 506      | 667      | 691      | 826      | 961      | 1,054    | 1,000 |
| <u>DENT SERV ADMIN</u>   |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 946      | 520      | 579      | 1,202    | 1,430    | 1,558    | 1,734    | 1,647 |
|                          | METHOD 2 | 1,129    | 604      | 677      | 1,357    | 1,535    | 1,671    | 1,836    | 1,757 |
| A                        | METHOD 3 | 1,006    | 542      | 599      | 1,403    | 1,447    | 1,576    | 1,743    | 1,662 |
|                          | METHOD 4 | 1,291    | 707      | 795      | 1,342    | 1,634    | 1,816    | 1,932    | 1,821 |
|                          | METHOD 5 | 967      | 530      | 591      | 1,221    | 1,443    | 1,571    | 1,747    | 1,660 |
|                          | METHOD 1 | 1,011    | 535      | 582      | 1,222    | 1,448    | 1,542    | 1,897    | 1,701 |
|                          | METHOD 2 | 1,234    | 634      | 700      | 1,397    | 1,565    | 1,643    | 2,101    | 1,854 |
| B                        | METHOD 3 | 1,084    | 561      | 605      | 1,448    | 1,467    | 1,558    | 1,915    | 1,722 |
|                          | METHOD 4 | 1,430    | 754      | 844      | 1,380    | 1,675    | 1,774    | 2,295    | 1,943 |
|                          | METHOD 5 | 1,018    | 534      | 578      | 1,221    | 1,451    | 1,563    | 1,846    | 1,691 |

TABLE 6 (CONTINUED--PAGE FOUR)

## COST PER STUDENT

INDIRECT HSC AND O.U.D.S. COSTS ASSIGNED BY METHOD 1 TO METHOD 5, THEN ASSIGNED TO EACH DEPARTMENT  
 BY METHOD A (DEPARTMENT HOURS ÷ TOTAL O.U.D.S. CURRICULUM HOURS) OR METHOD B (DEPARTMENT FTE ÷ TOTAL O.U.D.S. FTE)

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |       |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |       |
| ORAL SURGERY             |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 987      | 699      | 744      | 671      | 777      | 652      | 879      | 805   |
|                          | METHOD 2 | 1,092    | 747      | 800      | 712      | 830      | 708      | 974      | 908   |
| A                        | METHOD 3 | 1,022    | 712      | 755      | 675      | 786      | 661      | 887      | 819   |
|                          | METHOD 4 | 1,185    | 806      | 867      | 753      | 879      | 781      | 1,064    | 967   |
|                          | METHOD 5 | 999      | 705      | 750      | 676      | 784      | 659      | 890      | 817   |
|                          | METHOD 1 | 911      | 695      | 745      | 693      | 783      | 626      | 801      | 773   |
|                          | METHOD 2 | 971      | 739      | 814      | 752      | 839      | 664      | 848      | 849   |
| B                        | METHOD 3 | 931      | 707      | 759      | 698      | 792      | 632      | 805      | 783   |
|                          | METHOD 4 | 1,024    | 793      | 898      | 811      | 893      | 713      | 892      | 894   |
|                          | METHOD 5 | 941      | 704      | 743      | 682      | 786      | 646      | 843      | 799   |
| FIXED PROSTHODONTICS     |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 2,195    | 1,388    | 1,517    | 1,453    | 1,648    | 1,984    | 1,444    | 2,378 |
|                          | METHOD 2 | 2,465    | 1,512    | 1,661    | 1,593    | 1,827    | 2,175    | 1,741    | 2,665 |
| A                        | METHOD 3 | 2,284    | 1,421    | 1,546    | 1,465    | 1,677    | 2,014    | 1,469    | 2,417 |
|                          | METHOD 4 | 2,704    | 1,664    | 1,835    | 1,729    | 1,995    | 2,423    | 2,022    | 2,830 |
|                          | METHOD 5 | 2,227    | 1,403    | 1,534    | 1,470    | 1,669    | 2,006    | 1,480    | 2,412 |
|                          | METHOD 1 | 2,089    | 1,351    | 1,513    | 1,428    | 1,589    | 1,933    | 1,412    | 2,262 |
|                          | METHOD 2 | 2,295    | 1,440    | 1,628    | 1,546    | 1,726    | 2,089    | 1,621    | 2,455 |
| B                        | METHOD 3 | 2,157    | 1,375    | 1,536    | 1,438    | 1,612    | 1,958    | 1,429    | 2,288 |
|                          | METHOD 4 | 2,478    | 1,548    | 1,767    | 1,661    | 1,855    | 2,290    | 1,818    | 2,567 |
|                          | METHOD 5 | 2,145    | 1,395    | 1,552    | 1,464    | 1,642    | 1,981    | 1,496    | 2,346 |

TABLE 6 (CONTINUED--PAGE FIVE)

## COST PER STUDENT

INDIRECT HSC AND O.U.D.S. COSTS ASSIGNED BY METHOD 1 TO METHOD 5, THEN ASSIGNED TO EACH DEPARTMENT  
BY METHOD A (DEPARTMENT HOURS ÷ TOTAL O.U.D.S. CURRICULUM HOURS) OR METHOD B (DEPARTMENT FTE ÷ TOTAL O.U.D.S. FTE)

| FISCAL YEAR                     | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |       |
|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| <u>DEPARTMENT/METHOD</u>        |          |          |          |          |          |          |          |          |       |
| <u>OPERATIVE DENTISTRY</u>      |          |          |          |          |          |          |          |          |       |
|                                 | METHOD 1 | 2,053    | 1,259    | 1,331    | 1,291    | 1,526    | 1,711    | 2,322    | 2,110 |
|                                 | METHOD 2 | 2,262    | 1,356    | 1,442    | 1,394    | 1,658    | 1,854    | 2,508    | 2,311 |
| A                               | METHOD 3 | 2,121    | 1,285    | 1,353    | 1,300    | 1,548    | 1,734    | 2,338    | 2,137 |
|                                 | METHOD 4 | 2,447    | 1,473    | 1,577    | 1,495    | 1,783    | 2,037    | 2,685    | 2,428 |
|                                 | METHOD 5 | 2,077    | 1,271    | 1,344    | 1,303    | 1,542    | 1,728    | 2,345    | 2,134 |
|                                 | METHOD 1 | 2,148    | 1,267    | 1,331    | 1,311    | 1,575    | 1,779    | 2,363    | 2,133 |
|                                 | METHOD 2 | 2,413    | 1,371    | 1,448    | 1,432    | 1,742    | 1,970    | 2,576    | 2,354 |
| B                               | METHOD 3 | 2,235    | 1,294    | 1,355    | 1,321    | 1,602    | 1,810    | 2,381    | 2,163 |
|                                 | METHOD 4 | 2,649    | 1,498    | 1,589    | 1,550    | 1,900    | 2,217    | 2,778    | 2,481 |
|                                 | METHOD 5 | 2,150    | 1,273    | 1,347    | 1,309    | 1,565    | 1,762    | 2,370    | 2,147 |
| <u>REMOVABLE PROSTHODONTICS</u> |          |          |          |          |          |          |          |          |       |
|                                 | METHOD 1 | 1,806    | 1,114    | 1,317    | 1,262    | 1,606    | 2,023    | 2,381    | 2,206 |
|                                 | METHOD 2 | 2,011    | 1,208    | 1,427    | 1,375    | 1,751    | 2,178    | 2,583    | 2,423 |
| A                               | METHOD 3 | 1,873    | 1,138    | 1,339    | 1,272    | 1,630    | 2,048    | 2,399    | 2,235 |
|                                 | METHOD 4 | 2,193    | 1,323    | 1,560    | 1,485    | 1,887    | 2,379    | 2,774    | 2,549 |
|                                 | METHOD 5 | 1,830    | 1,125    | 1,331    | 1,276    | 1,624    | 2,041    | 2,406    | 2,231 |
|                                 | METHOD 1 | 1,754    | 1,095    | 1,318    | 1,250    | 1,586    | 2,024    | 2,390    | 1,272 |
|                                 | METHOD 2 | 1,929    | 1,172    | 1,433    | 1,353    | 1,717    | 2,179    | 2,597    | 2,362 |
| B                               | METHOD 3 | 1,812    | 1,115    | 1,341    | 1,259    | 1,608    | 2,049    | 2,408    | 2,197 |
|                                 | METHOD 4 | 2,083    | 1,265    | 1,572    | 1,452    | 1,840    | 2,380    | 2,794    | 2,471 |
|                                 | METHOD 5 | 1,790    | 1,121    | 1,327    | 1,273    | 1,614    | 2,042    | 2,412    | 2,212 |

TABLE 6 (CONTINUED--PAGE SIX)

COST PER STUDENT

INDIRECT HSC AND O.U.D.S. COSTS ASSIGNED BY METHOD 1 TO METHOD 5, THEN ASSIGNED TO EACH DEPARTMENT  
 BY METHOD A (DEPARTMENT HOURS ÷ TOTAL O.U.D.S. CURRICULUM HOURS) OR METHOD B (DEPARTMENT FTE ÷ TOTAL O.U.D.S. FTE)

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |       |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |       |
| <u>ENDODONTICS</u>       |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 789      | 463      | 513      | 600      | 541      | 643      | 839      | 832   |
|                          | METHOD 2 | 880      | 505      | 562      | 639      | 590      | 697      | 913      | 912   |
| A                        | METHOD 3 | 819      | 474      | 523      | 603      | 549      | 652      | 845      | 843   |
|                          | METHOD 4 | 962      | 557      | 621      | 676      | 637      | 765      | 983      | 958   |
|                          | METHOD 5 | 799      | 468      | 519      | 605      | 547      | 650      | 848      | 842   |
|                          | METHOD 1 | 708      | 437      | 512      | 610      | 535      | 645      | 819      | 821   |
|                          | METHOD 2 | 752      | 454      | 548      | 658      | 581      | 699      | 880      | 892   |
| B                        | METHOD 3 | 722      | 442      | 518      | 614      | 543      | 654      | 824      | 831   |
|                          | METHOD 4 | 790      | 475      | 592      | 705      | 624      | 769      | 938      | 932   |
|                          | METHOD 5 | 737      | 462      | 527      | 607      | 544      | 651      | 836      | 835   |
| <u>OCCCLUSION</u>        |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 720      | 516      | 574      | 598      | 671      | 738      | 867      | 872   |
|                          | METHOD 2 | 816      | 560      | 625      | 649      | 736      | 808      | 955      | 966   |
| A                        | METHOD 3 | 752      | 527      | 584      | 602      | 681      | 749      | 875      | 884   |
|                          | METHOD 4 | 901      | 614      | 687      | 698      | 797      | 898      | 1,038    | 1,021 |
|                          | METHOD 5 | 731      | 521      | 580      | 604      | 678      | 746      | 878      | 883   |
|                          | METHOD 1 | 652      | 509      | 574      | 592      | 649      | 712      | 849      | 838   |
|                          | METHOD 2 | 708      | 546      | 624      | 638      | 699      | 764      | 925      | 906   |
| B                        | METHOD 3 | 670      | 518      | 584      | 596      | 657      | 712      | 855      | 847   |
|                          | METHOD 4 | 757      | 592      | 684      | 683      | 746      | 831      | 997      | 945   |
|                          | METHOD 5 | 679      | 519      | 581      | 602      | 668      | 733      | 867      | 864   |

TABLE 6 (CONTINUED--PAGE SEVEN)

## COST PER STUDENT

INDIRECT HSC AND O.U.D.S. COSTS ASSIGNED BY METHOD 1 TO METHOD 5, THEN ASSIGNED TO EACH DEPARTMENT  
 BY METHOD A (DEPARTMENT HOURS ÷ TOTAL O.U.D.S. CURRICULUM HOURS) OR METHOD B (DEPARTMENT FTE ÷ TOTAL O.U.D.S. FTE)

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |        |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|--------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |        |
| <u>DENTAL MATERIALS</u>  |          |          |          |          |          |          |          |          |        |
|                          | METHOD 1 | 469      | 425      | 473      | 493      | 512      | 610      | 678      | 1,325  |
|                          | METHOD 2 | 496      | 438      | 487      | 508      | 532      | 632      | 705      | 1,354  |
| A                        | METHOD 3 | 477      | 428      | 476      | 494      | 515      | 614      | 680      | 1,329  |
|                          | METHOD 4 | 520      | 453      | 505      | 524      | 551      | 660      | 731      | 1,371  |
|                          | METHOD 5 | 472      | 427      | 475      | 495      | 514      | 613      | 681      | 1,329  |
|                          | METHOD 1 | 490      | 447      | 476      | 514      | 545      | 646      | 728      | 1,528  |
|                          | METHOD 2 | 529      | 481      | 514      | 548      | 588      | 693      | 786      | 1,721  |
| B                        | METHOD 3 | 503      | 456      | 483      | 517      | 552      | 653      | 733      | 1,554  |
|                          | METHOD 4 | 564      | 523      | 560      | 581      | 629      | 754      | 841      | 1,833  |
|                          | METHOD 5 | 488      | 432      | 460      | 500      | 530      | 631      | 712      | 1,351  |
| <u>DENTAL HYGIENE</u>    |          |          |          |          |          |          |          |          |        |
|                          | METHOD 1 | 10,058   | 10,335   | 7,717    | 11,078   | 13,629   | 15,040   | 22,395   | 22,042 |
|                          | METHOD 2 | 11,702   | 11,513   | 7,841    | 12,436   | 15,372   | 16,945   | 25,340   | 25,289 |
| A                        | METHOD 3 | 10,598   | 10,643   | 7,742    | 11,194   | 13,911   | 15,345   | 22,649   | 22,484 |
|                          | METHOD 4 | 13,157   | 12,952   | 7,991    | 13,758   | 17,018   | 19,404   | 28,140   | 27,167 |
|                          | METHOD 5 | 10,250   | 10,478   | 7,732    | 11,246   | 13,837   | 15,266   | 22,760   | 22,423 |
|                          | METHOD 1 | 8,533    | 9,336    | 8,493    | 9,422    | 11,085   | 12,496   | 16,945   | 16,524 |
|                          | METHOD 2 | 9,419    | 10,010   | 9,107    | 10,116   | 11,845   | 13,363   | 17,747   | 17,385 |
| B                        | METHOD 3 | 8,824    | 9,512    | 8,616    | 9,481    | 11,209   | 12,635   | 17,014   | 16,641 |
|                          | METHOD 4 | 10,203   | 10,833   | 9,851    | 10,793   | 12,562   | 14,481   | 18,510   | 17,883 |
|                          | METHOD 5 | 9,017    | 9,876    | 8,154    | 10,152   | 12,027   | 13,441   | 18,640   | 18,194 |

TABLE 6 (CONTINUED--PAGE EIGHT)

COST PER STUDENT

INDIRECT HSC AND O.U.D.S. COSTS ASSIGNED BY METHOD 1 TO METHOD 5, THEN ASSIGNED TO EACH DEPARTMENT  
BY METHOD A (DEPARTMENT HOURS ÷ TOTAL O.U.D.S. CURRICULUM HOURS) OR METHOD B (DEPARTMENT FTE ÷ TOTAL O.U.D.S. FTE)

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |       |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |       |
| BASIC SCIENCES*          |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 2,485    | 1,762    | 1,386    | 1,578    | 1,909    | 2,018    | 2,531    | 2,160 |
|                          | METHOD 2 | 3,041    | 1,978    | 1,702    | 1,763    | 2,146    | 2,273    | 2,859    | 2,516 |
| A                        | METHOD 3 | 2,231    | 1,436    | 1,047    | 1,380    | 1,691    | 1,796    | 2,263    | 1,911 |
|                          | METHOD 4 | 2,368    | 1,521    | 1,057    | 1,440    | 1,763    | 1,889    | 2,388    | 2,016 |
|                          | METHOD 5 | 2,213    | 1,430    | 1,047    | 1,381    | 1,689    | 1,794    | 2,266    | 1,910 |

TABLE 7  
 COST PER HOUR  
 INDIRECT HSC AND O.U.D.S. COSTS ASSIGNED BY METHOD 1 TO METHOD 5, THEN ASSIGNED TO EACH DEPARTMENT  
 BY METHOD A (DEPARTMENT HOURS ÷ TOTAL O.U.D.S. CURRICULUM HOURS) OR METHOD B (DEPARTMENT FTE ÷ TOTAL O.U.D.S. FTE)

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |       |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |       |
| PEDODONTICS              |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 415      | 649      | 680      | 919      | 1,009    | 1,234    | 1,300    | 1,203 |
|                          | METHOD 2 | 504      | 715      | 744      | 990      | 1,098    | 1,327    | 1,415    | 1,329 |
| A                        | METHOD 3 | 439      | 663      | 693      | 925      | 1,024    | 1,249    | 1,310    | 1,220 |
|                          | METHOD 4 | 556      | 771      | 821      | 1,059    | 1,183    | 1,447    | 1,524    | 1,403 |
|                          | METHOD 5 | 424      | 656      | 688      | 927      | 1,020    | 1,245    | 1,315    | 1,218 |
|                          | METHOD 1 | 358      | 611      | 656      | 922      | 991      | 1,244    | 1,291    | 1,183 |
|                          | METHOD 2 | 406      | 654      | 699      | 996      | 1,067    | 1,345    | 1,401    | 1,293 |
| B                        | METHOD 3 | 371      | 620      | 664      | 928      | 1,003    | 1,261    | 1,301    | 1,198 |
|                          | METHOD 4 | 434      | 691      | 750      | 1,068    | 1,138    | 1,475    | 1,504    | 1,357 |
|                          | METHOD 5 | 381      | 633      | 678      | 928      | 1,011    | 1,250    | 1,309    | 1,207 |
| ORTHODONTICS             |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 599      | 659      | 715      | 695      | 788      | 1,043    | 1,005    | 1,074 |
|                          | METHOD 2 | 674      | 714      | 778      | 766      | 877      | 1,136    | 1,120    | 1,200 |
| A                        | METHOD 3 | 624      | 674      | 728      | 701      | 802      | 1,057    | 1,015    | 1,091 |
|                          | METHOD 4 | 740      | 781      | 855      | 835      | 961      | 1,256    | 1,229    | 1,273 |
|                          | METHOD 5 | 608      | 666      | 722      | 704      | 798      | 1,054    | 1,019    | 1,089 |
|                          | METHOD 1 | 518      | 647      | 713      | 656      | 713      | 1,005    | 925      | 998   |
|                          | METHOD 2 | 544      | 689      | 765      | 692      | 749      | 1,071    | 989      | 1,064 |
| B                        | METHOD 3 | 527      | 658      | 724      | 659      | 718      | 1,016    | 930      | 1,007 |
|                          | METHOD 4 | 568      | 741      | 828      | 728      | 783      | 1,157    | 1,050    | 1,101 |
|                          | METHOD 5 | 545      | 663      | 729      | 694      | 763      | 1,035    | 970      | 1,046 |

TABLE 7 (CONTINUED--PAGE TWO)

## COST PER HOUR

INDIRECT HSC AND O.U.D.S. COSTS ASSIGNED BY METHOD 1 TO METHOD 5, THEN ASSIGNED TO EACH DEPARTMENT  
BY METHOD A (DEPARTMENT HOURS ÷ TOTAL O.U.D.S. CURRICULUM HOURS) OR METHOD B (DEPARTMENT FTE ÷ TOTAL O.U.D.S. FTE)

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |       |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |       |
| PERIODONTICS             |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 548      | 644      | 800      | 915      | 845      | 1,088    | 1,294    | 1,258 |
|                          | METHOD 2 | 623      | 699      | 864      | 986      | 934      | 1,181    | 1,409    | 1,384 |
| A                        | METHOD 3 | 573      | 659      | 813      | 921      | 860      | 1,103    | 1,304    | 1,275 |
|                          | METHOD 4 | 689      | 766      | 941      | 1,055    | 1,019    | 1,302    | 1,518    | 1,458 |
|                          | METHOD 5 | 557      | 651      | 808      | 924      | 856      | 1,099    | 1,309    | 1,273 |
|                          | METHOD 1 | 502      | 626      | 802      | 914      | 793      | 1,077    | 1,284    | 1,232 |
|                          | METHOD 2 | 549      | 662      | 876      | 984      | 846      | 1,161    | 1,392    | 1,337 |
| B                        | METHOD 3 | 517      | 635      | 817      | 920      | 802      | 1,090    | 1,293    | 1,246 |
|                          | METHOD 4 | 590      | 707      | 966      | 1,052    | 896      | 1,271    | 1,495    | 1,398 |
|                          | METHOD 5 | 521      | 647      | 801      | 924      | 831      | 1,094    | 1,302    | 1,258 |
| ORAL DIAGNOSIS           |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 703      | 675      | 652      | 960      | 1,091    | 1,389    | 1,184    | 1,110 |
|                          | METHOD 2 | 778      | 729      | 716      | 1,031    | 1,180    | 1,482    | 1,299    | 1,236 |
| A                        | METHOD 3 | 728      | 689      | 665      | 966      | 1,105    | 1,404    | 1,194    | 1,127 |
|                          | METHOD 4 | 844      | 796      | 792      | 1,100    | 1,264    | 1,602    | 1,408    | 1,310 |
|                          | METHOD 5 | 712      | 681      | 660      | 969      | 1,101    | 1,400    | 1,199    | 1,125 |
|                          | METHOD 1 | 680      | 661      | 650      | 958      | 1,074    | 1,427    | 1,147    | 1,055 |
|                          | METHOD 2 | 740      | 703      | 698      | 1,027    | 1,152    | 1,548    | 1,238    | 1,137 |
| B                        | METHOD 3 | 700      | 672      | 660      | 964      | 1,087    | 1,447    | 1,155    | 1,066 |
|                          | METHOD 4 | 794      | 753      | 756      | 1,095    | 1,225    | 1,704    | 1,325    | 1,184 |
|                          | METHOD 5 | 694      | 678      | 669      | 968      | 1,094    | 1,419    | 1,176    | 1,094 |

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TABLE 7 (CONTINUED--PAGE THREE)

## COST PER HOUR

INDIRECT HSC AND O.U.D.S. COSTS ASSIGNED BY METHOD 1 TO METHOD 5, THEN ASSIGNED TO EACH DEPARTMENT  
 BY METHOD A (DEPARTMENT HOURS ÷ TOTAL O.U.D.S. CURRICULUM HOURS) OR METHOD B (DEPARTMENT FTE ÷ TOTAL O.U.D.S. FTE)

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |       |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |       |
| ORAL PATHOLOGY           |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 709      | 731      | 971      | 1,649    | 1,914    | 2,163    | 2,459    | 2,401 |
|                          | METHOD 2 | 784      | 786      | 1,035    | 1,720    | 2,004    | 2,256    | 2,574    | 2,528 |
| A                        | METHOD 3 | 734      | 746      | 984      | 1,655    | 1,929    | 2,178    | 2,469    | 2,419 |
|                          | METHOD 4 | 850      | 853      | 1,111    | 1,789    | 2,088    | 2,376    | 2,683    | 2,601 |
|                          | METHOD 5 | 718      | 738      | 979      | 1,658    | 1,925    | 2,174    | 2,473    | 2,416 |
|                          | METHOD 1 | 705      | 726      | 974      | 1,709    | 2,008    | 2,261    | 2,616    | 2,527 |
|                          | METHOD 2 | 777      | 775      | 1,057    | 1,833    | 2,163    | 2,424    | 2,829    | 2,756 |
| B                        | METHOD 3 | 729      | 739      | 990      | 1,720    | 2,033    | 2,287    | 2,234    | 2,558 |
|                          | METHOD 4 | 841      | 836      | 1,157    | 1,954    | 2,309    | 2,636    | 3,031    | 2,888 |
|                          | METHOD 5 | 715      | 737      | 967      | 1,673    | 1,969    | 2,223    | 2,569    | 2,487 |
| DENT SERV ADMIN          |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 386      | 339      | 376      | 1,037    | 1,216    | 1,285    | 1,961    | 1,900 |
|                          | METHOD 2 | 461      | 394      | 440      | 1,171    | 1,305    | 1,378    | 2,075    | 2,026 |
| A                        | METHOD 3 | 411      | 353      | 389      | 1,211    | 1,230    | 1,300    | 1,971    | 1,917 |
|                          | METHOD 4 | 527      | 461      | 516      | 1,158    | 1,389    | 1,498    | 2,185    | 2,099 |
|                          | METHOD 5 | 395      | 346      | 384      | 1,054    | 1,227    | 1,296    | 1,975    | 1,915 |
|                          | METHOD 1 | 413      | 349      | 378      | 1,055    | 1,231    | 1,272    | 2,145    | 1,962 |
|                          | METHOD 2 | 504      | 413      | 455      | 1,205    | 1,330    | 1,356    | 2,376    | 2,138 |
| B                        | METHOD 3 | 443      | 366      | 393      | 1,249    | 1,247    | 1,285    | 2,165    | 1,986 |
|                          | METHOD 4 | 584      | 492      | 548      | 1,191    | 1,424    | 1,464    | 2,595    | 2,241 |
|                          | METHOD 5 | 415      | 348      | 376      | 1,054    | 1,234    | 1,289    | 2,087    | 1,949 |

TABLE 7 (CONTINUED--PAGE FOUR)

## COST PER HOUR

INDIRECT HSC AND O.U.D.S. COSTS ASSIGNED BY METHOD 1 TO METHOD 5, THEN ASSIGNED TO EACH DEPARTMENT  
 BY METHOD A (DEPARTMENT HOURS ÷ TOTAL O.U.D.S. CURRICULUM HOURS) OR METHOD B (DEPARTMENT FTE ÷ TOTAL O.U.D.S. FTE)

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |       |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |       |
| ORAL SURGERY             |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 704      | 796      | 844      | 1,159    | 1,322    | 1,076    | 1,060    | 991   |
|                          | METHOD 2 | 778      | 851      | 907      | 1,230    | 1,412    | 1,169    | 1,175    | 1,118 |
| A                        | METHOD 3 | 728      | 811      | 856      | 1,165    | 1,337    | 1,091    | 1,070    | 1,008 |
|                          | METHOD 4 | 845      | 918      | 984      | 1,299    | 1,496    | 1,289    | 1,284    | 1,191 |
|                          | METHOD 5 | 712      | 803      | 851      | 1,168    | 1,333    | 1,087    | 1,074    | 1,006 |
|                          | METHOD 1 | 650      | 972      | 845      | 1,196    | 1,332    | 1,033    | 967      | 951   |
|                          | METHOD 2 | 692      | 842      | 924      | 1,299    | 1,428    | 1,095    | 1,023    | 1,045 |
| B                        | METHOD 3 | 664      | 805      | 861      | 1,204    | 1,348    | 1,043    | 972      | 964   |
|                          | METHOD 4 | 730      | 904      | 1,018    | 1,399    | 1,518    | 1,176    | 1,077    | 1,100 |
|                          | METHOD 5 | 671      | 802      | 843      | 1,147    | 1,338    | 1,066    | 1,017    | 983   |
| FIXED PROSTHODONTICS     |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 608      | 614      | 668      | 737      | 824      | 962      | 624      | 1,049 |
|                          | METHOD 2 | 682      | 669      | 731      | 808      | 913      | 1,055    | 753      | 1,176 |
| A                        | METHOD 3 | 632      | 628      | 681      | 743      | 838      | 977      | 635      | 1,066 |
|                          | METHOD 4 | 749      | 736      | 808      | 877      | 997      | 1,175    | 875      | 1,249 |
|                          | METHOD 5 | 616      | 621      | 676      | 746      | 834      | 973      | 640      | 1,064 |
|                          | METHOD 1 | 578      | 598      | 667      | 725      | 794      | 937      | 611      | 998   |
|                          | METHOD 2 | 635      | 637      | 717      | 784      | 863      | 1,013    | 701      | 1,083 |
| B                        | METHOD 3 | 597      | 608      | 677      | 730      | 806      | 950      | 618      | 1,010 |
|                          | METHOD 4 | 686      | 685      | 778      | 843      | 927      | 1,110    | 787      | 1,133 |
|                          | METHOD 5 | 594      | 617      | 683      | 743      | 821      | 961      | 647      | 1,035 |

TABLE 7 (CONTINUED--PAGE FIVE)

## COST PER HOUR

INDIRECT HSC AND O.U.D.S. COSTS ASSIGNED BY METHOD 1 TO METHOD 5, THEN ASSIGNED TO EACH DEPARTMENT  
 BY METHOD A (DEPARTMENT HOURS ÷ TOTAL O.U.D.S. CURRICULUM HOURS) OR METHOD B (DEPARTMENT FTE ÷ TOTAL O.U.D.S. FTE)

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |       |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |       |
| OPERATIVE DENTISTRY      |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 733      | 719      | 756      | 883      | 1,029    | 1,119    | 1,428    | 1,324 |
|                          | METHOD 2 | 808      | 773      | 820      | 954      | 1,118    | 1,212    | 1,543    | 1,450 |
| A                        | METHOD 3 | 758      | 733      | 769      | 889      | 1,043    | 1,134    | 1,438    | 1,341 |
|                          | METHOD 4 | 874      | 841      | 896      | 1,023    | 1,202    | 1,332    | 1,652    | 1,523 |
|                          | METHOD 5 | 742      | 725      | 764      | 892      | 1,039    | 1,130    | 1,442    | 1,338 |
|                          | METHOD 1 | 767      | 723      | 757      | 897      | 1,062    | 1,163    | 1,454    | 1,338 |
|                          | METHOD 2 | 862      | 782      | 823      | 980      | 1,175    | 1,288    | 1,584    | 1,477 |
| B                        | METHOD 3 | 798      | 739      | 770      | 904      | 1,080    | 1,183    | 1,465    | 1,357 |
|                          | METHOD 4 | 946      | 855      | 903      | 1,061    | 1,281    | 1,450    | 1,709    | 1,557 |
|                          | METHOD 5 | 768      | 726      | 762      | 895      | 1,055    | 1,152    | 1,458    | 1,347 |
| REMOVABLE PROSTHODONTICS |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 657      | 647      | 763      | 792      | 993      | 1,213    | 1,358    | 1,283 |
|                          | METHOD 2 | 732      | 702      | 826      | 863      | 1,082    | 1,306    | 1,473    | 1,410 |
| A                        | METHOD 3 | 682      | 662      | 776      | 798      | 1,007    | 1,228    | 1,368    | 1,300 |
|                          | METHOD 4 | 798      | 769      | 903      | 932      | 1,166    | 1,426    | 1,582    | 1,483 |
|                          | METHOD 5 | 666      | 654      | 770      | 800      | 1,003    | 1,224    | 1,372    | 1,298 |
|                          | METHOD 1 | 638      | 637      | 763      | 784      | 980      | 1,213    | 1,363    | 1,263 |
|                          | METHOD 2 | 702      | 681      | 830      | 848      | 1,061    | 1,306    | 1,481    | 1,374 |
| B                        | METHOD 3 | 659      | 648      | 777      | 789      | 993      | 1,228    | 1,373    | 1,278 |
|                          | METHOD 4 | 758      | 736      | 910      | 911      | 1,137    | 1,427    | 1,593    | 1,438 |
|                          | METHOD 5 | 651      | 652      | 769      | 798      | 997      | 1,224    | 1,376    | 1,287 |

TABLE 7 (CONTINUED--PAGE SIX)

## COST PER HOUR

INDIRECT HSC AND O.U.D.S. COSTS ASSIGNED BY METHOD 1 TO METHOD 5, THEN ASSIGNED TO EACH DEPARTMENT  
 BY METHOD A (DEPARTMENT HOURS ÷ TOTAL O.U.D.S. CURRICULUM HOURS) OR METHOD B (DEPARTMENT FTE ÷ TOTAL O.U.D.S. FTE)

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |       |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |       |
| <u>ENDODONTICS</u>       |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 643      | 603      | 665      | 1,099    | 976      | 1,126    | 1,308    | 1,324 |
|                          | METHOD 2 | 717      | 658      | 729      | 1,170    | 1,065    | 1,220    | 1,423    | 1,451 |
| A                        | METHOD 3 | 667      | 617      | 678      | 1,105    | 990      | 1,141    | 1,318    | 1,341 |
|                          | METHOD 4 | 783      | 725      | 806      | 1,239    | 1,149    | 1,340    | 1,532    | 1,524 |
|                          | METHOD 5 | 651      | 610      | 673      | 1,108    | 987      | 1,138    | 1,322    | 1,339 |
|                          | METHOD 1 | 577      | 569      | 663      | 1,118    | 966      | 1,129    | 1,277    | 1,306 |
|                          | METHOD 2 | 612      | 591      | 710      | 1,205    | 1,048    | 1,224    | 1,373    | 1,418 |
| B                        | METHOD 3 | 589      | 575      | 673      | 1,125    | 979      | 1,144    | 1,286    | 1,321 |
|                          | METHOD 4 | 644      | 618      | 767      | 1,291    | 1,126    | 1,347    | 1,463    | 1,483 |
|                          | METHOD 5 | 601      | 601      | 683      | 1,112    | 982      | 1,139    | 1,304    | 1,329 |
| <u>OCCCLUSION</u>        |          |          |          |          |          |          |          |          |       |
|                          | METHOD 1 | 560      | 641      | 710      | 831      | 918      | 980      | 1,140    | 1,168 |
|                          | METHOD 2 | 635      | 696      | 774      | 902      | 1,007    | 1,073    | 1,255    | 1,295 |
| A                        | METHOD 3 | 584      | 655      | 723      | 837      | 933      | 995      | 1,150    | 1,186 |
|                          | METHOD 4 | 701      | 763      | 851      | 971      | 1,092    | 1,193    | 1,364    | 1,368 |
|                          | METHOD 5 | 569      | 649      | 718      | 839      | 929      | 991      | 1,154    | 1,183 |
|                          | METHOD 1 | 507      | 632      | 710      | 823      | 889      | 946      | 1,116    | 1,124 |
|                          | METHOD 2 | 550      | 679      | 772      | 887      | 957      | 1,015    | 1,125    | 1,214 |
| B                        | METHOD 3 | 521      | 644      | 723      | 828      | 900      | 957      | 1,124    | 1,136 |
|                          | METHOD 4 | 589      | 735      | 846      | 949      | 1,022    | 1,104    | 1,310    | 1,266 |
|                          | METHOD 5 | 528      | 645      | 719      | 837      | 915      | 974      | 1,139    | 1,158 |

TABLE 7 (CONTINUED--PAGE SEVEN)

COST PER HOUR

INDIRECT HSC AND O.U.D.S. COSTS ASSIGNED BY METHOD 1 TO METHOD 5, THEN ASSIGNED TO EACH DEPARTMENT  
 BY METHOD A (DEPARTMENT HOURS ÷ TOTAL O.U.D.S. CURRICULUM HOURS) OR METHOD B (DEPARTMENT FTE ÷ TOTAL O.U.D.S. FTE)

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |       |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |       |
| <u>DENTAL MATERIALS</u>  |          |          |          |          |          |          |          |          |       |
| A                        | METHOD 1 | 1,289    | 1,869    | 2,070    | 2,227    | 2,280    | 2,636    | 2,885    | 5,752 |
|                          | METHOD 2 | 1,364    | 1,924    | 2,133    | 2,298    | 2,369    | 2,729    | 3,000    | 5,879 |
|                          | METHOD 3 | 1,314    | 1,883    | 2,083    | 2,233    | 2,294    | 2,651    | 2,895    | 5,769 |
|                          | METHOD 4 | 1,430    | 1,991    | 2,210    | 2,367    | 2,453    | 2,849    | 3,109    | 5,952 |
|                          | METHOD 5 | 1,298    | 1,876    | 2,078    | 2,236    | 2,290    | 2,647    | 2,900    | 5,767 |
| B                        | METHOD 1 | 1,347    | 1,967    | 2,083    | 2,322    | 2,427    | 2,789    | 3,098    | 6,631 |
|                          | METHOD 2 | 1,456    | 2,116    | 2,250    | 2,476    | 2,620    | 2,993    | 3,345    | 7,468 |
|                          | METHOD 3 | 1,383    | 2,006    | 2,116    | 2,335    | 2,458    | 2,822    | 3,119    | 6,745 |
|                          | METHOD 4 | 1,553    | 2,299    | 2,452    | 2,626    | 2,802    | 3,256    | 3,581    | 7,953 |
|                          | METHOD 5 | 1,342    | 1,899    | 2,015    | 2,260    | 2,360    | 2,724    | 3,029    | 6,262 |
| <u>DENTAL HYGIENE</u>    |          |          |          |          |          |          |          |          |       |
| A                        | METHOD 1 | 457      | 481      | 394      | 579      | 697      | 735      | 873      | 859   |
|                          | METHOD 2 | 532      | 536      | 401      | 650      | 786      | 828      | 988      | 986   |
|                          | METHOD 3 | 482      | 496      | 395      | 585      | 711      | 750      | 883      | 876   |
|                          | METHOD 4 | 598      | 603      | 408      | 719      | 870      | 948      | 1,097    | 1,059 |
|                          | METHOD 5 | 466      | 488      | 395      | 588      | 708      | 746      | 887      | 874   |
| B                        | METHOD 1 | 388      | 435      | 434      | 493      | 567      | 611      | 660      | 644   |
|                          | METHOD 2 | 428      | 466      | 465      | 529      | 606      | 653      | 692      | 678   |
|                          | METHOD 3 | 401      | 443      | 440      | 496      | 573      | 617      | 663      | 649   |
|                          | METHOD 4 | 464      | 505      | 503      | 564      | 642      | 708      | 721      | 697   |
|                          | METHOD 5 | 410      | 460      | 417      | 531      | 615      | 657      | 726      | 709   |

|                |          |     |     |     |     |     |     |       |     |
|----------------|----------|-----|-----|-----|-----|-----|-----|-------|-----|
| BASIC SCIENCE* |          |     |     |     |     |     |     |       |     |
|                | METHOD 1 | 333 | 338 | 278 | 603 | 718 | 735 | 886   | 769 |
|                | METHOD 2 | 408 | 392 | 341 | 674 | 807 | 828 | 1,001 | 896 |
| A              | METHOD 3 | 299 | 285 | 210 | 527 | 636 | 654 | 792   | 680 |
|                | METHOD 4 | 317 | 302 | 212 | 550 | 663 | 688 | 836   | 718 |
|                | METHOD 5 | 297 | 284 | 210 | 528 | 635 | 653 | 793   | 680 |

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(Note: If Method B were used, the means might be somewhat lower.)

The two non-clinical departments have higher costs per student when direct costs minus income were used (Method 2); influenced by lack of clinic income. However, when both indirect costs and income are assigned, their respective costs per student are more comparable with the clinical departments.

Again, using data from Tables 6 and 7, means were calculated, but by fiscal years irrespective of department. The means of cost per student are seen in Figure 11, for fiscal years 1976-77 to 1983-84; the means of cost per hour in Figure 12. The means for both costs parallel previous observations about the methods of cost assignment.

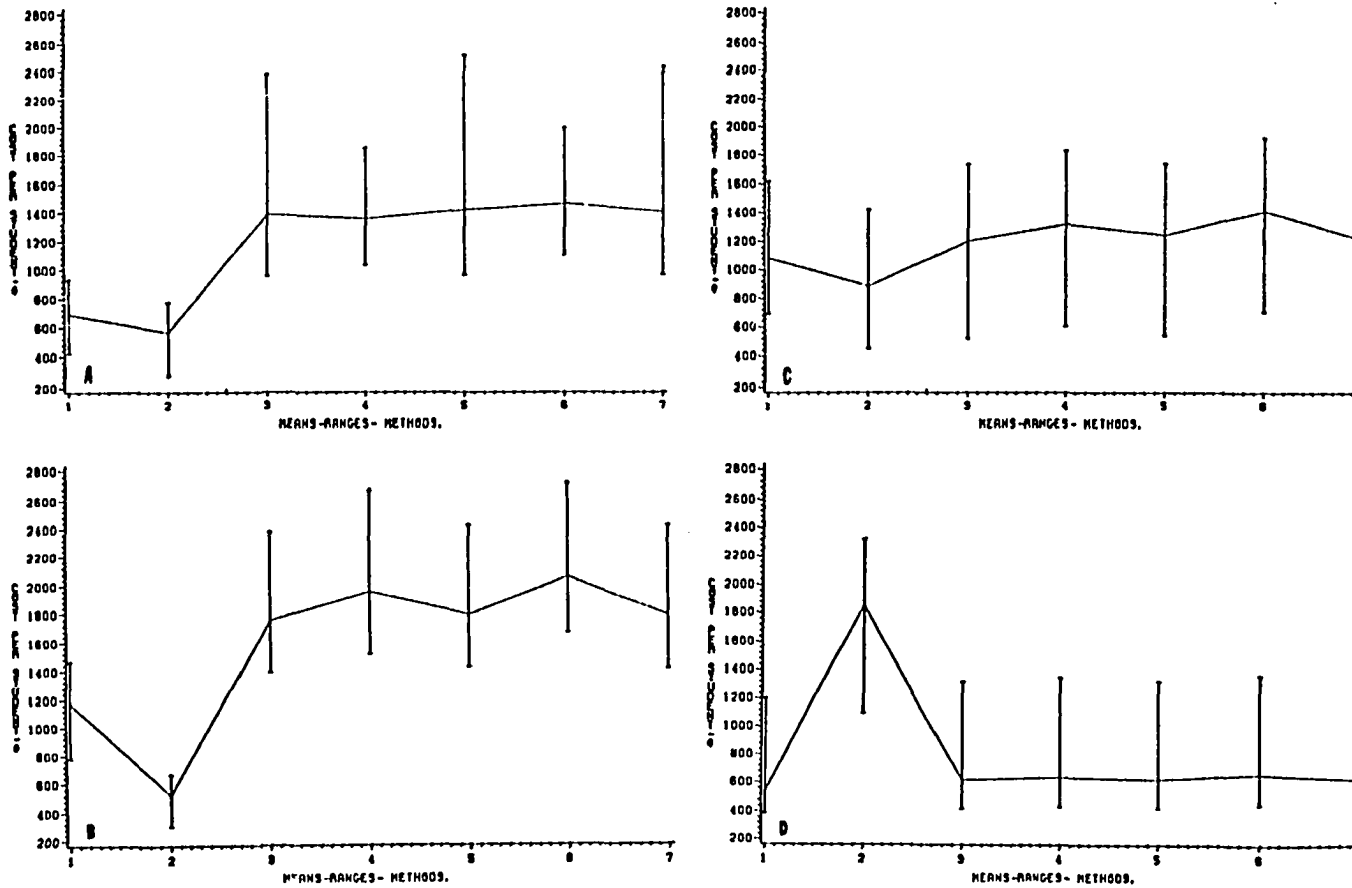
An additional cost factor, cost per square foot by department, was done.<sup>1</sup> Each department's cost per square foot was determined, depending on its involvement in the educational, administrative, and clinical costs based on either Method (A) or (B). (See Table 8). There was a general escalation of cost per square foot, influenced by increases in class size and inflation.

In an attempt to determine an output quality measure, National Board Examinations, sponsored yearly by the American Dental Association, were used. The means for the eight year survey are reported in Figure 13. The average

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<sup>1</sup>See appendix B p. 146.

Figure 10. Comparison of selected departments: two clinical (A and B) and two non-clinical (C and D).





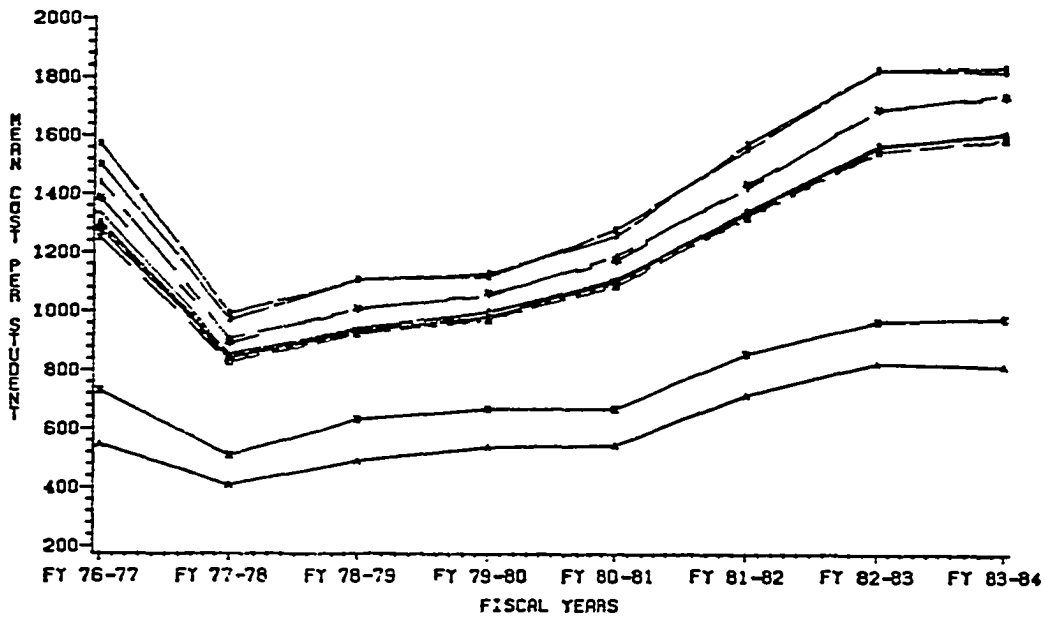


Figure 11. Comparison of department means, cost per student, for fiscal years 1976-77 to 1983-84.

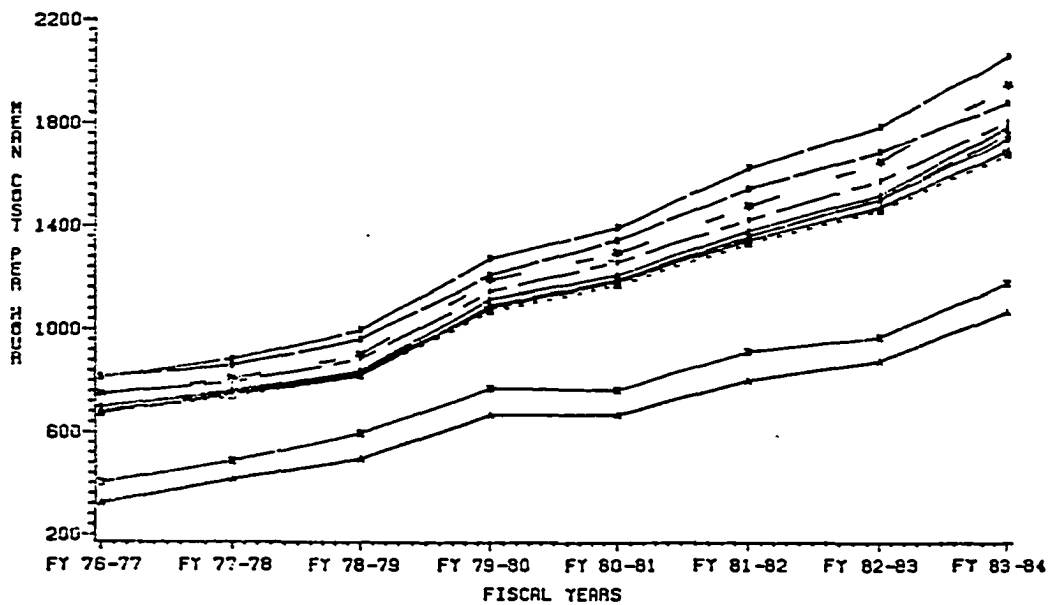


Figure 12. Comparison of department means, cost per hour, for fiscal years 1976-77 to 1983-84.

TABLE 8  
 COMPARISON OF DEPARTMENTAL COST PER SQUARE FOOT  
 BASED ON O.U.D.S. SQUARE FOOTAGE, EDUCATIONAL SQUARE FOOTAGE, AND  
 ADMINISTRATION SQUARE FOOTAGE

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| <u>DEPARTMENT</u>        |          |          |          |          |          |          |          |          |
| PEDODONTICS              | 5.79     | 5.84     | 7.12     | 7.50     | 8.20     | 9.23     | 10.56    | 10.51    |
| ORTHODONTICS             | 4.73     | 5.59     | 6.81     | 7.77     | 8.49     | 9.42     | 10.85    | 10.80    |
| PERIODONTICS             | 4.86     | 5.74     | 6.99     | 7.89     | 8.61     | 9.56     | 11.07    | 11.02    |
| ORAL DIAGNOSIS           | 5.35     | 6.31     | 7.69     | 8.07     | 8.82     | 9.79     | 12.59    | 12.54    |
| ORAL PATHOLOGY           | 5.89     | 6.96     | 8.48     | 8.40     | 9.17     | 10.18    | 11.22    | 11.17    |
| DENT SERV ADMIN          | 5.06     | 5.98     | 7.28     | 4.17     | 8.52     | 9.46     | 9.98     | 9.93     |
| ORAL SURGERY             | 5.04     | 5.95     | 7.25     | 7.56     | 8.26     | 9.17     | 10.97    | 11.14    |
| FIXED PROSTHODONTICS     | 5.33     | 6.29     | 7.66     | 8.49     | 9.27     | 10.29    | 11.88    | 11.83    |
| OPERATIVE DENTISTRY      | 5.03     | 5.93     | 7.23     | 7.92     | 8.65     | 9.60     | 10.89    | 10.84    |
| REMOVABLE PROSTHODONTICS | 5.00     | 5.90     | 7.19     | 8.08     | 8.02     | 9.79     | 11.08    | 11.03    |
| ENDODONTICS              | 4.56     | 5.38     | 6.55     | 7.03     | 7.68     | 8.52     | 9.71     | 9.66     |
| OCCLUSION                | 8.15     | 9.62     | 11.72    | 13.30    | 14.52    | 16.12    | 17.98    | 17.90    |
| DENTAL MATERIALS         | 4.38     | 5.17     | 6.30     | 7.04     | 7.69     | 8.54     | 9.61     | 9.55     |
| DENTAL HYGIENE           | 5.79     | 6.84     | 5.85     | 9.38     | 10.25    | 11.38    | 13.70    | 13.64    |

quintile ranking for each department over this period illustrates some departments with consistently higher scores (Departments 1, 2 and 14), while several have rather low scores (Departments 12 and 15). (Note: Departments 6 and 13 are not included in the National Board Examination program).

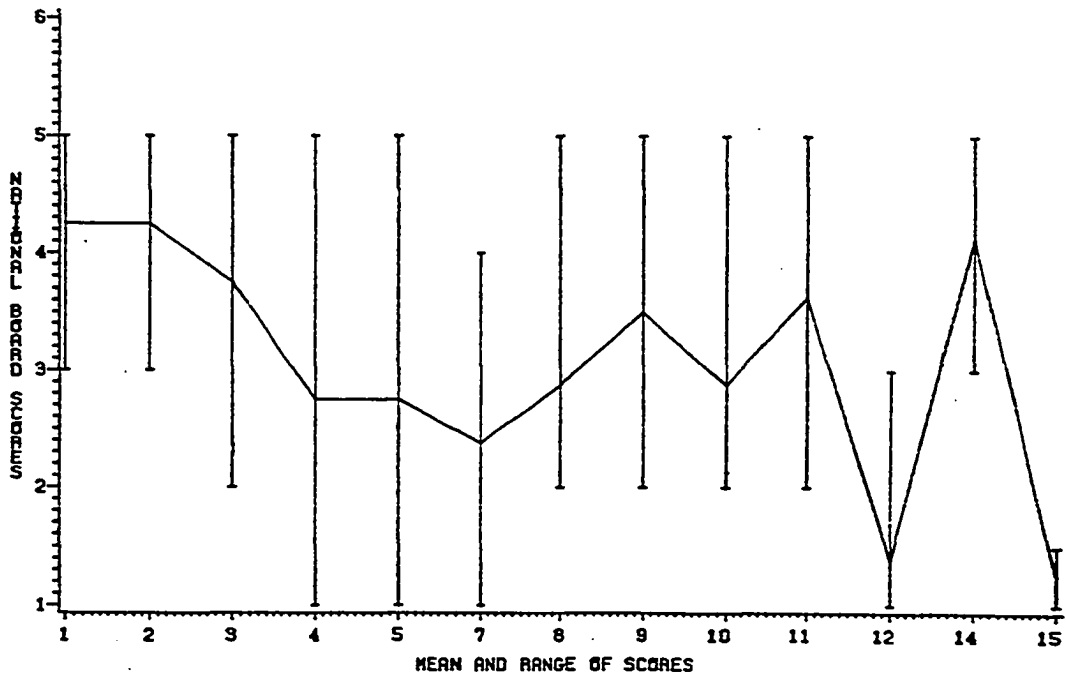


Figure 13

The regression procedure with the maximum  $R^2$  improvement technique was used in an attempt to determine relationships between independent cost variables and the dependent (response) variables.<sup>1</sup> This method ideally produces the best "fit", yielding the highest  $R^2$  values for each relationship.

#### Part II.

Five colleges of dentistry responded to the budget request for cost information.<sup>2</sup> Because of accounting, budgetary, and descriptive differences, some cost values were missing from these reports.<sup>3</sup> They are summarized as follows:

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<sup>1</sup>See Draper and Smith, Applied Regression Analysis, p. 164; SAS Users Guide: Statistics, p. 101.

<sup>2</sup>See appendix A p. 142.

<sup>3</sup>See appendix A p. 143.

| Cost Variable Missing (M)            | College |   |   |   |   |
|--------------------------------------|---------|---|---|---|---|
|                                      | 2       | 3 | 4 | 5 | 6 |
| Building Depreciation                | M       |   |   | M | M |
| Equipment Replacement                | M       |   |   | M |   |
| Health Science Center Square Footage |         |   |   | M |   |
| Dental School Square Footage         |         |   |   | M | M |
| Capitation Income                    | M       | M |   | M | M |
| Grant Income                         | M       | M | M | M |   |
| Applicataion Fees                    | M       | M |   | M |   |
| Student Store Income                 |         | M |   | M |   |
| Dental Hygiene Tuition               |         | M |   |   |   |
| Dental Student Instruments           |         | M |   |   |   |
| Dental Hygiene Instruments           |         | M | M |   | M |
| Total Number Campus FTE              |         |   |   |   | M |
| Department Clinic Hours              | M       |   | M |   |   |
| Department Benefits                  |         | M |   |   |   |
| National Board Scores                | M       |   |   | M | M |

Because of these missing values, variances in the final cost per student and cost per hour calculations become apparent. The results, at both the college and departmental level, are not comparable between colleges using the model designed with the cost data base from O.U.D.S.

At the departmental level, twenty-one different departments were identified by the responding colleges. Nine departments were common (in title) to each of the six colleges. Yet, within these departments, curricula and

objectives may vary. For example, is Oral Pathology, Oral Radiology, or Oral Medicine included in the Oral Diagnosis curricula? Several colleges have a large single department incorporating several typical restorative dentistry disciplines.

When the data were requested from the colleges, a statement assured the respondees that the data would be kept confidential. Therefore, only the results of the cost analysis will be reported, with each college of dentistry remaining incognito.

The cost determinations for the responding colleges in FY 83-84 are summarized in Table 9. Because of missing budget and cost center values, indirect costs and income were not assignable to several concepts of the O.U.D.S. model. As a result, Colleges 2 and 6 have several missing costs per student and hour. The indirect budget data of maintenance, building depreciation, and equipment replacement were not received from College 5. Because these indirect cost factors are vital to the O.U.D.S. cost model, final cost determinations are not possible for College 5. Also, some of the final cost results should be disregarded, but are reported to illustrate the dependence of the indirect cost variables on the final outcome. College 6 has an approximate cost per student of \$72,000 (1) and a cost per hour of \$8,200 (3) for Method 2 without or with building depreciation. Because of absent cost information,

TABLE 9  
 COMPARISONS OF COST PER STUDENT (1) AND COST PER HOUR (2)  
 BY DIRECT COSTS (A), DIRECT COSTS MINUS INCOME (B), OR DIRECT COST PLUS INCOME (C).  
 Indirect Costs, assigned by Methods 1 - 5, were determined without  
 budding depreciation (D) and then with depreciation (E).  
 COLLEGE

|              |     | 1      | 2      | 3      | 4      | 5      | 6      |
|--------------|-----|--------|--------|--------|--------|--------|--------|
| (A)          | (1) | 17,435 | 22,250 | 9,696  | 35,661 | 22,344 | 22,211 |
|              | (2) | 1,010  | 1,920  | 726    | 2,932  | 1,541  | 2,651  |
| (B)          | (1) | 12,568 | 18,481 | 7,957  | 9,227  | 16,260 | 17,392 |
|              | (2) | 728    | 1,595  | 596    | 759    | 1,121  | 2,076  |
| (C)          | (1) | 22,303 | 26,018 | 11,435 | 62,094 | 28,427 | 27,029 |
|              | (2) | 1,292  | 2,245  | 856    | 5,105  | 1,960  | 3,226  |
| Method 1     | (1) | 17,706 | 25,347 | 16,423 | 10,312 |        | 20,615 |
|              | (2) | 1,026  | 2,187  | 1,229  | 848    |        | 2,461  |
| Method 2     | (1) | 19,890 | 26,558 | 16,962 | 10,331 |        | 72,872 |
|              | (2) | 1,152  | 2,292  | 1,270  | 849    |        | 8,699  |
| (D) Method 3 | (1) | 18,003 | 24,024 | 14,602 | 10,667 |        |        |
|              | (2) | 1,043  | 2,073  | 1,093  | 877    |        |        |
| Method 4     | (1) | 21,154 |        | 14,602 | 10,667 |        |        |
|              | (2) | 1,225  |        | 1,093  | 877    |        |        |
| Method 5     | (1) | 17,963 | 25,635 | 14,602 | 10,667 |        | 20,700 |
|              | (2) | 1,041  | 2,212  | 1,093  | 877    |        | 2,471  |
| Method 1     | (1) | 19,312 | 25,347 | 17,176 | 11,097 |        | 20,724 |
|              | (2) | 1,119  | 2,187  | 1,286  | 912    |        | 2,474  |
| Method 2     | (1) | 21,497 | 26,558 | 17,715 | 11,116 |        | 72,981 |
|              | (2) | 1,245  | 2,292  | 1,326  | 914    |        | 8,712  |
| (E) Method 3 | (1) | 19,609 | 24,024 | 15,355 | 11,451 |        |        |
|              | (2) | 1,136  | 2,073  | 1,149  | 941    |        |        |
| Method 4     | (1) | 22,760 |        | 15,355 | 11,451 |        |        |
|              | (2) | 1,318  |        | 1,149  | 941    |        |        |
| Method 5     | (1) | 19,569 | 25,635 | 15,355 | 11,451 |        | 20,809 |
|              | (2) | 1,134  | 2,212  | 1,149  | 941    |        | 2,484  |

this is an obvious exaggeration of the outcome and should be ignored. Again, College 2, because of its reporting information, has the same costs when comparing cost outcome without and with building depreciation. Reviewing Table 9, the following observations are noted:

- In general, costs for all colleges are lower when income is subtracted from the colleges' direct costs (budget).
- When building depreciation and equipment replacement are included, costs increase.
- College 3, reporting a comparatively lower direct cost (budget) and a larger number of students, has a lower initial cost. Yet, when indirect costs are assigned, costs increase by approximately 44 percent.
- College 4, because of a large capitation income, income credited as an indirect assignment has a dramatic decrease in overall costs when indirect methods were applied.

Similar to the calculations of O.U.D.S. model, departmental costs per student and per hour were completed. Nine departments, where comparative data were available, were used and summarized in Table 10. Again, as in Table 9, certain results are missing due to lack of initial budget and cost center data, plus certain cost irregularities. Obviously, these exaggerations are due to input omissions in the cost model. College 4, due to curriculum design, has a cost per hour in the Department of



TABLE 10  
DEPARTMENTAL COMPARISONS OF COST PER STUDENT (1) AND COST PER HOUR (2)  
BY DIRECT COSTS (DC), OR DIRECT COST MINUS INCOME (DCI).  
Direct Costs were assigned by Method 1 to Method 5,  
the assigned by Method A (Department Hours ÷ Total OUDS Curriculum Hours)  
or Method B (Departmental FTE ÷ Total OUDS FTE)

|                    |     | COLLEGE |          |          |          |          |        |
|--------------------|-----|---------|----------|----------|----------|----------|--------|
|                    |     | 1       | 2        | 3        | 4        | 5        | 6      |
| <b>PEDODONTICS</b> |     |         |          |          |          |          |        |
| (DC)               | (1) | \$ 906  | \$ 1,904 | \$ 1,102 | \$ 2,431 | \$ 1,409 | \$ 836 |
|                    | (2) | 707     | 19,808   | 3,158    | 15,725   | 1,521    | 2,173  |
| (DCI)              | (1) | 634     | 1,745    | 1,102    | 2,297    | 1,035    | 709    |
|                    | (2) | 495     | 17,974   | 3,158    | 14,862   | 1,117    | 1,843  |
| (A) Method 1       | (1) | 1,542   | 1,811    | 1,392    | 2,151    | 19,090   | 4,070  |
|                    | (2) | 1,203   | 18,656   | 3,989    | 13,913   | 20,605   | 10,578 |
| (B) Method 1       | (1) | 1,516   | 1,939    | 1,493    | 823      | 18,926   | 4,353  |
|                    | (2) | 1,183   | 19,975   | 4,278    | 5,323    | 20,429   | 11,268 |
| (A) Method 2       | (1) | 1,704   | 1,821    | 1,406    | 2,151    | 19,085   | 6,470  |
|                    | (2) | 1,330   | 18,760   | 4,030    | 13,914   | 20,600   | 16,816 |
| (B) Method 2       | (1) | 1,657   | 2,000    | 1,521    | 825      | 18,922   | 10,077 |
|                    | (2) | 1,293   | 120,599  | 4,359    | 5,344    | 20,424   | 26,189 |
| (A) Method 3       | (1) | 1,564   | 1,800    | 1,344    | 2,155    | 19,078   |        |
|                    | (2) | 1,221   | 18,542   | 3,853    | 13,942   | 20,593   |        |
| (B) Method 3       | (1) | 1,535   | 1,873    | 1,397    | 856      | 18,916   |        |
|                    | (2) | 1,198   | 19,292   | 4,005    | 5,536    | 20,417   |        |
| (A) Method 4       | (1) | 1,798   |          |          |          |          |        |
|                    | (2) | 1,403   |          |          |          |          |        |
| (B) Method 4       | (1) | 1,739   |          |          |          |          |        |
|                    | (2) | 1,357   |          |          |          |          |        |
| (A) Method 5       | (1) | 1,561   | 1,814    | 1,407    | 2,155    | 19,089   | 4,074  |
|                    | (2) | 1,218   | 18,681   | 4,033    | 13,944   | 20,604   | 10,588 |
| (B) Method 5       | (1) | 1,547   | 1,867    | 1,455    | 850      | 18,928   | 4,345  |
|                    | (2) | 1,207   | 19,226   | 4,169    | 5,498    | 20,430   | 11,292 |

TABLE 10 (Continued--Page Two)  
 Departmental Comparisons of Cost Per Student (1) and Cost Per Hour (2)  
 By Direct Costs (DC), or Direct Cost Minus Income (DCI).  
 Direct Costs were assigned by Method 1 to Method 5,  
 the assigned by Method A (Department Hours ÷ Total OUDS Curriculum Hours)  
 or Method B (Departmental FTE ÷ Total OUDS FTE)

|              |          |     | COLLEGE |       |        |       |        |        |
|--------------|----------|-----|---------|-------|--------|-------|--------|--------|
|              |          |     | 1       | 2     | 3      | 4     | 5      | 6      |
| ORTHODONTICS |          |     |         |       |        |       |        |        |
| (DC)         | (1)      |     | 742     | 765   | 837    | 1,757 | 820    | 751    |
|              | (2)      |     | 465     | 4,865 | 9,152  | 5,743 | 4,374  | 3,561  |
| (DCI)        | (1)      |     | 710     | 672   | 837    | 1,275 | 462    | 517    |
|              | (2)      |     | 445     | 1,272 | 9,152  | 4,166 | 2,465  | 2,450  |
| (A)          | Method 1 | (1) | 1,712   | 746   | 930    | 877   | 17,092 | 3,680  |
|              | Method 1 | (2) | 1,074   | 4,745 | 10,161 | 2,866 | 91,159 | 17,447 |
| (B)          | Method 1 | (1) | 1,592   | 757   | 997    | 2     | 17,771 | 3,771  |
|              | Method 1 | (2) | 999     | 4,875 | 10,899 | 7     | 94,779 | 17,877 |
| (A)          | Method 2 | (1) | 1,914   | 763   | 933    | 877   | 17,091 | 5,357  |
|              | Method 2 | (2) | 1,201   | 4,985 | 10,271 | 2,867 | 91,153 | 25,398 |
| (B)          | Method 2 | (1) | 1,696   | 778   | 1,010  | 4     | 17,768 | 6,904  |
|              | Method 2 | (2) | 1,064   | 4,682 | 11,043 | 12    | 94,763 | 32,728 |
| (A)          | Method 3 | (1) | 1,740   | 728   | 917    | 886   | 17,090 |        |
|              | Method 3 | (2) | 1,091   | 4,631 | 10,024 | 2,895 | 91,146 |        |
| (B)          | Method 3 | (1) | 1,606   | 735   | 953    | 30    | 17,764 |        |
|              | Method 3 | (2) | 1,008   | 4,671 | 10,413 | 98    | 94,743 |        |
| (A)          | Method 4 | (1) | 2,030   |       |        |       |        |        |
|              | Method 4 | (2) | 1,274   |       |        |       |        |        |
| (B)          | Method 4 | (1) | 1,756   |       |        |       |        |        |
|              | Method 4 | (2) | 1,102   |       |        |       |        |        |
| (A)          | Method 5 | (1) | 1,736   | 750   | 934    | 886   | 17,092 | 3,683  |
|              | Method 5 | (2) | 1,089   | 4,770 | 10,205 | 2,897 | 91,159 | 17,460 |
| (B)          | Method 5 | (1) | 1,668   | 775   | 965    | 26    | 17,761 | 3,776  |
|              | Method 5 | (2) | 1,047   | 4,799 | 10,558 | 86    | 94,726 | 17,901 |

TABLE 10 (Continued--Page Three)  
 Departmental Comparisons of Cost Per Student (1) and Cost Per Hour (2)  
 By Direct Costs (DC), or Direct Cost Minus Income (DCI).  
 Direct Costs were assigned by Method 1 to Method 5,  
 the assigned by Method A (Department Hours ÷ Total OUDS Curriculum Hours)  
 or Method B (Departmental FTE ÷ Total OUDS FTE)

|                     |              | COLLEGE |        |       |        |        |        |
|---------------------|--------------|---------|--------|-------|--------|--------|--------|
|                     |              | 1       | 2      | 3     | 4      | 5      | 6      |
| <b>PERIODONTICS</b> |              |         |        |       |        |        |        |
| (DC)                | (1)          | 1,129   | 2,389  | 1,113 | 2,129  | 1,436  | 986    |
|                     | (2)          | 648     | 13,825 | 4,433 | 11,064 | 1,621  | 2,336  |
| (DCI)               | (1)          | 1,034   | 1,450  | 1,113 | 1,998  | 1,180  | 829    |
|                     | (2)          | 593     | 8,391  | 4,433 | 10,385 | 1,332  | 1,966  |
| (A)                 | Method 1 (1) | 2,192   | 1,546  | 1,318 | 1,740  | 19,237 | 4,122  |
|                     | Method 1 (2) | 1,258   | 8,946  | 5,248 | 9,044  | 21,712 | 9,712  |
| (B)                 | Method 1 (1) | 2,147   | 1,683  | 1,425 | 445    | 19,666 | 4,216  |
|                     | Method 1 (2) | 1,232   | 9,741  | 5,677 | 2,313  | 22,195 | 9,994  |
| (A)                 | Method 2 (1) | 2,413   | 1,564  | 1,328 | 1,741  | 19,232 | 7,476  |
|                     | Method 2 (2) | 1,385   | 9,051  | 5,289 | 9,046  | 21,706 | 17,722 |
| (B)                 | Method 2 (1) | 2,331   | 1,756  | 1,450 | 447    | 19,660 | 9,075  |
|                     | Method 2 (2) | 1,338   | 10,158 | 5,777 | 2,323  | 22,189 | 21,511 |
| (A)                 | Method 3 (1) | 2,222   | 1,526  | 1,283 | 1,746  | 19,226 |        |
|                     | Method 3 (2) | 1,276   | 8,832  | 5,112 | 9,073  | 21,699 |        |
| (B)                 | Method 3 (1) | 2,172   | 1,604  | 1,340 | 478    | 19,652 |        |
|                     | Method 3 (2) | 1,427   | 9,284  | 5,337 | 2,487  | 22,180 |        |
| (A)                 | Method 4 (1) | 2,540   |        |       |        |        |        |
|                     | Method 4 (2) | 1,458   |        |       |        |        |        |
| (B)                 | Method 4 (1) | 2,437   |        |       |        |        |        |
|                     | Method 4 (2) | 1,399   |        |       |        |        |        |
| (A)                 | Method 5 (1) | 2,218   | 1,550  | 1,329 | 1,746  | 19,236 | 4,128  |
|                     | Method 5 (2) | 1,273   | 8,971  | 5,292 | 9,075  | 29,710 | 9,784  |
| (B)                 | Method 5 (1) | 2,193   | 1,607  | 1,379 | 473    | 19,659 | 4,224  |
|                     | Method 5 (2) | 1,259   | 9,299  | 5,494 | 2,457  | 22,187 | 10,012 |

TABLE 10 (Continued--Page Four)  
 Departmental Comparisons of Cost Per Student (1) and Cost Per Hour (2)  
 By Direct Costs (DC), or Direct Cost Minus Income (DCI).  
 Direct Costs were assigned by Method 1 to Method 5,  
 the assigned by Method A (Department Hours ÷ Total OUDS Curriculum Hours)  
 or Method B (Departmental FTE ÷ Total OUDS FTE)  
 COLLEGE

|                       |          |     | 1     | 2     | 3     | 4     | 5      | 6      |
|-----------------------|----------|-----|-------|-------|-------|-------|--------|--------|
| <b>ORAL DIAGNOSIS</b> |          |     |       |       |       |       |        |        |
| (DC)                  | (1)      |     | 1,114 | 2,193 | 305   | 2,889 | 1,129  | 962    |
|                       | (2)      |     | 574   | 9,571 | 956   | 1,662 | 1,264  | 132    |
| (DCI)                 | (1)      |     | 951   | 1,500 | 305   | 2,889 | 950    | 805    |
|                       | (2)      |     | 490   | 6,547 | 956   | 1,662 | 1,063  | 1,785  |
| (A)                   | Method 1 | (1) | 2,156 | 1,598 | 502   | 633   | 19,016 | 4,178  |
|                       | Method 1 | (2) | 1,110 | 6,976 | 1,572 | 364   | 21,285 | 9,261  |
| (B)                   | Method 1 | (1) | 2,049 | 1,727 | 469   | 512   | 18,915 | 4,254  |
|                       | Method 1 | (2) | 1,055 | 7,535 | 1,469 | 295   | 21,172 | 9,428  |
| (A)                   | Method 2 | (1) | 2,401 | 1,622 | 515   | 636   | 19,011 | 7,765  |
|                       | Method 2 | (2) | 1,237 | 7,080 | 1,612 | 366   | 21,280 | 17,211 |
| (B)                   | Method 2 | (1) | 2,208 | 1,801 | 477   | 515   | 18,910 | 9,048  |
|                       | Method 2 | (2) | 1,138 | 7,860 | 1,495 | 296   | 21,167 | 20,055 |
| (A)                   | Method 3 | (1) | 2,189 | 1,572 | 458   | 684   | 19,005 |        |
|                       | Method 3 | (2) | 1,128 | 6,862 | 1,435 | 393   | 21,273 |        |
| (B)                   | Method 3 | (1) | 2,071 | 1,645 | 441   | 565   | 18,904 |        |
|                       | Method 3 | (2) | 1,067 | 7,180 | 1,382 | 325   | 21,160 |        |
| (A)                   | Method 4 | (1) | 2,543 |       |       |       |        |        |
|                       | Method 4 | (2) | 1,310 |       |       |       |        |        |
| (B)                   | Method 4 | (1) | 2,301 |       |       |       |        |        |
|                       | Method 4 | (2) | 1,185 |       |       |       |        |        |
| (A)                   | Method 5 | (1) | 2,185 | 1,604 | 516   | 687   | 19,015 | 4,184  |
|                       | Method 5 | (2) | 1,125 | 7,001 | 1,616 | 395   | 21,284 | 9,274  |
| (B)                   | Method 5 | (1) | 2,125 | 1,657 | 500   | 568   | 18,915 | 4,261  |
|                       | Method 5 | (2) | 1,094 | 7,232 | 1,567 | 327   | 21,172 | 9,445  |

TABLE 10 (Continued--Page Five)  
 Departmental Comparisons of Cost Per Student (1) and Cost Per Hour (2)  
 By Direct Costs (DC), or Direct Cost Minus Income (DCI).  
 Direct Costs were assigned by Method 1 to Method 5,  
 the assigned by Method A (Department Hours ÷ Total OUDS Curriculum Hours)  
 or Method B (Departmental FTE ÷ Total OUDS FTE)  
 COLLEGE

|                 |              | 1     | 2     | 3     | 4      | 5       | 6      |
|-----------------|--------------|-------|-------|-------|--------|---------|--------|
| DENT SERV ADMIN |              |       |       |       |        |         |        |
| (DC)            | (1)          | 1,202 | 996   | 1,258 | 2,308  | 549     | 704    |
|                 | (2)          | 1,386 | 3,564 | 1,375 | 5,996  | 5,336   | 2,631  |
| (DCI)           | (1)          | 1,202 | 223   | 1,258 | 2,308  | 593     | 685    |
|                 | (2)          | 1,386 | 3,300 | 1,375 | 5,996  | 5,761   | 2,562  |
| (A)             | Method 1 (1) | 1,650 | 1,010 | 1,845 | 1,796  | 15,863  | 3,913  |
|                 | Method 1 (2) | 1,902 | 3,611 | 2,017 | 4,667  | 154,100 | 14,624 |
| (B)             | Method 1 (1) | 1,741 | 1,025 | 1,931 | 1,041  | 16,220  | 4,028  |
|                 | Method 1 (2) | 2,008 | 3,665 | 2,110 | 2,706  | 157,563 | 15,052 |
| (A)             | Method 2 (1) | 1,759 | 1,039 | 1,882 | 1,797  | 15,863  | 6,041  |
|                 | Method 2 (2) | 2,029 | 3,715 | 2,057 | 4,668  | 154,095 | 22,575 |
| (B)             | Method 2 (1) | 1,925 | 1,060 | 1,980 | 1,037  | 16,218  | 7,991  |
|                 | Method 2 (2) | 2,220 | 3,791 | 2,164 | 2,696  | 157,548 | 29,865 |
| (A)             | Method 3 (1) | 1,665 | 978   | 1,720 | 1,807  | 15,862  |        |
|                 | Method 3 (2) | 1,919 | 3,496 | 1,880 | 4,696  | 154,088 |        |
| (B)             | Method 3 (1) | 1,766 | 986   | 1,765 | 969    | 16,216  |        |
|                 | Method 3 (2) | 2,037 | 3,527 | 1,930 | 2,519  | 157,528 |        |
| (A)             | Method 4 (1) | 1,823 |       |       |        |         |        |
|                 | Method 4 (2) | 2,102 |       |       |        |         |        |
| (B)             | Method 4 (1) | 2,031 |       |       |        |         |        |
|                 | Method 4 (2) | 2,343 |       |       |        |         |        |
| (A)             | Method 5 (1) | 1,663 | 1,017 | 1,885 | 1,808  | 15,863  | 3,917  |
|                 | Method 5 (2) | 1,917 | 3,635 | 2,060 | 4,697  | 154,099 | 14,637 |
| (B)             | Method 5 (1) | 1,714 | 1,023 | 1,925 | - 982  | 16,215  | 4,034  |
|                 | Method 5 (2) | 1,977 | 3,658 | 2,105 | -2,551 | 157,513 | 15,076 |

TABLE 10 (Continued--Page Six)  
 Departmental Comparisons of Cost Per Student (1) and Cost Per Hour (2)  
 By Direct Costs (DC), or Direct Cost Minus Income (DCI).  
 Direct Costs were assigned by Method 1 to Method 5,  
 the assigned by Method A (Department Hours ÷ Total OUDS Curriculum Hours)  
 or Method B (Departmental FTE ÷ Total OUDS FTE)  
 COLLEGE

|              |          |     | 1     | 2     | 3     | 4     | 5      | 6      |
|--------------|----------|-----|-------|-------|-------|-------|--------|--------|
| ORAL SURGERY |          |     |       |       |       |       |        |        |
| (DC)         | (1)      |     | 516   | 2,164 | 1,041 | 2,435 | 1,252  | 1,192  |
|              | (2)      |     | 635   | 7,634 | 2,984 | 6,953 | 3,275  | 2,964  |
| (DCI)        | (1)      |     | 398   | 1,966 | 1,041 | 2,395 | 931    | 1,026  |
|              | (2)      |     | 490   | 6,934 | 2,984 | 6,839 | 2,434  | 2,551  |
| (A)          | Method 1 | (1) | 807   | 2,055 | 1,262 | 1,956 | 17,953 | 4,384  |
|              | Method 1 | (2) | 994   | 7,249 | 3,615 | 5,587 | 46,955 | 10,896 |
| (B)          | Method 1 | (1) | 775   | 2,137 | 1,352 | 1,023 | 19,228 | 4,607  |
|              | Method 1 | (2) | 954   | 7,537 | 3,874 | 2,921 | 50,290 | 11,450 |
| (A)          | Method 2 | (1) | 910   | 2,285 | 1,276 | 1,960 | 17,951 | 7,583  |
|              | Method 2 | (2) | 1,120 | 7,354 | 3,656 | 5,598 | 46,950 | 18,847 |
| (B)          | Method 2 | (1) | 852   | 2,198 | 1,378 | 1,034 | 19,223 | 11,384 |
|              | Method 2 | (2) | 1,048 | 7,755 | 3,950 | 2,954 | 50,275 | 28,293 |
| (A)          | Method 3 | (1) | 821   | 2,023 | 1,214 | 1,962 | 17,949 |        |
|              | Method 3 | (2) | 1,011 | 7,135 | 3,479 | 5,602 | 46,943 |        |
| (B)          | Method 3 | (1) | 785   | 2,069 | 1,261 | 1,039 | 19,215 |        |
|              | Method 3 | (2) | 967   | 7,299 | 3,615 | 2,966 | 50,255 |        |
| (A)          | Method 4 | (1) | 970   |       |       |       |        |        |
|              | Method 4 | (2) | 1,193 |       |       |       |        |        |
| (B)          | Method 4 | (1) | 896   |       |       |       |        |        |
|              | Method 4 | (2) | 1,103 |       |       |       |        |        |
| (A)          | Method 5 | (1) | 819   | 2,062 | 1,277 | 1,968 | 17,953 | 4,389  |
|              | Method 5 | (2) | 1,009 | 7,274 | 3,659 | 5,620 | 46,954 | 10,909 |
| (B)          | Method 5 | (1) | 801   | 2,096 | 1,319 | 999   | 19,210 | 4,618  |
|              | Method 5 | (2) | 986   | 7,393 | 3,781 | 2,853 | 50,241 | 11,478 |

TABLE 10 (Continued--Page Seven  
 Departmental Comparisons of Cost Per Student (1) and Cost Per Hour (2)  
 By Direct Costs (DC), or Direct Cost Minus Income (DCI).  
 Direct Costs were assigned by Method 1 to Method 5,  
 the assigned by Method A (Department Hours ÷ Total OUDS Curriculum Hours)  
 or Method B (Departmental FTE ÷ Total OUDS FTE)

|                                 |     | COLLEGE |       |       |       |        |        |
|---------------------------------|-----|---------|-------|-------|-------|--------|--------|
|                                 |     | 1       | 2     | 3     | 4     | 5      | 6      |
| <b>REMOVABLE PROSTHODONTICS</b> |     |         |       |       |       |        |        |
| (DC)                            | (1) | 1,393   | 2,026 | 1,415 | 2,521 | 1,491  | 1,382  |
|                                 | (2) | 811     | 3,610 | 1,449 | 3,699 | 707    | 1,138  |
| (DCI)                           | (1) | 1,063   | 2,026 | 1,415 | 2,320 | 965    | 1,011  |
|                                 | (2) | 618     | 3,610 | 1,449 | 3,404 | 457    | 832    |
| (A) Method 1                    | (1) | 2,206   | 2,238 | 2,335 | 1,479 | 21,561 | 5,155  |
|                                 | (2) | 1,284   | 3,989 | 2,391 | 2,170 | 10,217 | 4,243  |
| (B) Method 1                    | (1) | 2,172   | 2,268 | 2,269 | 640   | 19,683 | 4,872  |
|                                 | (2) | 1,264   | 4,042 | 2,324 | 940   | 9,327  | 4,010  |
| (A) Method 2                    | (1) | 2,424   | 2,297 | 2,375 | 1,480 | 21,550 | 14,813 |
|                                 | (2) | 1,410   | 4,093 | 2,432 | 2,172 | 10,212 | 12,194 |
| (B) Method 2                    | (1) | 2,362   | 2,339 | 2,300 | 649   | 19,677 | 9,986  |
|                                 | (2) | 1,374   | 4,168 | 2,355 | 943   | 9,324  | 8,220  |
| (A) Method 3                    | (1) | 2,236   | 2,174 | 2,202 | 1,498 | 21,535 |        |
|                                 | (2) | 1,301   | 3,875 | 2,255 | 2,199 | 10,205 |        |
| (B) Method 3                    | (1) | 2,198   | 2,191 | 2,168 | 678   | 19,669 |        |
|                                 | (2) | 1,279   | 3,905 | 2,220 | 995   | 9,320  |        |
| (A) Method 4                    | (1) | 2,549   |       |       |       |        |        |
|                                 | (2) | 1,483   |       |       |       |        |        |
| (B) Method 4                    | (1) | 2,472   |       |       |       |        |        |
|                                 | (2) | 1,438   |       |       |       |        |        |
| (A) Method 5                    | (1) | 2,432   | 2,252 | 2,378 | 1,500 | 21,558 | 5,171  |
|                                 | (2) | 1,298   | 4,014 | 2,435 | 2,201 | 10,216 | 4,256  |
| (B) Method 5                    | (1) | 2,212   | 2,265 | 2,347 | 675   | 19,706 | 4,880  |
|                                 | (2) | 1,287   | 4,036 | 2,403 | 991   | 9,338  | 4,017  |

TABLE 10 (Continued--Page Eight)  
 Departmental Comparisons of Cost Per Student (1) and Cost Per Hour (2)  
 By Direct Costs (DC), or Direct Cost Minus Income (DCI).  
 Direct Costs were assigned by Method 1 to Method 5,  
 the assigned by Method A (Department Hours ÷ Total OUDS Curriculum Hours)  
 or Method B (Departmental FTE ÷ Total OUDS FTE)

|                    |              | COLLEGE |       |       |       |        |        |
|--------------------|--------------|---------|-------|-------|-------|--------|--------|
|                    |              | 1       | 2     | 3     | 4     | 5      | 6      |
| <b>ENDODONTICS</b> |              |         |       |       |       |        |        |
| (DC)               | (1)          | 502     | 1,039 | 780   | 1,381 | 880    | 767    |
|                    | (2)          | 798     | 5,814 | 1,674 | 4,920 | 1,909  | 2,110  |
| (DCI)              | (1)          | 344     | 967   | 780   | 1,311 | 800    | 679    |
|                    | (2)          | 547     | 5,410 | 1,674 | 4,669 | 1,909  | 1,868  |
| (A)                | Method 1 (1) | 833     | 1,048 | 1,159 | 962   | 17,862 | 4,029  |
|                    | Method 1 (2) | 1,324   | 5,867 | 2,487 | 3,426 | 42,619 | 11,091 |
| (B)                | Method 1 (1) | 822     | 1,070 | 1,320 | 110   | 18,242 | 4,124  |
|                    | Method 1 (2) | 1,306   | 5,987 | 2,833 | 391   | 43,525 | 11,352 |
| (A)                | Method 2 (1) | 913     | 1,067 | 1,178 | 962   | 17,860 | 6,917  |
|                    | Method 2 (2) | 1,451   | 5,971 | 2,528 | 3,427 | 42,613 | 19,041 |
| (B)                | Method 2 (1) | 892     | 1,097 | 1,362 | 111   | 18,239 | 8,535  |
|                    | Method 2 (2) | 1,419   | 6,139 | 2,922 | 396   | 43,517 | 23,495 |
| (A)                | Method 3 (1) | 844     | 1,028 | 1,096 | 970   | 17,857 |        |
|                    | Method 3 (2) | 1,342   | 5,753 | 2,351 | 3,455 | 42,606 |        |
| (B)                | Method 3 (1) | 831     | 1,040 | 1,180 | 136   | 18,234 |        |
|                    | Method 3 (2) | 1,322   | 5,821 | 2,533 | 485   | 43,506 |        |
| (A)                | Method 4 (1) | 959     |       |       |       |        |        |
|                    | Method 4 (2) | 1,524   |       |       |       |        |        |
| (B)                | Method 4 (1) | 933     |       |       |       |        |        |
|                    | Method 4 (2) | 1,483   |       |       |       |        |        |
| (A)                | Method 5 (1) | 842     | 1,053 | 1,179 | 970   | 17,862 | 4,034  |
|                    | Method 5 (2) | 1,339   | 5,892 | 2,531 | 3,457 | 42,617 | 11,104 |
| (B)                | Method 5 (1) | 836     | 1,061 | 1,255 | 133   | 18,236 | 4,131  |
|                    | Method 5 (2) | 1,329   | 5,942 | 2,694 | 472   | 43,511 | 11,372 |



TABLE 10 (Continued--Page Nine)

Departmental Comparisons of Cost Per Student (1) and Cost Per Hour (2)  
 By Direct Costs (DC), or Direct Cost Minus Income (DCI).  
 Direct Costs were assigned by Method 1 to Method 5,  
 the assigned by Method A (Department Hours ÷ Total OUDS Curriculum Hours)  
 or Method B (Departmental FTE ÷ Total OUDS FTE)

|                |          |            | COLLEGE |        |        |         |         |   |
|----------------|----------|------------|---------|--------|--------|---------|---------|---|
|                |          |            | 1       | 2      | 3      | 4       | 5       | 6 |
| DENTAL HYGIENE |          |            |         |        |        |         |         |   |
| (DC)           | (1)      | 4,254      | 950     | 567    | 788    | 835     | 750     |   |
|                | (2)      | 114        | 562     | 168    | 139    |         | 189     |   |
| (DCI)          | (1)      | 4,065      | 1,901   | 3,553  | 3,916  | 5,279   | 5,695   |   |
|                | (2)      | 108        | 120     | 168    | 133    |         | 176     |   |
| (A)            | Method 1 | (1) 22,042 | 5,452   | 19,548 | 29,495 | 108,182 | 65,141  |   |
|                | Method 1 | (2) 859    | 345     | 927    | 1,000  |         | 2,019   |   |
| (B)            | Method 1 | (1) 16,524 | 2,410   | 15,447 | 2,005  | 112,891 | 46,271  |   |
|                | Method 1 | (2) 644    | 152     | 732    | 68     |         | 1,434   |   |
| (A)            | Method 2 | (1) 25,289 | 7,104   | 20,398 | 29,449 | 108,182 | 321,695 |   |
|                | Method 2 | (2) 986    | 449     | 967    | 998    |         | 9,969   |   |
| (B)            | Method 2 | (1) 17,385 | 2,978   | 15,777 | 2,012  | 112,878 | 104,461 |   |
|                | Method 2 | (2) 678    | 188     | 748    | 68     |         | 3,237   |   |
| (A)            | Method 3 | (1) 22,484 | 3,646   | 16,672 | 28,635 | 108,182 |         |   |
|                | Method 3 | (2) 876    | 230     | 790    | 970    |         |         |   |
| (B)            | Method 3 | (1) 16,641 | 1,790   | 14,330 | 2,138  | 112,862 |         |   |
|                | Method 3 | (2) 649    | 113     | 679    | 72     |         |         |   |
| (A)            | Method 4 | (1) 27,167 |         |        |        |         |         |   |
|                | Method 4 | (2) 1,059  |         |        |        |         |         |   |
| (B)            | Method 4 | (1) 17,883 |         |        |        |         |         |   |
|                | Method 4 | (2) 697    |         |        |        |         |         |   |
| (A)            | Method 5 | (1) 20,519 | 2,487   | 17,498 | 28,710 | 108,181 | 63,946  |   |
|                | Method 5 | (2) 800    | 157     | 830    | 973    |         | 1,982   |   |
| (B)            | Method 5 | (1) 16,801 | 2,190   | 15,776 | 2,222  | 112,791 | 46,000  |   |
|                | Method 5 | (2) 655    | 138     | 748    | 75     |         | 1,425   |   |

Pedodontics of \$15,725, which is excessive. Yet, the cost per student is comparable to the other five colleges.

Observations from Table 10 are as follows:

- Assessment of college indirect costs and assignment of college indirect income can influence the final cost.
- Clinical departments, when assigned respective clinic incomes, have lower costs than nonclinical departments, i.e.: Departments of Pedodontics compared to Departments of Dental Service Administration.
- Assessment of indirect costs and assignment of indirect income by Method A yields higher costs than Method B.
- Because of curricula reporting methods, Colleges 2 and 4 have exaggerated cost per hours. This is due to the philosophy of "block" clinic assignments where departmental clinic hours are difficult, if not impossible, to determine.
- The Departments of Dental Hygiene have a similar high cost per student because of a high faculty:low student ratio. Yet, because of the number of hours taught by these departments, the cost per hour is comparable to other departments within the colleges of dentistry.

## Chapter V

### Discussion

"Costs are opinions, prices are facts"<sup>1</sup>

"Under most circumstances, policy information requires reasonable accuracy rather than absolute precision, since to make effective decisions, administrators must avoid bogging down in a search for artificial precision".<sup>2</sup>

Current reductions in appropriations to higher education, not restricted to the State of Oklahoma, have placed severe financial restraints on undergraduate dental education, resulting in the closure of some colleges of dentistry. It is imperative for each dental institution to have a rational estimate of costs to assist in the decision support system to reallocate these reduced monies. Accompanying these financial restrictions in dental education is the reduction in the number of qualified applicants. Additional external interest by the private practice sector of the dental society has influenced the reduction of class size.

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<sup>1</sup>George Weathersby quoted in Bernard S. Shehan and Warren W. Gulko, "The Fundamental Cost Model" New Directions Institutional Res Spring 1976, p. 56.

<sup>2</sup>Ibid, p. 72.

The objective of this study was to create a reliable, optimum, but pragmatic model of cost analysis in undergraduate dental education. By defining the various cost factors, the model could be used to determine comparative costs per student and costs per hour, both for the institution and for individual departments. A second objective was to apply the cost analysis model to several other colleges of dentistry to evaluate the validity of the cost variables between institutions. To date, despite the published need for cost analysis in dental education, a current method does not exist.

This cost analysis model would be of assistance in redirecting budget resources. The Oklahoma Regents for Higher Education uses a formula, programatic budget approach. The formula, applied to O.U.D.S., is based on faculty and staff FTE, average salaries, and percentages for fringe benefits--operating expenses.<sup>1</sup> While no actual data are available on credited income "an estimate is made to the amount of income--and is subtracted from the institutional budget requirement."<sup>2</sup> For example, if the class size were reduced by twenty students (approximately 25 percent), this would not only influence the budget formula, but reduce the estimated income assigned to the budget for

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<sup>1</sup>Oklahoma State System of Higher Education. 1984-85 Operating Budget Needs, p. 14.

<sup>2</sup>Ibid, p. 15.

O.U.D.S. To make logical budget adjustments, a cost analysis model would be of administrative assistance to accommodate the reduced budget-income deficit.

In an attempt to clarify questions about the budget determination method used by the Oklahoma Regents for Higher Education, three different assumptions were compared.<sup>1</sup> 1) Direct costs only were used, assuming that income in the general fund was estimated and subtracted from the formula determined budget; 2) direct cost minus income assumed that income was not identifiable and should be subtracted from the budget; and 3) direct cost plus income (which was identifiable) and the total costs were reflected as a total of the O.U.D.S. budget plus income. The resultant cost per student or hour illustrates this difference depending on the interpretation of the State of Oklahoma and O.U.D.S. budget data sources.<sup>2</sup>

As previously reported, the cost per student and cost per hour increases by 16 to 33 percent when the three methods are compared. The corrected A.A.D.S. study of 1966 is somewhat comparable to the direct cost minus income equation in this study.<sup>3</sup> That study incorporated indirect costs, but failed to outline the mechanism used. (The

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<sup>1</sup>See Table 3A p. 57 above.

<sup>2</sup>See Figure 2 p. 59 above.

<sup>3</sup>Norwood, Cost Study in Dental Education, p. 20.

I.O.M. report is not comparable because of methodology used in the cost determination.)<sup>1</sup>

The most recent financial report of the American Dental Association outlines mean costs for student by source of funding--private versus public or research versus nonresearch.<sup>2</sup> Cost per student was computed by dividing each institution's total expenditures by the number of undergraduate dental students equivalent. Two categories are described, resultant cost per student, with or without inclusion of sponsored research. The mean cost per student, including sponsored research, was \$30,342 ranging from \$14,208 to \$65,092. Excluding the research costs reduced the mean to \$28,065, with a range of \$14,078 to \$54,919. The mean cost per student for O.U.D.S. in this report, was approximately \$15,000 between the direct cost and the direct cost minus income methods.<sup>3</sup>

The philosophy of the A.D.A. financial reports excludes indirect costs. Previous studies, such as the A.A.D.S. study in 1966 and the I.O.M. study in 1974, either reported indirect costs but failed to state the method used or failed to include them. This study demonstrated that

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<sup>1</sup>See p. 39 above.

<sup>2</sup>American Dental Association, Analysis of Dental School Finances FYE, June 1984 (Chicago, American Dental Association, 1985, p. 4.  
or failed to include them. This study demonstrated that

<sup>3</sup>Because of the confidentiality of this report, exact data are not available for publication.

indirect costs do significantly contribute to a more sophisticated cost per student and cost per hour measurement. Indirect costs can be justified as those services provided necessary for function of the College of Dentistry. Because faculty, students, and staff are provided these services through the HSC library and computer centers in the HSC budget, it is equitable to allocate these costs proportionately to the College of Dentistry. Previously reported methods were used to assign these costs.<sup>1</sup> These indirect costs do contribute to the final cost values.<sup>2</sup> However, this may be misleading since these methods used were related to HSC faculty FTE, and student FTE comparisons with O.U.D.S. faculty and student FTE. Since the Board of Regents of Higher Education for the State of Oklahoma utilizes a formula dependent on student and faculty FTE, this relationship becomes obvious. Yet this is a logical means of assessment of these costs. The HSC administration provides the College of Dentistry with personnel and academic management services, assisting in mission accomplishment. Again, it is logical to assign some of these indirect costs to the recipient of the service, i.e., the College of Dentistry.

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<sup>1</sup>See p. 50 above.

<sup>2</sup>See p. 154 above.

Maintenance costs were prorated on the basis of the percentage of net square footage in the College of Dentistry compared to the HSC campus. A means to determine this indirect cost should be included because of the high utility usage in colleges of dentistry. With the equipment used in laboratories and large clinics, high velocity vacuum systems, water usage and temperature control of those large clinical areas, maintenance should be an identifiable indirect cost item. In two of the five responding colleges of dentistry this was not possible because of lack of needed information.

Building depreciation and equipment replacement, especially in colleges of dentistry, should be included in any long range cost analysis and reported annually as a cost item. As mentioned previously, several authors have advocated planning such depreciation expenses, both for buildings and laboratory equipment.<sup>1</sup> In colleges of dentistry, this becomes more apparent because of its technical training methods and current scientific advances indicating the need to improve facilities and install new equipment.

The means to assign the costs from the extensive laboratory and clinical facilities was to use the ratio of

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<sup>1</sup>See page 25 above.



departmental laboratory and clinical hours:total curriculum laboratory and clinical hours. Thus, clinic support supply costs and equipment replacement costs were assigned. By utilizing departmental square footage, the indirect maintenance costs from the H.S.C. budget can be reassigned to each department. For comparative reasons, the cost per square foot per department was done.

With the departmental mission to train the undergraduate student to practice dentistry, as part of the overall mission of the college, it is equitable to assign, as a credit, income generated by the institution. This was done using the ratio of departmental hours:total curriculum hours as suggested by Larimore.<sup>1</sup> A similar method is to distribute costs and income by the ratio of departmental FTE:O.U.D.S. FTE. This method produced lower costs, though not significantly, than the departmental hours:total curriculum hours method. It would seem that the two methods should be comparable since a department with a larger percentage of the curriculum would have a comparable FTE when cost per student and cost per hour, on the departmental level, are compared, indirect cost assessments and income assignments do influence the cost. These are related to the budget formula of the Oklahoma Board of Regents of Higher Education which uses faculty and student FTE. However, the

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<sup>1</sup>Larimore, "Break Even Analysis for Higher Education," p. 276.

previous A.A.D.S. study of 1966 and the annual A.D.A. financial survey cannot be criticized for their lack of indirect cost usage. The limited experience in this study confirms the problems in establishing interinstitutional cost analysis studies. These are:

1. Colleges of dentistry, though comparable in output, are not comparable in the internal process of curriculum design and cost center identification.
2. Lack of agreement on methods of accounting and budget terms.
3. Lack of communication and independence of thought. The letter of inquiry requested National Board Scores, but three of the five colleges failed to return the requested data.
4. Clarification of the method used to determine the overall budget of the institution. Is income considered as part of the budget, subtracting this from the gross budget cost? Or is this done formula basis disregarding income?

This study included two cost output factors, both cost per student and cost per hour. Both methods were reported in the literature with professional schools using the cost per student and the traditional academic programs using cost per hour or unit cost. A cost per hour comparison is of use in colleges of dentistry in the non-clinical departments and Departments of Dental Hygiene.

Because of the curricula structure in colleges of dentistry, all departments have contact with the complete undergraduate population, the cost per student would reflect this uniformity. However, a non-clinical department may have a greater or lesser curriculum hour content which would be reflected in the cost per hour. Costs per hour might be an improved means to evaluate departments of basic science, dental hygiene, and non-clinical departments, eliminating cost per student on a comparative criteria.

Departments of Dental Hygiene have a high faculty:student ratio, but a large number of student contact hours. Non-clinical departments, lacking clinical income, might have a disproportionate cost per student. However, the non-clinical department with a large academic program would compare favorably on a cost per hour basis.

Both the O.U.D.S. data base and cost data from other institutions requested information from the Departments of Basic Sciences. In colleges of dentistry, Basic Science represents a difficult cost analysis problem because 1) the department may or may not be located physically or budgetarily within the colleges of dentistry or 2) the basic science courses may be taught on a contract basis within the Health Science Center. The costs allocated to the departments of basic sciences, might not reflect a full time FTE commitment, a percentage FTE only or only an agreement to assume responsibility for specific course content.

The use of National Board Scores as an output measure of quality, while an idea with merit, is not predictive. The evaluation of the cost data would suggest that a department with high cost doesn't necessarily produce National Board Scores in the higher quintiles. Despite this lack of significance, a department with historical high costs, either per student or hour, but mediocre National Board results might be reviewed for a plan to reverse this trend.

Initially, this study was conceptualized as a descriptive, qualitative study of a cost analysis model to be used in undergraduate dental education. Yet, an attempt was made to quantify the cost data used in the longitudinal data base. This was done to identify reliable input cost variables. If an administrator or budget officer needed to make a decision using costs per student or hour, those significant or reliable costs would be known improving confidence in the decision process. Regression methods with the maximum  $R^2$  improvement technique was the means used in this part of the study.

The use of the regression methods in this study did not produce results which were of statistical reliability. Several authors have discussed the problems, defects and flaws which are related to the use of regressions analysis

and these are applicable to problems encountered in this study.<sup>1</sup> These are:

1. The need to examine all possible computations which creates an enormous computer calculation;
2. The failure to examine past data or experiences;
3. Often the major computations, irrespective of the definitions of the dependent and independent variables, produces co-efficients which are meaningless, outlandish or non-reproducible, which is the major flaw of the regression analysis in this study. This study produced results with obtuse, negative values which could not be rationalized; and
4. Many investigators have difficulty comprehending the use of complex regression analysis. "The ultimate outcome is that people who know what the results mean cannot articulate them, whereas the people who might articulate the meaning do not know what it is."<sup>2</sup>

Despite the warnings of misuse or abuse of costs per student or hour (unit cost), those responsible for financial decisions must have a logical mechanism. Such a cost data base, once established in a college of dentistry, could be used to eliminate the yearly hysteria accompanying the

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<sup>1</sup>Morgan, J.N. and Sonquist, J.A., "Problems in the Analysis of Survey Data and a Proposal," quoted in Alvan R. Feinstein. Clinical Biostatistics. (St. Louis, Mosby, 1977) p. 392.

<sup>2</sup>Ibid, p. 393.

budget process. Use of such historical data could be used as a forecasting tool to plan the long range mission of the institution. In this computer era, computer assistance could minimize the time to do a cost analysis process while maximizing the use of scarce resources. Wallhaus, describing the need for "allocative efficiency" and improved productivity, encouraged higher education to develop means to determine the most favorable mix of inputs e.g. resources, with more favorable outputs for higher education.<sup>1</sup> A model of cost analysis in dental undergraduate education would assist in "preference efficiency." Or to answer Wallhaus' question: Was the money spent wisely?<sup>2</sup>

The following are conclusions from this cost study model of undergraduate dental education.

1. There is a relationship between indirect and direct costs in the final cost per student and cost per hour. Assignment of indirect income is an integral part of the cost analysis method.
2. A useable model can be developed within an institution-wide longitudinal yearly costs per student on an institution-wide basis and interdepartmentally. Reliable factors can be

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<sup>1</sup>Wallhaus, "The Many Dimensions of Productivity," p. 3.

<sup>2</sup>Ibid, p. 4.

determined which assist in the validity of final outcomes.

3. A cost analysis model developed within a college of dentistry may have limited application to other colleges of dentistry. This is due to variances in description costs, budget and accounting methods. Departmental comparisons between institutions are limited because of different departmental curricular structures.
4. Within a college of dentistry, the use of National Board Examinations is not an accurate predictor of efficient or effective use of budget resources.

Future investigations might focus on the following topics:

- What is the professional management background of those involved in the cost decision process in dental education?
- What cost centers can be identified which are applicable to several colleges of dentistry?
- Once a cost model is developed as part of the decision support system, what factors influence its use (or lack of use)?
- Why the limited use of cost analysis methods in undergraduate dental education?
- How does the political climate and the suboptimization process influence the decision

support system involving cost analysis, especially on the departmental level?



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APPENDIX A



A description of the variables included in the cost analysis.

**COST ANALYSIS** - A means of reporting those costs that can be assigned to an educational unit (college or department).

**DIRECT COSTS** - Specific costs identified with an educational objective.

**INDIRECT COSTS** - Costs which are used to support the educational unit.

**A. Budget**

**FISCAL YEAR** - The year of the budgetary data.

**COLLEGE** - The college of dentistry providing budget data.

**HEALTH SCIENCE CENTER BUDGET** - Refers to the complete budget of the campus unit.

**HEALTH SCIENCE CENTER MAINTENANCE BUDGET** - The budget for heating, cleaning, grounds, etc.

**HEALTH SCIENCE CENTER ADMINISTRATION BUDGET** - Money appropriated for the Provost/Chancellor.

**LIBRARY BUDGET** - Appropriations for the library and its operation.

**COMPUTER BUDGET** - Money allocated for campus-wide or institutional computer use and supplies.

**DENTAL - TOTAL BUDGET** - Complete budget for the college of dentistry.

DENTAL - SALARIES - That part of the budget allocated for salaries of faculty/staff including fringe benefits.

DENTAL - ADMINISTRATION - Costs for student, faculty, educational, and administration support of the institution. Includes square footage used in dental administration.

DENTAL - CLINIC COSTS - Costs of supplies, salaries to manage the dental preclinic and clinic programs.

DENTAL - NET SQUARE FOOTAGE - Square footage of the college of dentistry.

DEPRECIATION - Using the initial cost of the building and thirty-five years straight line depreciation to determine replacement of building.

EQUIPMENT REPLACEMENT - Using the initial estimated cost of the equipment and fifteen year straight line depreciation.

B. Income

CLINIC INCOME - Money generated from patient care.

CAPITATION - Federal support for dental health programs.

STUDENT STORE - Income generated from student store or support laboratories.

GRANT INCOME - Federal, state, or foundation money used to support undergraduate dental education.

DENTAL STUDENT-DENTAL HYGIENE STUDENT TUITION - Income generated from tuition and fees.

DENTAL STUDENT-DENTAL HYGIENE STUDENT INSTRUMENT FEES -  
Purchase and rental fee income from student instruments.

APPLICATION FEES - Income from application of dental  
and dental hygiene students to the dental program.

C. Curriculum

TOTAL CURRICULUM CLOCK HOURS - Number of hours in  
dental educational program.

TOTAL DIDACTIC CLOCK HOURS - Number of lecture hours in  
the dental program.

TOTAL CLINIC CLOCK HOURS - Number of hours allocated  
for clinical patient care in the dental curriculum.

TOTAL LABORATORY CLOCK HOURS - Preclinical and  
laboratory hours in the curriculum.

NATIONAL BOARD SCORES - The quintile ranking for each  
year by department.

D. Faculty/Students

TOTAL NUMBER OF STUDENTS - The number of students  
enrolled on the Health Science Center campus.

NUMBER OF DENTAL STUDENTS - Number of undergraduate  
dental students in the program for the fiscal year.

NUMBER OF DENTAL HYGIENE STUDENTS - Number of dental  
hygiene students for the fiscal year.

TOTAL NUMBER OF FACULTY - The number of full-time  
faculty equivalence (FTE/on the Health Science Center  
Campus).

FACULTY - F.T.E. - Faculty employed on a full-time basis, College of Dentistry.

FACULTY - P.T.E. - Faculty employed less than 1.0 F.T.E., College of Dentistry.

E. Department

DEPARTMENT - The department unit within the College of Dentistry.

DEPARTMENT FACULTY SALARIES - Salaries for all full-time and part-time faculty.

DEPARTMENT SUPPORT SALARIES - Staff and research salaries.

DEPARTMENT SQUARE FOOTAGE - Includes clinic, laboratory, and office space assigned to the department; plus square footage for educational and administration support use.

DEPARTMENTAL TOTAL CURRICULUM HOURS - The number of total hours of departmental obligation.

DEPARTMENT CLINIC HOURS - Hours assigned for departmental care of patients.

DEPARTMENT LABORATORY HOURS - Preclinical or laboratory hours for each department.

DEPARTMENT LECTURE HOURS - Hours devoted to didactic programs.

DEPARTMENT CLINIC COSTS - Supplies and salaries needed to manage the departmental clinic.

DEPARTMENT CLINIC INCOME - Income derived from undergraduate departmental student:patient care.

INCOME OTHER SOURCES - Income from grants, subsidies, etc.

FULL-TIME FACULTY - F.T.E. - Faculty in the Department, employed on a full-time basis.

PART-TIME FACULTY - P.T.E. - Faculty in the Department, employed on a part-time basis.

## Colleges Surveyed

1. COLORADO (public funds)  
University of Colorado School of Dentistry  
4200 E. Ninth Avenue Box C-284  
Denver, Colorado 80262  
Dean: Lawrence H. Meskin, D.D.S.
2. NEBRASKA (private funds)  
Boyne School of Dental Science  
Creighton University  
2500 California Street  
Omaha, Nebraska 68178  
Robert V. Vining, D.D.S.
2. NORTH CAROLINA (public funds)  
School of Dentistry  
University of North Carolina at Chapel Hill  
104 Brauer Hall 211H  
Chapel Hill, North Carolina 27514  
Associate Dean: J. Bernard Machen, D.D.S.
4. OKLAHOMA (private funds)  
Michael Cardone, Sr., School of Dentistry  
Oral Roberts University  
7777 S. Lewis Avenue  
Tulsa, Oklahoma 74171  
Dean: Robert G. Hansen, D.D.S.
5. OREGON (public funds)  
School of Dentistry, Oregon Health Sciences University  
611 S.W. Campus Drive  
Portland, Oregon 97201  
Dean: Henry Van Hassell, D.D.S.
6. TEXAS  
Baylor College of Dentistry (private funds)  
3302 Gaston Avenue  
Dallas, Texas 75246  
Dean: Richard E. Bradley, D.D.S.
7. University of Texas Health Science Center at  
Houston, Dental Branch (public funds)  
P.O. Box 20068  
Houston, Texas 77225  
Dean: Don L. Allen, D.D.S.
8. University of Texas Health Science Center at  
San Antonio, Dental School (public funds)  
7703 Floyd Curl Drive  
San Antonio, Texas 78284  
Dean: Dominick P. DePaola, D.D.S.

FORMS USED FOR DATA COLLECTION

COST DATA INFORMATION  
FISCAL YEAR 1983-84

COLLEGE OF DENTISTRY \_\_\_\_\_

DATA - COLLEGE OF DENTISTRY

BUDGET DATA

1. HEALTH SCIENCE CENTER BUDGET  
(INCLUDES COLLEGES OF MEDICINE, PUBLIC HEALTH, NURSING, ETC.) \$ \_\_\_\_\_
2. HEALTH SCIENCE CENTER ADMINISTRATION BUDGET  
(VICE-PRESIDENT'S, CHANCELLOR'S OR PROVOST'S OFFICE) \$ \_\_\_\_\_
3. HEALTH SCIENCE CENTER MAINTENANCE BUDGET  
(HEATING, COOLING, AND PHYSICAL PLANT SUPPORT) \$ \_\_\_\_\_
4. HEALTH SCIENCE CENTER LIBRARY BUDGET  

|                          |          |
|--------------------------|----------|
| CAMPUS (A)               | \$ _____ |
| COLLEGE OF DENTISTRY (B) | \$ _____ |
5. HEALTH SCIENCE CENTER COMPUTER BUDGET  

|                          |          |
|--------------------------|----------|
| CAMPUS (A)               | \$ _____ |
| COLLEGE OF DENTISTRY (B) | \$ _____ |
6. COLLEGE OF DENTISTRY SALARIES/WAGES/BENEFITS  
(FACULTY, STAFF) \$ \_\_\_\_\_
7. COLLEGE OF DENTISTRY ADMINISTRATION COSTS \$ \_\_\_\_\_
8. CLINIC SUPPLIES - SUPPORT COSTS \$ \_\_\_\_\_
9. BUILDING DEPRECIATION/REPLACEMENT  
(ONE YEAR - STRAIGHT LINE - 35 YEARS) \$ \_\_\_\_\_
10. EQUIPMENT REPLACEMENT/DEPRECIATION  
(ONE YEAR - STRAIGHT LINE - 15 YEARS) \$ \_\_\_\_\_
11. SQUARE FOOTAGE NET TOTALS  

|                          |       |
|--------------------------|-------|
| CAMPUS (A)               | _____ |
| COLLEGE OF DENTISTRY (B) | _____ |

INCOME DATA

1. COLLEGE OF DENTISTRY CLINIC INCOME \$ \_\_\_\_\_
2. CAPITATION INCOME \$ \_\_\_\_\_
3. STUDENT STORE, INSTRUMENT SALES \$ \_\_\_\_\_
4. GRANTS (FOR UNDERGRADUATE EDUCATION) \$ \_\_\_\_\_
5. DENTAL STUDENT TUITION \$ \_\_\_\_\_
6. DENTAL HYGIENE TUITION \$ \_\_\_\_\_
7. DENTAL STUDENT INSTRUMENT FEES \$ \_\_\_\_\_
8. DENTAL HYGIENE INSTRUMENT FEES \$ \_\_\_\_\_
9. APPLICATION FEES \$ \_\_\_\_\_





**Appendix B**

**Summary of cost data calculations**

TABLE 11  
SUMMARY OF COST DATA USED TO ASSIGN COSTS  
FISCAL YEARS 1976-77 TO 1983-84

| FISCAL YEAR                    | FY 76-77      | FY 77-78   | FY 78-79   | FY 79-80   | FY 80-81   | FY 81-82   | FY 82-83   | FY 83-84   |
|--------------------------------|---------------|------------|------------|------------|------------|------------|------------|------------|
| HSC BUDGET                     | \$ 23,799,796 | 24,457,113 | 28,100,748 | 31,578,448 | 36,163,647 | 41,515,756 | 48,962,492 | 48,008,378 |
| COLLEGE BUDGETS                | 8,902,603     | 10,415,662 | 11,005,747 | 13,371,117 | 15,307,706 | 15,279,257 | 18,553,020 | 20,273,156 |
| O.U.D.S. BUDGET                | 2,577,911     | 2,930,524  | 3,305,711  | 3,713,808  | 4,288,161  | 4,791,756  | 5,199,995  | 5,178,278  |
| HSC ADMINISTRATION BUDGET      | 2,496,518     | 2,570,031  | 2,697,187  | 2,934,542  | 3,461,519  | 3,483,778  | 3,995,707  | 4,026,221  |
| O.U.D.S. ADMINISTRATION BUDGET | 325,654       | 330,721    | 372,695    | 397,008    | 443,665    | 452,054    | 483,353    | 480,192    |
| DATA PROCESSING                | 570,322       | 585,135    | 604,455    | 678,500    | 778,500    | 788,500    | 1,153,500  | 1,218,500  |
| LIBRARY                        | 512,463       | 557,826    | 588,960    | 694,260    | 818,946    | 877,375    | 1,153,500  | 1,096,215  |
| MAINTENANCE BUDGET             | 3,484,490     | 4,112,355  | 5,011,187  | 5,493,750  | 5,999,911  | 6,660,641  | 7,496,485  | 7,464,114  |
| CLINIC EXPENSES                | 637,007       | 747,681    | 914,425    | 1,078,972  | 1,315,109  | 1,401,504  | 1,405,054  | 1,409,812  |
| BUILDING DEPRECIATION          | 336,257       | 336,257    | 336,257    | 336,257    | 336,257    | 336,257    | 336,257    | 336,257    |
| EQUIPMENT REPLACEMENT          | 140,733       | 140,733    | 140,733    | 140,733    | 140,733    | 140,733    | 140,733    | 140,733    |
| HSC SQ FOOTAGE                 | 898,486       | 898,486    | 898,486    | 898,486    | 898,486    | 898,486    | 898,486    | 898,486    |
| O.U.D.S. SQ FOOTAGE            | 112,000       | 112,000    | 112,000    | 112,000    | 112,000    | 112,000    | 112,000    | 112,000    |

TABLE 12

INCOME SOURCES FOR FISCAL YEARS 1976-77 TO 1983-84.

| FISCAL YEAR            | FY 76-77 | FY 77-78 | FY 78-79  | FY 79-80  | FY 80-81  | FY 81-82  | FY 82-83  | FY 83-84  |
|------------------------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| O.U.D.S. CLINIC INCOME | 161,041  | 189,399  | 316,976   | 405,019   | 425,235   | 464,289   | 467,442   | 546,722   |
| STUDENT TUITION        | 106,079  | 240,000  | 371,701   | 404,765   | 469,259   | 451,614   | 489,637   | 628,270   |
| HYGIENE TUITION        | 22,320   | 25,374   | 27,608    | 24,568    | 25,125    | 27,422    | 29,355    | 29,800    |
| STUDENT RENTAL FEES    | 61,000   | 80,000   | 101,884   | 119,936   | 106,800   | 87,102    | 100,401   | 102,400   |
| HYGIENE RENTAL FEES    | 4,000    | 4,750    | 5,180     | 2,300     | 13,640    | 2,150     | 2,050     | 2,050     |
| APPLICATION FEES       | 2,735    | 3,365    | 5,576     | 3,840     | 3,745     | 3,540     | 3,975     | 3,900     |
| CAPITATION             | 128,099  | 170,019  | 269,755   | 348,028   | 154,178   | 130,921   | 0         | 0         |
| STUDENT STORE          | 21,722   | 20,438   | 58,111    | 54,098    | 83,154    | 47,256    | 68,529    | 66,251    |
| INCOME GRANTS          | 21,722   | 33,558   | 28,650    | 43,468    | 34,636    | 138,412   | 50,934    | 66,251    |
| TOTAL                  | 528,718  | 766,903  | 1,185,441 | 1,406,042 | 1,315,772 | 1,352,706 | 1,212,323 | 1,445,644 |

TABLE 13  
 COST CENTERS FOR FISCAL YEARS 1976-77 TO 1983-4  
 WHICH INCLUDE CURRICULUM, FACULTY, AND STUDENTS.

| FISCAL YEAR            | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| TOTAL CURRICULUM HOURS | 5,576    | 5,576    | 5,576    | 5,146    | 5,146    | 5,146    | 5,127    | 5,127    |
| TOTAL LECTURE HOURS    | 2,060    | 2,060    | 2,060    | 1,022    | 1,022    | 1,022    | 1,706    | 1,706    |
| TOTAL LAB HOURS        | 1,112    | 1,112    | 1,112    | 774      | 774      | 774      | 934      | 934      |
| TOTAL CLINIC HOURS     | 2,404    | 2,404    | 2,404    | 3,380    | 3,380    | 3,380    | 2,474    | 2,474    |
| HSC STUDENT TOTAL      | 2,766    | 2,922    | 2,917    | 2,872    | 3,004    | 3,004    | 2,975    | 3,162    |
| HSC FTE                | 325      | 371      | 396      | 404      | 407      | 405      | 420      | 412      |
| NO. DENTAL STUDENTS    | 154      | 246      | 245      | 271      | 267      | 259      | 251      | 256      |
| NO. DENTAL HYGIENE     | 40       | 41       | 45       | 46       | 45       | 43       | 41       | 41       |
| O.U.D.S. FTE           | 68       | 73       | 75       | 78       | 79       | 78       | 80       | 82       |

TABLE 14  
SUMMARY OF INDIRECT COST CONTRIBUTIONS  
TO COST PER STUDENT AND COST PER HOUR  
BY METHOD 1 TO METHOD 5.

| FISCAL YEAR                            | FY 76-77    | FY 77-78  | FY 78-79  | FY 79-80  | FY 80-81  | FY 81-82  | FY 82-83  | FY 83-84  |
|--|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>1. NO. DS + DI/HSC STUDENTS</b>     |             |           |           |           |           |           |           |           |
| COMPUTER; LIBRARY; HSC ADMINISTRATION  | \$ 251,043  | 364,692   | 386,793   | 475,423   | 525,432   | 517,708   | 618,619   | 595,591   |
| % MAINTENANCE BUDGET--O.U.D.S. SQ. FT. | 434,356     | 512,622   | 624,665   | 684,819   | 747,914   | 830,276   | 934,468   | 930,433   |
| BUILDING DEPRECIATION                  | 336,257     | 336,257   | 336,257   | 336,257   | 336,257   | 336,257   | 336,257   | 336,257   |
| EQUIPMENT REPLACEMENT                  | 140,733     | 140,733   | 140,733   | 140,733   | 140,733   | 140,733   | 140,733   | 140,733   |
| SUBTOTAL                               | \$1,162,389 | 1,354,304 | 1,488,448 | 1,637,232 | 1,750,336 | 1,824,975 | 2,030,077 | 2,003,013 |
| O.U.D.S. BUDGET                        | 2,577,911   | 2,930,524 | 3,305,711 | 3,713,808 | 4,288,161 | 4,791,756 | 5,199,995 | 5,178,278 |
| TOTALS                                 | \$3,740,300 | 4,284,828 | 4,794,159 | 5,351,040 | 6,038,497 | 6,616,731 | 7,230,072 | 7,181,291 |
| <b>2. DS FTE/HSC FTE</b>               |             |           |           |           |           |           |           |           |
| COMPUTER; LIBRARY; HSC ADMINISTRATION  | \$ 749,719  | 730,015   | 740,273   | 840,579   | 984,205   | 996,625   | 1,207,157 | 1,244,412 |
| % MAINTENANCE BUDGET--O.U.D.S. SQ. FT. | 434,356     | 512,622   | 624,665   | 684,819   | 747,914   | 830,276   | 934,468   | 930,433   |
| BUILDING DEPRECIATION                  | 336,257     | 336,257   | 336,257   | 336,257   | 336,257   | 336,257   | 336,257   | 336,257   |
| EQUIPMENT REPLACEMENT                  | 140,733     | 140,733   | 140,733   | 140,733   | 140,733   | 140,733   | 140,733   | 140,733   |
| SUBTOTAL                               | \$1,661,065 | 1,719,627 | 1,841,929 | 2,002,388 | 2,209,109 | 2,303,891 | 2,618,614 | 2,651,835 |
| O.U.D.S. BUDGET                        | 2,577,911   | 2,930,524 | 3,305,711 | 3,713,808 | 4,288,161 | 4,791,756 | 5,199,995 | 5,178,278 |
| TOTALS                                 | \$4,238,976 | 4,650,151 | 5,147,640 | 5,716,196 | 6,497,270 | 7,095,647 | 7,818,609 | 7,830,113 |

TABLE 14 (CONTINUED--PAGE TWO)  
SUMMARY OF INDIRECT COST CONTRIBUTIONS  
TO COST PER STUDENT AND COST PER HOUR  
BY METHOD 1 TO METHOD 5.

| FISCAL YEAR                             | FY 76-77    | FY 77-78  | FY 78-79  | FY 79-80  | FY 80-81  | FY 81-82  | FY 82-83  | FY 83-84  |
|---|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>3. O.U.D.S. BUDGET/HSC BUDGET</b>    |             |           |           |           |           |           |           |           |
| COMPUTER; LIBRARY; HSC ADMINISTRATION   | \$ 387,698  | 444,902   | 457,682   | 506,564   | 599,875   | 594,374   | 669,370   | 683,946   |
| % MAINTENANCE BUDGET--O.U.D.S. SQ. FT.  | 434,356     | 512,622   | 624,665   | 684,819   | 747,914   | 830,276   | 934,468   | 930,433   |
| BUILDING DEPRECIATION                   | 336,257     | 336,257   | 336,257   | 336,257   | 336,257   | 336,257   | 336,257   | 336,257   |
| EQUIPMENT REPLACEMENT                   | 140,733     | 140,733   | 140,733   | 140,733   | 140,733   | 140,733   | 140,733   | 140,733   |
| SUBTOTAL                                | \$1,299,044 | 1,434,514 | 1,559,337 | 1,668,372 | 1,824,778 | 1,901,640 | 2,080,828 | 2,091,369 |
| O.U.D.S. BUDGET                         | 2,577,911   | 2,930,524 | 3,305,711 | 3,713,808 | 4,288,161 | 4,791,756 | 5,199,995 | 5,178,278 |
| TOTALS                                  | \$3,876,955 | 4,365,038 | 4,865,048 | 5,382,180 | 6,112,939 | 6,693,396 | 7,280,823 | 7,269,647 |
| <b>4. O.U.D.S. BUDGET/OTHER BUDGETS</b> |             |           |           |           |           |           |           |           |
| COMPUTER; LIBRARY; HSC ADMINISTRATION   | \$1,036,452 | 1,044,678 | 1,168,590 | 1,196,347 | 1,417,172 | 1,614,992 | 1,766,507 | 1,619,636 |
| % MAINTENANCE BUDGET--O.U.D.S. SQ. FT.  | 134,356     | 512,622   | 624,665   | 684,819   | 747,914   | 830,276   | 934,468   | 930,433   |
| BUILDING DEPRECIATION                   | 336,257     | 336,257   | 336,257   | 336,257   | 336,257   | 336,257   | 336,257   | 336,257   |
| EQUIPMENT REPLACEMENT                   | 140,733     | 140,733   | 140,733   | 140,733   | 140,733   | 140,733   | 140,733   | 140,733   |
| SUBTOTAL                                | \$1,947,799 | 2,034,290 | 2,270,245 | 2,358,155 | 2,642,076 | 2,922,259 | 3,177,965 | 3,027,059 |
| O.U.D.S. BUDGET                         | 2,577,911   | 2,930,524 | 3,305,711 | 3,713,808 | 4,288,161 | 4,791,756 | 5,199,995 | 5,178,278 |
| TOTALS                                  | \$4,525,710 | 4,964,814 | 5,575,956 | 6,071,963 | 6,930,237 | 7,714,015 | 8,377,960 | 8,205,337 |

TABLE 14 (CONTINUED--PAGE THREE)  
SUMMARY OF INDIRECT COST CONTRIBUTIONS  
TO COST PER STUDENT AND COST PER HOUR  
BY METHOD 1 TO METHOD 5.

| FISCAL YEAR                                   | FY 76-77    | FY 77-78  | FY 78-79  | FY 79-80  | FY 80-81  | FY 81-82  | FY 82-83  | FY 83-84  |
|---|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 5. NO. DS + DDS FTE/HSC STUDENTS<br>+ HSC FTE |             |           |           |           |           |           |           |           |
| COMPUTER; LIBRARY; HSC ADMINISTRATION         | \$ 303,562  | 405,929   | 429,119   | 520,484   | 580,184   | 574,617   | 691,473   | 671,891   |
| % MAINTENANCE BUDGET--O.U.D.S. SQ. FT.        | 434,356     | 512,622   | 624,665   | 684,819   | 747,914   | 830,276   | 934,468   | 930,433   |
| BUILDING DEPRECIATION                         | 336,257     | 336,257   | 336,257   | 336,257   | 336,257   | 336,257   | 336,257   | 336,257   |
| EQUIPMENT REPLACEMENT                         | 140,733     | 140,733   | 140,733   | 140,733   | 140,733   | 140,733   | 140,733   | 140,733   |
| SUBTOTAL                                      | \$1,214,908 | 1,395,541 | 1,530,774 | 1,682,292 | 1,805,088 | 1,881,884 | 2,102,931 | 2,079,313 |
| O.U.D.S. BUDGET                               | 2,577,911   | 2,930,524 | 3,305,711 | 3,713,808 | 4,288,161 | 4,791,756 | 5,199,995 | 5,178,278 |
| TOTALS  | \$3,792,819 | 4,326,065 | 4,836,485 | 5,396,100 | 6,093,249 | 6,673,640 | 7,302,926 | 7,257,591 |

TABLE 15  
SUMMARY OF DIRECT COSTS AND INCOME BY DEPARTMENT FOR FISCAL YEARS 1976-77 TO 1983-84.

| FISCAL YEAR              | FY 76-77  | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|--------------------------|-----------|----------|----------|----------|----------|----------|----------|----------|
| DEPARTMENT               |           |          |          |          |          |          |          |          |
| PERIODONTICS             |           |          |          |          |          |          |          |          |
| COST                     | \$100,737 | 103,821  | 123,244  | 164,126  | 156,016  | 234,183  | 233,592  | 231,905  |
| INCOME                   | 17,736    | 20,216   | 37,888   | 47,480   | 45,571   | 47,443   | 50,831   | 69,691   |
| ORTHODONTICS             |           |          |          |          |          |          |          |          |
| COST                     | 80,677    | 110,132  | 128,302  | 112,765  | 111,119  | 196,529  | 240,899  | 189,846  |
| INCOME                   | 3,401     | 3,107    | 5,141    | 6,149    | 5,633    | 8,966    | 7,122    | 8,170    |
| PERIODONTICS             |           |          |          |          |          |          |          |          |
| COST                     | 67,224    | 115,148  | 178,631  | 218,955  | 142,750  | 234,792  | 292,873  | 288,912  |
| INCOME                   | 6,119     | 7,197    | 15,866   | 25,272   | 16,715   | 25,585   | 23,586   | 24,236   |
| ORAL DIAGNOSIS           |           |          |          |          |          |          |          |          |
| COST                     | 160,359   | 169,189  | 170,626  | 203,893  | 207,200  | 293,096  | 298,775  | 285,073  |
| INCOME                   | 18,073    | 24,544   | 35,503   | 36,877   | 31,153   | 33,756   | 31,088   | 41,596   |
| ORAL PATHOLOGY           |           |          |          |          |          |          |          |          |
| COST                     | 77,409    | 89,306   | 133,290  | 152,641  | 173,859  | 199,175  | 213,890  | 210,707  |
| INCOME                   | 60        | 5        | 0        | 0        | 0        | 0        | 0        | 0        |
| DENT SERV ADMIN          |           |          |          |          |          |          |          |          |
| COST                     | 249,753   | 169,480  | 188,159  | 258,572  | 277,727  | 292,397  | 315,237  | 307,779  |
| INCOME                   | 212,839   | 134,272  | 134,717  | 9,333    | 8,771    | 9,333    | 0        | 0        |
| ORAL SURGERY             |           |          |          |          |          |          |          |          |
| COST                     | 75,455    | 111,674  | 134,417  | 142,244  | 152,054  | 113,725  | 129,681  | 131,994  |
| INCOME                   | 440       | 9,596    | 22,839   | 22,071   | 20,607   | 26,092   | 21,318   | 29,992   |
| FIXED PROSTHODONTICS     |           |          |          |          |          |          |          |          |
| COST                     | 169,092   | 191,273  | 243,089  | 305,972  | 304,603  | 354,995  | 357,148  | 374,725  |
| INCOME                   | 43,456    | 45,662   | 72,042   | 143,537  | 151,866  | 145,957  | 157,181  | 165,931  |
| OPERATIVE DENTISTRY      |           |          |          |          |          |          |          |          |
| COST                     | 165,288   | 177,110  | 203,731  | 226,167  | 234,427  | 271,228  | 340,707  | 326,061  |
| INCOME                   | 14,567    | 20,208   | 34,672   | 50,660   | 42,151   | 56,839   | 60,194   | 77,495   |
| REMOVABLE PROSTHODONTICS |           |          |          |          |          |          |          |          |
| COST                     | 151,883   | 165,090  | 230,832  | 246,641  | 273,214  | 349,224  | 364,045  | 356,728  |
| INCOME                   | 35,173    | 40,103   | 60,834   | 93,924   | 78,520   | 74,097   | 70,436   | 84,712   |



TABLE 1.5 (CONTINUED--PAGE TWO)  
SUMMARY OF DIRECT COSTS AND INCOME BY DEPARTMENT FOR FISCAL YEARS 1976-77 TO 1983-84.

| FISCAL YEAR      | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| DEPARTMENT       |          |          |          |          |          |          |          |          |
| ENDODONTICS      |          |          |          |          |          |          |          |          |
| COST             | 50,630   | 49,015   | 76,111   | 110,155  | 77,658   | 103,829  | 120,968  | 128,505  |
| INCOME           | 7,791    | 9,415    | 28,429   | 28,178   | 30,451   | 41,387   | 39,827   | 40,509   |
| OCCLUSION        |          |          |          |          |          |          |          |          |
| COST             | 52,795   | 77,188   | 93,212   | 99,553   | 99,304   | 107,397  | 111,833  | 122,133  |
| INCOME           | 352      | 157      | 41       | 60       | 104      | 400      | 324      | 302      |
| DENTAL MATERIALS |          |          |          |          |          |          |          |          |
| COST             | 61,705   | 96,110   | 106,029  | 112,511  | 110,663  | 133,702  | 137,341  | 307,779  |
| INCOME           | 7,000    | 6,950    | 5,500    | 415      | 0        | 2,980    | 0        | 0        |
| DENTAL HYGIENE   |          |          |          |          |          |          |          |          |
| COST             | 100,737  | 134,339  | 107,876  | 123,034  | 136,843  | 151,118  | 109,406  | 174,438  |
| INCOME           | 5,110    | 6,920    | 9,019    | 9,914    | 7,673    | 6,321    | 7,756    | 7,759    |
| BASIC SCIENCE    |          |          |          |          |          |          |          |          |
| COST             | 294,570  | 413,376  | 451,356  | 479,383  | 544,989  | 564,339  | 654,336  | 591,906  |

TABLE 16

SUMMARY OF INCOME ASSIGNED TO EACH DEPARTMENT  
BY EITHER (A) DEPT HOURS/TOTAL CURRICULUM OR  
(B) DEPT FTE/O.U.D.S. FTE

| FISCAL YEAR           | FY 76-77 | FY 77-78 | FY 78-79  | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|-----------------------|----------|----------|-----------|----------|----------|----------|----------|----------|
| <u>DEPARTMENT</u>     |          |          |           |          |          |          |          |          |
| <u>PEDODONTICS</u>    |          |          |           |          |          |          |          |          |
| INCOME O.U.D.S.       | 329,122  | 849,404  | 1,216,645 | 974,135  | 851,772  | 858,845  | 713,476  | 854,092  |
| METHOD A              | 53,872   | 36,518   | 55,751    | 53,382   | 46,677   | 50,736   | 45,644   | 55,471   |
| METHOD B              | 29,030   | 23,961   | 37,633    | 55,559   | 39,792   | 54,773   | 43,429   | 48,228   |
| <u>ORTHODONTICS</u>   |          |          |           |          |          |          |          |          |
| INCOME O.U.D.S.       | 329,122  | 849,404  | 1,216,645 | 974,135  | 852,772  | 858,845  | 713,476  | 854,092  |
| METHOD A              | 19,242   | 49,660   | 71,131    | 69,851   | 61,149   | 61,584   | 56,777   | 67,967   |
| METHOD B              | 6,756    | 38,345   | 58,012    | 35,804   | 24,764   | 43,818   | 31,907   | 35,113   |
| <u>PERIODONTICS</u>   |          |          |           |          |          |          |          |          |
| INCOME O.U.D.S.       | 329,122  | 849,404  | 1,216,645 | 974,135  | 852,772  | 858,845  | 713,476  | 854,092  |
| METHOD A              | 22,252   | 57,429   | 82,258    | 75,151   | 65,789   | 66,257   | 62,065   | 74,297   |
| METHOD B              | 13,994   | 38,345   | 96,687    | 74,078   | 38,762   | 60,250   | 58,496   | 61,965   |
| <u>ORAL DIAGNOSIS</u> |          |          |           |          |          |          |          |          |
| INCOME O.U.D.S.       | 329,122  | 849,404  | 1,216,645 | 974,135  | 852,772  | 858,845  | 713,476  | 854,092  |
| METHOD A              | 23,727   | 61,237   | 87,713    | 59,440   | 52,034   | 52,405   | 69,162   | 82,793   |
| METHOD B              | 19,303   | 46,479   | 66,069    | 58,028   | 45,222   | 67,918   | 54,950   | 53,703   |
| <u>ORAL PATHOLOGY</u> |          |          |           |          |          |          |          |          |
| INCOME O.U.D.S.       | 329,122  | 849,404  | 1,216,645 | 974,135  | 852,772  | 858,845  | 713,476  | 854,092  |
| METHOD A              | 9,975    | 25,744   | 36,874    | 21,201   | 18,560   | 18,692   | 14,333   | 17,158   |
| METHOD B              | 9,651    | 23,239   | 48,343    | 37,039   | 32,302   | 32,864   | 26,589   | 30,982   |

TABLE 16 (CONTINUED--PAGE TWO)

SUMMARY OF INCOME ASSIGNED TO EACH DEPARTMENT  
 BY EITHER (A) DEPT HOURS/TOTAL CURRICULUM OR  
 (B) DEPT FTE/O.U.D.S. FTE

| FISCAL YEAR                     | FY 76-77 | FY 77-78 | FY 78-79  | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83  | FY 83-84 |
|---------------------------------|----------|----------|-----------|----------|----------|----------|-----------|----------|
| <b>DEPARTMENT</b>               |          |          |           |          |          |          |           |          |
| <b>DENT SERV ADMIN</b>          |          |          |           |          |          |          |           |          |
| INCOME O.U.D.S.                 | 329,122  | 849,404  | 1,216,645 | 974,135  | 852,772  | 858,845  | 713,476   | 854,092  |
| METHOD A                        | 22,252   | 57,429   | 82,258    | 59,623   | 52,034   | 52,405   | 30,893    | 36,982   |
| METHOD B                        | 27,024   | 67,394   | 99,909    | 66,876   | 58,143   | 47,105   | 62,041    | 51,638   |
| <b>ORAL SURGERY</b>             |          |          |           |          |          |          |           |          |
| INCOME O.U.D.S.                 | 329,122  | 849,404  | 1,216,645 | 974,135  | 852,772  | 858,845  | 713,476   | 854,092  |
| METHOD A                        | 12,749   | 32,903   | 47,129    | 29,720   | 26,017   | 26,202   | 28,945    | 34,650   |
| METHOD B                        | 7,238    | 30,211   | 58,012    | 43,212   | 27,995   | 17,527   | 14,180    | 25,819   |
| <b>FIXED PROSTHODONTICS</b>     |          |          |           |          |          |          |           |          |
| INCOME O.U.D.S.                 | 329,122  | 849,404  | 1,216,645 | 974,135  | 852,772  | 858,845  | 1,519,918 | 854,092  |
| METHOD A                        | 32,817   | 84,696   | 121,315   | 101,086  | 88,492   | 89,122   | 171,943   | 96,620   |
| METHOD B                        | 25,094   | 60,422   | 96,687    | 85,190   | 67,834   | 72,300   | 120,838   | 65,063   |
| <b>OPERATIVE DENTISTRY</b>      |          |          |           |          |          |          |           |          |
| INCOME O.U.D.S.                 | 329,122  | 849,404  | 1,216,645 | 974,135  | 852,772  | 858,845  | 713,476   | 854,092  |
| METHOD A                        | 25,439   | 65,655   | 94,041    | 74,962   | 65,623   | 66,090   | 56,777    | 67,967   |
| METHOD B                        | 32,333   | 70,880   | 98,298    | 87,659   | 82,908   | 88,732   | 64,700    | 74,358   |
| <b>REMOVABLE PROSTHODONTICS</b> |          |          |           |          |          |          |           |          |
| INCOME O.U.D.S.                 | 329,122  | 849,404  | 1,216,645 | 974,135  | 852,772  | 858,845  | 713,476   | 854,092  |
| METHOD A                        | 24,967   | 64,436   | 92,295    | 81,777   | 71,589   | 72,098   | 61,230    | 73,298   |
| METHOD B                        | 21,233   | 52,288   | 96,687    | 74,078   | 64,603   | 72,300   | 62,927    | 64,031   |

TABLE 16 (CONTINUED--PAGE THREE)

SUMMARY OF INCOME ASSIGNED TO EACH DEPARTMENT  
 BY EITHER (A) DEPT HOURS/TOTAL CURRICULUM OR  
 (B) DEPT FTE/O.U.D.S. FTE

| FISCAL YEAR             | FY 76-77 | FY 77-78 | FY 78-79  | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|-------------------------|----------|----------|-----------|----------|----------|----------|----------|----------|
| <b>DEPARTMENT</b>       |          |          |           |          |          |          |          |          |
| <b>ENDODONTICS</b>      |          |          |           |          |          |          |          |          |
| INCOME O.U.D.S.         | 329,122  | 849,404  | 1,216,645 | 974,135  | 852,772  | 858,845  | 713,476  | 854,092  |
| METHOD A                | 11,155   | 28,790   | 41,238    | 28,016   | 24,525   | 24,700   | 22,404   | 26,820   |
| METHOD B                | 5,308    | 11,619   | 30,617    | 34,570   | 22,611   | 35,195   | 18,612   | 23,753   |
| <b>OCCCLUSION</b>       |          |          |           |          |          |          |          |          |
| INCOME O.U.D.S.         | 329,122  | 849,404  | 1,216,645 | 974,135  | 852,772  | 858,845  | 713,476  | 854,092  |
| METHOD A                | 11,686   | 30,161   | 43,202    | 36,913   | 32,314   | 32,544   | 26,579   | 31,818   |
| METHOD B                | 6,756    | 25,563   | 41,897    | 33,335   | 24,764   | 24,100   | 23,043   | 22,720   |
| <b>DENTAL MATERIALS</b> |          |          |           |          |          |          |          |          |
| INCOME O.U.D.S.         | 329,122  | 849,404  | 1,216,645 | 974,135  | 852,772  | 858,845  | 713,476  | 854,092  |
| METHOD A                | 3,305    | 8,530    | 12,218    | 11,358   | 9,942    | 10,013   | 8,210    | 9,828    |
| METHOD B                | 4,825    | 23,239   | 32,229    | 24,692   | 21,534   | 21,909   | 17,726   | 65,063   |
| <b>DENTAL HYGIENE</b>   |          |          |           |          |          |          |          |          |
| INCOME O.U.D.S.         | 188,363  | 559,528  | 699,352   | 476,302  | 315,478  | 349,701  | 154,843  | 155,272  |
| METHOD A                | 29,727   | 88,304   | 11,037    | 81,450   | 53,948   | 59,801   | 31,772   | 31,860   |
| METHOD B                | 16,019   | 50,518   | 54,651    | 41,653   | 23,501   | 27,208   | 8,655    | 8,448    |
| <b>BASIC SCIENCE</b>    |          |          |           |          |          |          |          |          |
| INCOME O.U.D.S.         | 188,363  | 559,528  | 699,352   | 476,302  | 315,478  | 349,701  | 154,843  | 155,272  |
| METHOD A                | 48,813   | 145,000  | 181,235   | 76,730   | 50,822   | 56,335   | 25,188   | 25,257   |
| METHOD B                | 18,781   | 63,530   | 76,882    | 44,068   | 29,874   | 31,669   | 0        | 11,828   |

TABLE 17

TOTAL OF INDIRECT COST ASSESSMENTS TO EACH DEPARTMENT BY  
(A) CLINIC SUPPORT, (B) EQUIPMENT REPLACEMENT AND (C) MAINTENANCE

| FISCAL YEAR           | FY 76-77  | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|-----------------------|-----------|----------|----------|----------|----------|----------|----------|----------|
| <b>DEPARTMENT</b>     |           |          |          |          |          |          |          |          |
| <b>PEDODONTICS</b>    |           |          |          |          |          |          |          |          |
| (A)                   | \$113,052 | 71,025   | 86,865   | 67,792   | 82,629   | 88,057   | 111,728  | 112,107  |
| (B)                   | 24,976    | 13,368   | 13,368   | 8,842    | 8,842    | 8,842    | 11,190   | 11,190   |
| (C)                   | 36,377    | 32,373   | 39,448   | 43,247   | 47,232   | 52,433   | 59,013   | 58,758   |
| TOTAL                 | 174,406   | 116,767  | 139,683  | 119,883  | 138,704  | 149,334  | 181,932  | 182,056  |
| <b>ORTHODONTICS</b>   |           |          |          |          |          |          |          |          |
| (A)                   | 38,771    | 45,507   | 55,656   | 64,416   | 78,514   | 83,671   | 33,527   | 116,657  |
| (B)                   | 8,565     | 8,565    | 8,565    | 8,401    | 8,401    | 8,401    | 3,358    | 11,645   |
| (C)                   | 30,121    | 35,549   | 43,319   | 47,491   | 51,866   | 57,578   | 64,803   | 64,523   |
| TOTAL                 | 77,458    | 89,622   | 107,541  | 120,309  | 138,782  | 149,652  | 101,689  | 192,826  |
| <b>PERIODONTICS</b>   |           |          |          |          |          |          |          |          |
| (A)                   | 55,982    | 65,709   | 80,363   | 79,741   | 97,192   | 103,578  | 146,772  | 147,269  |
| (B)                   | 12,368    | 12,368   | 12,368   | 10,400   | 10,400   | 10,400   | 14,701   | 14,701   |
| (C)                   | 30,261    | 35,714   | 43,520   | 47,711   | 52,106   | 57,845   | 65,104   | 64,822   |
| TOTAL                 | 98,612    | 113,792  | 136,252  | 137,853  | 159,700  | 171,824  | 226,577  | 226,793  |
| <b>ORAL DIAGNOSIS</b> |           |          |          |          |          |          |          |          |
| (A)                   | 56,163    | 65,921   | 80,623   | 66,494   | 81,046   | 86,371   | 166,974  | 167,539  |
| (B)                   | 12,408    | 12,408   | 12,408   | 8,673    | 8,673    | 8,673    | 16,724   | 16,724   |
| (C)                   | 21,663    | 25,567   | 31,155   | 34,155   | 37,302   | 41,410   | 46,606   | 46,405   |
| TOTAL                 | 90,235    | 103,897  | 124,187  | 109,323  | 127,022  | 136,454  | 230,305  | 230,669  |
| <b>ORAL PATHOLOGY</b> |           |          |          |          |          |          |          |          |
| (A)                   | 12,138    | 14,247   | 17,425   | 11,168   | 13,613   | 14,507   | 5,771    | 5,791    |
| (B)                   | 2,681     | 2,681    | 2,681    | 1,456    | 1,456    | 1,456    | 578      | 578      |
| (C)                   | 6,631     | 7,826    | 9,537    | 10,455   | 11,419   | 12,676   | 14,267   | 14,205   |
| TOTAL                 | 21,452    | 24,756   | 29,644   | 23,081   | 26,489   | 28,641   | 20,617   | 20,575   |

TABLE 17 (CONTINUED--PAGE TWO)

TOTAL OF INDIRECT COST ASSESSMENTS TO EACH DEPARTMENT BY  
 (A) CLINIC SUPPORT, (B) EQUIPMENT REPLACEMENT AND (C) MAINTENANCE

| FISCAL YEAR                     | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>DEPARTMENT</b>               |          |          |          |          |          |          |          |          |
| <b>DENT SERV ADMIN</b>          |          |          |          |          |          |          |          |          |
| (A)                             | 29,893   | 35,087   | 42,912   | 8,341    | 27,226   | 29,015   | 23,087   | 23,165   |
| (B)                             | 6,604    | 6,604    | 6,604    | 1,088    | 2,913    | 2,913    | 2,312    | 2,312    |
| (C)                             | 25,153   | 29,686   | 36,174   | 21,183   | 43,312   | 48,081   | 54,115   | 53,882   |
| TOTAL                           | 61,651   | 71,378   | 85,691   | 30,613   | 73,452   | 80,010   | 79,516   | 79,360   |
| <b>ORAL SURGERY</b>             |          |          |          |          |          |          |          |          |
| (A)                             | 28,987   | 34,024   | 41,612   | 23,117   | 28,176   | 30,027   | 38,754   | 38,885   |
| (B)                             | 6,404    | 6,404    | 6,404    | 3,015    | 3,015    | 3,015    | 3,881    | 3,881    |
| (C)                             | 14,675   | 17,319   | 21,104   | 23,137   | 25,268   | 28,051   | 31,571   | 28,943   |
| TOTAL                           | 50,067   | 57,747   | 69,121   | 49,269   | 56,460   | 61,094   | 74,207   | 71,710   |
| <b>FIXED PROSTHODONTICS</b>     |          |          |          |          |          |          |          |          |
| (A)                             | 92,217   | 108,239  | 132,378  | 124,417  | 151,646  | 161,608  | 63,844   | 222,145  |
| (B)                             | 20,373   | 20,373   | 20,373   | 16,228   | 16,228   | 16,228   | 6,394    | 22,175   |
| (C)                             | 30,366   | 35,837   | 43,670   | 47,876   | 52,287   | 58,045   | 65,329   | 65,047   |
| TOTAL                           | 142,957  | 164,451  | 196,423  | 188,521  | 220,161  | 235,881  | 135,569  | 309,367  |
| <b>OPERATIVE DENTISTRY</b>      |          |          |          |          |          |          |          |          |
| (A)                             | 67,034   | 78,680   | 96,227   | 84,676   | 103,208  | 109,988  | 148,833  | 149,337  |
| (B)                             | 14,809   | 14,809   | 14,809   | 11,044   | 11,044   | 11,044   | 14,907   | 14,907   |
| (C)                             | 29,706   | 35,059   | 42,722   | 46,836   | 51,152   | 56,785   | 63,910   | 63,635   |
| TOTAL                           | 111,551  | 128,550  | 153,760  | 142,557  | 165,404  | 177,818  | 227,652  | 227,880  |
| <b>REMOVABLE PROSTHODONTICS</b> |          |          |          |          |          |          |          |          |
| (A)                             | 64,497   | 75,703   | 92,586   | 95,325   | 116,188  | 123,821  | 145,123  | 145,614  |
| (B)                             | 14,249   | 14,249   | 14,249   | 12,433   | 12,433   | 12,433   | 14,535   | 14,535   |
| (C)                             | 29,776   | 35,142   | 42,823   | 46,946   | 51,272   | 56,918   | 64,061   | 63,784   |
| TOTAL                           | 108,524  | 125,095  | 149,659  | 154,796  | 179,894  | 193,173  | 223,720  | 223,935  |

TABLE 17 (CONTINUED--PAGE THREE)

TOTAL OF INDIRECT COST ASSESSMENTS TO EACH DEPARTMENT BY  
(A) CLINIC SUPPORT, (B) EQUIPMENT REPLACEMENT AND (C) MAINTENANCE

| FISCAL YEAR             | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>DEPARTMENT</b>       |          |          |          |          |          |          |          |          |
| <b>ENDODONTICS</b>      |          |          |          |          |          |          |          |          |
| (A)                     | 27,176   | 31,897   | 39,011   | 30,389   | 37,040   | 39,474   | 48,236   | 48,400   |
| (B)                     | 6,003    | 6,003    | 6,003    | 3,963    | 3,963    | 3,963    | 4,831    | 4,831    |
| (C)                     | 21,865   | 25,805   | 31,696   | 34,473   | 37,649   | 41,795   | 47,040   | 46,837   |
| TOTAL                   | 55,045   | 63,706   | 76,711   | 68,827   | 78,654   | 85,233   | 100,109  | 100,069  |
| <b>OCCUSION</b>         |          |          |          |          |          |          |          |          |
| (A)                     | 24,639   | 28,920   | 35,370   | 36,364   | 44,322   | 47,234   | 57,719   | 57,914   |
| (B)                     | 5,443    | 5,443    | 5,443    | 4,743    | 4,743    | 4,743    | 5,781    | 5,781    |
| (C)                     | 3,668    | 4,329    | 5,276    | 5,784    | 6,317    | 7,012    | 7,892    | 7,858    |
| TOTAL                   | 33,752   | 38,694   | 46,090   | 46,891   | 55,382   | 58,990   | 71,393   | 71,554   |
| <b>DENTAL MATERIALS</b> |          |          |          |          |          |          |          |          |
| (A)                     | 1,449    | 1,701    | 2,080    | 2,597    | 3,165    | 2,699    | 3,298    | 3,309    |
| (B)                     | 320      | 320      | 320      | 338      | 338      | 271      | 330      | 330      |
| (C)                     | 8,756    | 10,334   | 12,593   | 13,806   | 15,078   | 16,739   | 18,505   | 18,758   |
| TOTAL                   | 10,526   | 12,356   | 14,994   | 16,742   | 18,583   | 19,709   | 22,134   | 22,398   |
| <b>DENTAL HYGIENE</b>   |          |          |          |          |          |          |          |          |
| (A)                     | 113,052  | 132,694  | 162,287  | 162,080  | 197,551  | 210,529  | 318,281  | 319,359  |
| (B)                     | 24,976   | 24,976   | 24,976   | 21,140   | 21,140   | 21,140   | 31,879   | 31,879   |
| (C)                     | 36,377   | 42,932   | 52,315   | 57,353   | 62,637   | 69,535   | 78,261   | 77,923   |
| TOTAL                   | 174,406  | 200,603  | 239,579  | 240,574  | 281,329  | 301,205  | 428,422  | 429,162  |
| 15                      |          |          |          |          |          |          |          |          |
| (A)                     | 83,521   | 98,032   | 120,155  | 60,779   | 74,081   | 78,948   | 99,359   | 99,696   |
| (B)                     | 18,452   | 18,452   | 18,492   | 7,927    | 7,927    | 7,927    | 9,952    | 9,952    |
| (C)*                    | .        | .        | .        | .        | .        | .        | .        | .        |
| TOTAL                   | 101,973  | 116,484  | 138,647  | 68,706   | 82,008   | 86,875   | 109,331  | 109,648  |

TABLE 18A

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE NUMBER OF DENTAL STUDENTS/HSC STUDENTS (METHOD 1)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OU DS FTE (METHOD B)

| DEPARTMENT      | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|-----------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| PEDODONTICS     | COMPUTER          | 1      | 39,619   | 24,330   | 25,804   | 26,053   | 28,793   | 30,583   | 39,576   | 38,102   |
|                 | BLDG DEPRECIATION | 1      | 53,067   | 22,433   | 22,433   | 18,426   | 18,426   | 19,864   | 21,512   | 21,512   |
|                 | ADMIN SQ FT       | 1      | 8,611    | 4,296    | 5,235    | 4,714    | 5,148    | 6,161    | 7,510    | 7,477    |
|                 | EDUC SQ FT        | 1      | 9,338    | 4,659    | 5,677    | 5,112    | 5,583    | 6,681    | 8,144    | 8,109    |
|                 | ADMIN STUDENT SPT | 1      | 51,394   | 22,063   | 24,864   | 21,756   | 24,312   | 26,705   | 30,922   | 30,720   |
| TOTAL METHOD 1A |                   |        | 162,032  | 77,782   | 84,014   | 76,062   | 82,265   | 89,996   | 107,665  | 105,922  |
|                 | COMPUTER          | 1      | 21,349   | 15,964   | 17,418   | 27,115   | 24,546   | 33,017   | 37,655   | 33,128   |
|                 | BLDG DEPRECIATION | 1      | 28,596   | 14,719   | 15,142   | 19,178   | 15,709   | 21,445   | 20,467   | 18,703   |
|                 | ADMIN SQ FT       | 1      | 4,640    | 2,819    | 3,533    | 4,906    | 4,389    | 6,652    | 7,145    | 6,501    |
|                 | EDUC SQ FT        | 1      | 5,032    | 3,057    | 3,832    | 5,320    | 4,760    | 7,213    | 7,748    | 7,050    |
|                 | ADMIN STUDENT SPT | 1      | 27,694   | 14,477   | 16,783   | 22,643   | 20,726   | 28,830   | 29,421   | 26,709   |
| TOTAL METHOD 1B |                   |        | 87,314   | 51,038   | 56,711   | 79,164   | 70,131   | 97,157   | 102,439  | 92,093   |
| ORTHODONTICS    | COMPUTER          | 1      | 14,677   | 21,321   | 22,613   | 34,090   | 37,684   | 37,122   | 49,228   | 47,396   |
|                 | BLDG DEPRECIATION | 1      | 19,659   | 19,659   | 19,659   | 24,111   | 24,111   | 24,111   | 26,758   | 26,758   |
|                 | ADMIN SQ FT       | 1      | 3,190    | 3,765    | 4,587    | 6,168    | 6,737    | 7,479    | 9,341    | 9,301    |
|                 | EDUC SQ FT        | 1      | 3,459    | 4,082    | 4,975    | 6,689    | 7,306    | 8,110    | 10,130   | 10,087   |
|                 | ADMIN STUDENT SPT | 1      | 19,039   | 19,335   | 21,789   | 28,467   | 31,813   | 32,415   | 35,973   | 38,213   |
| TOTAL METHOD 1A |                   |        | 60,025   | 68,164   | 73,625   | 99,529   | 107,653  | 109,240  | 131,434  | 131,757  |
|                 | COMPUTER          | 1      | 5,153    | 16,463   | 18,443   | 17,474   | 15,261   | 26,413   | 27,664   | 24,486   |
|                 | BLDG DEPRECIATION | 1      | 6,902    | 15,179   | 16,033   | 12,359   | 9,765    | 17,156   | 15,037   | 13,824   |
|                 | ADMIN SQ FT       | 1      | 1,120    | 2,907    | 3,741    | 3,162    | 2,728    | 5,321    | 5,249    | 4,805    |
|                 | EDUC SQ FT        | 1      | 1,214    | 3,152    | 4,057    | 3,429    | 2,958    | 5,770    | 5,693    | 5,211    |
|                 | ADMIN STUDENT SPT | 1      | 6,684    | 14,929   | 17,770   | 14,592   | 12,884   | 23,064   | 20,216   | 19,741   |
| TOTAL METHOD 1B |                   |        | 21,075   | 52,633   | 60,046   | 51,016   | 43,598   | 77,726   | 73,861   | 68,069   |
| PERIODONTICS    | COMPUTER          | 1      | 16,973   | 24,657   | 26,151   | 36,677   | 40,543   | 39,939   | 53,813   | 51,810   |
|                 | BLDG DEPRECIATION | 1      | 22,734   | 22,734   | 22,734   | 25,941   | 25,941   | 25,941   | 29,251   | 29,251   |
|                 | ADMIN SQ FT       | 1      | 3,689    | 4,354    | 5,305    | 6,637    | 7,248    | 8,046    | 10,212   | 10,167   |
|                 | EDUC SQ FT        | 1      | 4,000    | 4,721    | 5,753    | 7,197    | 7,860    | 8,726    | 11,074   | 11,026   |
|                 | ADMIN STUDENT SPT | 1      | 22,017   | 22,360   | 25,198   | 30,628   | 34,227   | 34,874   | 39,324   | 41,772   |
| TOTAL METHOD 1A |                   |        | 69,415   | 78,828   | 85,144   | 107,081  | 115,822  | 117,529  | 143,676  | 144,028  |



TABLE 18A (CONTINUED--PAGE TWO)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE NUMBER OF DENTAL STUDENTS/HSC STUDENTS (METHOD 1)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/ODS FTE (METHOD B)

| DEPARTMENT          | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|---------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| PERIODONTICS (cont) | COMPUTER          | 1      | 10,674   | 16,463   | 30,738   | 36,153   | 23,888   | 36,318   | 50,719   | 43,210   |
|                     | BLDG DEPRECIATION | 1      | 14,298   | 15,179   | 26,722   | 25,570   | 15,284   | 23,589   | 27,568   | 24,395   |
|                     | ADMIN SQ FT       | 1      | 2,320    | 2,907    | 6,236    | 6,542    | 4,270    | 7,317    | 9,624    | 8,480    |
|                     | EDUC SQ FT        | 1      | 2,516    | 3,152    | 6,762    | 7,094    | 4,631    | 7,935    | 10,437   | 9,196    |
|                     | ADMIN STUDENT SPT | 1      | 13,847   | 14,929   | 29,618   | 30,190   | 20,166   | 31,713   | 37,062   | 34,838   |
| TOTAL METHOD 1B     |                   |        | 43,657   | 52,633   | 100,078  | 105,552  | 68,241   | 106,873  | 135,413  | 120,122  |
| ORAL DIAGNOSIS      | COMPUTER          | 1      | 18,098   | 26,292   | 27,885   | 29,009   | 32,067   | 31,589   | 59,967   | 57,735   |
|                     | BLDG DEPRECIATION | 1      | 24,242   | 24,242   | 24,242   | 20,517   | 20,517   | 20,517   | 32,596   | 32,596   |
|                     | ADMIN SQ FT       | 1      | 3,933    | 4,642    | 5,657    | 5,249    | 5,733    | 6,364    | 11,379   | 11,330   |
|                     | EDUC SQ FT        | 1      | 4,266    | 5,034    | 6,135    | 5,692    | 6,217    | 6,901    | 12,340   | 12,287   |
|                     | ADMIN STUDENT SPT | 1      | 23,477   | 23,843   | 26,869   | 24,224   | 27,071   | 27,583   | 43,821   | 46,548   |
| TOTAL METHOD 1A     |                   |        | 74,019   | 84,055   | 90,790   | 84,694   | 91,607   | 92,957   | 160,105  | 160,498  |
| ORAL SURGERY        | COMPUTER          | 1      | 14,723   | 19,955   | 21,004   | 28,320   | 27,869   | 40,941   | 47,645   | 37,449   |
|                     | BLDG DEPRECIATION | 1      | 19,721   | 18,399   | 18,260   | 20,030   | 17,831   | 26,591   | 25,898   | 21,143   |
|                     | ADMIN SQ FT       | 1      | 3,200    | 3,523    | 4,261    | 5,124    | 4,982    | 8,248    | 9,041    | 7,349    |
|                     | EDUC SQ FT        | 1      | 3,470    | 3,821    | 4,621    | 5,557    | 5,403    | 8,944    | 9,804    | 7,970    |
|                     | ADMIN STUDENT SPT | 1      | 19,099   | 18,096   | 20,239   | 23,649   | 23,527   | 35,749   | 34,816   | 30,193   |
| TOTAL METHOD 1B     |                   |        | 60,216   | 63,797   | 69,386   | 82,682   | 79,614   | 120,476  | 127,206  | 104,106  |
| ORAL PATHOLOGY      | COMPUTER          | 1      | 7,608    | 11,053   | 11,723   | 10,347   | 11,438   | 11,267   | 12,427   | 11,965   |
|                     | BLDG DEPRECIATION | 1      | 10,191   | 10,191   | 10,191   | 7,318    | 7,318    | 7,318    | 6,755    | 6,755    |
|                     | ADMIN SQ FT       | 1      | 1,653    | 1,951    | 2,378    | 1,872    | 2,044    | 2,270    | 2,358    | 2,348    |
|                     | EDUC SQ FT        | 1      | 1,793    | 2,116    | 2,579    | 2,030    | 2,217    | 2,461    | 2,557    | 2,546    |
|                     | ADMIN STUDENT SPT | 1      | 9,870    | 10,023   | 11,295   | 8,640    | 9,656    | 9,838    | 9,081    | 9,646    |
| TOTAL METHOD 1A     |                   |        | 31,117   | 35,336   | 38,168   | 30,209   | 32,675   | 33,156   | 33,180   | 33,262   |
| ORAL RADIOLOGY      | COMPUTER          | 1      | 7,361    | 9,977    | 15,369   | 18,076   | 19,906   | 19,810   | 23,054   | 21,605   |
|                     | BLDG DEPRECIATION | 1      | 9,860    | 9,199    | 13,361   | 12,785   | 12,737   | 12,867   | 12,531   | 12,198   |
|                     | ADMIN SQ FT       | 1      | 1,600    | 1,761    | 3,118    | 3,271    | 3,558    | 3,991    | 4,374    | 4,240    |
|                     | EDUC SQ FT        | 1      | 1,735    | 1,910    | 3,381    | 3,547    | 3,859    | 4,328    | 4,744    | 4,598    |
|                     | ADMIN STUDENT SPT | 1      | 9,549    | 9,048    | 14,809   | 15,095   | 16,805   | 17,298   | 16,846   | 17,419   |
| TOTAL METHOD 1B     |                   |        | 30,108   | 31,898   | 50,039   | 52,776   | 56,867   | 58,294   | 61,551   | 60,061   |

TABLE 18A (CONTINUED--PAGE THREE)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE NUMBER OF DENTAL STUDENTS/HSIC STUDENTS (METHOD 1)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/ODS FTE (METHOD B)

| DEPARTMENT           | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|----------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| DENT SERV ADMIN      | COMPUTER          | 1      | 16,973   | 24,657   | 26,151   | 54,942   | 32,067   | 31,589   | 26,786   | 25,789   |
|                      | BLDG DEPRECIATION | 1      | 22,734   | 22,734   | 22,734   | 20,517   | 20,517   | 20,517   | 14,560   | 14,560   |
|                      | ADMIN SQ FT       | 1      | 3,689    | 4,354    | 5,305    | 2,804    | 5,733    | 6,364    | 5,083    | 5,061    |
|                      | EDUC SQ FT        | 1      | 4,000    | 4,721    | 5,753    | 3,040    | 6,217    | 6,901    | 5,512    | 5,488    |
|                      | ADMIN STUDENT SPT | 1      | 22,017   | 22,360   | 25,198   | 24,224   | 27,071   | 27,583   | 19,574   | 20,792   |
| TOTAL METHOD 1A      |                   |        | 69,415   | 78,828   | 85,144   | 105,530  | 91,607   | 92,957   | 71,515   | 71,691   |
|                      | COMPUTER          | 1      | 20,613   | 28,935   | 31,763   | 61,625   | 35,832   | 28,394   | 58,792   | 36,009   |
|                      | BLDG DEPRECIATION | 1      | 27,610   | 26,679   | 27,613   | 23,013   | 22,926   | 18,442   | 29,239   | 20,329   |
|                      | ADMIN SQ FT       | 1      | 4,480    | 5,109    | 6,444    | 3,145    | 6,406    | 5,720    | 10,208   | 7,066    |
|                      | EDUC SQ FT        | 1      | 4,858    | 5,540    | 6,988    | 3,410    | 6,947    | 6,203    | 11,070   | 7,663    |
|                      | ADMIN STUDENT SPT | 1      | 26,739   | 26,240   | 30,605   | 27,171   | 30,249   | 24,793   | 39,309   | 29,032   |
| TOTAL METHOD 1B      |                   |        | 84,303   | 92,506   | 103,414  | 118,367  | 102,362  | 83,555   | 143,620  | 100,102  |
| ORAL SURGERY         | COMPUTER          | 1      | 9,724    | 14,127   | 14,983   | 14,504   | 16,033   | 15,794   | 25,097   | 24,162   |
|                      | BLDG DEPRECIATION | 1      | 13,025   | 13,025   | 13,025   | 10,258   | 10,258   | 10,258   | 13,641   | 13,641   |
|                      | ADMIN SQ FT       | 1      | 2,113    | 2,494    | 3,039    | 2,624    | 2,866    | 3,182    | 4,762    | 4,741    |
|                      | EDUC SQ FT        | 1      | 2,292    | 2,705    | 3,296    | 2,846    | 3,108    | 3,450    | 5,164    | 5,142    |
|                      | ADMIN STUDENT SPT | 1      | 12,615   | 12,811   | 14,437   | 12,112   | 13,535   | 13,791   | 18,339   | 19,481   |
| TOTAL METHOD 1A      |                   |        | 39,771   | 45,164   | 48,782   | 42,347   | 45,803   | 46,478   | 67,005   | 67,170   |
|                      | COMPUTER          | 1      | 5,521    | 12,971   | 18,443   | 21,089   | 17,252   | 10,565   | 12,295   | 18,004   |
|                      | BLDG DEPRECIATION | 1      | 7,395    | 11,959   | 16,033   | 14,916   | 11,038   | 6,862    | 6,683    | 10,165   |
|                      | ADMIN SQ FT       | 1      | 1,200    | 2,290    | 3,741    | 3,816    | 3,084    | 2,128    | 2,333    | 3,533    |
|                      | EDUC SQ FT        | 1      | 1,301    | 2,483    | 4,057    | 4,138    | 3,344    | 2,308    | 2,530    | 3,831    |
|                      | ADMIN STUDENT SPT | 1      | 7,162    | 11,763   | 17,770   | 17,611   | 14,564   | 9,225    | 8,994    | 14,516   |
| TOTAL METHOD 1B      |                   |        | 22,581   | 41,468   | 60,046   | 61,572   | 49,285   | 31,090   | 32,827   | 50,050   |
| FIXED PROSTHODONTICS | COMPUTER          | 1      | 25,032   | 36,364   | 38,568   | 49,334   | 54,534   | 53,722   | 78,454   | 67,377   |
|                      | BLDG DEPRECIATION | 1      | 33,529   | 33,529   | 33,529   | 34,893   | 34,893   | 34,893   | 38,039   | 38,039   |
|                      | ADMIN SQ FT       | 1      | 5,440    | 6,421    | 7,824    | 8,927    | 9,749    | 10,823   | 13,280   | 13,222   |
|                      | EDUC SQ FT        | 1      | 5,900    | 6,963    | 8,485    | 9,681    | 10,573   | 11,737   | 14,401   | 14,339   |
|                      | ADMIN STUDENT SPT | 1      | 32,472   | 32,977   | 37,162   | 41,197   | 46,039   | 46,909   | 54,680   | 54,322   |
| TOTAL METHOD 1A      |                   |        | 102,375  | 116,256  | 125,570  | 144,034  | 155,790  | 158,087  | 198,856  | 187,301  |

TABLE 18A (CONTINUED--PAGE FOUR)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE NUMBER OF DENTAL STUDENTS/HSC STUDENTS (METHOD 1)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/ODS FTE (METHOD B)

| DEPARTMENT                     | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|--------------------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| FIXED PROSTHODONTICS<br>(cont) | COMPUTER          | 1      | 19,141   | 25,942   | 30,738   | 41,576   | 41,804   | 43,582   | 55,136   | 35,371   |
|                                | BLDG DEPRECIATION | 1      | 25,638   | 23,919   | 26,722   | 29,406   | 26,747   | 28,307   | 26,733   | 25,615   |
|                                | ADMIN SQ FT       | 1      | 4,160    | 4,580    | 6,236    | 7,523    | 7,473    | 8,780    | 9,333    | 8,904    |
|                                | EDUC SQ FT        | 1      | 4,511    | 4,967    | 6,762    | 8,158    | 8,104    | 9,522    | 10,121   | 9,656    |
|                                | ADMIN STUDENT SPT | 1      | 24,829   | 23,526   | 29,618   | 34,719   | 35,281   | 38,055   | 38,428   | 36,580   |
| TOTAL METHOD 1B                |                   |        | 78,281   | 82,937   | 100,078  | 121,385  | 119,422  | 128,248  | 139,752  | 126,128  |
| OPERATIVE DENTISTRY            | COMPUTER          | 1      | 19,404   | 28,189   | 29,897   | 36,585   | 40,441   | 39,839   | 49,228   | 47,396   |
|                                | BLDG DEPRECIATION | 1      | 25,991   | 25,991   | 25,991   | 25,876   | 25,876   | 25,876   | 26,758   | 26,758   |
|                                | ADMIN SQ FT       | 1      | 4,217    | 4,977    | 6,065    | 6,620    | 7,230    | 8,026    | 9,341    | 9,301    |
|                                | EDUC SQ FT        | 1      | 4,573    | 5,397    | 6,577    | 7,179    | 7,840    | 8,704    | 10,130   | 10,087   |
|                                | ADMIN STUDENT SPT | 1      | 25,171   | 25,563   | 28,807   | 30,550   | 34,141   | 34,786   | 35,973   | 38,213   |
| TOTAL METHOD 1A                |                   |        | 79,358   | 90,119   | 97,339   | 106,812  | 115,530  | 117,233  | 131,434  | 131,757  |
|                                | COMPUTER          | 1      | 24,662   | 30,432   | 31,250   | 42,782   | 51,093   | 53,487   | 56,098   | 51,853   |
|                                | BLDG DEPRECIATION | 1      | 33,034   | 28,059   | 27,167   | 30,258   | 32,691   | 34,740   | 30,492   | 29,275   |
|                                | ADMIN SQ FT       | 1      | 5,360    | 5,373    | 6,340    | 7,741    | 9,134    | 10,776   | 10,645   | 10,176   |
|                                | EDUC SQ FT        | 1      | 5,813    | 5,827    | 6,875    | 8,395    | 9,905    | 11,686   | 11,544   | 11,035   |
|                                | ADMIN STUDENT SPT | 1      | 31,992   | 27,597   | 30,111   | 35,725   | 43,134   | 46,704   | 40,993   | 41,806   |
| TOTAL METHOD 1B                |                   |        | 100,863  | 97,291   | 101,746  | 124,904  | 145,960  | 157,395  | 149,775  | 144,146  |
| REMOVABLE<br>PROSTHODONTICS    | COMPUTER          | 1      | 19,044   | 27,665   | 29,342   | 39,911   | 44,118   | 43,460   | 53,090   | 51,113   |
|                                | BLDG DEPRECIATION | 1      | 25,508   | 25,508   | 25,508   | 28,228   | 28,228   | 28,228   | 28,857   | 28,857   |
|                                | ADMIN SQ FT       | 1      | 4,139    | 4,885    | 5,953    | 7,222    | 7,887    | 8,756    | 10,074   | 10,031   |
|                                | EDUC SQ FT        | 1      | 4,488    | 5,297    | 6,455    | 7,831    | 8,533    | 9,495    | 10,925   | 10,878   |
|                                | ADMIN STUDENT SPT | 1      | 24,704   | 25,088   | 28,273   | 33,328   | 37,245   | 37,949   | 38,795   | 41,210   |
| TOTAL METHOD 1A                |                   |        | 77,885   | 88,446   | 95,532   | 116,522  | 126,033  | 127,890  | 141,743  | 142,091  |
|                                | COMPUTER          | 1      | 16,196   | 22,450   | 30,738   | 36,153   | 39,813   | 43,582   | 54,561   | 44,651   |
|                                | BLDG DEPRECIATION | 1      | 21,694   | 20,699   | 26,722   | 25,570   | 25,474   | 28,307   | 29,657   | 25,209   |
|                                | ADMIN SQ FT       | 1      | 3,520    | 3,964    | 6,236    | 6,542    | 7,117    | 8,780    | 10,353   | 8,762    |
|                                | EDUC SQ FT        | 1      | 3,817    | 4,299    | 6,762    | 7,094    | 7,718    | 9,522    | 11,228   | 9,502    |
|                                | ADMIN STUDENT SPT | 1      | 21,009   | 20,359   | 29,618   | 30,190   | 33,611   | 38,055   | 39,870   | 35,999   |
| TOTAL METHOD 1B                |                   |        | 66,238   | 71,772   | 100,078  | 105,552  | 113,735  | 128,248  | 145,671  | 124,126  |

TABLE 18A (CONTINUED--PAGE FIVE)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE NUMBER OF DENTAL STUDENTS/HSC STUDENTS (METHOD 1)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/ODS FTE (METHOD B)

| DEPARTMENT       | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| ENDODONTICS      | COMPUTER          | 1      | 8,509    | 12,361   | 13,110   | 13,673   | 15,114   | 14,889   | 19,426   | 18,703   |
|                  | BLDG DEPRECIATION | 1      | 11,397   | 11,397   | 11,397   | 9,670    | 9,670    | 9,670    | 10,559   | 10,559   |
|                  | ADMIN SQ FT       | 1      | 1,849    | 2,182    | 2,659    | 2,475    | 2,702    | 2,999    | 3,686    | 3,670    |
|                  | EDUC SQ FT        | 1      | 2,005    | 2,367    | 2,884    | 2,683    | 2,930    | 3,253    | 2,997    | 3,980    |
|                  | ADMIN STUDENT SPT | 1      | 11,038   | 11,209   | 12,632   | 11,418   | 12,759   | 13,001   | 14,195   | 15,079   |
| TOTAL METHOD 1A  |                   |        | 34,800   | 39,518   | 42,684   | 39,919   | 43,177   | 42,814   | 51,865   | 51,992   |
|                  | COMPUTER          | 1      | 4,049    | 4,988    | 9,733    | 16,871   | 13,934   | 15,187   | 16,137   | 16,564   |
|                  | BLDG DEPRECIATION | 1      | 5,423    | 4,599    | 8,462    | 11,933   | 8,915    | 9,864    | 8,771    | 9,351    |
|                  | ADMIN SQ FT       | 1      | 880      | 880      | 1,974    | 3,053    | 2,491    | 3,059    | 3,062    | 3,250    |
|                  | EDUC SQ FT        | 1      | 954      | 955      | 2,141    | 3,310    | 2,701    | 3,318    | 3,320    | 3,525    |
|                  | ADMIN STUDENT SPT | 1      | 5,252    | 4,524    | 9,379    | 14,089   | 11,763   | 13,261   | 11,792   | 13,354   |
| TOTAL METHOD 1B  |                   |        | 16,559   | 15,949   | 31,691   | 49,257   | 39,807   | 44,692   | 43,085   | 46,046   |
| OCCCLUSION       | COMPUTER          | 1      | 8,914    | 12,950   | 13,734   | 18,015   | 19,914   | 19,617   | 23,045   | 22,188   |
|                  | BLDG DEPRECIATION | 1      | 11,940   | 11,940   | 11,940   | 12,742   | 12,742   | 12,742   | 12,526   | 12,526   |
|                  | ADMIN SQ FT       | 1      | 1,937    | 2,286    | 2,786    | 3,259    | 3,560    | 3,952    | 4,373    | 4,354    |
|                  | EDUC SQ FT        | 1      | 2,101    | 2,479    | 3,021    | 3,535    | 3,860    | 4,286    | 4,742    | 4,722    |
|                  | ADMIN STUDENT SPT | 1      | 11,563   | 11,743   | 13,234   | 15,044   | 16,812   | 17,129   | 16,840   | 17,889   |
| TOTAL METHOD 1A  |                   |        | 36,457   | 41,400   | 44,717   | 52,596   | 56,889   | 57,728   | 61,529   | 61,680   |
|                  | COMPUTER          | 1      | 5,153    | 10,975   | 13,320   | 16,269   | 15,261   | 14,527   | 19,980   | 15,844   |
|                  | BLDG DEPRECIATION | 1      | 6,902    | 10,119   | 11,579   | 11,506   | 9,765    | 9,435    | 10,860   | 8,945    |
|                  | ADMIN SQ FT       | 1      | 1,120    | 1,938    | 2,702    | 2,944    | 2,728    | 2,926    | 3,791    | 3,109    |
|                  | EDUC SQ FT        | 1      | 1,214    | 2,101    | 2,930    | 3,192    | 2,958    | 3,174    | 4,111    | 3,371    |
|                  | ADMIN STUDENT SPT | 1      | 6,684    | 9,953    | 12,834   | 13,585   | 12,884   | 12,685   | 14,600   | 12,774   |
| TOTAL METHOD 1B  |                   |        | 21,075   | 35,088   | 43,367   | 47,498   | 43,598   | 42,749   | 53,344   | 44,044   |
| DENTAL MATERIALS | COMPUTER          | 1      | 2,521    | 3,662    | 3,884    | 5,543    | 6,127    | 6,036    | 7,118    | 6,853    |
|                  | BLDG DEPRECIATION | 1      | 3,377    | 3,377    | 3,377    | 3,920    | 3,920    | 3,920    | 3,869    | 3,869    |
|                  | ADMIN SQ FT       | 1      | 548      | 646      | 788      | 1,003    | 1,095    | 1,216    | 1,350    | 1,345    |
|                  | EDUC SQ FT        | 1      | 594      | 701      | 854      | 1,087    | 1,187    | 1,318    | 1,464    | 1,458    |
|                  | ADMIN STUDENT SPT | 1      | 3,270    | 3,321    | 3,742    | 4,628    | 5,172    | 5,270    | 5,202    | 5,525    |
| TOTAL METHOD 1A  |                   |        | 10,311   | 11,709   | 12,647   | 16,183   | 17,504   | 17,762   | 19,006   | 19,053   |

TABLE 18A(CONTINUED--PAGE SIX)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE NUMBER OF DENTAL STUDENTS/HSC STUDENTS (METHOD 1)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/ODS FTE (METHOD B)

| DEPARTMENT                 | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|----------------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| DENTAL MATERIALS<br>(cont) | COMPUTER          | 1      | 3,680    | 9,977    | 10,246   | 12,051   | 13,271   | 13,206   | 15,369   | 45,371   |
|                            | BLDG DEPRECIATION | 1      | 4,930    | 9,199    | 8,907    | 8,523    | 8,491    | 8,577    | 8,354    | 25,615   |
|                            | ADMIN SQ FT       | 1      | 800      | 1,761    | 2,078    | 2,180    | 2,372    | 2,660    | 2,916    | 8,904    |
|                            | EDUC SQ FT        | 1      | 867      | 1,910    | 2,254    | 2,364    | 2,572    | 2,885    | 3,162    | 9,656    |
|                            | ADMIN STUDENT SPT | 1      | 4,744    | 9,048    | 9,872    | 10,063   | 11,203   | 11,532   | 11,231   | 36,580   |
| TOTAL METHOD 1B            |                   |        | 15,054   | 31,898   | 33,359   | 35,184   | 37,911   | 38,863   | 41,034   | 126,128  |
| DENTAL HYGIENE             | COMPUTER          | 1      | 39,619   | 57,555   | 6,104    | 81,300   | 89,870   | 88,532   | 126,933  | 122,208  |
|                            | BLDG DEPRECIATION | 1      | 53,068   | 53,068   | 5,307    | 57,502   | 57,502   | 57,502   | 68,996   | 68,996   |
|                            | ADMIN SQ FT       | 1      | 8,612    | 10,163   | 1,238    | 14,712   | 16,067   | 17,837   | 24,088   | 23,984   |
|                            | EDUC SQ FT        | 1      | 9,339    | 11,021   | 1,343    | 15,954   | 17,424   | 19,343   | 26,121   | 26,009   |
|                            | ADMIN STUDENT SPT | 1      | 51,394   | 52,194   | 5,882    | 67,891   | 75,870   | 77,304   | 92,756   | 98,530   |
| TOTAL METHOD 1A            |                   |        | 162,032  | 184,002  | 19,874   | 237,359  | 256,733  | 260,517  | 338,894  | 339,726  |
|                            | COMPUTER          | 1      | 21,350   | 32,927   | 30,226   | 41,577   | 39,150   | 40,281   | 34,581   | 32,408   |
|                            | BLDG DEPRECIATION | 1      | 28,597   | 30,360   | 26,277   | 29,407   | 25,049   | 26,163   | 18,797   | 18,297   |
|                            | ADMIN SQ FT       | 1      | 4,641    | 5,814    | 6,132    | 7,524    | 6,999    | 8,115    | 6,562    | 6,360    |
|                            | EDUC SQ FT        | 1      | 5,032    | 6,305    | 6,650    | 8,159    | 7,590    | 8,801    | 7,116    | 6,897    |
|                            | ADMIN STUDENT SPT | 1      | 27,695   | 29,860   | 29,125   | 34,719   | 33,051   | 35,173   | 25,270   | 26,129   |
| TOTAL METHOD 1B            |                   |        | 87,314   | 105,266  | 98,410   | 121,385  | 111,840  | 118,532  | 92,327   | 90,091   |

TABLE 18B

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE NUMBER OF O.U.D.S. FTE/HSC FTE (METHOD 2)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OU DS FTE (METHOD B)

| DEPARTMENT      | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|-----------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| PEDODONTICS     | COMPUTER          | 2      | 118,320  | 48,702   | 49,387   | 46,063   | 53,934   | 58,875   | 77,227   | 79,611   |
|                 | BLDG DEPRECIATION | 2      | 53,067   | 22,433   | 22,433   | 18,426   | 18,426   | 19,864   | 21,512   | 21,512   |
|                 | ADMIN SQ FT       | 2      | 8,611    | 4,296    | 5,235    | 4,714    | 5,148    | 6,161    | 7,510    | 7,477    |
|                 | EDUC SQ FT        | 2      | 9,338    | 4,659    | 5,677    | 5,112    | 5,583    | 6,681    | 8,144    | 8,109    |
|                 | ADMIN STUDENT SPT | 2      | 51,394   | 22,063   | 24,864   | 21,756   | 24,312   | 26,705   | 30,922   | 30,720   |
| TOTAL METHOD 2A |                   |        | 240,733  | 102,155  | 107,597  | 96,073   | 107,406  | 118,289  | 145,317  | 147,431  |
|                 | COMPUTER          | 2      | 63,759   | 31,956   | 33,336   | 47,941   | 45,979   | 63,560   | 73,479   | 69,217   |
|                 | BLDG DEPRECIATION | 2      | 28,596   | 14,719   | 15,142   | 19,178   | 15,709   | 21,445   | 20,467   | 18,703   |
|                 | ADMIN SQ FT       | 2      | 4,640    | 2,819    | 3,533    | 4,906    | 4,389    | 6,652    | 7,145    | 6,501    |
|                 | EDUC SQ FT        | 2      | 5,032    | 3,057    | 3,832    | 5,320    | 4,760    | 7,213    | 7,748    | 7,050    |
|                 | ADMIN STUDENT SPT | 2      | 27,694   | 14,477   | 16,783   | 22,643   | 20,726   | 28,830   | 29,421   | 26,709   |
| TOTAL METHOD 2B |                   |        | 129,723  | 67,030   | 72,629   | 99,990   | 91,564   | 127,701  | 138,263  | 128,183  |
| ORTHODONTICS    | COMPUTER          | 2      | 39,036   | 39,220   | 43,280   | 60,274   | 70,587   | 71,464   | 96,064   | 99,028   |
|                 | BLDG DEPRECIATION | 2      | 19,659   | 19,659   | 19,659   | 24,111   | 24,111   | 24,111   | 26,758   | 26,758   |
|                 | ADMIN SQ FT       | 2      | 3,190    | 3,765    | 4,587    | 6,168    | 6,737    | 7,479    | 9,341    | 9,301    |
|                 | EDUC SQ FT        | 2      | 3,459    | 4,082    | 4,975    | 6,689    | 7,306    | 8,110    | 10,130   | 10,087   |
|                 | ADMIN STUDENT SPT | 2      | 19,039   | 19,335   | 21,789   | 28,467   | 31,813   | 32,415   | 35,973   | 38,213   |
| TOTAL METHOD 2A |                   |        | 84,384   | 86,163   | 94,292   | 125,713  | 140,556  | 143,581  | 178,269  | 183,389  |
|                 | COMPUTER          | 2      | 13,706   | 30,283   | 35,297   | 30,895   | 28,587   | 50,848   | 53,984   | 51,160   |
|                 | BLDG DEPRECIATION | 2      | 6,902    | 15,179   | 16,033   | 12,359   | 9,765    | 17,156   | 15,037   | 13,824   |
|                 | ADMIN SQ FT       | 2      | 1,120    | 2,907    | 3,741    | 3,162    | 2,728    | 5,321    | 5,249    | 4,805    |
|                 | EDUC SQ FT        | 2      | 1,214    | 3,152    | 4,057    | 3,429    | 2,958    | 5,770    | 5,693    | 5,211    |
|                 | ADMIN STUDENT SPT | 2      | 6,684    | 14,929   | 17,770   | 14,592   | 12,884   | 23,064   | 20,216   | 19,741   |
| TOTAL METHOD 2B |                   |        | 29,628   | 66,453   | 76,901   | 64,438   | 56,924   | 102,161  | 100,181  | 94,743   |
| PERIODONTICS    | COMPUTER          | 2      | 45,143   | 45,355   | 50,050   | 64,848   | 75,943   | 76,886   | 105,011  | 108,252  |
|                 | BLDG DEPRECIATION | 2      | 22,734   | 22,734   | 22,734   | 25,941   | 25,941   | 25,941   | 29,251   | 29,251   |
|                 | ADMIN SQ FT       | 2      | 3,689    | 4,354    | 5,305    | 6,637    | 7,248    | 8,046    | 10,212   | 10,167   |
|                 | EDUC SQ FT        | 2      | 4,000    | 4,721    | 5,753    | 7,197    | 7,860    | 8,726    | 11,074   | 11,026   |
|                 | ADMIN STUDENT SPT | 2      | 22,017   | 22,360   | 25,198   | 30,628   | 34,227   | 34,874   | 39,324   | 41,772   |
| TOTAL METHOD 2A |                   |        | 97,586   | 99,526   | 109,043  | 135,252  | 151,222  | 154,476  | 194,873  | 200,470  |

TABLE 18B (CONTINUED—PAGE TWO)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE NUMBER OF O.U.D.S. FTE/HSC FTE (METHOD 2)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OU DS FTE (METHOD B)

| DEPARTMENT          | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|---------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| PERIODONTICS (cont) | COMPUTER          | 2      | 28,389   | 30,283   | 58,829   | 63,922   | 44,745   | 69,916   | 98,971   | 90,283   |
|                     | BLDG DEPRECIATION | 2      | 14,298   | 15,179   | 26,722   | 25,570   | 15,284   | 23,589   | 27,568   | 24,395   |
|                     | ADMIN SQ FT       | 2      | 2,320    | 2,907    | 6,236    | 6,542    | 4,270    | 7,317    | 9,624    | 8,480    |
|                     | EDUC SQ FT        | 2      | 2,516    | 3,152    | 6,762    | 7,094    | 4,631    | 7,935    | 10,437   | 9,196    |
|                     | ADMIN STUDENT SPT | 2      | 13,847   | 14,929   | 29,618   | 30,190   | 20,166   | 31,713   | 37,062   | 34,838   |
| TOTAL METHOD 2B     |                   |        | 61,373   | 66,453   | 128,169  | 133,321  | 89,098   | 104,471  | 183,666  | 167,195  |
| ORAL DIAGNOSIS      | COMPUTER          | 2      | 48,137   | 48,363   | 53,369   | 51,290   | 60,066   | 60,812   | 117,019  | 120,631  |
|                     | BLDG DEPRECIATION | 2      | 24,242   | 24,242   | 24,242   | 20,517   | 20,517   | 20,517   | 32,596   | 32,596   |
|                     | ADMIN SQ FT       | 2      | 3,933    | 4,642    | 5,657    | 5,249    | 5,733    | 6,364    | 11,379   | 11,330   |
|                     | EDUC SQ FT        | 2      | 4,266    | 5,034    | 6,135    | 5,692    | 6,217    | 6,901    | 12,340   | 12,287   |
|                     | ADMIN STUDENT SPT | 2      | 23,477   | 23,843   | 26,869   | 24,224   | 27,071   | 27,583   | 43,821   | 46,548   |
| TOTAL METHOD 2A     |                   |        | 104,057  | 106,127  | 116,274  | 106,975  | 119,606  | 122,180  | 217,157  | 223,393  |
|                     | COMPUTER          | 2      | 39,160   | 36,707   | 40,200   | 50,072   | 52,203   | 78,819   | 92,973   | 78,246   |
|                     | BLDG DEPRECIATION | 2      | 19,721   | 18,399   | 18,260   | 20,030   | 17,831   | 26,591   | 25,898   | 21,143   |
|                     | ADMIN SQ FT       | 2      | 3,200    | 3,523    | 4,261    | 5,124    | 4,982    | 8,248    | 9,041    | 7,349    |
|                     | EDUC SQ FT        | 2      | 3,470    | 3,821    | 4,621    | 5,557    | 5,403    | 8,944    | 9,804    | 7,970    |
|                     | ADMIN STUDENT SPT | 2      | 19,099   | 18,096   | 20,239   | 23,649   | 23,527   | 35,749   | 34,816   | 30,193   |
| TOTAL METHOD 2B     |                   |        | 84,653   | 80,549   | 87,582   | 104,435  | 103,948  | 158,349  | 172,534  | 144,902  |
| ORAL PATHOLOGY      | COMPUTER          | 2      | 20,236   | 20,332   | 22,436   | 18,294   | 21,425   | 21,691   | 24,251   | 24,999   |
|                     | BLDG DEPRECIATION | 2      | 10,191   | 10,191   | 10,191   | 7,318    | 7,318    | 7,318    | 6,755    | 6,755    |
|                     | ADMIN SQ FT       | 2      | 1,653    | 1,951    | 2,378    | 1,872    | 2,044    | 2,270    | 2,358    | 2,348    |
|                     | EDUC SQ FT        | 2      | 1,793    | 2,116    | 2,579    | 2,030    | 2,217    | 2,461    | 2,557    | 2,546    |
|                     | ADMIN STUDENT SPT | 2      | 9,870    | 10,023   | 11,295   | 8,640    | 9,656    | 9,838    | 9,081    | 9,646    |
| TOTAL METHOD 2A     |                   |        | 43,745   | 44,615   | 48,881   | 38,156   | 42,662   | 43,580   | 45,004   | 46,296   |
|                     | COMPUTER          | 2      | 19,580   | 18,353   | 29,414   | 31,961   | 37,287   | 38,136   | 44,987   | 45,141   |
|                     | BLDG DEPRECIATION | 2      | 9,860    | 9,199    | 13,361   | 12,785   | 12,737   | 12,867   | 12,531   | 12,198   |
|                     | ADMIN SQ FT       | 2      | 1,600    | 1,761    | 3,118    | 3,271    | 3,558    | 3,991    | 4,374    | 4,240    |
|                     | EDUC SQ FT        | 2      | 1,735    | 1,910    | 3,381    | 3,547    | 3,859    | 4,328    | 4,744    | 4,598    |
|                     | ADMIN STUDENT SPT | 2      | 9,549    | 9,048    | 14,809   | 15,095   | 16,805   | 17,298   | 16,846   | 17,419   |
| TOTAL METHOD 2B     |                   |        | 42,326   | 40,274   | 64,084   | 66,660   | 74,248   | 76,620   | 83,484   | 83,597   |

TABLE 18B(CONTINUED--PAGE THREE)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE NUMBER OF O.U.D.S. FTE/HSC FTE (METHOD 2) AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OU DS FTE (METHOD B)

| DEPARTMENT        | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|-------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| DENT SERV ADMIN   | COMPUTER          | 2      | 45,143   | 43,355   | 50,050   | 97,141   | 60,066   | 60,812   | 52,270   | 53,883   |
|                   | BLDG DEPRECIATION | 2      | 22,734   | 22,734   | 22,734   | 20,517   | 20,517   | 20,517   | 14,560   | 14,560   |
|                   | ADMIN SQ FT       | 2      | 3,689    | 4,354    | 5,305    | 2,804    | 5,733    | 6,364    | 5,083    | 5,061    |
|                   | EDUC SQ FT        | 2      | 4,000    | 4,721    | 5,753    | 3,040    | 6,217    | 6,901    | 5,512    | 5,488    |
|                   | ADMIN STUDENT SPT | 2      | 22,017   | 22,360   | 25,198   | 24,224   | 27,071   | 27,583   | 19,574   | 20,792   |
| TOTAL METHOD 2A   |                   |        | 97,586   | 99,526   | 109,043  | 147,729  | 119,606  | 122,180  | 96,999   | 99,785   |
|                   | COMPUTER          | 2      | 54,825   | 53,226   | 60,790   | 108,958  | 67,118   | 54,661   | 104,970  | 75,236   |
|                   | BLDG DEPRECIATION | 2      | 27,610   | 26,679   | 27,613   | 23,013   | 22,926   | 18,442   | 29,239   | 20,329   |
|                   | ADMIN SQ FT       | 2      | 4,480    | 5,109    | 6,444    | 3,145    | 6,406    | 5,720    | 10,208   | 7,066    |
|                   | EDUC SQ FT        | 2      | 4,858    | 5,540    | 6,988    | 3,410    | 6,947    | 6,203    | 11,070   | 7,663    |
|                   | ADMIN STUDENT SPT | 2      | 26,739   | 26,240   | 30,605   | 27,171   | 30,249   | 24,793   | 39,309   | 29,032   |
| TOTAL METHOD 2B   |                   |        | 118,515  | 116,797  | 132,442  | 165,700  | 133,648  | 109,823  | 194,797  | 139,329  |
| ORAL SURGERY      | COMPUTER          | 2      | 25,864   | 25,986   | 28,676   | 25,645   | 30,033   | 30,406   | 48,973   | 50,485   |
|                   | BLDG DEPRECIATION | 2      | 13,025   | 13,025   | 13,025   | 10,258   | 10,258   | 10,258   | 13,641   | 13,641   |
|                   | ADMIN SQ FT       | 2      | 2,113    | 2,494    | 3,039    | 2,624    | 2,866    | 3,182    | 4,762    | 4,741    |
|                   | EDUC SQ FT        | 2      | 2,292    | 2,705    | 3,296    | 2,846    | 3,108    | 3,450    | 5,164    | 5,142    |
|                   | ADMIN STUDENT SPT | 2      | 12,615   | 12,811   | 14,437   | 12,112   | 13,535   | 13,791   | 18,339   | 19,481   |
| TOTAL METHOD 2A   |                   |        | 55,991   | 57,023   | 62,475   | 53,487   | 59,803   | 61,090   | 90,882   | 93,492   |
|                   | COMPUTER          | 2      | 14,685   | 23,860   | 35,297   | 37,288   | 32,316   | 20,339   | 23,993   | 37,618   |
|                   | BLDG DEPRECIATION | 2      | 7,395    | 11,959   | 16,033   | 14,916   | 11,038   | 6,862    | 6,683    | 10,165   |
|                   | ADMIN SQ FT       | 2      | 1,200    | 2,290    | 3,741    | 3,816    | 3,084    | 2,128    | 2,333    | 3,533    |
|                   | EDUC SQ FT        | 2      | 1,301    | 2,483    | 4,057    | 4,138    | 3,344    | 2,308    | 2,530    | 3,831    |
|                   | ADMIN STUDENT SPT | 2      | 7,162    | 11,763   | 17,770   | 17,611   | 14,564   | 9,225    | 8,984    | 14,516   |
| TOTAL METHOD 2B   |                   |        | 31,745   | 52,357   | 76,901   | 77,770   | 64,349   | 40,864   | 44,525   | 69,664   |
| FIXED PROSODONICS | COMPUTER          | 2      | 66,577   | 66,891   | 73,814   | 87,226   | 102,151  | 103,420  | 153,094  | 140,776  |
|                   | BLDG DEPRECIATION | 2      | 33,529   | 33,529   | 33,529   | 34,893   | 34,893   | 34,893   | 38,039   | 38,039   |
|                   | ADMIN SQ FT       | 2      | 5,440    | 6,421    | 7,824    | 8,927    | 9,749    | 10,823   | 13,280   | 13,222   |
|                   | EDUC SQ FT        | 2      | 5,900    | 6,963    | 8,485    | 9,681    | 10,573   | 11,737   | 14,401   | 14,339   |
|                   | ADMIN STUDENT SPT | 2      | 32,472   | 32,977   | 37,162   | 41,197   | 46,039   | 46,909   | 54,680   | 54,322   |
| TOTAL METHOD 2A   |                   |        | 143,920  | 146,782  | 160,817  | 181,926  | 203,407  | 207,784  | 273,495  | 260,700  |



TABLE 18B (CONTINUED--PAGE FOUR)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE NUMBER OF O.U.D.S. FTE/HSC FTE (METHOD 2)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OUIS FTE (METHOD B)

| DEPARTMENT                     | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|--------------------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| FIXED PROSTHODONTICS<br>(cont) | COMPUTER          | 2      | 50,909   | 47,720   | 58,829   | 73,510   | 78,304   | 83,899   | 107,591  | 94,798   |
|                                | BLDG DEPRECIATION | 2      | 25,638   | 23,919   | 26,722   | 29,406   | 26,747   | 28,307   | 26,733   | 25,615   |
|                                | ADMIN SQ FT       | 2      | 4,160    | 4,580    | 6,236    | 7,523    | 7,473    | 8,780    | 9,333    | 8,904    |
|                                | EDUC SQ FT        | 2      | 4,511    | 4,967    | 6,762    | 8,158    | 8,104    | 9,522    | 10,121   | 9,656    |
|                                | ADMIN STUDENT SPT | 2      | 24,829   | 23,526   | 29,618   | 34,719   | 35,291   | 38,055   | 38,428   | 36,580   |
| TOTAL METHOD 2B                |                   |        | 110,050  | 104,715  | 128,169  | 153,319  | 155,922  | 168,565  | 192,207  | 175,555  |
| OPERATIVE DENTISTRY            | COMPUTER          | 2      | 51,609   | 51,852   | 57,219   | 64,685   | 75,752   | 76,693   | 96,064   | 99,028   |
|                                | BLDG DEPRECIATION | 2      | 25,991   | 25,991   | 25,991   | 25,876   | 25,876   | 25,876   | 26,758   | 26,758   |
|                                | ADMIN SQ FT       | 2      | 4,217    | 4,977    | 6,065    | 6,620    | 7,230    | 8,026    | 9,341    | 9,901    |
|                                | EDUC SQ FT        | 2      | 4,573    | 5,397    | 6,577    | 7,179    | 7,840    | 8,704    | 10,130   | 10,087   |
|                                | ADMIN STUDENT SPT | 2      | 25,171   | 25,563   | 28,807   | 30,550   | 34,141   | 34,786   | 35,973   | 38,213   |
| TOTAL METHOD 2A                |                   |        | 111,564  | 113,783  | 124,662  | 134,912  | 150,841  | 154,087  | 178,269  | 183,389  |
|                                | COMPUTER          | 2      | 65,594   | 55,979   | 59,810   | 75,641   | 95,705   | 102,968  | 109,469  | 108,341  |
|                                | BLDG DEPRECIATION | 2      | 33,034   | 28,059   | 27,167   | 30,258   | 32,691   | 34,740   | 30,492   | 29,275   |
|                                | ADMIN SQ FT       | 2      | 5,360    | 5,373    | 6,340    | 7,741    | 9,134    | 10,776   | 10,645   | 10,176   |
|                                | EDUC SQ FT        | 2      | 5,813    | 5,827    | 6,875    | 8,395    | 9,905    | 11,686   | 11,544   | 11,035   |
|                                | ADMIN STUDENT SPT | 2      | 31,992   | 27,597   | 30,111   | 35,725   | 43,134   | 46,704   | 40,993   | 41,806   |
| TOTAL METHOD 2B                |                   |        | 141,795  | 122,838  | 130,306  | 157,763  | 190,572  | 206,875  | 203,145  | 200,634  |
| REMOVABLE<br>PROSTHODONTICS    | COMPUTER          | 2      | 50,651   | 50,890   | 56,157   | 70,565   | 82,639   | 83,665   | 103,598  | 106,796  |
|                                | BLDG DEPRECIATION | 2      | 25,508   | 25,508   | 25,508   | 28,228   | 28,228   | 28,228   | 28,857   | 28,857   |
|                                | ADMIN SQ FT       | 2      | 4,139    | 4,885    | 5,953    | 7,222    | 7,887    | 8,756    | 10,074   | 10,031   |
|                                | EDUC SQ FT        | 2      | 4,488    | 5,297    | 6,455    | 7,831    | 8,553    | 9,495    | 10,925   | 10,878   |
|                                | ADMIN STUDENT SPT | 2      | 24,704   | 25,088   | 28,273   | 33,328   | 37,245   | 37,949   | 38,795   | 41,210   |
| TOTAL METHOD 2A                |                   |        | 109,493  | 111,671  | 122,348  | 147,176  | 164,554  | 168,095  | 192,251  | 197,773  |
|                                | COMPUTER          | 2      | 43,077   | 41,296   | 58,829   | 63,922   | 74,575   | 83,899   | 106,470  | 93,293   |
|                                | BLDG DEPRECIATION | 2      | 21,694   | 20,699   | 26,722   | 25,570   | 25,474   | 28,304   | 29,657   | 25,209   |
|                                | ADMIN SQ FT       | 2      | 3,520    | 3,964    | 6,236    | 6,542    | 7,117    | 8,780    | 10,353   | 8,762    |
|                                | EDUC SQ FT        | 2      | 3,817    | 4,299    | 6,762    | 7,094    | 7,718    | 9,522    | 11,228   | 9,502    |
|                                | ADMIN STUDENT SPT | 2      | 21,009   | 20,359   | 29,618   | 30,190   | 33,611   | 38,055   | 39,870   | 35,999   |
| TOTAL METHOD 2B                |                   |        | 93,118   | 90,618   | 128,169  | 133,321  | 148,498  | 168,565  | 197,580  | 172,768  |

TABLE 18B (CONTINUED—PAGE FIVE)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE NUMBER OF O.U.D.S. FTE/HSC FTE (METHOD 2)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OU DS FTE (METHOD B)

| DEPARTMENT       | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| ENDODONTICS      | COMPUTER          | 2      | 22,631   | 22,738   | 25,091   | 24,175   | 28,311   | 28,663   | 37,904   | 39,077   |
|                  | BLDG DEPRECIATION | 2      | 11,397   | 11,397   | 11,397   | 9,670    | 9,670    | 9,670    | 10,559   | 10,559   |
|                  | ADMIN SQ FT       | 2      | 1,849    | 2,182    | 2,659    | 2,474    | 2,702    | 2,999    | 3,686    | 3,670    |
|                  | EDUC SQ FT        | 2      | 2,005    | 2,367    | 2,884    | 2,683    | 2,930    | 3,253    | 3,997    | 3,980    |
|                  | ADMIN STUDENT SPT | 2      | 11,038   | 11,209   | 12,632   | 11,418   | 12,759   | 13,001   | 14,195   | 15,079   |
| TOTAL METHOD 2A  |                   |        | 48,922   | 49,895   | 54,666   | 50,421   | 56,374   | 57,588   | 70,346   | 72,366   |
|                  | COMPUTER          | 2      | 10,769   | 9,176    | 18,629   | 29,830   | 26,101   | 29,237   | 31,491   | 34,608   |
|                  | BLDG DEPRECIATION | 2      | 5,423    | 4,599    | 8,462    | 11,923   | 8,915    | 9,864    | 8,771    | 9,351    |
|                  | ADMIN SQ FT       | 2      | 880      | 880      | 1,974    | 3,053    | 2,491    | 3,059    | 3,062    | 3,250    |
|                  | EDUC SQ FT        | 2      | 954      | 955      | 2,141    | 3,310    | 2,701    | 3,318    | 3,320    | 3,525    |
|                  | ADMIN STUDENT SPT | 2      | 5,252    | 4,524    | 9,379    | 14,089   | 11,763   | 13,261   | 11,792   | 13,354   |
| TOTAL METHOD 2B  |                   |        | 23,279   | 20,137   | 40,587   | 62,216   | 51,974   | 58,742   | 58,439   | 64,091   |
| OCCLUSION        | COMPUTER          | 2      | 23,709   | 23,820   | 26,286   | 31,852   | 37,302   | 37,765   | 44,971   | 46,359   |
|                  | BLDG DEPRECIATION | 2      | 11,940   | 11,940   | 11,940   | 12,742   | 12,742   | 12,742   | 12,526   | 12,526   |
|                  | ADMIN SQ FT       | 2      | 1,937    | 2,286    | 2,786    | 3,259    | 3,560    | 3,952    | 4,373    | 4,354    |
|                  | EDUC SQ FT        | 2      | 2,101    | 2,479    | 3,021    | 3,535    | 3,860    | 4,286    | 4,742    | 4,722    |
|                  | ADMIN STUDENT SPT | 2      | 11,563   | 11,743   | 13,234   | 15,044   | 16,812   | 17,129   | 16,840   | 17,889   |
| TOTAL METHOD 2A  |                   |        | 51,252   | 52,271   | 57,269   | 66,433   | 74,277   | 75,876   | 83,454   | 85,851   |
|                  | COMPUTER          | 2      | 13,706   | 20,189   | 25,492   | 28,765   | 28,587   | 27,966   | 38,988   | 33,104   |
|                  | BLDG DEPRECIATION | 2      | 6,902    | 10,119   | 11,579   | 11,506   | 9,765    | 9,435    | 10,860   | 8,945    |
|                  | ADMIN SQ FT       | 2      | 1,120    | 1,938    | 2,702    | 2,944    | 2,728    | 2,926    | 3,791    | 3,109    |
|                  | EDUC SQ FT        | 2      | 1,214    | 2,101    | 2,930    | 3,192    | 2,958    | 3,174    | 4,111    | 3,371    |
|                  | ADMIN STUDENT SPT | 2      | 6,684    | 9,953    | 12,834   | 13,585   | 12,884   | 12,685   | 14,600   | 12,774   |
| TOTAL METHOD 2B  |                   |        | 29,628   | 44,302   | 55,540   | 55,994   | 56,924   | 56,188   | 72,353   | 61,304   |
| DENTAL MATERIALS | COMPUTER          | 2      | 6,705    | 6,737    | 7,434    | 9,800    | 11,477   | 11,620   | 13,891   | 14,320   |
|                  | BLDG DEPRECIATION | 2      | 3,377    | 3,377    | 3,377    | 3,920    | 3,920    | 3,920    | 3,869    | 3,869    |
|                  | ADMIN SQ FT       | 2      | 548      | 646      | 788      | 1,003    | 1,095    | 1,216    | 1,350    | 1,345    |
|                  | EDUC SQ FT        | 2      | 594      | 701      | 854      | 1,087    | 1,187    | 1,318    | 1,464    | 1,458    |
|                  | ADMIN STUDENT SPT | 2      | 3,270    | 3,321    | 3,742    | 4,628    | 5,172    | 5,270    | 5,202    | 5,525    |
| TOTAL METHOD 2A  |                   |        | 14,495   | 14,783   | 16,197   | 20,441   | 22,854   | 23,346   | 25,779   | 26,519   |

TABLE 18B (CONTINUED--PAGE SIX)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE NUMBER OF O.U.D.S. FTE/HSC FTE (METHOD 2)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OU DS FTE (METHOD B)

| DEPARTMENT                 | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|----------------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| DENTAL MATERIALS<br>(cont) | COMPUTER          | 2      | 9,790    | 18,353   | 19,609   | 21,307   | 24,858   | 25,424   | 29,991   | 94,798   |
|                            | BLDG DEPRECIATION | 2      | 4,930    | 9,199    | 8,907    | 8,523    | 8,491    | 8,577    | 8,354    | 25,615   |
|                            | ADMIN SQ FT       | 2      | 800      | 1,761    | 2,078    | 2,180    | 2,372    | 2,660    | 2,916    | 8,904    |
|                            | EDUC SQ FT        | 2      | 867      | 1,910    | 2,254    | 2,364    | 2,572    | 2,885    | 3,162    | 9,656    |
|                            | ADMIN STUDENT SPT | 2      | 4,774    | 9,048    | 9,872    | 10,063   | 11,203   | 11,532   | 11,231   | 36,580   |
| TOTAL METHOD 2B            |                   |        | 21,163   | 40,274   | 42,723   | 44,440   | 49,499   | 51,080   | 55,656   | 175,555  |
| DENTAL HYGIENE             | COMPUTER          | 2      | 105,375  | 105,871  | 11,683   | 143,745  | 168,339  | 170,429  | 247,694  | 255,339  |
|                            | BLDG DEPRECIATION | 2      | 53,068   | 53,068   | 5,307    | 57,502   | 57,502   | 57,502   | 68,996   | 68,996   |
|                            | ADMIN SQ FT       | 2      | 8,612    | 10,163   | 1,238    | 14,712   | 16,067   | 17,837   | 24,088   | 23,984   |
|                            | EDUC SQ FT        | 2      | 9,339    | 11,021   | 1,343    | 15,954   | 17,424   | 19,343   | 26,121   | 26,009   |
|                            | ADMIN STUDENT SPT | 2      | 51,394   | 52,194   | 5,882    | 67,891   | 75,870   | 77,304   | 92,756   | 98,530   |
| TOTAL METHOD 2A            |                   |        | 227,787  | 232,317  | 25,453   | 299,803  | 335,202  | 342,415  | 459,655  | 472,857  |
| TOTAL METHOD 2B            | COMPUTER          | 2      | 56,783   | 60,568   | 57,849   | 73,511   | 73,333   | 77,544   | 67,481   | 67,713   |
|                            | BLDG DEPRECIATION | 2      | 28,597   | 30,360   | 26,277   | 29,407   | 25,049   | 26,163   | 18,797   | 18,297   |
|                            | ADMIN SQ FT       | 2      | 4,641    | 5,814    | 6,132    | 7,524    | 6,999    | 8,115    | 6,562    | 6,360    |
|                            | ADMIN STUDENT SPT | 2      | 27,695   | 29,860   | 29,125   | 34,719   | 33,051   | 35,173   | 25,270   | 26,129   |
|                            | TOTAL METHOD 2B   |        |          | 122,748  | 132,907  | 126,033  | 153,319  | 146,023  | 155,795  | 125,227  |

TABLE 18C

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE O.U.D.S. BUDGET/HSC BUDGETS (METHOD 3)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/ODS FTE (METHOD B)

| DEPARTMENT      | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|-----------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| PEDODONTICS     | COMPUTER          | 3      | 61,186   | 29,681   | 30,534   | 27,759   | 32,873   | 35,112   | 42,823   | 43,755   |
|                 | BLDG DEPRECIATION | 3      | 53,067   | 22,433   | 22,433   | 18,426   | 18,426   | 19,864   | 21,512   | 21,512   |
|                 | ADMIN SQ FT       | 3      | 8,611    | 4,296    | 5,235    | 4,714    | 5,148    | 6,161    | 7,510    | 7,477    |
|                 | EDUC SQ FT        | 3      | 5,338    | 4,659    | 5,677    | 5,112    | 5,583    | 6,681    | 8,144    | 8,109    |
|                 | ADMIN STUDENT SPT | 3      | 51,394   | 22,063   | 22,864   | 21,756   | 24,312   | 26,705   | 30,922   | 30,720   |
| TOTAL METHOD 3A |                   |        | 183,599  | 83,133   | 88,744   | 77,769   | 86,345   | 94,525   | 110,912  | 111,575  |
|                 | COMPUTER          | 3      | 32,971   | 19,475   | 20,610   | 28,891   | 28,024   | 37,906   | 40,744   | 38,042   |
|                 | BLDG DEPRECIATION | 3      | 28,596   | 14,719   | 15,142   | 19,178   | 15,709   | 21,445   | 20,467   | 18,703   |
|                 | ADMIN SQ FT       | 3      | 4,640    | 2,819    | 3,533    | 4,906    | 4,389    | 6,652    | 7,145    | 6,501    |
|                 | EDUC SQ FT        | 3      | 5,032    | 3,057    | 3,832    | 5,320    | 4,760    | 7,213    | 7,748    | 7,050    |
|                 | ADMIN STUDENT SPT | 3      | 27,694   | 14,477   | 16,783   | 22,643   | 20,726   | 28,830   | 29,421   | 26,709   |
| TOTAL METHOD 3B |                   |        | 98,935   | 54,549   | 59,903   | 80,940   | 73,609   | 102,047  | 105,528  | 97,008   |
| ORTHODONTICS    | COMPUTER          | 3      | 22,666   | 26,011   | 26,758   | 36,323   | 43,023   | 42,620   | 53,267   | 54,427   |
|                 | BLDG DEPRECIATION | 3      | 19,659   | 19,659   | 19,659   | 24,111   | 24,111   | 24,111   | 26,758   | 26,758   |
|                 | ADMIN SQ FT       | 3      | 3,190    | 3,765    | 4,587    | 6,168    | 6,737    | 7,479    | 9,341    | 9,301    |
|                 | EDUC SQ FT        | 3      | 3,459    | 4,082    | 4,975    | 6,689    | 7,306    | 8,110    | 10,130   | 10,087   |
|                 | ADMIN STUDENT SPT | 3      | 19,039   | 19,335   | 21,789   | 28,467   | 31,813   | 32,415   | 35,973   | 38,213   |
| TOTAL METHOD 3A |                   |        | 68,015   | 72,853   | 77,770   | 101,762  | 112,992  | 114,737  | 135,473  | 138,788  |
|                 | COMPUTER          | 3      | 7,958    | 20,084   | 21,823   | 18,618   | 17,424   | 30,325   | 29,934   | 28,118   |
|                 | BLDG DEPRECIATION | 3      | 6,902    | 15,179   | 16,033   | 12,359   | 9,765    | 17,156   | 15,037   | 13,824   |
|                 | ADMIN SQ FT       | 3      | 1,120    | 2,907    | 3,741    | 3,162    | 2,728    | 5,321    | 5,249    | 4,805    |
|                 | EDUC SQ FT        | 3      | 1,214    | 3,152    | 4,057    | 3,429    | 2,958    | 5,770    | 5,693    | 5,211    |
|                 | ADMIN STUDENT SPT | 3      | 6,684    | 14,929   | 17,770   | 14,592   | 12,884   | 23,064   | 20,216   | 19,741   |
| TOTAL METHOD 3B |                   |        | 23,881   | 56,254   | 63,427   | 52,161   | 45,760   | 81,637   | 76,131   | 71,701   |
| PERIODONTICS    | COMPUTER          | 3      | 26,212   | 30,080   | 30,944   | 39,080   | 46,287   | 45,854   | 58,228   | 59,496   |
|                 | BLDG DEPRECIATION | 3      | 22,734   | 22,734   | 22,734   | 25,941   | 25,941   | 25,941   | 29,251   | 29,251   |
|                 | ADMIN SQ FT       | 3      | 3,689    | 4,354    | 5,305    | 6,637    | 7,248    | 8,046    | 10,212   | 10,167   |
|                 | EDUC SQ FT        | 3      | 4,000    | 4,721    | 5,753    | 7,197    | 7,860    | 8,726    | 11,074   | 11,026   |
|                 | ADMIN STUDENT SPT | 3      | 22,017   | 22,360   | 25,198   | 30,628   | 34,227   | 34,874   | 39,324   | 41,772   |
| TOTAL METHOD 3A |                   |        | 78,655   | 84,251   | 89,936   | 109,484  | 121,566  | 123,443  | 148,091  | 151,714  |

TABLE 18C (CONTINUED--PAGE TWO)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE O.U.D.S. BUDGET/HSC BUDGETS (METHOD 3)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OUIS FTE (METHOD B)

| DEPARTMENT          | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|---------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| PERIODONTICS (cont) | COMPUTER          | 3      | 16,485   | 20,084   | 36,372   | 38,521   | 27,272   | 41,697   | 54,880   | 49,621   |
|                     | BLDG DEPRECIATION | 3      | 14,298   | 15,179   | 26,722   | 25,570   | 15,284   | 23,589   | 27,568   | 24,395   |
|                     | ADMIN SQ FT       | 3      | 2,320    | 2,907    | 6,236    | 6,542    | 4,270    | 7,317    | 9,624    | 8,480    |
|                     | EDUC SQ FT        | 3      | 2,516    | 3,152    | 6,762    | 7,094    | 4,631    | 7,935    | 10,437   | 9,196    |
|                     | ADMIN STUDENT SPT | 3      | 13,847   | 14,929   | 29,618   | 30,190   | 20,166   | 31,713   | 37,062   | 34,838   |
| TOTAL METHOD 3B     |                   |        | 49,467   | 56,254   | 105,712  | 107,920  | 71,625   | 112,252  | 139,574  | 126,532  |
| ORAL DIAGNOSIS      | COMPUTER          | 3      | 27,950   | 32,075   | 32,996   | 30,909   | 36,610   | 36,267   | 64,887   | 66,300   |
|                     | BLDG DEPRECIATION | 3      | 24,242   | 24,242   | 24,242   | 20,517   | 20,517   | 20,517   | 32,596   | 32,596   |
|                     | ADMIN SQ FT       | 3      | 3,933    | 4,642    | 5,657    | 5,249    | 5,733    | 6,364    | 11,379   | 11,330   |
|                     | EDUC SQ FT        | 3      | 4,266    | 5,034    | 6,135    | 5,692    | 6,217    | 6,901    | 12,340   | 12,287   |
|                     | ADMIN STUDENT SPT | 3      | 23,477   | 23,843   | 26,869   | 24,224   | 27,071   | 27,583   | 43,821   | 46,548   |
| TOTAL METHOD 3A     |                   |        | 83,871   | 89,838   | 95,900   | 86,594   | 96,150   | 97,635   | 165,025  | 169,063  |
|                     | COMPUTER          | 3      | 22,738   | 24,344   | 24,854   | 30,175   | 31,817   | 47,004   | 51,554   | 43,005   |
|                     | BLDG DEPRECIATION | 3      | 19,721   | 18,399   | 18,260   | 20,030   | 17,831   | 26,591   | 25,898   | 21,143   |
|                     | ADMIN SQ FT       | 3      | 3,200    | 3,523    | 4,261    | 5,124    | 4,982    | 8,248    | 9,041    | 7,349    |
|                     | EDUC SQ FT        | 3      | 3,470    | 3,821    | 4,621    | 5,557    | 5,403    | 8,944    | 9,804    | 7,970    |
|                     | ADMIN STUDENT SPT | 3      | 19,099   | 18,096   | 20,239   | 23,649   | 23,527   | 35,749   | 34,816   | 30,193   |
| TOTAL METHOD 3B     |                   |        | 68,231   | 68,186   | 72,236   | 84,537   | 83,563   | 126,538  | 131,115  | 109,661  |
| ORAL PATHOLOGY      | COMPUTER          | 3      | 11,750   | 13,484   | 13,871   | 11,025   | 13,058   | 12,936   | 13,447   | 13,740   |
|                     | BLDG DEPRECIATION | 3      | 10,191   | 10,191   | 10,191   | 7,318    | 7,318    | 7,318    | 6,755    | 6,755    |
|                     | ADMIN SQ FT       | 3      | 1,653    | 1,951    | 2,378    | 1,872    | 2,044    | 2,270    | 2,358    | 2,348    |
|                     | EDUC SQ FT        | 3      | 1,793    | 2,116    | 2,579    | 2,030    | 2,217    | 2,461    | 2,557    | 2,546    |
|                     | ADMIN STUDENT SPT | 3      | 9,870    | 10,023   | 11,295   | 8,640    | 9,656    | 9,838    | 9,081    | 9,646    |
| TOTAL METHOD 3A     |                   |        | 35,259   | 37,767   | 40,316   | 30,887   | 34,295   | 34,825   | 34,200   | 35,037   |
|                     | COMPUTER          | 3      | 11,369   | 12,172   | 18,186   | 19,261   | 22,727   | 22,743   | 24,945   | 24,810   |
|                     | BLDG DEPRECIATION | 3      | 9,860    | 9,199    | 13,361   | 12,785   | 12,737   | 12,867   | 12,531   | 12,198   |
|                     | ADMIN SQ FT       | 3      | 1,600    | 1,761    | 3,118    | 3,271    | 3,558    | 3,991    | 4,374    | 4,240    |
|                     | EDUC SQ FT        | 3      | 1,735    | 1,910    | 3,381    | 3,547    | 3,859    | 4,328    | 4,744    | 4,598    |
|                     | ADMIN STUDENT SPT | 3      | 9,549    | 9,048    | 14,809   | 15,095   | 16,805   | 17,298   | 16,846   | 17,419   |
| TOTAL METHOD 3B     |                   |        | 34,115   | 34,093   | 52,855   | 53,960   | 59,687   | 61,228   | 63,442   | 63,266   |

TABLE 18C (CONTINUED--PAGE THREE)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE O.U.D.S. BUDGET/HSC BUDGETS (METHOD 3)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OUHS FTE (METHOD B)

| DEPARTMENT         | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|--------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| DENT SERV ADMIN    | COMPUTER          | 3      | 26,212   | 30,080   | 30,944   | 109,437  | 36,610   | 36,267   | 28,983   | 29,615   |
|                    | BLDG DEPRECIATION | 3      | 22,734   | 22,734   | 22,734   | 20,517   | 20,517   | 20,517   | 14,560   | 14,560   |
|                    | ADMIN SQ FT       | 3      | 3,689    | 4,354    | 5,305    | 2,804    | 5,733    | 6,364    | 5,083    | 5,061    |
|                    | EDUC SQ FT        | 3      | 4,000    | 4,721    | 5,753    | 3,040    | 6,217    | 6,901    | 5,512    | 5,488    |
|                    | ADMIN STUDENT SPT | 3      | 22,017   | 22,360   | 25,198   | 24,224   | 27,071   | 27,583   | 19,574   | 20,792   |
| TOTAL METHOD 3A    |                   |        | 78,652   | 84,251   | 89,926   | 160,024  | 96,150   | 97,635   | 73,713   | 75,517   |
|                    | COMPUTER          | 3      | 31,834   | 35,300   | 37,584   | 122,749  | 40,908   | 32,599   | 58,206   | 41,351   |
|                    | BLDG DEPRECIATION | 3      | 27,610   | 26,679   | 27,613   | 23,013   | 22,926   | 18,442   | 29,239   | 20,329   |
|                    | ADMIN SQ FT       | 3      | 4,480    | 5,109    | 6,444    | 3,145    | 6,406    | 5,720    | 10,208   | 7,066    |
|                    | EDUC SQ FT        | 3      | 4,858    | 5,540    | 6,988    | 3,410    | 6,947    | 6,203    | 11,070   | 7,663    |
|                    | ADMIN STUDENT SPT | 3      | 26,739   | 26,240   | 30,605   | 27,171   | 30,249   | 24,793   | 39,309   | 29,032   |
| TOTAL METHOD 3B    |                   |        | 95,524   | 98,870   | 109,236  | 179,491  | 107,438  | 87,760   | 148,033  | 105,443  |
| ORAL SURGERY       | COMPUTER          | 3      | 15,018   | 17,234   | 17,729   | 15,454   | 18,305   | 18,133   | 27,156   | 27,747   |
|                    | BLDG DEPRECIATION | 3      | 13,025   | 13,025   | 13,025   | 10,258   | 10,258   | 10,258   | 13,641   | 13,641   |
|                    | ADMIN SQ FT       | 3      | 2,113    | 2,494    | 3,039    | 2,624    | 2,866    | 3,182    | 4,762    | 4,741    |
|                    | EDUC SQ FT        | 3      | 2,292    | 2,705    | 3,296    | 2,846    | 3,108    | 3,450    | 5,164    | 5,142    |
|                    | ADMIN STUDENT SPT | 3      | 12,615   | 12,811   | 14,437   | 12,112   | 13,535   | 13,791   | 18,339   | 19,481   |
| TOTAL METHOD 3A    |                   |        | 45,065   | 48,271   | 51,528   | 43,297   | 48,075   | 48,817   | 69,064   | 70,754   |
|                    | COMPUTER          | 3      | 8,527    | 15,824   | 21,828   | 22,471   | 19,696   | 12,130   | 13,304   | 20,675   |
|                    | BLDG DEPRECIATION | 3      | 7,395    | 11,959   | 16,033   | 14,916   | 11,038   | 6,862    | 6,683    | 10,165   |
|                    | ADMIN SQ FT       | 3      | 1,200    | 2,290    | 3,741    | 3,816    | 3,084    | 2,128    | 2,333    | 3,533    |
|                    | EDUC SQ FT        | 3      | 1,301    | 2,483    | 4,057    | 4,138    | 3,344    | 2,308    | 2,530    | 3,831    |
|                    | ADMIN STUDENT SPT | 3      | 7,162    | 11,763   | 17,770   | 17,611   | 14,567   | 9,225    | 8,984    | 14,516   |
| TOTAL METHOD 3B    |                   |        | 25,586   | 44,321   | 63,427   | 62,953   | 51,729   | 32,655   | 33,836   | 52,721   |
| FIXED PROSODONTICS | COMPUTER          | 3      | 38,658   | 44,362   | 45,636   | 52,566   | 62,261   | 61,678   | 84,743   | 77,372   |
|                    | BLDG DEPRECIATION | 3      | 33,529   | 33,529   | 33,529   | 34,893   | 34,893   | 34,893   | 38,039   | 38,039   |
|                    | ADMIN SQ FT       | 3      | 5,440    | 6,421    | 7,824    | 8,927    | 9,749    | 10,823   | 13,280   | 13,222   |
|                    | EDUC SQ FT        | 3      | 5,900    | 6,963    | 8,485    | 9,681    | 10,573   | 11,737   | 14,401   | 14,339   |
|                    | ADMIN STUDENT SPT | 3      | 32,472   | 32,977   | 37,162   | 41,197   | 46,039   | 46,909   | 54,680   | 54,322   |
| TOTAL METHOD 3A    |                   |        | 116,001  | 124,254  | 132,639  | 147,267  | 163,517  | 166,042  | 205,145  | 197,297  |

TABLE 1.8C (CONTINUED—PAGE FOUR)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE O.U.D.S. BUDGET/HSC BUDGETS (METHOD 3)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OUIS FTE (METHOD B)

| DEPARTMENT                    | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|-------------------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| FIXED PROTHODONTICS<br>(cont) | COMPUTER          | 3      | 29,560   | 31,648   | 36,372   | 44,300   | 47,726   | 50,036   | 59,556   | 52,102   |
|                               | BLDG DEPRECIATION | 3      | 25,638   | 23,919   | 26,722   | 29,406   | 26,747   | 28,307   | 26,733   | 25,615   |
|                               | ADMIN SQ FT       | 3      | 4,160    | 4,580    | 6,236    | 7,523    | 7,473    | 8,780    | 9,333    | 8,904    |
|                               | EDUC SQ FT        | 3      | 4,511    | 4,967    | 6,762    | 8,158    | 8,104    | 9,522    | 10,121   | 9,656    |
|                               | ADMIN STUDENT SPT | 3      | 24,829   | 23,526   | 29,618   | 34,719   | 35,291   | 38,055   | 38,428   | 36,580   |
| TOTAL METHOD 3B               |                   |        | 88,701   | 88,642   | 105,712  | 124,108  | 125,345  | 134,702  | 144,172  | 132,859  |
| OPERATIVE DENTISTRY           | COMPUTER          | 3      | 29,967   | 34,388   | 35,376   | 38,981   | 46,171   | 45,738   | 53,267   | 54,427   |
|                               | BLDG DEPRECIATION | 3      | 25,991   | 25,991   | 25,991   | 25,876   | 25,876   | 25,876   | 26,758   | 26,758   |
|                               | ADMIN SQ FT       | 3      | 4,217    | 4,977    | 6,065    | 6,620    | 7,230    | 8,026    | 9,241    | 9,301    |
|                               | EDUC SQ FT        | 3      | 4,573    | 5,397    | 6,577    | 7,179    | 7,840    | 8,704    | 10,130   | 10,087   |
|                               | ADMIN STUDENT SPT | 3      | 25,171   | 25,563   | 28,807   | 30,550   | 34,141   | 34,786   | 35,973   | 38,213   |
| TOTAL METHOD 3A               |                   |        | 89,921   | 96,319   | 102,819  | 109,208  | 121,260  | 123,122  | 135,473  | 138,788  |
|                               | COMPUTER          | 3      | 38,087   | 37,125   | 36,978   | 45,584   | 58,332   | 61,408   | 60,700   | 59,545   |
|                               | BLDG DEPRECIATION | 3      | 33,034   | 28,059   | 27,167   | 30,258   | 32,691   | 34,740   | 30,492   | 29,275   |
|                               | ADMIN SQ FT       | 3      | 5,360    | 5,273    | 6,340    | 7,741    | 9,134    | 10,776   | 10,645   | 10,176   |
|                               | EDUC SQ FT        | 3      | 5,813    | 5,827    | 6,875    | 8,395    | 9,905    | 11,686   | 11,544   | 11,035   |
|                               | ADMIN STUDENT SPT | 3      | 31,992   | 27,597   | 30,111   | 35,725   | 43,134   | 46,704   | 40,993   | 41,806   |
| TOTAL METHOD 3B               |                   |        | 114,288  | 103,985  | 107,474  | 127,706  | 153,199  | 165,316  | 154,377  | 151,839  |
| REMOVABLE<br>PROTHODONTICS    | COMPUTER          | 3      | 29,411   | 32,750   | 34,720   | 42,525   | 50,368   | 49,896   | 57,445   | 58,696   |
|                               | BLDG DEPRECIATION | 3      | 25,508   | 25,508   | 25,508   | 28,228   | 28,228   | 28,228   | 28,857   | 28,857   |
|                               | ADMIN SQ FT       | 3      | 4,139    | 4,885    | 5,953    | 7,222    | 7,887    | 8,756    | 10,074   | 10,031   |
|                               | EDUC SQ FT        | 3      | 4,488    | 5,297    | 6,455    | 7,831    | 8,553    | 9,495    | 10,925   | 10,878   |
|                               | ADMIN STUDENT SPT | 3      | 24,704   | 25,088   | 28,273   | 33,328   | 37,245   | 37,949   | 38,795   | 41,210   |
| TOTAL METHOD 3A               |                   |        | 88,252   | 94,531   | 100,911  | 119,136  | 132,283  | 134,326  | 146,098  | 149,693  |
|                               | COMPUTER          | 3      | 25,012   | 27,387   | 36,372   | 38,521   | 45,454   | 50,036   | 59,037   | 51,275   |
|                               | BLDG DEPRECIATION | 3      | 21,694   | 20,699   | 26,722   | 25,570   | 25,474   | 28,307   | 29,657   | 25,209   |
|                               | ADMIN SQ FT       | 3      | 3,520    | 3,964    | 6,236    | 6,542    | 7,117    | 8,780    | 10,353   | 8,762    |
|                               | EDUC SQ FT        | 3      | 3,817    | 4,299    | 6,762    | 7,094    | 7,718    | 9,522    | 11,228   | 9,502    |
|                               | ADMIN STUDENT SPT | 3      | 21,009   | 20,359   | 29,618   | 30,190   | 33,611   | 38,055   | 39,870   | 35,999   |
| TOTAL METHOD 3B               |                   |        | 75,054   | 76,710   | 105,712  | 107,920  | 119,376  | 134,702  | 150,148  | 130,750  |

TABLE 1-8C (CONTINUED--PAGE FIVE)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE O.U.D.S. BUDGET/HSC BUDGETS (METHOD 3)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/ODS FTE (METHOD B)

| DEPARTMENT       | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| ENDODONTICS      | COMPUTER          | 3      | 13,141   | 15,080   | 15,513   | 14,568   | 17,255   | 17,094   | 21,019   | 21,477   |
|                  | BLDG DEPRECIATION | 3      | 11,397   | 11,397   | 11,397   | 9,670    | 9,670    | 9,670    | 10,559   | 10,559   |
|                  | ADMIN SQ FT       | 3      | 1,849    | 2,182    | 2,659    | 2,474    | 2,702    | 2,999    | 3,686    | 3,670    |
|                  | EDUC SQ FT        | 3      | 2,005    | 2,367    | 2,884    | 2,683    | 2,930    | 3,253    | 3,997    | 3,980    |
|                  | ADMIN STUDENT SPT | 3      | 11,038   | 11,209   | 12,632   | 11,418   | 12,759   | 13,001   | 14,195   | 15,079   |
| TOTAL METHOD 3A  |                   |        | 39,432   | 42,237   | 45,087   | 40,815   | 45,319   | 46,019   | 53,458   | 54,766   |
|                  | COMPUTER          | 3      | 6,253    | 6,086    | 11,517   | 17,976   | 15,908   | 17,437   | 17,461   | 19,021   |
|                  | BLDG DEPRECIATION | 3      | 5,423    | 4,599    | 8,462    | 11,933   | 8,915    | 9,864    | 8,771    | 9,351    |
|                  | ADMIN SQ FT       | 3      | 880      | 880      | 1,974    | 3,053    | 2,491    | 3,059    | 3,062    | 3,250    |
|                  | EDUC SQ FT        | 3      | 954      | 955      | 2,141    | 3,310    | 2,701    | 3,318    | 3,320    | 3,525    |
|                  | ADMIN STUDENT SPT | 3      | 5,252    | 4,524    | 9,379    | 14,089   | 11,763   | 13,261   | 11,792   | 13,354   |
| TOTAL METHOD 3B  |                   |        | 18,763   | 17,046   | 33,475   | 50,362   | 41,781   | 46,941   | 44,409   | 48,504   |
| OCCLUSION        | COMPUTER          | 3      | 13,766   | 15,798   | 16,252   | 19,195   | 22,735   | 22,522   | 24,936   | 25,479   |
|                  | BLDG DEPRECIATION | 3      | 11,940   | 11,940   | 11,940   | 12,742   | 12,742   | 12,742   | 12,526   | 12,526   |
|                  | ADMIN SQ FT       | 3      | 1,937    | 2,286    | 2,786    | 3,259    | 3,560    | 3,952    | 4,373    | 4,354    |
|                  | EDUC SQ FT        | 3      | 2,101    | 2,479    | 3,021    | 3,535    | 3,860    | 4,286    | 4,742    | 4,722    |
|                  | ADMIN STUDENT SPT | 3      | 11,563   | 11,743   | 13,234   | 15,044   | 16,812   | 17,129   | 16,840   | 17,889   |
| TOTAL METHOD 3A  |                   |        | 41,309   | 44,248   | 47,234   | 53,776   | 59,711   | 60,633   | 63,420   | 64,971   |
|                  | COMPUTER          | 3      | 7,958    | 13,389   | 15,761   | 17,334   | 17,424   | 16,678   | 21,619   | 18,194   |
|                  | BLDG DEPRECIATION | 3      | 6,902    | 10,119   | 11,579   | 11,506   | 9,765    | 9,435    | 10,860   | 8,945    |
|                  | ADMIN SQ FT       | 3      | 1,120    | 1,938    | 2,702    | 2,944    | 2,728    | 2,926    | 3,791    | 3,109    |
|                  | EDUC SQ FT        | 3      | 1,214    | 2,101    | 2,930    | 3,192    | 2,958    | 3,174    | 4,111    | 3,371    |
|                  | ADMIN STUDENT SPT | 3      | 6,684    | 9,953    | 12,834   | 13,585   | 12,884   | 12,685   | 14,600   | 12,774   |
| TOTAL METHOD 3B  |                   |        | 23,881   | 37,502   | 45,808   | 48,564   | 45,760   | 44,900   | 54,983   | 46,395   |
| DENTAL MATERIALS | COMPUTER          | 3      | 3,893    | 4,468    | 4,596    | 5,906    | 6,995    | 6,930    | 7,702    | 7,807    |
|                  | BLDG DEPRECIATION | 3      | 3,377    | 3,377    | 3,377    | 3,920    | 3,920    | 3,920    | 3,869    | 3,869    |
|                  | ADMIN SQ FT       | 3      | 548      | 646      | 788      | 1,003    | 1,095    | 1,216    | 1,350    | 1,345    |
|                  | EDUC SQ FT        | 3      | 594      | 701      | 854      | 1,087    | 1,187    | 1,318    | 1,464    | 1,458    |
|                  | ADMIN STUDENT SPT | 3      | 3,270    | 3,321    | 3,742    | 4,628    | 5,172    | 5,270    | 5,202    | 5,525    |
| TOTAL METHOD 3A  |                   |        | 11,683   | 12,514   | 13,359   | 16,546   | 18,372   | 18,656   | 19,590   | 20,069   |



TABLE 18C(CONTINUED--PAGE SIX)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE O.U.D.S. BUDGET/HSC BUDGETS (METHOD 3)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/ODS FTE (METHOD B)

| DEPARTMENT                 | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|----------------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| DENTAL MATERIALS<br>(cont) | COMPUTER          | 3      | 5,684    | 12,172   | 12,124   | 12,840   | 15,151   | 15,162   | 16,630   | 52,102   |
|                            | BLDG DEPRECIATION | 3      | 4,930    | 9,199    | 8,907    | 8,523    | 8,491    | 8,577    | 8,354    | 25,615   |
|                            | ADMIN SQ FT       | 3      | 800      | 1,761    | 2,078    | 2,180    | 2,372    | 2,660    | 2,916    | 8,904    |
|                            | EDUC SQ FT        | 3      | 867      | 1,910    | 2,254    | 2,364    | 2,572    | 2,885    | 3,162    | 9,656    |
|                            | ADMIN STUDENT SPT | 3      | 4,774    | 9,048    | 9,872    | 10,063   | 11,203   | 11,532   | 11,231   | 36,580   |
| TOTAL METHOD 3B            |                   |        | 17,057   | 34,093   | 35,237   | 35,937   | 39,792   | 40,818   | 42,295   | 132,859  |
| DENTAL HYGIENE             | COMPUTER          | 3      | 61,186   | 70,214   | 7,223    | 86,626   | 102,603  | 101,642  | 137,347  | 140,338  |
|                            | BLDG DEPRECIATION | 3      | 53,068   | 53,068   | 5,307    | 57,502   | 57,502   | 57,502   | 68,996   | 68,996   |
|                            | ADMIN SQ FT       | 3      | 8,612    | 10,163   | 1,238    | 14,712   | 16,067   | 17,837   | 24,088   | 23,984   |
|                            | EDUC SQ FT        | 3      | 9,339    | 11,021   | 1,343    | 15,954   | 17,424   | 19,343   | 26,121   | 26,009   |
|                            | ADMIN STUDENT SPT | 3      | 51,394   | 52,194   | 5,882    | 67,891   | 75,870   | 77,304   | 92,756   | 98,530   |
| TOTAL METHOD 3A            |                   |        | 183,599  | 196,661  | 20,993   | 242,685  | 269,466  | 273,627  | 349,308  | 357,855  |
| TOTAL METHOD 3B            | COMPUTER          | 3      | 32,971   | 40,169   | 35,766   | 44,300   | 44,696   | 46,246   | 37,418   | 37,216   |
|                            | BLDG DEPRECIATION | 3      | 28,597   | 30,360   | 26,277   | 29,407   | 25,049   | 26,163   | 18,797   | 18,297   |
|                            | ADMIN SQ FT       | 3      | 4,641    | 5,814    | 6,132    | 7,525    | 6,999    | 8,115    | 6,562    | 6,360    |
|                            | EDUC SQ FT        | 3      | 5,032    | 6,305    | 6,650    | 8,159    | 7,590    | 8,801    | 7,116    | 6,897    |
|                            | ADMIN STUDENT SPT | 3      | 27,695   | 29,860   | 29,125   | 34,719   | 33,051   | 35,173   | 25,270   | 26,129   |
| TOTAL METHOD 3B            |                   |        | 98,936   | 112,508  | 103,950  | 124,108  | 117,386  | 124,497  | 95,164   | 94,899   |

TABLE 18D

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE O.U.D.S. BUDGET/TOTAL COLLEGE BUDGETS (METHOD 4)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/ODS FTE (METHOD B)

| DEPARTMENT      | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|-----------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| PEDODONTICS     | COMPUTER          | 4      | 163,572  | 69,695   | 77,961   | 65,559   | 77,660   | 95,405   | 113,012  | 103,616  |
|                 | BLDG DEPRECIATION | 4      | 53,067   | 22,433   | 22,433   | 18,426   | 18,426   | 19,864   | 21,512   | 21,512   |
|                 | ADMIN SQ FT       | 4      | 8,611    | 4,296    | 5,235    | 4,714    | 5,148    | 6,161    | 7,510    | 7,477    |
|                 | EDUC SQ FT        | 4      | 9,338    | 4,659    | 5,677    | 5,112    | 5,583    | 6,681    | 8,144    | 8,109    |
|                 | ADMIN STUDENT SPT | 4      | 51,394   | 22,063   | 24,864   | 21,756   | 24,312   | 26,705   | 30,922   | 30,720   |
| TOTAL METHOD 4A |                   |        | 285,985  | 123,148  | 136,172  | 115,569  | 131,133  | 154,819  | 181,101  | 171,436  |
|                 | COMPUTER          | 4      | 88,144   | 45,731   | 52,625   | 68,232   | 66,206   | 102,997  | 107,527  | 90,088   |
|                 | BLDG DEPRECIATION | 4      | 28,596   | 14,719   | 15,142   | 19,178   | 15,709   | 21,445   | 20,467   | 18,703   |
|                 | ADMIN SQ FT       | 4      | 4,640    | 2,819    | 3,533    | 4,906    | 4,389    | 6,652    | 7,145    | 6,501    |
|                 | EDUC SQ FT        | 4      | 5,032    | 3,057    | 3,832    | 5,320    | 4,760    | 7,213    | 7,748    | 7,050    |
|                 | ADMIN STUDENT SPT | 4      | 27,694   | 14,477   | 16,783   | 22,643   | 20,726   | 28,830   | 29,421   | 26,709   |
| TOTAL METHOD 4B |                   |        | 154,108  | 80,805   | 91,917   | 120,282  | 111,791  | 167,138  | 172,310  | 149,054  |
| ORTHODONTICS    | COMPUTER          | 4      | 60,596   | 61,076   | 68,321   | 85,765   | 101,640  | 115,805  | 140,596  | 128,889  |
|                 | BLDG DEPRECIATION | 4      | 19,659   | 19,659   | 19,659   | 24,111   | 24,111   | 24,111   | 26,758   | 26,758   |
|                 | ADMIN SQ FT       | 4      | 3,190    | 3,765    | 4,587    | 6,168    | 6,737    | 7,479    | 9,341    | 9,301    |
|                 | EDUC SQ FT        | 4      | 3,459    | 4,082    | 4,975    | 6,689    | 7,306    | 8,110    | 10,130   | 10,087   |
|                 | ADMIN STUDENT SPT | 4      | 19,039   | 19,335   | 21,789   | 28,467   | 31,813   | 32,415   | 35,973   | 38,213   |
| TOTAL METHOD 4A |                   |        | 105,944  | 107,920  | 119,333  | 151,224  | 171,609  | 187,922  | 222,782  | 213,249  |
|                 | COMPUTER          | 4      | 21,276   | 47,160   | 55,720   | 43,972   | 41,163   | 82,397   | 78,999   | 66,587   |
|                 | BLDG DEPRECIATION | 4      | 6,902    | 15,179   | 16,033   | 12,358   | 9,765    | 17,156   | 15,037   | 13,824   |
|                 | ADMIN SQ FT       | 4      | 1,120    | 2,907    | 3,741    | 3,162    | 2,728    | 5,321    | 5,249    | 4,805    |
|                 | EDUC SQ FT        | 4      | 1,214    | 3,152    | 4,057    | 3,429    | 2,958    | 5,770    | 5,693    | 5,211    |
|                 | ADMIN STUDENT SPT | 4      | 6,684    | 14,929   | 17,770   | 14,592   | 12,884   | 23,064   | 20,216   | 19,741   |
| TOTAL METHOD 4B |                   |        | 37,198   | 83,330   | 97,324   | 77,514   | 69,500   | 133,710  | 125,196  | 110,170  |
| PERIODONTICS    | COMPUTER          | 4      | 70,075   | 70,631   | 79,009   | 92,294   | 109,353  | 124,592  | 153,669  | 140,893  |
|                 | BLDG DEPRECIATION | 4      | 22,734   | 22,734   | 22,734   | 25,941   | 25,941   | 25,941   | 29,251   | 29,251   |
|                 | ADMIN SQ FT       | 4      | 3,689    | 4,354    | 5,305    | 6,637    | 7,248    | 8,046    | 10,212   | 10,167   |
|                 | EDUC SQ FT        | 4      | 4,000    | 4,721    | 5,753    | 7,197    | 7,860    | 8,726    | 11,074   | 11,026   |
|                 | ADMIN STUDENT SPT | 4      | 22,017   | 22,360   | 25,198   | 30,628   | 34,227   | 34,874   | 39,324   | 41,772   |
| TOTAL METHOD 4A |                   |        | 122,518  | 124,803  | 138,002  | 162,699  | 184,631  | 202,181  | 243,531  | 233,110  |

TABLE 18D (CONTINUED--PAGE TWO)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE O.U.D.S. BUDGET/TOTAL COLLEGE BUDGETS (METHOD 4)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/ODS FTE (METHOD B)

| DEPARTMENT          | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|---------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| PERIODONTICS (cont) | COMPUTER          | 4      | 44,072   | 47,160   | 92,868   | 90,976   | 64,429   | 113,297  | 144,832  | 117,507  |
|                     | BLDG DEPRECIATION | 4      | 14,298   | 15,197   | 26,722   | 25,570   | 15,284   | 23,589   | 27,568   | 24,395   |
|                     | ADMIN SQ FT       | 4      | 2,320    | 2,907    | 6,236    | 6,542    | 4,270    | 7,317    | 9,624    | 8,480    |
|                     | EDUC SQ FT        | 4      | 2,516    | 3,152    | 6,762    | 7,094    | 4,631    | 7,935    | 10,437   | 9,196    |
|                     | ADMIN STUDENT SPT | 4      | 13,847   | 14,929   | 29,618   | 30,190   | 20,166   | 31,713   | 37,062   | 34,838   |
| TOTAL METHOD 4B     |                   |        | 77,054   | 83,330   | 162,208  | 160,375  | 108,783  | 183,851  | 229,525  | 194,418  |
| ORAL DIAGNOSIS      | COMPUTER          | 4      | 74,722   | 75,315   | 84,249   | 72,999   | 86,490   | 98,544   | 171,241  | 157,004  |
|                     | BLDG DEPRECIATION | 4      | 24,242   | 24,242   | 24,242   | 20,517   | 20,517   | 20,517   | 32,596   | 32,596   |
|                     | ADMIN SQ FT       | 4      | 3,933    | 4,642    | 5,657    | 5,249    | 5,733    | 6,364    | 11,379   | 11,330   |
|                     | EDUC SQ FT        | 4      | 4,266    | 5,034    | 6,135    | 5,692    | 6,217    | 6,901    | 12,340   | 12,287   |
|                     | ADMIN STUDENT SPT | 4      | 23,477   | 23,843   | 26,869   | 24,224   | 27,071   | 27,583   | 43,821   | 46,548   |
| TOTAL METHOD 4A     |                   |        | 130,643  | 133,079  | 147,154  | 128,684  | 146,030  | 159,912  | 271,379  | 259,767  |
|                     | COMPUTER          | 4      | 60,789   | 57,164   | 63,459   | 71,265   | 75,167   | 127,716  | 136,054  | 101,839  |
|                     | BLDG DEPRECIATION | 4      | 19,721   | 18,399   | 18,260   | 20,030   | 17,831   | 26,591   | 25,898   | 21,143   |
|                     | ADMIN SQ FT       | 4      | 3,200    | 3,523    | 4,261    | 5,124    | 4,982    | 8,248    | 9,041    | 7,349    |
|                     | EDUC SQ FT        | 4      | 3,470    | 3,821    | 4,621    | 5,557    | 5,403    | 8,944    | 9,804    | 7,970    |
|                     | ADMIN STUDENT SPT | 4      | 19,099   | 18,096   | 20,239   | 23,649   | 23,527   | 35,749   | 34,816   | 30,193   |
| TOTAL METHOD 4B     |                   |        | 106,282  | 101,006  | 110,842  | 125,627  | 126,913  | 207,251  | 215,615  | 168,495  |
| ORAL PATHOLOGY      | COMPUTER          | 4      | 31,413   | 31,662   | 35,418   | 26,037   | 30,850   | 35,149   | 35,488   | 32,538   |
|                     | BLDG DEPRECIATION | 4      | 10,191   | 10,191   | 10,191   | 7,318    | 7,318    | 7,318    | 6,755    | 6,755    |
|                     | ADMIN SQ FT       | 4      | 1,653    | 1,951    | 2,378    | 1,872    | 2,044    | 2,270    | 2,358    | 2,348    |
|                     | EDUC SQ FT        | 4      | 1,793    | 2,116    | 2,579    | 2,030    | 2,217    | 2,461    | 2,557    | 2,546    |
|                     | ADMIN STUDENT SPT | 4      | 9,870    | 10,023   | 11,295   | 8,640    | 9,656    | 9,838    | 9,081    | 9,646    |
| TOTAL METHOD 4A     |                   |        | 54,922   | 55,946   | 61,863   | 45,899   | 52,087   | 57,038   | 56,241   | 53,834   |
|                     | COMPUTER          | 4      | 30,394   | 28,582   | 46,434   | 45,488   | 53,691   | 61,798   | 65,832   | 58,753   |
|                     | BLDG DEPRECIATION | 4      | 9,860    | 9,199    | 13,361   | 12,785   | 12,737   | 12,867   | 12,531   | 12,198   |
|                     | ADMIN SQ FT       | 4      | 1,600    | 1,761    | 3,118    | 3,271    | 3,558    | 3,991    | 4,374    | 4,240    |
|                     | EDUC SQ FT        | 4      | 1,735    | 1,910    | 3,381    | 3,547    | 3,859    | 4,328    | 4,744    | 4,598    |
|                     | ADMIN STUDENT SPT | 4      | 9,549    | 9,048    | 14,089   | 15,095   | 16,805   | 17,298   | 16,846   | 17,419   |
| TOTAL METHOD 4B     |                   |        | 53,140   | 50,503   | 81,103   | 80,187   | 90,652   | 100,283  | 104,330  | 97,208   |

TABLE 18D (CONTINUED--PAGE THREE)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE O.U.D.S. BUDGET/TOTAL COLLEGE BUDGETS (METHOD 4)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/ODS FTE (METHOD B)

| DEPARTMENT           | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|----------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| DENT SERV ADMIN      | COMPUTER          | 4      | 70,075   | 70,631   | 79,009   | 93,053   | 86,490   | 98,544   | 76,490   | 70,130   |
|                      | BLDG DEPRECIATION | 4      | 22,734   | 22,734   | 22,734   | 20,517   | 20,517   | 20,517   | 14,560   | 14,560   |
|                      | ADMIN SQ FT       | 4      | 3,689    | 4,354    | 5,305    | 2,804    | 5,733    | 6,364    | 5,083    | 5,061    |
|                      | EDUC SQ FT        | 4      | 4,000    | 4,721    | 5,753    | 3,040    | 6,217    | 6,901    | 5,512    | 5,488    |
|                      | ADMIN STUDENT SPT | 4      | 22,017   | 22,360   | 25,198   | 24,224   | 27,071   | 27,583   | 19,574   | 20,792   |
| TOTAL METHOD 4A      |                   |        | 122,518  | 124,803  | 138,002  | 143,641  | 146,030  | 159,912  | 121,220  | 116,033  |
|                      | COMPUTER          | 4      | 85,104   | 82,888   | 95,963   | 104,374  | 96,644   | 88,577   | 153,609  | 97,922   |
|                      | BLDG DEPRECIATION | 4      | 27,610   | 26,679   | 27,613   | 23,013   | 22,926   | 18,442   | 29,239   | 20,329   |
|                      | ADMIN SQ FT       | 4      | 4,480    | 5,109    | 6,444    | 3,145    | 6,406    | 5,720    | 10,208   | 7,066    |
|                      | EDUC SQ FT        | 4      | 4,858    | 5,540    | 6,988    | 3,410    | 6,947    | 6,203    | 11,070   | 7,663    |
|                      | ADMIN STUDENT SPT | 4      | 26,739   | 26,240   | 30,605   | 27,171   | 30,249   | 24,793   | 39,309   | 29,032   |
| TOTAL METHOD 4B      |                   |        | 148,794  | 146,459  | 167,615  | 161,115  | 163,174  | 143,738  | 243,436  | 162,015  |
| ORAL SURGERY         | COMPUTER          | 4      | 40,149   | 40,468   | 45,268   | 36,499   | 43,245   | 49,272   | 71,666   | 65,707   |
|                      | BLDG DEPRECIATION | 4      | 13,025   | 13,025   | 13,025   | 10,258   | 10,258   | 10,258   | 13,641   | 13,641   |
|                      | ADMIN SQ FT       | 4      | 2,113    | 2,494    | 3,039    | 2,624    | 2,866    | 3,182    | 4,762    | 4,741    |
|                      | EDUC SQ FT        | 4      | 2,292    | 2,705    | 3,296    | 2,846    | 3,108    | 3,450    | 5,164    | 5,142    |
|                      | ADMIN STUDENT SPT | 4      | 12,615   | 12,811   | 14,437   | 12,112   | 13,535   | 13,791   | 18,339   | 19,481   |
| TOTAL METHOD 4A      |                   |        | 70,196   | 71,505   | 79,067   | 64,341   | 73,015   | 79,955   | 113,575  | 108,715  |
|                      | COMPUTER          | 4      | 22,795   | 37,156   | 55,720   | 53,069   | 46,532   | 32,959   | 35,110   | 48,961   |
|                      | BLDG DEPRECIATION | 4      | 7,395    | 11,959   | 16,033   | 14,916   | 11,038   | 6,862    | 6,683    | 10,165   |
|                      | ADMIN SQ FT       | 4      | 1,200    | 2,290    | 3,741    | 3,816    | 3,084    | 2,128    | 2,333    | 3,533    |
|                      | EDUC SQ FT        | 4      | 1,301    | 2,483    | 4,057    | 4,138    | 3,344    | 2,308    | 2,530    | 3,831    |
|                      | ADMIN STUDENT SPT | 4      | 7,162    | 11,763   | 17,770   | 17,611   | 14,564   | 9,225    | 8,984    | 14,516   |
| TOTAL METHOD 4B      |                   |        | 39,855   | 65,654   | 97,324   | 93,552   | 78,565   | 53,484   | 55,642   | 81,007   |
| FIXED PROSTHODONTICS | COMPUTER          | 4      | 103,348  | 104,168  | 116,524  | 124,145  | 147,089  | 167,588  | 223,644  | 183,224  |
|                      | BLDG DEPRECIATION | 4      | 33,529   | 33,529   | 33,529   | 34,983   | 34,893   | 34,893   | 38,039   | 38,039   |
|                      | ADMIN SQ FT       | 4      | 5,440    | 6,421    | 7,824    | 8,927    | 9,749    | 10,823   | 13,280   | 13,222   |
|                      | EDUC SQ FT        | 4      | 5,900    | 6,963    | 8,485    | 9,681    | 10,573   | 11,737   | 14,401   | 11,339   |
|                      | ADMIN STUDENT SPT | 4      | 32,472   | 32,977   | 37,162   | 41,197   | 46,039   | 46,909   | 54,680   | 54,322   |
| TOTAL METHOD 4A      |                   |        | 180,690  | 184,059  | 203,526  | 218,844  | 248,344  | 271,952  | 344,045  | 303,148  |

TABLE 18D (CONTINUED--PAGE FOUR)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE O.U.D.S. BUDGET/TOTAL COLLEGE BUDGETS (METHOD 4)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/ODS FTE (METHOD B)

| DEPARTMENT                      | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|---------------------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| FIXED PROSTHODONTICS<br>(cont.) | COMPUTER          | 4      | 79,625   | 74,313   | 92,868   | 104,623  | 112,752  | 135,956  | 157,172  | 123,382  |
|                                 | BLDG DEPRECIATION | 4      | 25,638   | 23,919   | 26,722   | 29,406   | 26,747   | 28,307   | 26,733   | 25,615   |
|                                 | ADMIN SQ FT       | 4      | 4,160    | 4,580    | 6,236    | 7,523    | 7,473    | 8,780    | 9,333    | 8,904    |
|                                 | EDUC SQ FT        | 4      | 4,511    | 4,967    | 6,762    | 8,158    | 8,104    | 9,522    | 10,121   | 9,656    |
|                                 | ADMIN STUDENT SPT | 4      | 24,829   | 23,526   | 29,618   | 34,719   | 35,291   | 38,055   | 38,428   | 36,580   |
| TOTAL METHOD 4B                 |                   |        | 138,166  | 131,308  | 162,208  | 184,432  | 109,270  | 220,622  | 241,788  | 204,139  |
| OPERATIVE DENTISTRY             | COMPUTER          | 4      | 80,113   | 80,749   | 90,326   | 92,062   | 109,077  | 124,278  | 140,576  | 128,889  |
|                                 | BLDG DEPRECIATION | 4      | 25,991   | 25,991   | 25,991   | 25,876   | 25,876   | 25,876   | 26,758   | 26,758   |
|                                 | ADMIN SQ FT       | 4      | 4,217    | 4,977    | 6,065    | 6,620    | 7,230    | 8,026    | 9,341    | 9,301    |
|                                 | EDUC SQ FT        | 4      | 4,573    | 5,397    | 6,577    | 7,179    | 7,840    | 8,704    | 10,130   | 10,087   |
|                                 | ADMIN STUDENT SPT | 4      | 25,171   | 25,563   | 28,807   | 30,550   | 34,141   | 34,176   | 35,973   | 38,213   |
| TOTAL METHOD 4A                 |                   |        | 140,067  | 142,679  | 157,769  | 162,289  | 184,165  | 201,672  | 222,782  | 213,249  |
|                                 | COMPUTER          | 4      | 101,822  | 87,175   | 94,415   | 107,656  | 137,808  | 166,855  | 160,193  | 141,008  |
|                                 | BLDG DEPRECIATION | 4      | 33,034   | 28,059   | 27,167   | 30,258   | 32,691   | 34,740   | 30,492   | 29,275   |
|                                 | ADMIN SQ FT       | 4      | 5,360    | 5,373    | 6,340    | 7,741    | 9,134    | 10,776   | 10,645   | 10,176   |
|                                 | EDUC SQ FT        | 4      | 5,813    | 5,827    | 6,875    | 8,395    | 9,905    | 11,686   | 11,544   | 11,035   |
|                                 | ADMIN STUDENT SPT | 4      | 31,992   | 27,597   | 30,111   | 35,725   | 43,134   | 46,704   | 40,993   | 41,806   |
| TOTAL METHOD 4B                 |                   |        | 178,022  | 154,035  | 164,911  | 189,778  | 232,674  | 270,763  | 253,869  | 233,301  |
| REMOVABLE<br>PROSTHODONTICS     | COMPUTER          | 4      | 78,626   | 79,250   | 88,650   | 100,432  | 118,993  | 135,576  | 151,602  | 138,997  |
|                                 | BLDG DEPRECIATION | 4      | 25,508   | 25,508   | 25,508   | 28,228   | 28,228   | 28,228   | 28,857   | 28,857   |
|                                 | ADMIN SQ FT       | 4      | 4,139    | 4,885    | 5,953    | 7,922    | 7,887    | 8,756    | 10,074   | 10,031   |
|                                 | EDUC SQ FT        | 4      | 4,488    | 5,297    | 6,455    | 7,831    | 8,553    | 9,495    | 10,925   | 10,878   |
|                                 | ADMIN STUDENT SPT | 4      | 24,704   | 25,088   | 28,273   | 33,328   | 37,245   | 37,949   | 38,795   | 41,210   |
| TOTAL METHOD 4A                 |                   |        | 137,468  | 140,031  | 154,841  | 177,042  | 200,908  | 220,006  | 240,255  | 229,974  |
|                                 | COMPUTER          | 4      | 66,867   | 64,309   | 92,868   | 90,976   | 107,383  | 135,956  | 155,804  | 121,424  |
|                                 | BLDG DEPRECIATION | 4      | 21,694   | 20,699   | 26,722   | 25,570   | 25,474   | 28,307   | 29,657   | 25,209   |
|                                 | ADMIN SQ FT       | 4      | 3,520    | 3,964    | 6,236    | 6,542    | 7,117    | 8,780    | 10,353   | 8,762    |
|                                 | EDUC SQ FT        | 4      | 3,817    | 4,299    | 6,762    | 7,094    | 7,718    | 9,522    | 11,228   | 9,502    |
|                                 | ADMIN STUDENT SPT | 4      | 21,009   | 20,359   | 29,618   | 30,190   | 33,611   | 38,055   | 39,870   | 35,999   |
| TOTAL METHOD 4B                 |                   |        | 116,910  | 113,632  | 162,208  | 160,375  | 181,305  | 220,622  | 246,914  | 200,898  |

TABLE 18D (CONTINUED—PAGE FIVE)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE O.U.D.S. BUDGET/TOTAL COLLEGE BUDGETS (METHOD 4)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/ODS FTE (METHOD B)

| DEPARTMENT       | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| ENDODONTICS      | COMPUTER          | 4      | 35,130   | 35,409   | 39,609   | 34,407   | 40,766   | 46,447   | 55,472   | 50,860   |
|                  | BLDG DEPRECIATION | 4      | 11,397   | 11,397   | 11,397   | 9,670    | 9,670    | 9,670    | 10,559   | 10,559   |
|                  | ADMIN SQ FT       | 4      | 1,849    | 2,182    | 2,659    | 2,474    | 2,702    | 2,999    | 3,686    | 3,670    |
|                  | EDUC SQ FT        | 4      | 2,005    | 2,367    | 2,884    | 2,683    | 2,930    | 3,253    | 3,997    | 3,980    |
|                  | ADMIN STUDENT SPT | 4      | 11,038   | 11,209   | 12,632   | 11,418   | 12,759   | 13,001   | 14,195   | 15,079   |
| TOTAL METHOD 4A  |                   |        | 61,421   | 62,566   | 69,184   | 60,653   | 68,829   | 75,372   | 87,911   | 84,149   |
|                  | COMPUTER          | 4      | 16,717   | 14,291   | 29,408   | 42,555   | 37,584   | 47,378   | 46,082   | 45,044   |
|                  | BLDG DEPRECIATION | 4      | 5,423    | 4,599    | 8,462    | 11,933   | 8,915    | 9,864    | 8,771    | 9,351    |
|                  | ADMIN SQ FT       | 4      | 880      | 880      | 1,974    | 3,053    | 2,491    | 3,059    | 3,062    | 3,250    |
|                  | EDUC SQ FT        | 4      | 954      | 955      | 2,141    | 3,310    | 2,701    | 3,318    | 3,320    | 3,525    |
|                  | ADMIN STUDENT SPT | 4      | 5,252    | 4,524    | 9,379    | 14,089   | 11,763   | 13,261   | 11,792   | 13,354   |
| TOTAL METHOD 4B  |                   |        | 29,227   | 25,251   | 51,365   | 74,841   | 63,456   | 76,883   | 73,030   | 74,526   |
| OCCLUSION        | COMPUTER          | 4      | 36,803   | 37,095   | 41,495   | 45,333   | 53,712   | 61,197   | 65,809   | 60,337   |
|                  | BLDG DEPRECIATION | 4      | 11,940   | 11,940   | 11,940   | 12,742   | 12,742   | 12,742   | 12,526   | 12,526   |
|                  | ADMIN SQ FT       | 4      | 1,937    | 2,286    | 2,786    | 3,259    | 3,560    | 3,952    | 4,373    | 4,354    |
|                  | EDUC SQ FT        | 4      | 2,101    | 2,479    | 3,021    | 3,535    | 3,860    | 4,286    | 4,742    | 4,722    |
|                  | ADMIN STUDENT SPT | 4      | 11,563   | 11,743   | 13,234   | 15,044   | 16,812   | 17,129   | 16,840   | 17,889   |
| TOTAL METHOD 4A  |                   |        | 64,346   | 65,546   | 72,478   | 79,915   | 90,687   | 99,308   | 104,292  | 99,829   |
|                  | COMPUTER          | 4      | 21,276   | 31,440   | 40,242   | 40,939   | 41,163   | 45,318   | 57,054   | 43,085   |
|                  | BLDG DEPRECIATION | 4      | 6,902    | 10,119   | 11,579   | 11,506   | 9,765    | 9,435    | 10,860   | 8,945    |
|                  | ADMIN SQ FT       | 4      | 1,120    | 1,938    | 2,702    | 2,944    | 2,728    | 2,926    | 3,791    | 3,109    |
|                  | EDUC SQ FT        | 4      | 1,214    | 2,101    | 2,930    | 3,192    | 2,958    | 3,194    | 4,111    | 3,371    |
|                  | ADMIN STUDENT SPT | 4      | 6,684    | 9,953    | 12,834   | 13,585   | 12,884   | 12,685   | 14,600   | 12,774   |
| TOTAL METHOD 4B  |                   |        | 37,198   | 55,553   | 70,290   | 72,168   | 69,500   | 73,540   | 90,419   | 71,286   |
| DENTAL MATERIALS | COMPUTER          | 4      | 10,409   | 10,491   | 11,736   | 13,948   | 16,526   | 18,830   | 20,328   | 18,638   |
|                  | BLDG DEPRECIATION | 4      | 3,377    | 3,377    | 3,377    | 3,920    | 3,920    | 3,920    | 3,869    | 3,869    |
|                  | ADMIN SQ FT       | 4      | 548      | 646      | 788      | 1,003    | 1,095    | 1,216    | 1,350    | 1,345    |
|                  | EDUC SQ FT        | 4      | 594      | 701      | 854      | 1,087    | 1,187    | 1,318    | 1,464    | 1,558    |
|                  | ADMIN STUDENT SPT | 4      | 3,270    | 3,321    | 3,742    | 4,628    | 5,172    | 5,270    | 5,202    | 5,525    |
| TOTAL METHOD 4A  |                   |        | 18,199   | 18,538   | 20,499   | 24,589   | 27,903   | 30,556   | 32,216   | 30,837   |

TABLE 18D (CONTINUED—PAGE SIX)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE O.U.D.S. BUDGET/TOTAL COLLEGE BUDGETS (METHOD 4)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OU DS FTE (METHOD B)

| DEPARTMENT                 | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|----------------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| DENTAL MATERIALS<br>(cont) | COMPUTER          | 4      | 15,197   | 28,582   | 30,956   | 30,325   | 35,794   | 41,198   | 43,888   | 123,382  |
|                            | BLDG DEPRECIATION | 4      | 4,930    | 9,199    | 8,907    | 8,523    | 8,491    | 8,577    | 8,354    | 25,615   |
|                            | ADMIN SQ FT       | 4      | 800      | 1,761    | 2,078    | 2,180    | 2,372    | 2,660    | 2,916    | 8,904    |
|                            | EDUC SQ FT        | 4      | 867      | 1,910    | 2,254    | 2,364    | 2,572    | 2,885    | 3,162    | 9,656    |
|                            | ADMIN STUDENT SPT | 4      | 4,774    | 9,048    | 9,872    | 10,063   | 11,203   | 11,532   | 11,231   | 36,580   |
| TOTAL METHOD 4B            |                   |        | 26,570   | 50,503   | 54,069   | 53,458   | 60,434   | 66,855   | 69,553   | 204,139  |
| DENTAL HYGIENE             | COMPUTER          | 4      | 163,572  | 164,870  | 18,443   | 204,583  | 242,394  | 276,174  | 362,466  | 332,330  |
|                            | BLDG DEPRECIATION | 4      | 53,068   | 53,068   | 5,307    | 57,502   | 57,502   | 57,502   | 68,996   | 68,996   |
|                            | ADMIN SQ FT       | 4      | 8,612    | 10,163   | 1,238    | 14,712   | 16,067   | 17,837   | 24,088   | 23,984   |
|                            | EDUC SQ FT        | 4      | 9,339    | 11,021   | 1,343    | 15,954   | 17,424   | 19,343   | 26,121   | 26,009   |
|                            | ADMIN STUDENT SPT | 4      | 51,394   | 52,194   | 5,882    | 67,891   | 75,870   | 77,304   | 92,956   | 98,530   |
| TOTAL METHOD 4A            |                   |        | 285,985  | 291,317  | 32,213   | 360,642  | 409,257  | 448,160  | 574,428  | 549,848  |
|                            | COMPUTER          | 4      | 88,144   | 94,321   | 91,320   | 104,623  | 105,593  | 125,656  | 98,749   | 88,130   |
|                            | BLDG DEPRECIATION | 4      | 28,597   | 30,360   | 26,277   | 29,407   | 25,049   | 26,163   | 18,797   | 18,297   |
|                            | ADMIN SQ FT       | 4      | 4,641    | 5,814    | 6,132    | 7,524    | 6,999    | 8,115    | 6,562    | 6,360    |
|                            | EDUC SQ FT        | 4      | 5,032    | 6,305    | 6,650    | 8,159    | 7,590    | 8,801    | 7,116    | 6,897    |
|                            | ADMIN STUDENT SPT | 4      | 27,695   | 29,860   | 29,125   | 34,719   | 33,051   | 35,173   | 25,270   | 26,129   |
| TOTAL METHOD 4B            |                   |        | 154,108  | 166,660  | 159,504  | 184,432  | 178,283  | 203,908  | 156,495  | 145,813  |

TABLE 18E

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE OUDS FTE+NO. DENTAL STUDENTS/HSC FTE+HSC STUDENTS (METHOD 5)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OUIS FTE (METHOD B)

| DEPARTMENT      | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|-----------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| PEDODONTICS     | COMPUTER          | 5      | 47,908   | 27,081   | 28,628   | 28,522   | 31,794   | 33,945   | 44,237   | 42,984   |
|                 | BLDG DEPRECIATION | 5      | 53,067   | 22,433   | 22,433   | 18,426   | 18,426   | 19,864   | 21,512   | 21,512   |
|                 | ADMIN SQ FT       | 5      | 8,611    | 4,296    | 5,235    | 4,714    | 5,148    | 6,161    | 7,510    | 7,477    |
|                 | EDUC SQ FT        | 5      | 9,338    | 4,659    | 5,677    | 5,112    | 5,583    | 6,681    | 8,144    | 8,109    |
|                 | ADMIN STUDENT SPT | 5      | 51,394   | 22,063   | 24,864   | 21,756   | 24,312   | 26,705   | 30,922   | 30,720   |
| TOTAL METHOD 5A |                   |        | 170,320  | 80,533   | 86,838   | 78,532   | 85,266   | 93,358   | 112,326  | 110,803  |
|                 | COMPUTER          | 5      | 41,224   | 24,215   | 25,774   | 28,893   | 30,313   | 34,819   | 43,451   | 40,935   |
|                 | BLDG DEPRECIATION | 5      | 28,596   | 14,719   | 15,142   | 19,178   | 15,709   | 21,445   | 20,467   | 18,703   |
|                 | ADMIN SQ FT       | 5      | 4,640    | 2,819    | 3,533    | 4,906    | 4,389    | 6,652    | 7,145    | 6,501    |
|                 | EDUC SQ FT        | 5      | 5,032    | 3,057    | 3,832    | 5,320    | 4,760    | 7,213    | 7,748    | 7,050    |
|                 | ADMIN STUDENT SPT | 5      | 27,694   | 14,447   | 16,783   | 22,643   | 20,726   | 28,830   | 29,421   | 26,709   |
| TOTAL METHOD 5B |                   |        | 107,189  | 59,288   | 65,067   | 80,941   | 75,898   | 98,959   | 108,235  | 99,900   |
| ORTHODONTICS    | COMPUTER          | 5      | 17,521   | 23,498   | 25,088   | 37,321   | 41,611   | 41,203   | 55,026   | 53,468   |
|                 | BLDG DEPRECIATION | 5      | 19,659   | 19,659   | 19,659   | 24,111   | 24,111   | 24,111   | 26,758   | 26,658   |
|                 | ADMIN SQ FT       | 5      | 3,190    | 3,765    | 4,587    | 6,168    | 6,737    | 7,479    | 9,341    | 9,301    |
|                 | EDUC SQ FT        | 5      | 3,459    | 4,082    | 4,975    | 6,689    | 7,306    | 8,110    | 10,130   | 10,087   |
|                 | ADMIN STUDENT SPT | 5      | 19,039   | 19,335   | 21,789   | 28,467   | 31,813   | 32,415   | 35,973   | 38,213   |
| TOTAL METHOD 5A |                   |        | 62,869   | 70,341   | 76,100   | 102,760  | 111,580  | 113,320  | 137,232  | 137,829  |
|                 | COMPUTER          | 5      | 14,081   | 21,850   | 23,669   | 31,524   | 33,789   | 37,358   | 46,203   | 44,033   |
|                 | BLDG DEPRECIATION | 5      | 6,902    | 15,179   | 16,033   | 12,359   | 9,765    | 17,156   | 15,037   | 13,824   |
|                 | ADMIN SQ FT       | 5      | 1,120    | 2,907    | 3,741    | 3,162    | 2,728    | 5,321    | 5,249    | 4,805    |
|                 | EDUC SQ FT        | 5      | 1,214    | 3,152    | 4,057    | 3,429    | 2,958    | 5,770    | 5,693    | 5,211    |
|                 | ADMIN STUDENT SPT | 5      | 6,684    | 14,929   | 17,770   | 14,592   | 12,884   | 23,064   | 20,216   | 19,741   |
| TOTAL METHOD 5B |                   |        | 30,004   | 58,020   | 65,272   | 65,066   | 62,126   | 88,670   | 92,400   | 87,616   |
| PERIODONTICS    | COMPUTER          | 5      | 20,262   | 27,174   | 29,013   | 40,153   | 44,768   | 44,330   | 60,151   | 58,448   |
|                 | BLDG DEPRECIATION | 5      | 22,734   | 22,734   | 22,734   | 25,941   | 25,941   | 25,941   | 29,251   | 29,251   |
|                 | ADMIN SQ FT       | 5      | 3,689    | 4,453    | 5,305    | 6,637    | 7,248    | 8,046    | 10,212   | 10,167   |
|                 | EDUC SQ FT        | 5      | 4,000    | 4,721    | 5,753    | 7,197    | 7,860    | 8,726    | 11,074   | 11,026   |
|                 | ADMIN STUDENT SPT | 5      | 22,017   | 22,360   | 25,198   | 30,628   | 34,227   | 34,874   | 39,324   | 41,772   |
| TOTAL METHOD 5A |                   |        | 72,704   | 81,345   | 88,005   | 110,558  | 120,046  | 121,919  | 150,013  | 150,666  |



TABLE 18E (CONTINUED--PAGE TWO)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE OUDS FTE+NO. DENTAL STUDENTS/HSC FTE+HSC STUDENTS (METHOD 5)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OU DS FTE (METHOD B)

| DEPARTMENT          | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|---------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| PERIODONTICS (cont) | COMPUTER          | 5      | 17,987   | 24,394   | 30,574   | 39,971   | 38,958   | 43,030   | 58,885   | 54,906   |
|                     | BLDG DEPRECIATION | 5      | 14,298   | 15,179   | 26,722   | 25,570   | 15,284   | 23,589   | 27,568   | 24,395   |
|                     | ADMIN SQ FT       | 5      | 2,320    | 2,907    | 6,236    | 6,542    | 4,270    | 7,317    | 9,624    | 4,480    |
|                     | EDUC SQ FT        | 5      | 2,516    | 3,152    | 6,762    | 7,094    | 4,631    | 7,935    | 10,437   | 9,196    |
|                     | ADMIN STUDENT SPT | 5      | 13,847   | 14,929   | 29,618   | 30,190   | 20,166   | 31,713   | 37,062   | 34,838   |
| TOTAL METHOD 5B     |                   |        | 50,969   | 60,564   | 99,914   | 109,370  | 83,311   | 113,585  | 143,579  | 131,818  |
| ORAL DIAGNOSIS      | COMPUTER          | 5      | 21,605   | 28,976   | 30,937   | 31,759   | 35,408   | 35,062   | 67,029   | 65,131   |
|                     | BLDG DEPRECIATION | 5      | 24,242   | 24,242   | 24,242   | 20,517   | 20,517   | 20,517   | 32,596   | 32,596   |
|                     | ADMIN SQ FT       | 5      | 3,933    | 4,642    | 5,657    | 5,249    | 5,733    | 6,364    | 11,379   | 11,330   |
|                     | EDUC SQ FT        | 5      | 4,266    | 5,034    | 6,135    | 5,692    | 6,217    | 6,901    | 12,340   | 12,287   |
|                     | ADMIN STUDENT SPT | 5      | 23,477   | 23,843   | 26,869   | 24,224   | 27,071   | 27,583   | 43,821   | 46,548   |
| TOTAL METHOD 5A     |                   |        | 77,526   | 86,739   | 93,841   | 87,443   | 94,948   | 96,429   | 167,167  | 167,894  |
|                     | COMPUTER          | 5      | 20,386   | 26,827   | 28,595   | 31,518   | 33,944   | 38,419   | 61,988   | 56,777   |
|                     | BLDG DEPRECIATION | 5      | 19,721   | 18,399   | 18,260   | 20,030   | 17,831   | 26,591   | 25,898   | 21,143   |
|                     | ADMIN SQ FT       | 5      | 3,200    | 3,523    | 4,261    | 5,124    | 4,982    | 8,248    | 9,041    | 7,349    |
|                     | EDUC SQ FT        | 5      | 3,470    | 3,821    | 4,621    | 5,557    | 5,403    | 8,944    | 9,804    | 7,970    |
|                     | ADMIN STUDENT SPT | 5      | 19,099   | 18,096   | 20,239   | 23,649   | 23,527   | 35,749   | 34,816   | 30,193   |
| TOTAL METHOD 5B     |                   |        | 65,879   | 70,669   | 75,977   | 85,880   | 85,689   | 117,954  | 141,549  | 123,434  |
| ORAL PATHOLOGY      | COMPUTER          | 5      | 9,082    | 12,181   | 13,005   | 11,328   | 12,629   | 12,506   | 13,891   | 13,498   |
|                     | BLDG DEPRECIATION | 5      | 10,191   | 10,191   | 10,191   | 7,318    | 7,318    | 7,318    | 6,755    | 6,755    |
|                     | ADMIN SQ FT       | 5      | 1,653    | 1,951    | 2,378    | 1,872    | 2,044    | 2,270    | 2,358    | 2,348    |
|                     | EDUC SQ FT        | 5      | 1,793    | 2,116    | 2,579    | 2,030    | 2,217    | 2,461    | 2,557    | 2,546    |
|                     | ADMIN STUDENT SPT | 5      | 9,870    | 10,023   | 11,295   | 8,640    | 9,656    | 9,838    | 9,081    | 9,646    |
| TOTAL METHOD 5A     |                   |        | 32,591   | 36,465   | 39,450   | 31,190   | 33,867   | 34,395   | 34,644   | 34,795   |
|                     | COMPUTER          | 5      | 8,993    | 11,816   | 14,246   | 14,025   | 15,583   | 15,573   | 18,239   | 17,468   |
|                     | BLDG DEPRECIATION | 5      | 9,860    | 9,199    | 13,361   | 12,785   | 12,737   | 12,867   | 12,531   | 12,198   |
|                     | ADMIN SQ FT       | 5      | 1,600    | 1,761    | 3,118    | 3,271    | 3,558    | 3,991    | 4,374    | 4,240    |
|                     | EDUC SQ FT        | 5      | 1,735    | 1,910    | 3,381    | 3,547    | 3,859    | 4,328    | 4,744    | 4,598    |
|                     | ADMIN STUDENT SPT | 5      | 9,549    | 9,048    | 14,809   | 15,095   | 16,805   | 17,298   | 16,846   | 17,419   |
| TOTAL METHOD 5B     |                   |        | 31,740   | 33,737   | 48,916   | 48,724   | 52,544   | 54,057   | 56,736   | 55,923   |

TABLE 18E (CONTINUED--PAGE THREE)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE OUDS FTE+NO. DENTAL STUDENTS/HSC FTE+HSC STUDENTS (METHOD 5)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OUDS FTE (METHOD B)

| DEPARTMENT         | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|--------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| DENT SERV ADMIN    | COMPUTER          | 5      | 20,262   | 27,174   | 29,013   | 60,149   | 35,408   | 35,062   | 29,940   | 29,093   |
|                    | BLDG DEPRECIATION | 5      | 22,734   | 22,734   | 22,734   | 20,517   | 20,517   | 20,517   | 14,560   | 14,560   |
|                    | ADMIN SQ FT       | 5      | 3,689    | 4,354    | 5,305    | 2,804    | 5,733    | 6,364    | 5,083    | 5,061    |
|                    | EDUC SQ FT        | 5      | 4,000    | 4,721    | 5,753    | 3,040    | 6,217    | 6,901    | 5,512    | 5,488    |
|                    | ADMIN STUDENT SPT | 5      | 22,017   | 22,360   | 25,198   | 24,224   | 27,071   | 27,583   | 19,574   | 20,792   |
| TOTAL METHOD 5A    |                   |        | 72,704   | 81,345   | 88,005   | 110,737  | 94,948   | 96,429   | 74,670   | 74,995   |
|                    | COMPUTER          | 5      | 21,576   | 28,626   | 30,922   | 61,380   | 36,722   | 33,915   | 40,990   | 33,301   |
|                    | BLDG DEPRECIATION | 5      | 27,610   | 26,679   | 27,613   | 3,013    | 22,926   | 18,442   | 29,239   | 20,329   |
|                    | ADMIN SQ FT       | 5      | 4,480    | 5,109    | 6,444    | 3,145    | 6,406    | 5,720    | 10,208   | 7,066    |
|                    | EDUC SQ FT        | 5      | 4,858    | 5,540    | 6,988    | 3,410    | 6,947    | 6,203    | 11,070   | 7,663    |
|                    | ADMIN STUDENT SPT | 5      | 26,739   | 26,240   | 30,605   | 27,171   | 30,249   | 24,793   | 39,309   | 29,032   |
| TOTAL METHOD 5B    |                   |        | 85,266   | 92,197   | 102,574  | 118,122  | 103,252  | 89,075   | 130,817  | 97,394   |
| ORAL SURGERY       | COMPUTER          | 5      | 11,609   | 15,569   | 16,623   | 15,879   | 17,704   | 17,531   | 28,052   | 27,258   |
|                    | BLDG DEPRECIATION | 5      | 13,025   | 13,025   | 13,025   | 10,258   | 10,258   | 10,258   | 13,641   | 13,641   |
|                    | ADMIN SQ FT       | 5      | 2,113    | 2,494    | 3,039    | 2,624    | 2,866    | 3,182    | 4,762    | 4,741    |
|                    | EDUC SQ FT        | 5      | 2,292    | 2,705    | 3,296    | 2,846    | 3,108    | 3,450    | 5,164    | 5,142    |
|                    | ADMIN STUDENT SPT | 5      | 12,615   | 12,811   | 14,437   | 12,112   | 13,535   | 13,791   | 18,339   | 19,481   |
| TOTAL METHOD 5A    |                   |        | 41,655   | 46,606   | 50,422   | 43,721   | 47,474   | 48,214   | 69,961   | 70,265   |
|                    | COMPUTER          | 5      | 10,091   | 15,177   | 17,800   | 18,177   | 18,129   | 15,653   | 22,815   | 24,722   |
|                    | BLDG DEPRECIATION | 5      | 7,395    | 11,959   | 16,033   | 14,916   | 11,038   | 6,862    | 6,683    | 10,165   |
|                    | ADMIN SQ FT       | 5      | 1,200    | 2,290    | 3,741    | 3,816    | 3,084    | 2,128    | 2,333    | 3,533    |
|                    | EDUC SQ FT        | 5      | 1,301    | 2,483    | 4,057    | 4,138    | 3,344    | 2,308    | 2,530    | 3,831    |
|                    | ADMIN STUDENT SPT | 5      | 7,162    | 11,763   | 17,770   | 17,661   | 14,564   | 9,225    | 8,984    | 14,516   |
| TOTAL METHOD 5B    |                   |        | 27,150   | 43,674   | 59,404   | 58,659   | 50,162   | 36,178   | 43,346   | 56,768   |
| FIXED PROSODONTICS | COMPUTER          | 5      | 29,882   | 40,007   | 42,788   | 54,010   | 60,217   | 59,628   | 87,693   | 76,008   |
|                    | BLDG DEPRECIATION | 5      | 33,529   | 33,529   | 33,529   | 34,893   | 34,893   | 34,893   | 38,039   | 38,039   |
|                    | ADMIN SQ FT       | 5      | 5,440    | 6,421    | 7,824    | 8,927    | 9,749    | 10,823   | 13,280   | 13,222   |
|                    | EDUC SQ FT        | 5      | 5,900    | 6,963    | 8,485    | 9,681    | 10,573   | 11,737   | 14,401   | 14,339   |
|                    | ADMIN STUDENT SPT | 5      | 32,472   | 32,977   | 37,162   | 41,197   | 46,039   | 46,909   | 54,680   | 54,322   |
| TOTAL METHOD 5A    |                   |        | 107,225  | 119,969  | 129,791  | 148,710  | 161,473  | 163,992  | 208,095  | 195,933  |

TABLE 18E (CONTINUED--PAGE FOUR)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE OUDS FTE+NO. DENTAL STUDENTS/HSC FTE+HSC STUDENTS (METHOD 5) AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OUDS FTE (METHOD B)

| DEPARTMENT                     | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|--------------------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| FIXED PROSTHODONTICS<br>(cont) | COMPUTER          | 5      | 27,755   | 36,541   | 40,124   | 51,303   | 55,776   | 55,987   | 76,369   | 66,946   |
|                                | BLDG DEPRECIATION | 5      | 25,638   | 23,919   | 26,722   | 29,406   | 26,747   | 28,307   | 26,733   | 25,615   |
|                                | ADMIN SQ FT       | 5      | 4,160    | 4,580    | 6,236    | 7,523    | 7,473    | 8,780    | 9,333    | 8,904    |
|                                | EDUC SQ FT        | 5      | 4,511    | 4,967    | 6,762    | 8,158    | 8,104    | 9,522    | 10,121   | 9,656    |
|                                | ADMIN STUDENT SPT | 5      | 24,829   | 23,526   | 29,618   | 34,719   | 35,291   | 38,055   | 38,428   | 36,580   |
| TOTAL METHOD 5B                |                   |        | 86,895   | 93,536   | 109,464  | 131,112  | 133,395  | 140,653  | 160,985  | 147,703  |
| OPERATIVE DENTISTRY            | COMPUTER          | 5      | 23,164   | 31,067   | 33,169   | 40,052   | 44,655   | 44,218   | 55,026   | 53,468   |
|                                | BLDG DEPRECIATION | 5      | 25,991   | 25,991   | 25,991   | 25,876   | 25,876   | 25,876   | 26,758   | 26,758   |
|                                | ADMIN SQ FT       | 5      | 4,217    | 4,977    | 6,065    | 6,620    | 7,230    | 8,026    | 9,341    | 9,301    |
|                                | EDUC SQ FT        | 5      | 4,573    | 5,397    | 6,577    | 7,179    | 7,840    | 8,704    | 10,130   | 10,087   |
|                                | ADMIN STUDENT SPT | 5      | 25,171   | 25,563   | 28,807   | 30,550   | 34,141   | 34,786   | 35,973   | 38,213   |
| TOTAL METHOD 5A                |                   |        | 83,118   | 92,997   | 100,611  | 110,279  | 119,744  | 121,612  | 137,232  | 137,829  |
|                                | COMPUTER          | 5      | 25,063   | 31,828   | 33,629   | 32,214   | 48,371   | 49,119   | 57,837   | 55,303   |
|                                | BLDG DEPRECIATION | 5      | 33,034   | 28,059   | 27,167   | 30,258   | 32,691   | 34,740   | 30,492   | 29,275   |
|                                | ADMIN SQ FT       | 5      | 5,360    | 5,373    | 6,340    | 7,741    | 9,134    | 10,776   | 10,645   | 10,176   |
|                                | EDUC SQ FT        | 5      | 5,813    | 5,827    | 6,875    | 8,395    | 9,905    | 11,686   | 11,544   | 11,035   |
|                                | ADMIN STUDENT SPT | 5      | 31,992   | 27,597   | 30,111   | 35,725   | 43,134   | 46,704   | 30,993   | 41,806   |
| TOTAL METHOD 5B                |                   |        | 101,263  | 98,587   | 104,125  | 124,336  | 143,238  | 153,027  | 151,514  | 147,597  |
| REMOVABLE<br>PROSTHODONTICS    | COMPUTER          | 5      | 22,734   | 30,490   | 32,553   | 43,693   | 48,715   | 48,238   | 59,342   | 57,661   |
|                                | BLDG DEPRECIATION | 5      | 25,508   | 25,508   | 25,508   | 28,228   | 28,228   | 28,228   | 28,857   | 28,857   |
|                                | ADMIN SQ FT       | 5      | 4,139    | 4,885    | 5,953    | 7,222    | 7,887    | 8,756    | 10,074   | 10,031   |
|                                | EDUC SQ FT        | 5      | 4,488    | 5,297    | 6,455    | 7,831    | 8,553    | 9,495    | 10,925   | 10,878   |
|                                | ADMIN STUDENT SPT | 5      | 24,704   | 25,088   | 28,273   | 33,328   | 37,245   | 37,949   | 38,795   | 41,210   |
| TOTAL METHOD 5A                |                   |        | 81,575   | 91,271   | 98,743   | 120,305  | 130,630  | 132,668  | 147,995  | 148,639  |
|                                | COMPUTER          | 5      | 21,705   | 28,721   | 33,028   | 42,383   | 47,213   | 48,282   | 59,944   | 55,000   |
|                                | BLDG DEPRECIATION | 5      | 21,694   | 20,699   | 26,722   | 25,570   | 25,474   | 28,307   | 29,657   | 25,209   |
|                                | ADMIN SQ FT       | 5      | 3,520    | 3,964    | 6,236    | 6,542    | 7,117    | 8,780    | 10,353   | 8,762    |
|                                | EDUC SQ FT        | 5      | 3,817    | 4,299    | 6,762    | 7,094    | 7,718    | 9,522    | 11,228   | 9,502    |
|                                | ADMIN STUDENT SPT | 5      | 21,009   | 20,359   | 29,618   | 30,190   | 33,611   | 38,055   | 39,870   | 35,999   |
| TOTAL METHOD 5B                |                   |        | 71,747   | 78,043   | 102,368  | 111,781  | 121,136  | 132,948  | 151,054  | 134,475  |

TABLE 18E (CONTINUED--PAGE FIVE)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE OUDS FTE+NO. DENTAL STUDENTS/HSC FTE+HSC STUDENTS (METHOD 5)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OU DS FTE (METHOD B)

| DEPARTMENT       | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| ENDODONTICS      | COMPUTER          | 5      | 10,157   | 13,623   | 14,545   | 14,969   | 16,689   | 16,526   | 21,713   | 21,099   |
|                  | BLDG DEPRECIATION | 5      | 11,397   | 11,397   | 11,397   | 9,670    | 9,670    | 9,670    | 10,559   | 10,559   |
|                  | ADMIN SQ FT       | 5      | 1,849    | 2,182    | 2,659    | 2,474    | 2,702    | 2,999    | 3,686    | 3,670    |
|                  | EDUC SQ FT        | 5      | 2,005    | 2,367    | 2,884    | 2,683    | 2,930    | 3,253    | 3,997    | 3,980    |
|                  | ADMIN STUDENT SPT | 5      | 11,038   | 11,209   | 12,632   | 11,418   | 12,759   | 13,001   | 14,195   | 15,079   |
| TOTAL METHOD 5A  |                   |        | 36,448   | 40,780   | 44,119   | 41,215   | 44,752   | 45,451   | 54,152   | 54,388   |
|                  | COMPUTER          | 5      | 8,547    | 11,122   | 13,396   | 16,085   | 16,278   | 16,633   | 20,368   | 20,218   |
|                  | BLDG DEPRECIATION | 5      | 5,423    | 4,599    | 8,462    | 11,933   | 8,915    | 9,864    | 8,771    | 9,351    |
|                  | ADMIN SQ FT       | 5      | 880      | 880      | 1,974    | 3,053    | 2,491    | 3,059    | 3,062    | 3,250    |
|                  | EDUC SQ FT        | 5      | 954      | 955      | 2,141    | 3,310    | 2,701    | 3,318    | 3,320    | 3,525    |
|                  | ADMIN STUDENT SPT | 5      | 5,252    | 4,524    | 9,379    | 14,089   | 11,763   | 13,261   | 11,792   | 13,354   |
| TOTAL METHOD 5B  |                   |        | 21,057   | 22,082   | 35,353   | 48,471   | 42,150   | 46,138   | 47,316   | 49,700   |
| OCCLUSION        | COMPUTER          | 5      | 10,641   | 14,272   | 15,237   | 19,723   | 21,989   | 21,774   | 25,760   | 25,030   |
|                  | BLDG DEPRECIATION | 5      | 11,940   | 11,940   | 11,940   | 12,742   | 12,742   | 12,742   | 12,526   | 12,526   |
|                  | ADMIN SQ FT       | 5      | 1,937    | 2,286    | 2,786    | 3,259    | 3,560    | 3,952    | 4,373    | 4,354    |
|                  | EDUC SQ FT        | 5      | 2,101    | 2,479    | 3,021    | 3,535    | 3,860    | 4,286    | 4,742    | 4,722    |
|                  | ADMIN STUDENT SPT | 5      | 11,563   | 11,743   | 13,234   | 15,044   | 16,812   | 17,129   | 16,840   | 17,889   |
| TOTAL METHOD 5A  |                   |        | 38,184   | 42,722   | 46,220   | 54,304   | 58,964   | 59,884   | 64,243   | 64,522   |
|                  | COMPUTER          | 5      | 9,283    | 13,602   | 15,096   | 19,113   | 20,366   | 19,946   | 24,505   | 22,418   |
|                  | BLDG DEPRECIATION | 5      | 6,902    | 10,119   | 11,579   | 11,506   | 9,765    | 9,435    | 10,860   | 8,945    |
|                  | ADMIN SQ FT       | 5      | 1,120    | 1,938    | 2,702    | 2,944    | 2,728    | 2,926    | 3,791    | 3,109    |
|                  | EDUC SQ FT        | 5      | 1,214    | 2,101    | 2,930    | 3,192    | 2,958    | 3,174    | 4,111    | 3,371    |
|                  | ADMIN STUDENT SPT | 5      | 6,684    | 9,953    | 12,834   | 13,585   | 12,884   | 12,685   | 14,600   | 12,774   |
| TOTAL METHOD 5B  |                   |        | 25,205   | 37,715   | 45,143   | 50,343   | 48,703   | 48,168   | 57,869   | 50,618   |
| DENTAL MATERIALS | COMPUTER          | 5      | 3,009    | 4,036    | 4,309    | 6,068    | 6,766    | 6,699    | 7,957    | 7,731    |
|                  | BLDG DEPRECIATION | 5      | 3,377    | 3,377    | 3,377    | 3,920    | 3,920    | 3,920    | 3,869    | 3,869    |
|                  | ADMIN SQ FT       | 5      | 548      | 646      | 788      | 1,003    | 1,095    | 1,216    | 1,350    | 1,345    |
|                  | EDUC SQ FT        | 5      | 594      | 701      | 854      | 1,087    | 1,187    | 1,318    | 1,464    | 1,458    |
|                  | ADMIN STUDENT SPT | 5      | 3,270    | 3,321    | 3,742    | 4,628    | 5,172    | 5,270    | 5,202    | 5,525    |
| TOTAL METHOD 5A  |                   |        | 10,799   | 12,083   | 13,072   | 16,709   | 18,143   | 18,426   | 19,844   | 19,931   |

TABLE 18E (CONTINUED--PAGE SIX)

SUMMARY OF DEPARTMENTAL INDIRECT COST ASSESSMENTS USING THE OUDS FTE+NO. DENTAL STUDENTS/HSC FTE+HSC STUDENTS (METHOD 5)  
AND ASSIGNED TO DEPARTMENTS BY DEPT HRS/TOTAL CURRICULUM HRS (METHOD A) OR DEPT FTE/OU DS FTE (METHOD B)

| DEPARTMENT                 | COST              | METHOD | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|----------------------------|-------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|
| DENTAL MATERIALS<br>(cont) | COMPUTER          | 5      | 3,428    | 6,179    | 6,474    | 8,339    | 9,257    | 9,274    | 11,332   | 23,593   |
|                            | BLDG DEPRECIATION | 5      | 4,930    | 9,199    | 8,907    | 8,523    | 8,491    | 8,577    | 8,354    | 25,615   |
|                            | ADMIN SQ FT       | 5      | 800      | 1,761    | 2,078    | 2,180    | 2,372    | 2,660    | 2,916    | 8,904    |
|                            | EDUC SQ FT        | 5      | 867      | 1,910    | 2,254    | 2,364    | 2,572    | 2,885    | 3,162    | 9,656    |
|                            | ADMIN STUDENT SPT | 5      | 4,774    | 9,048    | 9,872    | 10,063   | 11,203   | 11,532   | 11,231   | 36,580   |
| TOTAL METHOD 5B            |                   |        | 14,801   | 28,100   | 29,587   | 31,472   | 33,898   | 34,930   | 36,997   | 104,350  |
| DENTAL HYGIENE             | COMPUTER          | 5      | 47,296   | 63,432   | 6,772    | 89,006   | 99,235   | 98,263   | 141,882  | 137,862  |
|                            | BLDG DEPRECIATION | 5      | 53,086   | 53,068   | 5,307    | 57,502   | 57,502   | 57,502   | 68,996   | 68,996   |
|                            | ADMIN SQ FT       | 5      | 8,612    | 10,163   | 1,238    | 14,712   | 16,067   | 17,837   | 24,088   | 23,984   |
|                            | EDUC SQ FT        | 5      | 9,339    | 11,021   | 1,343    | 15,954   | 17,424   | 19,343   | 26,121   | 26,009   |
|                            | ADMIN STUDENT SPT | 5      | 51,394   | 52,194   | 5,882    | 67,891   | 75,870   | 77,304   | 92,756   | 98,530   |
| TOTAL METHOD 5A            |                   |        | 169,709  | 189,878  | 20,542   | 245,065  | 266,098  | 270,249  | 353,843  | 355,382  |
| TOTAL METHOD 5B            | COMPUTER          | 5      | 40,698   | 55,076   | 14,981   | 75,146   | 81,543   | 80,939   | 104,097  | 100,884  |
|                            | BLDG DEPRECIATION | 5      | 28,597   | 30,360   | 26,277   | 29,407   | 25,049   | 26,163   | 18,797   | 18,297   |
|                            | ADMIN SQ FT       | 5      | 4,641    | 5,814    | 6,132    | 7,524    | 6,999    | 8,115    | 6,562    | 6,360    |
|                            | EDUC SQ FT        | 5      | 5,032    | 6,305    | 6,650    | 8,159    | 7,590    | 8,801    | 7,116    | 6,897    |
|                            | ADMIN STUDENT SPT | 5      | 27,695   | 29,860   | 29,125   | 34,719   | 33,051   | 35,173   | 25,270   | 26,129   |
| TOTAL METHOD 5B            |                   |        | 106,663  | 127,416  | 83,165   | 154,954  | 154,233  | 159,190  | 161,843  | 158,567  |

TABLE 19  
TOTAL COSTS FOR EACH DEPARTMENT BY FISCAL YEAR DETERMINED BY DIRECT COSTS PLUS INDIRECT COSTS.  
COSTS ASSIGNED TO EACH DEPARTMENT BY METHOD A AND METHOD B.

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |         |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |         |
| <u>PEDODONTICS</u>       |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 437,175  | 298,371  | 346,941  | 360,072  | 376,986  | 473,514  | 523,190  | 519,883 |
|                          | METHOD 2 | 515,876  | 322,743  | 370,524  | 380,082  | 402,126  | 501,806  | 560,841  | 561,392 |
| A                        | METHOD 3 | 458,742  | 303,722  | 351,671  | 361,778  | 381,065  | 478,043  | 526,436  | 525,536 |
|                          | METHOD 4 | 561,128  | 343,736  | 399,099  | 399,578  | 425,853  | 538,336  | 596,626  | 585,396 |
|                          | METHOD 5 | 445,464  | 301,122  | 249,765  | 362,541  | 379,986  | 476,875  | 527,851  | 524,764 |
|                          | METHOD 1 | 362,457  | 271,626  | 319,638  | 363,173  | 364,852  | 480,674  | 517,963  | 506,054 |
|                          | METHOD 2 | 404,867  | 287,619  | 335,556  | 383,999  | 386,285  | 511,218  | 553,787  | 542,144 |
| B                        | METHOD 3 | 374,079  | 275,138  | 322,830  | 364,949  | 368,330  | 485,564  | 521,053  | 510,969 |
|                          | METHOD 4 | 429,252  | 301,393  | 354,844  | 404,290  | 406,512  | 550,654  | 587,835  | 563,015 |
|                          | METHOD 5 | 382,333  | 279,877  | 327,994  | 364,951  | 370,619  | 483,477  | 523,759  | 513,862 |
| <u>ORTHODONTICS</u>      |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 218,161  | 267,919  | 309,469  | 332,603  | 357,554  | 455,421  | 474,022  | 514,429 |
|                          | METHOD 2 | 242,520  | 285,817  | 330,135  | 358,787  | 390,458  | 489,762  | 520,857  | 566,061 |
| A                        | METHOD 3 | 226,151  | 272,608  | 313,614  | 334,836  | 362,893  | 460,918  | 478,061  | 521,460 |
|                          | METHOD 4 | 264,080  | 307,674  | 355,177  | 384,298  | 421,510  | 534,103  | 565,370  | 595,921 |
|                          | METHOD 5 | 221,005  | 270,096  | 311,944  | 335,834  | 361,481  | 459,501  | 479,820  | 520,501 |
|                          | METHOD 1 | 179,211  | 252,388  | 295,890  | 284,091  | 293,500  | 423,907  | 416,450  | 450,741 |
|                          | METHOD 2 | 187,764  | 266,208  | 312,745  | 297,513  | 306,826  | 448,342  | 442,769  | 477,416 |
| B                        | METHOD 3 | 182,017  | 256,009  | 299,270  | 285,236  | 295,662  | 427,819  | 418,719  | 454,374 |
|                          | METHOD 4 | 195,334  | 283,085  | 333,168  | 310,598  | 319,402  | 479,891  | 467,784  | 492,842 |
|                          | METHOD 5 | 188,140  | 257,774  | 301,116  | 298,141  | 312,028  | 434,852  | 434,898  | 470,288 |

TABLE 19 (CONTINUED--PAGE TWO)  
 TOTAL COSTS FOR EACH DEPARTMENT BY FISCAL YEAR DETERMINED BY DIRECT COSTS PLUS INDIRECT COSTS.  
 COSTS ASSIGNED TO EACH DEPARTMENT BY METHOD A AND METHOD B.

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |         |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |         |
| <u>PERIODONTICS</u>      |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 235,252  | 307,768  | 400,027  | 463,889  | 418,272  | 524,144  | 663,126  | 659,733 |
|                          | METHOD 2 | 263,422  | 328,466  | 423,926  | 492,060  | 453,672  | 561,091  | 714,323  | 716,175 |
| A                        | METHOD 3 | 244,492  | 313,191  | 404,820  | 466,292  | 424,016  | 530,059  | 667,541  | 667,419 |
|                          | METHOD 4 | 288,355  | 353,742  | 452,885  | 519,507  | 487,081  | 608,797  | 762,981  | 748,815 |
|                          | METHOD 5 | 238,541  | 310,285  | 402,888  | 467,366  | 422,497  | 528,535  | 669,463  | 666,371 |
|                          | METHOD 1 | 209,493  | 281,573  | 414,961  | 462,360  | 370,692  | 513,489  | 654,863  | 635,827 |
|                          | METHOD 2 | 227,210  | 295,393  | 443,052  | 490,129  | 391,549  | 547,087  | 703,116  | 682,900 |
| B                        | METHOD 3 | 215,304  | 285,194  | 420,594  | 464,728  | 374,076  | 518,867  | 659,024  | 642,237 |
|                          | METHOD 4 | 242,891  | 312,270  | 477,090  | 517,183  | 411,233  | 590,467  | 748,976  | 710,123 |
|                          | METHOD 5 | 216,806  | 289,504  | 414,797  | 466,178  | 385,762  | 520,200  | 663,029  | 647,523 |
| <u>ORAL DIAGNOSIS</u>    |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 324,614  | 357,141  | 385,603  | 397,901  | 425,829  | 522,507  | 689,185  | 676,240 |
|                          | METHOD 2 | 354,652  | 379,213  | 411,087  | 420,191  | 453,828  | 551,730  | 746,236  | 739,135 |
| A                        | METHOD 3 | 334,466  | 362,924  | 390,714  | 399,810  | 430,372  | 527,185  | 694,105  | 684,805 |
|                          | METHOD 4 | 381,238  | 406,165  | 441,966  | 441,899  | 480,252  | 589,462  | 800,459  | 775,509 |
|                          | METHOD 5 | 328,121  | 359,826  | 388,654  | 400,659  | 429,170  | 529,980  | 696,247  | 683,636 |
|                          | METHOD 1 | 310,811  | 336,884  | 363,200  | 395,898  | 413,836  | 550,026  | 656,286  | 619,848 |
|                          | METHOD 2 | 335,248  | 353,636  | 382,395  | 417,650  | 438,170  | 587,899  | 701,614  | 660,644 |
| B                        | METHOD 3 | 318,826  | 341,273  | 367,049  | 397,753  | 417,785  | 556,088  | 660,195  | 625,403 |
|                          | METHOD 4 | 356,876  | 374,092  | 405,655  | 438,843  | 461,135  | 636,801  | 744,695  | 684,237 |
|                          | METHOD 5 | 316,474  | 343,755  | 370,790  | 399,096  | 419,912  | 547,504  | 670,629  | 639,176 |

TABLE 19 (CONTINUED--PAGE THREE)  
TOTAL COSTS FOR EACH DEPARTMENT BY FISCAL YEAR DETERMINED BY DIRECT COSTS PLUS INDIRECT COSTS.  
COSTS ASSIGNED TO EACH DEPARTMENT BY METHOD A AND METHOD B.

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |         |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |         |
| ORAL PATHOLOGY           |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 129,979  | 149,399  | 201,102  | 205,932  | 233,023  | 260,973  | 267,688  | 264,544 |
|                          | METHOD 2 | 142,607  | 158,677  | 211,816  | 213,879  | 243,010  | 271,396  | 279,512  | 277,579 |
| A                        | METHOD 3 | 134,120  | 151,830  | 203,251  | 206,610  | 234,644  | 262,641  | 268,708  | 266,320 |
|                          | METHOD 4 | 153,783  | 170,008  | 224,797  | 221,622  | 252,435  | 284,854  | 290,749  | 285,117 |
|                          | METHOD 5 | 131,453  | 150,527  | 202,385  | 206,913  | 234,215  | 262,211  | 269,152  | 266,077 |
|                          | METHOD 1 | 128,969  | 145,961  | 212,973  | 228,499  | 257,216  | 286,111  | 296,059  | 291,343 |
|                          | METHOD 2 | 141,188  | 154,337  | 227,019  | 242,383  | 274,597  | 304,436  | 317,992  | 314,880 |
| B                        | METHOD 3 | 132,977  | 148,155  | 215,790  | 229,683  | 260,036  | 289,044  | 297,950  | 294,548 |
|                          | METHOD 4 | 152,002  | 164,565  | 244,038  | 255,910  | 291,000  | 328,098  | 338,837  | 328,491 |
|                          | METHOD 5 | 130,601  | 147,800  | 211,851  | 224,447  | 252,893  | 281,874  | 291,244  | 287,206 |
| DENT SERV ADMIN          |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 380,821  | 319,686  | 358,995  | 394,715  | 442,786  | 465,365  | 466,269  | 458,831 |
|                          | METHOD 2 | 408,991  | 340,385  | 382,894  | 436,914  | 470,786  | 494,588  | 491,752  | 486,925 |
| A                        | METHOD 3 | 390,060  | 325,109  | 363,787  | 449,209  | 447,330  | 470,043  | 468,466  | 462,656 |
|                          | METHOD 4 | 433,923  | 365,661  | 411,853  | 432,827  | 497,210  | 532,319  | 515,972  | 503,172 |
|                          | METHOD 5 | 384,110  | 322,204  | 361,856  | 399,922  | 446,128  | 468,837  | 469,423  | 462,135 |
|                          | METHOD 1 | 395,708  | 333,365  | 377,265  | 407,553  | 453,541  | 455,963  | 538,373  | 487,241 |
|                          | METHOD 2 | 429,920  | 357,655  | 406,292  | 454,885  | 484,827  | 482,230  | 589,550  | 526,468 |
| B                        | METHOD 3 | 406,929  | 339,729  | 383,086  | 468,676  | 458,618  | 460,168  | 542,786  | 492,583 |
|                          | METHOD 4 | 460,199  | 387,317  | 441,465  | 450,300  | 514,354  | 516,146  | 638,189  | 549,154 |
|                          | METHOD 5 | 396,671  | 333,055  | 376,425  | 407,308  | 454,431  | 461,484  | 525,570  | 484,534 |



TABLE 19 (CONTINUED--PAGE FOUR)  
TOTAL COSTS FOR EACH DEPARTMENT BY FISCAL YEAR DETERMINED BY DIRECT COSTS PLUS INDIRECT COSTS.  
COSTS ASSIGNED TO EACH DEPARTMENT BY METHOD A AND METHOD B.

| FISCAL YEAR                 | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |         |
|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| <u>DEPARTMENT/METHOD</u>    |          |          |          |          |          |          |          |          |         |
| <u>ORAL SURGERY</u>         |          |          |          |          |          |          |          |          |         |
|                             | METHOD 1 | 165,294  | 214,586  | 252,321  | 233,860  | 254,318  | 221,298  | 270,895  | 270,875 |
|                             | METHOD 2 | 181,433  | 226,445  | 266,014  | 245,001  | 268,317  | 235,909  | 294,771  | 297,197 |
| A                           | METHOD 3 | 170,587  | 217,693  | 255,067  | 234,811  | 256,590  | 223,637  | 272,954  | 274,459 |
|                             | METHOD 4 | 195,718  | 240,927  | 282,606  | 255,855  | 281,530  | 254,775  | 317,464  | 312,420 |
|                             | METHOD 5 | 167,178  | 216,028  | 253,960  | 235,325  | 255,989  | 223,034  | 273,850  | 273,970 |
|                             | METHOD 1 | 148,103  | 210,890  | 263,585  | 253,086  | 257,800  | 205,910  | 236,716  | 253,755 |
|                             | METHOD 2 | 157,267  | 221,779  | 280,440  | 269,284  | 272,863  | 215,683  | 248,414  | 273,369 |
| B                           | METHOD 3 | 151,109  | 213,743  | 266,965  | 254,467  | 260,244  | 207,474  | 237,725  | 256,426 |
|                             | METHOD 4 | 165,378  | 235,076  | 300,863  | 285,066  | 287,080  | 228,303  | 259,531  | 284,712 |
|                             | METHOD 5 | 152,673  | 213,096  | 262,942  | 250,173  | 258,677  | 210,998  | 247,236  | 260,473 |
| <u>FIXED PROSTHODONTICS</u> |          |          |          |          |          |          |          |          |         |
|                             | METHOD 1 | 414,424  | 471,979  | 565,082  | 638,527  | 680,554  | 748,963  | 691,572  | 871,394 |
|                             | METHOD 2 | 455,969  | 502,506  | 600,329  | 676,419  | 728,171  | 798,660  | 766,212  | 944,793 |
| A                           | METHOD 3 | 428,050  | 479,977  | 572,151  | 641,758  | 688,281  | 756,919  | 697,862  | 881,389 |
|                             | METHOD 4 | 492,739  | 539,783  | 643,037  | 713,337  | 773,108  | 862,828  | 836,762  | 987,240 |
|                             | METHOD 5 | 419,274  | 275,692  | 569,303  | 643,203  | 686,237  | 754,868  | 700,812  | 880,025 |
|                             | METHOD 1 | 390,331  | 438,661  | 539,590  | 615,878  | 644,186  | 719,125  | 632,468  | 810,220 |
|                             | METHOD 2 | 422,099  | 460,438  | 567,681  | 647,812  | 680,687  | 759,442  | 684,923  | 859,647 |
| B                           | METHOD 3 | 400,750  | 440,366  | 545,223  | 618,601  | 650,109  | 725,579  | 636,889  | 816,951 |
|                             | METHOD 4 | 450,215  | 487,032  | 601,719  | 678,925  | 715,134  | 811,498  | 734,505  | 888,231 |
|                             | METHOD 5 | 398,945  | 449,260  | 548,976  | 625,605  | 658,159  | 731,529  | 653,701  | 831,795 |

TABLE 19 (CONTINUED--PAGE FIVE)  
TOTAL COSTS FOR EACH DEPARTMENT BY FISCAL YEAR DETERMINED BY DIRECT COSTS PLUS INDIRECT COSTS.  
COSTS ASSIGNED TO EACH DEPARTMENT BY METHOD A AND METHOD B.

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |         |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |         |
| OPERATIVE DENTISTRY      |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 356,198  | 395,779  | 454,831  | 475,536  | 515,316  | 556,278  | 699,793  | 685,698 |
|                          | METHOD 2 | 388,403  | 419,443  | 482,153  | 503,636  | 550,672  | 603,132  | 746,628  | 737,330 |
| A                        | METHOD 3 | 366,761  | 401,979  | 460,310  | 477,932  | 521,091  | 572,178  | 703,832  | 692,729 |
|                          | METHOD 4 | 416,906  | 448,339  | 515,260  | 531,013  | 583,997  | 650,718  | 791,141  | 767,190 |
|                          | METHOD 5 | 359,958  | 398,658  | 458,103  | 479,004  | 519,575  | 570,658  | 705,591  | 691,770 |
|                          | METHOD 1 | 377,702  | 402,952  | 459,238  | 493,628  | 545,791  | 606,441  | 718,134  | 698,087 |
|                          | METHOD 2 | 418,634  | 428,499  | 487,797  | 526,487  | 590,403  | 655,921  | 771,504  | 754,575 |
| B                        | METHOD 3 | 391,127  | 409,645  | 464,965  | 496,430  | 553,030  | 614,362  | 722,736  | 705,780 |
|                          | METHOD 4 | 454,861  | 459,695  | 522,403  | 558,502  | 632,506  | 719,808  | 822,228  | 787,242 |
|                          | METHOD 5 | 378,102  | 404,348  | 461,616  | 493,061  | 543,069  | 602,072  | 719,872  | 701,538 |
| REMOVABLE PROSTHODONTICS |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 338,293  | 378,632  | 476,024  | 517,869  | 579,140  | 670,287  | 729,508  | 722,753 |
|                          | METHOD 2 | 369,900  | 401,856  | 502,840  | 548,523  | 617,661  | 710,492  | 780,016  | 778,435 |
| A                        | METHOD 3 | 348,659  | 384,716  | 481,402  | 520,483  | 585,391  | 676,723  | 733,863  | 730,336 |
|                          | METHOD 4 | 397,875  | 430,216  | 535,332  | 578,389  | 654,016  | 762,403  | 828,020  | 810,637 |
|                          | METHOD 5 | 341,984  | 381,456  | 479,235  | 521,652  | 583,738  | 675,065  | 735,760  | 729,302 |
|                          | METHOD 1 | 326,645  | 361,958  | 480,570  | 506,899  | 566,843  | 670,645  | 733,436  | 704,789 |
|                          | METHOD 2 | 353,526  | 380,804  | 508,661  | 534,668  | 601,605  | 710,962  | 785,345  | 753,431 |
| B                        | METHOD 3 | 335,462  | 356,895  | 486,203  | 509,267  | 572,484  | 677,099  | 737,913  | 711,413 |
|                          | METHOD 4 | 377,317  | 403,817  | 542,699  | 561,722  | 634,412  | 763,018  | 834,679  | 781,561 |
|                          | METHOD 5 | 332,155  | 368,229  | 482,859  | 513,128  | 574,243  | 675,345  | 738,819  | 715,138 |

TABLE 19 (CONTINUED--PAGE SIX)  
 TOTAL COSTS FOR EACH DEPARTMENT BY FISCAL YEAR DETERMINED BY DIRECT COSTS PLUS INDIRECT COSTS.  
 COSTS ASSIGNED TO EACH DEPARTMENT BY METHOD A AND METHOD B.

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |         |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |         |
| <u>ENDODONTICS</u>       |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 140,475  | 152,240  | 195,507  | 218,902  | 199,490  | 232,877  | 272,942  | 280,566 |
|                          | METHOD 2 | 154,598  | 162,617  | 207,489  | 229,404  | 212,687  | 246,651  | 291,423  | 300,941 |
| A                        | METHOD 3 | 145,107  | 154,959  | 197,910  | 219,797  | 201,631  | 235,082  | 274,536  | 283,341 |
|                          | METHOD 4 | 167,097  | 175,289  | 222,007  | 239,635  | 225,142  | 264,435  | 308,988  | 312,724 |
|                          | METHOD 5 | 142,124  | 153,502  | 196,942  | 220,198  | 201,065  | 234,514  | 275,230  | 282,962 |
|                          | METHOD 1 | 122,235  | 128,671  | 184,514  | 228,240  | 196,119  | 233,755  | 264,163  | 274,621 |
|                          | METHOD 2 | 128,955  | 132,859  | 193,409  | 241,198  | 208,286  | 247,805  | 279,516  | 292,665 |
| B                        | METHOD 3 | 124,439  | 129,768  | 186,298  | 229,235  | 198,094  | 236,004  | 265,487  | 277,078 |
|                          | METHOD 4 | 134,903  | 137,973  | 204,188  | 253,824  | 219,769  | 265,946  | 294,108  | 303,101 |
|                          | METHOD 5 | 126,733  | 134,804  | 188,176  | 227,453  | 198,463  | 235,201  | 268,393  | 278,275 |
| <u>OCCCLUSION</u>        |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 123,004  | 157,282  | 184,020  | 199,041  | 211,576  | 224,115  | 244,756  | 255,368 |
|                          | METHOD 2 | 137,799  | 168,153  | 196,571  | 212,878  | 228,964  | 242,263  | 266,681  | 279,539 |
| A                        | METHOD 3 | 127,857  | 160,131  | 186,537  | 200,221  | 214,398  | 227,020  | 246,647  | 258,660 |
|                          | METHOD 4 | 150,894  | 181,428  | 211,781  | 226,359  | 245,374  | 265,695  | 287,519  | 293,518 |
|                          | METHOD 5 | 124,731  | 158,601  | 184,523  | 200,749  | 213,652  | 226,272  | 247,470  | 258,211 |
|                          | METHOD 1 | 107,623  | 150,971  | 182,669  | 193,943  | 198,285  | 209,136  | 236,571  | 237,733 |
|                          | METHOD 2 | 116,176  | 160,184  | 194,842  | 206,439  | 211,611  | 222,575  | 255,580  | 254,993 |
| B                        | METHOD 3 | 110,428  | 153,385  | 185,110  | 195,009  | 200,447  | 211,288  | 238,210  | 240,083 |
|                          | METHOD 4 | 123,746  | 171,435  | 209,592  | 218,613  | 224,187  | 239,928  | 273,646  | 264,974 |
|                          | METHOD 5 | 111,753  | 153,597  | 184,446  | 196,787  | 203,390  | 214,556  | 241,096  | 244,307 |

TABLE 19 (CONTINUED--PAGE SEVEN)  
TOTAL COSTS FOR EACH DEPARTMENT BY FISCAL YEAR DETERMINED BY DIRECT COSTS PLUS INDIRECT COSTS.  
COSTS ASSIGNED TO EACH DEPARTMENT BY METHOD A AND METHOD B.

| FISCAL YEAR              | FY 76-77 | FY 77-78  | FY 78-79  | FY 79-80  | FY 80-81  | FY 81-82  | FY 82-83  | FY 83-84  |           |
|--------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <u>DEPARTMENT/METHOD</u> |          |           |           |           |           |           |           |           |           |
| <u>DENTAL MATERIALS</u>  |          |           |           |           |           |           |           |           |           |
|                          | METHOD 1 | 82,542    | 120,175   | 133,671   | 145,437   | 146,751   | 171,174   | 178,482   | 349,230   |
|                          | METHOD 2 | 86,727    | 123,250   | 137,221   | 149,695   | 152,101   | 176,758   | 185,255   | 356,696   |
| A                        | METHOD 3 | 83,915    | 120,981   | 134,383   | 145,800   | 147,619   | 172,068   | 179,066   | 350,247   |
|                          | METHOD 4 | 90,230    | 127,005   | 141,523   | 153,843   | 157,150   | 183,967   | 191,691   | 361,014   |
|                          | METHOD 5 | 83,031    | 120,549   | 134,096   | 145,963   | 147,389   | 171,837   | 179,320   | 350,108   |
|                          | METHOD 1 | 87,285    | 140,365   | 154,383   | 164,438   | 167,158   | 192,274   | 200,510   | 456,305   |
|                          | METHOD 2 | 93,394    | 148,741   | 163,747   | 173,694   | 178,745   | 204,491   | 215,132   | 505,732   |
| B                        | METHOD 3 | 89,289    | 142,560   | 156,261   | 165,227   | 169,038   | 194,230   | 201,771   | 463,036   |
|                          | METHOD 4 | 98,802    | 158,969   | 175,093   | 182,712   | 189,681   | 220,266   | 229,029   | 534,316   |
|                          | METHOD 5 | 87,033    | 136,566   | 150,611   | 160,726   | 163,145   | 188,342   | 196,473   | 434,527   |
| <u>DENTAL HYGIENE</u>    |          |           |           |           |           |           |           |           |           |
|                          | METHOD 1 | 3,783,407 | 4,109,902 | 4,630,922 | 5,185,260 | 5,516,546 | 6,249,756 | 7,129,150 | 7,472,871 |
|                          | METHOD 2 | 4,205,829 | 4,386,832 | 4,895,906 | 5,530,881 | 5,925,828 | 6,678,975 | 7,722,993 | 8,188,656 |
| A                        | METHOD 3 | 3,917,709 | 4,181,424 | 4,684,064 | 5,265,630 | 5,582,958 | 6,318,466 | 7,180,212 | 7,560,812 |
|                          | METHOD 4 | 4,555,294 | 4,716,231 | 5,216,990 | 5,822,414 | 6,312,086 | 7,233,175 | 8,286,998 | 8,492,122 |
|                          | METHOD 5 | 3,831,823 | 4,143,371 | 4,662,652 | 5,227,910 | 5,565,392 | 6,300,759 | 7,202,661 | 7,548,814 |
|                          | METHOD 1 | 3,509,032 | 3,896,471 | 4,694,340 | 5,082,678 | 5,259,831 | 6,118,312 | 6,813,147 | 7,120,256 |
|                          | METHOD 2 | 3,814,139 | 4,116,001 | 4,977,124 | 5,403,068 | 5,590,650 | 6,506,210 | 7,293,297 | 7,627,859 |
| B                        | METHOD 3 | 3,606,815 | 3,953,310 | 4,751,051 | 5,167,088 | 5,313,512 | 6,180,407 | 6,854,448 | 7,189,380 |
|                          | METHOD 4 | 4,071,026 | 4,378,322 | 5,319,778 | 5,664,519 | 5,902,859 | 7,007,056 | 7,749,363 | 7,921,413 |
|                          | METHOD 5 | 3,600,225 | 3,974,023 | 4,713,220 | 5,145,615 | 5,367,195 | 6,197,946 | 6,955,483 | 7,270,808 |

TABLE 20  
TOTAL NET COST FOR EACH DEPARTMENT CALCULATED BY  
DIRECT COSTS PLUS INDIRECT COSTS MINUS INCOME.

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |         |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |         |
| <u>PEDODONTICS</u>       |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 365,566  | 241,637  | 253,302  | 259,209  | 284,738  | 375,334  | 426,714  | 394,721 |
|                          | METHOD 2 | 444,267  | 266,009  | 276,884  | 279,220  | 309,878  | 403,626  | 464,366  | 436,230 |
| A                        | METHOD 3 | 387,133  | 246,988  | 258,031  | 260,916  | 288,817  | 379,863  | 429,961  | 400,374 |
|                          | METHOD 4 | 489,517  | 287,002  | 305,459  | 298,716  | 333,605  | 440,156  | 500,150  | 460,234 |
|                          | METHOD 5 | 373,855  | 244,388  | 256,125  | 261,679  | 287,738  | 378,696  | 431,375  | 399,602 |
|                          | METHOD 1 | 315,691  | 227,449  | 244,117  | 260,134  | 279,489  | 378,458  | 243,703  | 388,134 |
|                          | METHOD 2 | 358,100  | 243,441  | 260,035  | 280,960  | 300,921  | 409,001  | 449,527  | 424,224 |
| B                        | METHOD 3 | 327,313  | 230,960  | 247,309  | 261,910  | 282,966  | 383,348  | 426,793  | 393,049 |
|                          | METHOD 4 | 382,485  | 257,215  | 279,323  | 301,251  | 321,148  | 448,438  | 493,575  | 445,095 |
|                          | METHOD 5 | 335,566  | 235,699  | 252,473  | 261,912  | 285,255  | 380,260  | 429,499  | 395,942 |
| <u>ORTHODONTICS</u>      |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 195,518  | 215,151  | 233,197  | 256,603  | 290,772  | 384,870  | 410,123  | 438,291 |
|                          | METHOD 2 | 219,877  | 233,050  | 253,863  | 282,787  | 323,676  | 419,211  | 456,958  | 489,924 |
| A                        | METHOD 3 | 203,508  | 219,841  | 237,342  | 258,836  | 296,111  | 390,368  | 414,162  | 445,323 |
|                          | METHOD 4 | 241,437  | 254,907  | 278,905  | 308,297  | 354,728  | 463,552  | 501,470  | 519,784 |
|                          | METHOD 5 | 198,362  | 217,328  | 235,672  | 259,834  | 294,699  | 388,951  | 415,921  | 444,363 |
|                          | METHOD 1 | 169,054  | 210,935  | 232,737  | 242,137  | 263,102  | 371,123  | 377,421  | 407,457 |
|                          | METHOD 2 | 177,607  | 224,756  | 249,592  | 255,559  | 276,428  | 395,557  | 403,740  | 434,132 |
| B                        | METHOD 3 | 171,860  | 214,556  | 236,117  | 243,282  | 265,264  | 375,034  | 379,690  | 411,090 |
|                          | METHOD 4 | 185,777  | 241,632  | 270,015  | 268,635  | 289,004  | 427,106  | 428,755  | 449,558 |
|                          | METHOD 5 | 177,983  | 216,322  | 237,963  | 256,187  | 281,630  | 382,067  | 395,960  | 427,005 |

TABLE 20 (CONTINUED--PAGE TWO)  
TOTAL NET COST FOR EACH DEPARTMENT CALCULATED BY  
DIRECT COSTS PLUS INDIRECT COSTS MINUS INCOME.

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |         |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |         |
| PERIODONTICS             |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 206,881  | 243,141  | 301,902  | 363,466  | 335,768  | 432,302  | 577,474  | 561,200 |
|                          | METHOD 2 | 235,051  | 263,840  | 325,801  | 391,636  | 371,168  | 469,249  | 628,671  | 617,641 |
| A                        | METHOD 3 | 216,120  | 248,565  | 306,695  | 365,868  | 341,512  | 438,216  | 581,889  | 568,886 |
|                          | METHOD 4 | 259,983  | 289,116  | 354,760  | 419,083  | 404,577  | 516,954  | 677,330  | 650,282 |
|                          | METHOD 5 | 210,170  | 245,659  | 304,764  | 366,942  | 339,993  | 436,692  | 583,812  | 567,837 |
|                          | METHOD 1 | 189,379  | 236,030  | 302,408  | 363,010  | 315,214  | 427,653  | 572,781  | 549,625 |
|                          | METHOD 2 | 207,096  | 249,851  | 330,499  | 390,778  | 366,072  | 461,251  | 621,034  | 596,698 |
| B                        | METHOD 3 | 195,190  | 239,651  | 308,041  | 365,378  | 318,599  | 433,032  | 576,942  | 556,036 |
|                          | METHOD 4 | 222,777  | 266,728  | 364,537  | 417,833  | 355,756  | 504,631  | 663,893  | 623,921 |
|                          | METHOD 5 | 196,692  | 243,962  | 302,244  | 366,827  | 330,285  | 434,365  | 580,947  | 561,321 |
| ORAL DIAGNOSIS           |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 282,813  | 271,360  | 262,386  | 301,593  | 342,641  | 436,346  | 588,934  | 551,850 |
|                          | METHOD 2 | 312,851  | 293,431  | 287,870  | 323,874  | 370,640  | 465,569  | 645,986  | 614,746 |
| A                        | METHOD 3 | 292,665  | 277,143  | 267,497  | 303,493  | 347,184  | 441,024  | 593,854  | 560,415 |
|                          | METHOD 4 | 339,437  | 320,383  | 318,750  | 345,582  | 397,064  | 503,300  | 700,208  | 651,119 |
|                          | METHOD 5 | 286,320  | 274,044  | 265,438  | 304,342  | 345,983  | 439,819  | 595,996  | 559,247 |
|                          | METHOD 1 | 273,435  | 265,861  | 261,627  | 300,993  | 337,461  | 448,351  | 570,247  | 524,548 |
|                          | METHOD 2 | 297,872  | 282,613  | 280,823  | 322,745  | 361,794  | 486,224  | 615,575  | 565,345 |
| B                        | METHOD 3 | 281,450  | 270,250  | 265,477  | 302,848  | 341,409  | 454,414  | 574,156  | 530,104 |
|                          | METHOD 4 | 319,500  | 303,069  | 304,082  | 343,938  | 384,759  | 535,126  | 658,656  | 588,938 |
|                          | METHOD 5 | 279,098  | 272,732  | 269,218  | 304,191  | 343,536  | 445,829  | 584,590  | 543,876 |

TABLE 20 (CONTINUED--PAGE THREE)  
TOTAL NET COST FOR EACH DEPARTMENT CALCULATED BY  
DIRECT COSTS PLUS INDIRECT COSTS MINUS INCOME.

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |         |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |         |
| <u>ORAL PATHOLOGY</u>    |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 119,943  | 123,650  | 164,227  | 184,730  | 214,463  | 242,280  | 253,355  | 247,386 |
|                          | METHOD 2 | 132,571  | 132,928  | 174,941  | 192,678  | 224,450  | 252,704  | 265,178  | 260,421 |
| A                        | METHOD 3 | 124,085  | 126,081  | 166,376  | 185,408  | 216,084  | 243,949  | 254,374  | 249,161 |
|                          | METHOD 4 | 143,748  | 144,259  | 187,923  | 200,421  | 233,875  | 266,162  | 276,415  | 267,959 |
|                          | METHOD 5 | 121,418  | 124,778  | 165,510  | 815,711  | 215,655  | 243,519  | 254,818  | 248,919 |
|                          | METHOD 1 | 199,258  | 122,716  | 164,630  | 191,459  | 224,914  | 253,247  | 269,470  | 260,360 |
|                          | METHOD 2 | 131,476  | 131,092  | 178,675  | 205,344  | 242,295  | 271,573  | 291,403  | 283,897 |
| B                        | METHOD 3 | 123,265  | 124,911  | 167,447  | 192,643  | 227,734  | 256,180  | 271,361  | 263,566 |
|                          | METHOD 4 | 142,290  | 141,321  | 195,695  | 218,871  | 258,698  | 295,235  | 312,248  | 297,508 |
|                          | METHOD 5 | 120,890  | 124,555  | 163,507  | 187,407  | 220,591  | 249,010  | 264,655  | 256,223 |
| <u>DENT SERV ADMIN</u>   |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 145,730  | 127,985  | 142,019  | 325,759  | 381,781  | 403,627  | 435,375  | 421,848 |
|                          | METHOD 2 | 173,900  | 148,684  | 165,918  | 367,958  | 409,980  | 432,849  | 460,589  | 449,942 |
| A                        | METHOD 3 | 154,969  | 133,408  | 146,812  | 380,253  | 386,524  | 408,305  | 437,573  | 425,674 |
|                          | METHOD 4 | 198,832  | 173,960  | 194,877  | 363,871  | 436,404  | 470,581  | 485,079  | 466,190 |
|                          | METHOD 5 | 149,018  | 130,502  | 144,881  | 330,966  | 385,322  | 407,099  | 438,530  | 425,152 |
|                          | METHOD 1 | 155,844  | 131,698  | 142,638  | 331,343  | 386,627  | 399,525  | 476,331  | 435,603 |
|                          | METHOD 2 | 190,056  | 155,989  | 171,665  | 378,676  | 417,913  | 425,792  | 527,508  | 474,831 |
| B                        | METHOD 3 | 167,065  | 138,062  | 148,459  | 392,467  | 391,703  | 403,730  | 480,744  | 440,945 |
|                          | METHOD 4 | 220,336  | 185,651  | 206,838  | 374,091  | 447,439  | 459,708  | 576,148  | 497,516 |
|                          | METHOD 5 | 156,808  | 131,389  | 141,798  | 331,098  | 387,517  | 405,046  | 463,529  | 432,896 |

TABLE 20 (CONTINUED--PAGE FOUR)  
 TOTAL NET COST FOR EACH DEPARTMENT CALCULATED BY  
 DIRECT COSTS PLUS INDIRECT COSTS MINUS INCOME.

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |         |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |         |
| ORAL SURGERY             |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 152,104  | 172,086  | 182,352  | 182,069  | 207,694  | 169,003  | 220,631  | 206,233 |
|                          | METHOD 2 | 168,244  | 183,945  | 196,045  | 193,210  | 221,693  | 183,614  | 244,508  | 232,555 |
| A                        | METHOD 3 | 157,398  | 175,193  | 185,098  | 183,020  | 209,965  | 171,342  | 222,690  | 209,817 |
|                          | METHOD 4 | 182,529  | 198,427  | 212,637  | 204,064  | 234,095  | 202,480  | 267,200  | 247,778 |
|                          | METHOD 5 | 153,988  | 173,528  | 183,992  | 183,444  | 209,364  | 170,739  | 223,587  | 209,328 |
|                          | METHOD 1 | 140,425  | 171,083  | 182,734  | 187,802  | 209,198  | 162,290  | 201,217  | 197,944 |
|                          | METHOD 2 | 149,588  | 181,972  | 199,588  | 204,000  | 224,261  | 172,064  | 212,915  | 217,558 |
| B                        | METHOD 3 | 143,430  | 173,936  | 186,114  | 189,183  | 211,642  | 163,855  | 202,226  | 200,615 |
|                          | METHOD 4 | 157,699  | 195,268  | 220,012  | 219,782  | 238,478  | 184,684  | 224,032  | 228,901 |
|                          | METHOD 5 | 144,994  | 173,289  | 182,091  | 184,889  | 210,075  | 167,378  | 211,737  | 204,662 |
| FIXED PROSTHODONTICS     |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 338,150  | 341,621  | 371,725  | 393,904  | 440,196  | 513,884  | 362,448  | 608,842 |
|                          | METHOD 2 | 379,695  | 372,147  | 406,971  | 431,796  | 487,813  | 563,581  | 437,088  | 682,241 |
| A                        | METHOD 3 | 351,776  | 349,619  | 378,793  | 397,136  | 447,923  | 521,839  | 368,738  | 618,837 |
|                          | METHOD 4 | 416,466  | 409,424  | 449,680  | 468,714  | 532,750  | 627,749  | 507,638  | 724,689 |
|                          | METHOD 5 | 343,000  | 345,334  | 375,947  | 398,580  | 445,879  | 519,789  | 371,688  | 617,474 |
|                          | METHOD 1 | 321,780  | 332,576  | 370,861  | 387,151  | 424,486  | 500,867  | 354,449  | 579,225 |
|                          | METHOD 2 | 353,548  | 354,354  | 398,952  | 419,084  | 460,986  | 541,184  | 406,904  | 628,652 |
| B                        | METHOD 3 | 332,200  | 338,282  | 376,494  | 389,874  | 430,409  | 507,321  | 358,869  | 585,956 |
|                          | METHOD 4 | 381,665  | 380,947  | 432,990  | 450,197  | 495,434  | 593,240  | 456,485  | 657,236 |
|                          | METHOD 5 | 330,394  | 343,175  | 380,247  | 396,878  | 438,459  | 513,372  | 375,682  | 600,801 |



TABLE 20 (CONTINUED--PAGE FIVE)  
TOTAL NET COST FOR EACH DEPARTMENT CALCULATED BY  
DIRECT COSTS PLUS INDIRECT COSTS MINUS INCOME.

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |         |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |         |
| OPERATIVE DENTISTRY      |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 316,191  | 309,916  | 326,118  | 349,914  | 407,587  | 443,349  | 582,822  | 540,235 |
|                          | METHOD 2 | 348,396  | 333,580  | 353,440  | 378,013  | 442,898  | 480,203  | 629,657  | 591,868 |
| A                        | METHOD 3 | 326,754  | 316,116  | 331,597  | 352,310  | 413,317  | 449,248  | 586,860  | 547,266 |
|                          | METHOD 4 | 376,900  | 362,476  | 386,547  | 405,391  | 476,222  | 527,788  | 674,169  | 621,727 |
|                          | METHOD 5 | 319,951  | 312,794  | 329,389  | 353,381  | 411,801  | 447,728  | 588,619  | 546,307 |
|                          | METHOD 1 | 330,802  | 311,863  | 326,267  | 355,308  | 420,732  | 460,869  | 593,239  | 546,233 |
|                          | METHOD 2 | 371,734  | 337,410  | 354,826  | 388,168  | 465,344  | 510,349  | 646,610  | 602,721 |
| B                        | METHOD 3 | 344,227  | 318,557  | 331,995  | 358,110  | 427,971  | 468,790  | 597,842  | 553,926 |
|                          | METHOD 4 | 407,961  | 368,606  | 389,432  | 420,182  | 507,446  | 574,237  | 697,334  | 635,389 |
|                          | METHOD 5 | 331,202  | 313,259  | 328,646  | 354,741  | 418,010  | 456,501  | 494,978  | 549,684 |
| REMOVABLE PROSTHODONTICS |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 278,152  | 274,092  | 322,894  | 342,167  | 429,031  | 524,091  | 597,841  | 564,743 |
|                          | METHOD 2 | 309,760  | 297,316  | 349,710  | 372,822  | 467,552  | 564,296  | 648,350  | 620,425 |
| A                        | METHOD 3 | 288,519  | 280,177  | 328,272  | 344,782  | 435,282  | 530,527  | 602,197  | 572,326 |
|                          | METHOD 4 | 337,734  | 325,676  | 382,202  | 402,688  | 503,906  | 616,207  | 696,353  | 652,627 |
|                          | METHOD 5 | 281,842  | 276,917  | 326,105  | 345,950  | 433,628  | 528,869  | 604,093  | 571,291 |
|                          | METHOD 1 | 270,239  | 269,566  | 323,048  | 338,897  | 423,719  | 424,247  | 600,073  | 556,046 |
|                          | METHOD 2 | 297,119  | 288,412  | 351,140  | 366,665  | 458,481  | 564,564  | 651,981  | 604,688 |
| B                        | METHOD 3 | 279,055  | 274,503  | 328,682  | 341,265  | 429,360  | 530,701  | 604,549  | 562,670 |
|                          | METHOD 4 | 320,910  | 311,425  | 385,178  | 393,720  | 491,288  | 616,621  | 701,315  | 632,818 |
|                          | METHOD 5 | 275,748  | 275,837  | 325,338  | 345,126  | 431,119  | 528,947  | 605,456  | 566,395 |

TABLE 20 (CONTINUED--PAGE SIX)  
TOTAL NET COST FOR EACH DEPARTMENT CALCULATED BY  
DIRECT COSTS PLUS INDIRECT COSTS MINUS INCOME.

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |         |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |          |         |
| <u>ENDODONTICS</u>       |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 121,529  | 114,034  | 125,840  | 162,707  | 144,513  | 166,789  | 210,710  | 213,237 |
|                          | METHOD 2 | 135,651  | 124,411  | 137,821  | 173,209  | 157,710  | 180,563  | 229,191  | 233,611 |
| A                        | METHOD 3 | 126,161  | 116,753  | 128,243  | 163,603  | 146,654  | 168,994  | 212,304  | 216,011 |
|                          | METHOD 4 | 148,150  | 137,083  | 152,339  | 183,441  | 170,165  | 198,347  | 246,756  | 245,394 |
|                          | METHOD 5 | 123,177  | 115,297  | 127,275  | 164,003  | 146,088  | 168,426  | 212,998  | 215,633 |
|                          | METHOD 1 | 109,135  | 107,636  | 125,467  | 165,492  | 143,057  | 167,172  | 205,723  | 210,358 |
|                          | METHOD 2 | 115,856  | 111,824  | 134,363  | 178,450  | 155,224  | 181,222  | 221,076  | 228,403 |
| B                        | METHOD 3 | 111,339  | 108,734  | 127,251  | 166,597  | 145,031  | 169,422  | 207,047  | 212,816 |
|                          | METHOD 4 | 121,803  | 116,938  | 145,142  | 191,076  | 166,706  | 199,363  | 235,668  | 238,838 |
|                          | METHOD 5 | 113,634  | 113,770  | 129,130  | 164,705  | 145,400  | 168,618  | 209,954  | 214,012 |
| <u>OCCLUSSION</u>        |          |          |          |          |          |          |          |          |         |
|                          | METHOD 1 | 110,965  | 126,964  | 140,776  | 162,068  | 179,158  | 191,171  | 217,852  | 223,248 |
|                          | METHOD 2 | 125,760  | 137,835  | 153,328  | 175,905  | 196,546  | 209,318  | 239,777  | 247,419 |
| A                        | METHOD 3 | 115,818  | 129,812  | 143,294  | 163,248  | 181,979  | 194,076  | 219,743  | 226,540 |
|                          | METHOD 4 | 138,855  | 151,109  | 168,537  | 189,386  | 212,956  | 232,751  | 260,615  | 261,398 |
|                          | METHOD 5 | 112,693  | 128,286  | 142,279  | 163,775  | 181,233  | 193,327  | 220,566  | 226,091 |
|                          | METHOD 1 | 100,515  | 125,250  | 140,731  | 160,547  | 173,416  | 184,636  | 213,203  | 214,710 |
|                          | METHOD 2 | 109,068  | 134,464  | 152,903  | 173,043  | 186,742  | 198,075  | 232,212  | 231,970 |
| B                        | METHOD 3 | 103,320  | 127,664  | 143,172  | 161,613  | 175,579  | 186,788  | 214,842  | 217,060 |
|                          | METHOD 4 | 116,637  | 145,715  | 167,653  | 185,218  | 199,318  | 215,427  | 250,278  | 241,952 |
|                          | METHOD 5 | 104,645  | 127,877  | 142,507  | 163,392  | 178,521  | 190,055  | 217,729  | 221,284 |

TABLE 20 (CONTINUED--PAGE SEVEN)  
TOTAL NET COST FOR EACH DEPARTMENT CALCULATED BY  
DIRECT COSTS PLUS INDIRECT COSTS MINUS INCOME.

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84  |           |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|
| <u>DEPARTMENT/METHOD</u> |          |          |          |          |          |          |          |           |           |
| DENTAL MATERIALS         |          |          |          |          |          |          |          |           |           |
|                          | METHOD 1 | 72,237   | 104,695  | 115,952  | 133,664  | 136,808  | 158,180  | 170,271   | 339,401   |
|                          | METHOD 2 | 76,421   | 107,769  | 119,502  | 137,922  | 142,158  | 163,764  | 177,044   | 346,868   |
| A                        | METHOD 3 | 73,609   | 105,500  | 116,664  | 134,027  | 137,676  | 159,074  | 170,855   | 340,418   |
|                          | METHOD 4 | 80,125   | 111,524  | 123,804  | 142,070  | 147,207  | 170,974  | 183,481   | 351,186   |
|                          | METHOD 5 | 72,725   | 105,069  | 116,377  | 134,190  | 137,446  | 158,843  | 171,110   | 340,279   |
|                          | METHOD 1 | 75,459   | 110,176  | 116,654  | 139,330  | 145,623  | 167,385  | 182,784   | 391,241   |
|                          | METHOD 2 | 81,569   | 118,552  | 126,018  | 148,586  | 157,211  | 179,602  | 197,406   | 440,668   |
| B                        | METHOD 3 | 77,463   | 112,370  | 118,532  | 140,119  | 147,503  | 169,341  | 184,044   | 397,972   |
|                          | METHOD 4 | 86,976   | 128,780  | 137,364  | 157,604  | 168,146  | 195,377  | 211,302   | 469,252   |
|                          | METHOD 5 | 75,297   | 106,377  | 112,882  | 135,618  | 141,610  | 163,452  | 178,747   | 369,463   |
| DENTAL HYGIENE           |          |          |          |          |          |          |          |           |           |
|                          | METHOD 1 | 402,338  | 423,720  | 347,274  | 509,602  | 613,284  | 646,718  | 918,195   | 903,707   |
|                          | METHOD 2 | 468,093  | 472,035  | 352,852  | 572,046  | 691,752  | 728,616  | 1,038,956 | 1,036,838 |
| A                        | METHOD 3 | 423,905  | 436,378  | 348,392  | 514,927  | 626,016  | 659,829  | 928,608   | 921,837   |
|                          | METHOD 4 | 526,291  | 513,034  | 359,612  | 632,885  | 765,807  | 834,361  | 1,153,728 | 1,113,829 |
|                          | METHOD 5 | 410,015  | 429,596  | 347,942  | 517,308  | 622,649  | 656,450  | 933,144   | 919,363   |
|                          | METHOD 1 | 341,328  | 382,770  | 382,195  | 433,425  | 498,838  | 537,326  | 694,743   | 677,484   |
|                          | METHOD 2 | 376,762  | 410,411  | 409,818  | 465,359  | 533,021  | 574,589  | 727,643   | 712,788   |
| B                        | METHOD 3 | 352,950  | 390,012  | 387,735  | 436,148  | 504,384  | 543,291  | 697,581   | 682,291   |
|                          | METHOD 4 | 408,123  | 444,164  | 443,289  | 496,471  | 565,281  | 622,701  | 758,911   | 733,206   |
|                          | METHOD 5 | 360,677  | 404,919  | 366,950  | 466,994  | 541,231  | 577,984  | 764,259   | 745,959   |

TABLE 20 (CONTINUED--PAGE EIGHT)  
TOTAL NET COST FOR EACH DEPARTMENT CALCULATED BY  
DIRECT COSTS PLUS INDIRECT COSTS MINUS INCOME.

| FISCAL YEAR    | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83  | FY 83-84 |
|----------------|----------|----------|----------|----------|----------|----------|-----------|----------|
| BASIC SCIENCE* |          |          |          |          |          |          |           |          |
| METHOD 1       | 615,975  | 765,545  | 820,130  | 726,823  | 808,018  | 827,459  | 936,438   | 874,840  |
| METHOD 2       | 723,948  | 844,881  | 911,733  | 785,648  | 881,939  | 904,610  | 1,032,175 | 980,382  |
| METHOD 3       | 566,774  | 689,233  | 721,766  | 664,189  | 739,885  | 760,432  | 858,151   | 800,784  |
| METHOD 4       | 593,307  | 713,762  | 724,674  | 683,192  | 762,405  | 788,548  | 894,771   | 832,016  |
| METHOD 5       | 563,174  | 687,475  | 721,649  | 664,573  | 739,343  | 759,888  | 858,889   | 800,382  |

TABLE 21  
COMPARISON OF AMERICAN BOARD SCORES  
FOR EACH DEPARTMENT

| FISCAL YEAR              | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| <u>DEPARTMENT</u>        |          |          |          |          |          |          |          |          |
| PEDODONTICS              | 5.00     | 5.00     | 4.00     | 5.00     | 4.00     | 3.00     | 4.00     | 4.00     |
| ORTHODONTICS             | 5.00     | 5.00     | 4.00     | 5.00     | 4.00     | 3.00     | 4.00     | 4.00     |
| PERIODONTICS             | 5.00     | 4.00     | 3.00     | 5.00     | 3.00     | 2.00     | 3.00     | 5.00     |
| ORAL DIAGNOSIS           | 5.00     | 4.00     | 2.00     | 5.00     | 1.00     | 2.00     | 1.00     | 2.00     |
| ORAL PATHOLOGY           | 5.00     | 4.00     | 2.00     | 5.00     | 1.00     | 2.00     | 1.00     | 2.00     |
| DENT SERV ADMIN          | --       | --       | --       | --       | --       | --       | --       | --       |
| ORAL SURGERY             | 3.00     | 3.00     | 1.00     | 4.00     | 2.00     | 2.00     | 1.00     | 3.00     |
| FIXED PROSTHODONTICS     | 5.00     | 3.00     | 2.00     | 5.00     | 2.00     | 2.00     | 2.00     | 2.00     |
| OPERATIVE DENTISTRY      | 5.00     | 5.00     | 3.00     | 5.00     | 3.00     | 2.00     | 2.00     | 3.00     |
| REMOVABLE PROSTHODONTICS | 5.00     | 3.00     | 2.00     | 5.00     | 2.00     | 2.00     | 2.00     | 2.00     |
| ENDODONTICS              | 4.00     | 5.00     | 3.00     | 5.00     | 3.00     | 2.00     | 2.00     | 5.00     |
| OCCCLUSION               | 1.00     | 1.00     | 1.00     | 1.00     | 3.00     | 2.00     | 1.00     | 1.00     |
| DENTAL MATERIALS         | --       | --       | --       | --       | --       | --       | --       | --       |
| DENTAL HYGIENE           | 4.00     | 4.00     | 4.00     | 3.00     | 5.00     | 5.00     | 4.00     | 4.00     |
| BASIC SCIENCES           | 1.00     | 1.00     | 1.50     | 1.50     | 1.00     | 1.50     | 1.50     | 1.00     |

TABLE 22

COMPARISON OF A.A.D.S. STUDY (1966) AND THE INSTITUTE OF MEDICINE STUDY (1974).  
THE COST PER STUDENT HAS BEEN ADJUSTED WITH CONSUMER PRICE INDEX<sup>1</sup>.

|                       | FY 76-77 | FY 77-78 | FY 78-79 | FY 79-80 | FY 80-81 | FY 81-82 | FY 82-83 | FY 83-84 |
|-----------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| A.A.D.S. STUDY        | 7,506    | 7,994    | 8,610    | 9,583    | 10,877   | 12,088   | 12,861   | 13,349   |
| INSTITUTE OF MEDICINE | 14,159   | 15,079   | 16,240   | 18,075   | 20,516   | 22,649   | 24,251   | 25,179   |

CONSUMER PRICE INDEX

| <u>YEAR</u> | <u>%</u> | <u>YEAR</u> | <u>%</u> | <u>YEAR</u> | <u>%</u> | <u>YEAR</u> | <u>%</u> | <u>YEAR</u> | <u>%</u> |      |      |
|-------------|----------|-------------|----------|-------------|----------|-------------|----------|-------------|----------|------|------|
| 1966        | 2.9      | 1969        | 5.4      | 1972        | 3.3      | 1975        | 9.1      | 1978        | 7.7      | 1981 | 10.4 |
| 1967        | 2.9      | 1970        | 5.9      | 1973        | 6.2      | 1976        | 5.8      | 1979        | 11.3     | 1982 | 7.1  |
| 1968        | 4.2      | 1971        | 4.3      | 1974        | 11.0     | 1977        | 6.5      | 1980        | 13.5     | 1983 | 3.8  |

<sup>1</sup>U. S. Department of Commerce, Bureau of the Census. Statistical Abstract of the United States, 1984: p. 458.