

INTERIM REPORT OF TASK FORCE ON FUTURE FUNDING

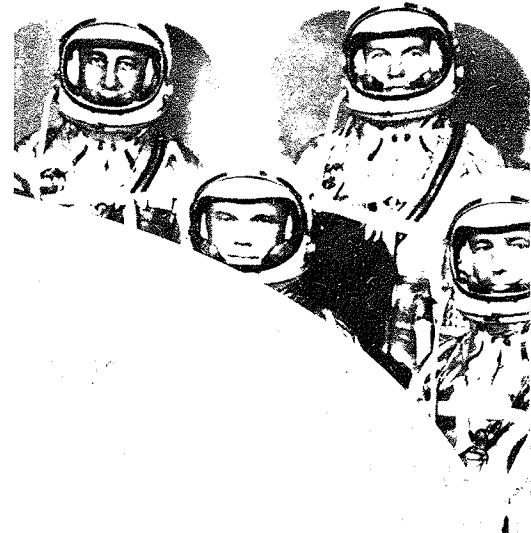
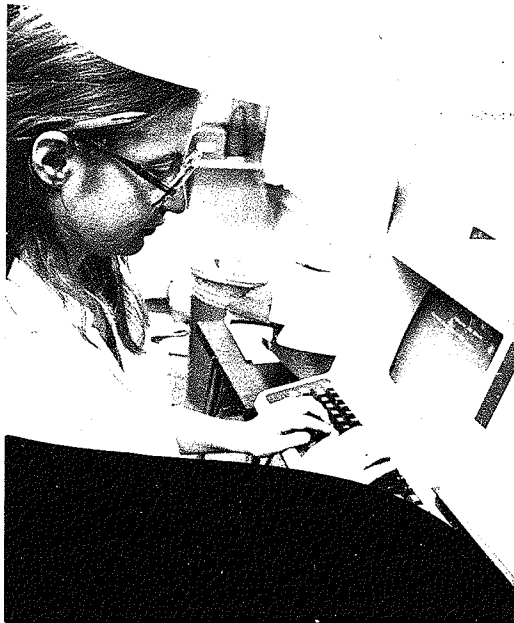
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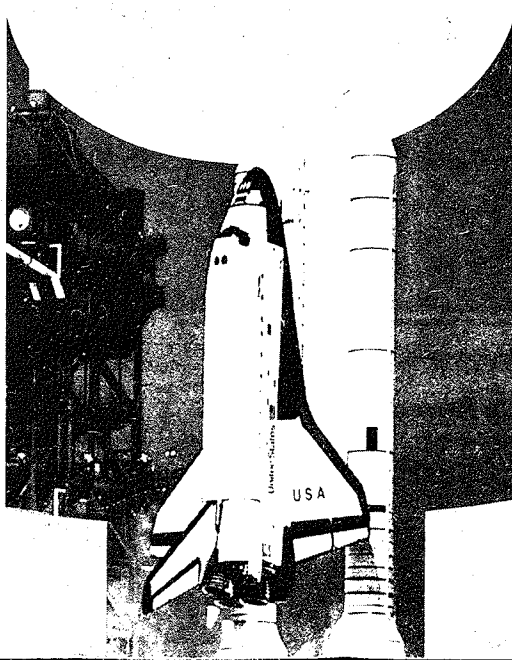


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Minnesota
Higher Education
Coordinating Board

April 1982

INTERIM REPORT OF THE TASK FORCE ON FUTURE FUNDING FOR POST-SECONDARY EDUCATION

Prepared by the Staff
of the
Minnesota Higher Education Coordinating Board

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St. Paul, Minnesota 55101

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This interim report was prepared by staff of the Higher Education Coordinating Board and is intended to summarize the proceedings of the Task Force during 1981 and early 1982. It does not necessarily reflect the consensus of the Task Force members although their suggestions have been incorporated.

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EXECUTIVE SUMMARY

Following the annual meeting with governing boards in November 1979, the Minnesota Higher Education Coordinating Board decided to form a task force on funding for post-secondary education. The object was to examine the implications of enrollment declines on current funding policies and to explore some alternative policies. Accordingly, in January 1980, the Coordinating Board established the Task Force on Future Funding for Post-Secondary Education comprised of representatives from the education community, government, and the public.

During 1981, the Task Force brought in guest speakers from the education community and government to share their experiences and observations regarding funding for post-secondary education. Several speakers addressed the problems confronting state governments in providing resources for post-secondary education. Other guests discussed specific funding approaches and methods. One speaker devoted his remarks to student financial aid.

The Task Force identified several methods currently used in Minnesota for funding public post-secondary education. The legislature has adopted certain funding methods for determining its appropriations to the post-secondary systems. The systems, in turn, have developed their own methods for allocating funds to individual institutions. Most methods are related to enrollments. Some of these recognize marginal costs, economies of size, and operational cores that assure specified minimum levels of support for institutions with low enrollments. Other methods provide funds for programs with less emphasis on enrollments.

The Task Force reviewed projections of resources for Minnesota's post-secondary institutions derived by

applying current funding methods to projected enrollments. These projections indicate that the overall decline in post-secondary enrollments will result in declining resources for post-secondary education. Generally, the more responsive funding is to enrollment, the greater would be the reduction in resources. The effects, however, would vary among individual institutions. Small institutions, particularly those with a recognized operating core, would lose fewer resources. As a consequence, small institutions would receive more resources per student than larger institutions.

The Task Force has identified four broad approaches for future funding of post-secondary education. These include funding based on average cost per student, marginal costs per student, costs of programs, and performance of institutions. Average cost methods and marginal cost methods are related to enrollments. Marginal cost methods include fixed and variable cost funding and core funding. Program-based funding reflects decisions to offer specific programs and is not responsive to moderate changes in enrollments. Performance funding is based on measurable quality of services provided by institutions. The Task Force also is considering criteria for evaluating funding methods.

The Task Force will select specific funding methods for further consideration. It will review resource projections derived from applying these methods to projected enrollments. The Task Force will then evaluate the various funding methods and issue a report by the end of 1982.

Funding to help support the project has been provided by a grant from the Ford Foundation to the Coordinating Board.

I. FORMATION OF THE TASK FORCE ON FUTURE FUNDING OF POST-SECONDARY EDUCATION

Minnesota has a vital interest in how state funding policies and procedures affect the quality and variety of post-secondary education in the 1980s and beyond. Minnesota's current funding policies and procedures were developed in a time of enrollment growth and fiscal prosperity. The issue posed by declining enrollments and fiscal constraint in the 1980s and 1990s is whether the maintenance of current policies or the development of alternative ones will best serve the public interest.

The annual meeting with governing boards, sponsored by the Coordinating Board in November 1979, examined the implications of enrollment declines on current funding policies and explored some alternative policies.¹ Based on the governing boards' meeting and the priority attached to the issue by the governor, the Coordinating Board decided to invite leading figures involved in the funding of post-secondary education to serve on a task force. Because of the serious financial implications for all systems and sectors of post-secondary education, the Board felt that participation by these persons in policy formulation would be desirable. Accordingly, in January 1980, the Coordinating Board established the Task Force.

¹Minnesota Higher Education Coordinating Board, *State Funding of Post-Secondary Education in the 1980s and Beyond: Working Paper and Proceedings, Annual Meeting with Governing Boards (November 29, 1979)*.

CHARGE TO THE TASK FORCE

In May, 1980, the Coordinating Board gave the Task Force its charge for the study of funding. It reads:

The Task Force shall:

A. Be convened and staffed by the Coordinating Board and chaired by the executive director of the Board or his designee.

B. Assess the implications of continuing existing funding policies and implications of alternative funding policies, including those alternatives which recognize fixed and variable cost behavior.

C. For purposes of evaluation, precisely define the funding policies to be considered, including a description of how each policy should be implemented.

D. Define criteria, consistent with the state's goals for post-secondary education, for evaluating the advantages and disadvantages and costs of funding policies.

E. Recommend feasible alternative funding policies for post-secondary education in a period of declining enrollments and constrained resources. The recommended policies should recognize and enhance the mission of the systems of post-secondary education in order to provide the highest quality of opportunities to Minnesota citizens.

F. Make an interim report on its progress and findings to the Coordinating Board and respective governing boards.

G. Make a final report on feasible policy alternatives to the Coordinating Board.

MEMBERSHIP

The Task Force on Future Funding of Post-Secondary Education has 16 members representing the education community, government, and the public.

Education

Dr. John Feda, Commissioner of Education;

Dr. Garry Hays, Chancellor of the State University System (resigned as Chancellor effective March 1982);

Dr. Philip C. Helland, Chancellor of the Community College System;

Dr. Clyde R. Ingle, Executive Director of the Higher Education Coordinating Board;

Dr. C. Peter Magrath, President of the University of Minnesota;

Mr. Wilbur Nemitz, Representative of the Minnesota Association of Private Post-Secondary Schools on the Higher Education Advisory Council;

Dr. Marion Shane, Executive Director of the Private College Council;

Government

Representative Lyndon R. Carlson, Chairman of the Education Division, House Appropriations Committee;

Senator Jerome M. Hughes, Chairman of the Senate Education Committee;

Representative Carl M. Johnson, Chairman of the House Education Committee;

Mr. Verne Johnson, Vice President for Strategic Planning, General Mills Corporation, Governor's Representative;

Senator Tom A. Nelson, Chairman of the Education Subcommittee, Senate Finance Committee;

Mr. Allan L. Rudell, Commissioner of Finance;

FORMATION OF TASK FORCE

Public Members

Mr. James Hetland, Vice President,
First Bank Minneapolis;

Mr. Norman Indall, Winona, former
mayor of Winona and head of Social
Science Department, Winona public
schools;

Dr. Hazel Reinhardt, Director of
Research, *Minneapolis Star and
Tribune*.

Following the first Task Force meeting in October 1980, a workshop was conducted in December for Task Force members, post-secondary governing board members, and other interested parties. A representative of each post-secondary system discussed the system's funding method and practices, its current level of funding, and the factors other than enrollment used for determining state support for the system and member institutions. Governor Quie addressed workshop participants.

Funding to help support the project has been provided by a grant from the Ford Foundation to the Coordinating Board.

This report covers the work of the Task Force during 1981 and early 1982. During that period the Task Force listened to presentations by guest speakers, reviewed fiscal projections for post-secondary education using current funding methods, and identified alternative funding methods. The information will be the foundation for the efforts of the Task Force in the coming months. The work will culminate with a final report by the end of 1982.

II. SUMMARY OF REMARKS BY GUEST SPEAKERS OF THE TASK FORCE

During 1981 the Task Force on Future Funding of Post-Secondary Education invited guest speakers from the education community and government to share their experiences and observations. Summaries of their remarks appear in this section.

SENATOR ROGER MOE AND REPRESENTATIVE MICHAEL SIEBEN

Roger Moe, majority leader of the Minnesota Senate, and Mike Sieben, Chairman of the Appropriations Committee of the Minnesota House of Representatives, addressed the Task Force February 3, 1981. The two legislators discussed a variety of issues regarding state funding of higher education.

Senator Moe indicated that a reassessment of state higher education policies is in order. Expectations of growth are no longer realistic. The state must reevaluate its position that a post-secondary institution should be located within a certain distance of each resident. If enrollments decline, campuses may have to close or programs may have to suffer reductions in quality. Campuses face growing fixed costs for energy and for aging faculties whose seniority and salaries are increasing. The state must also consider the impact of older and part-time students. At the same time, a redefinition of the role and the place of the area vocational-technical institutes would be useful.

Senator Moe expressed a desire for changes in state funding mechanisms. Present enrollment-related funding practices foster competition for students and duplication of programs. The senator would like to provide funds based on fixed operating costs and individual program costs. He hopes for greater reliance on advances in educational technology at the various campuses.

Senator Moe defended the state's traditionally high level of support for education. He declared that the private sector of the state's economy receives a good return on its taxes in the form of a well-educated and well-trained work force. He hopes that the state

can maintain its degree of support for institutional and student aid, in view of pressures at the state and federal levels to reduce aid to education. The senator concluded his remarks by urging the Task Force not to be afraid of making controversial recommendations.

Representative Sieben concurred with Senator Moe's comments. The representative focused on several specific policy areas. He raised questions which he hopes the Task Force and the rest of the higher education community will help answer.

Representative Sieben observed that the legislature probably would continue to relate funding to enrollment. He asked when and how special aid should be given to small institutions. He said that the state was unlikely to expand student aid programs. He asked how this would affect educational opportunities for Minnesota's young people. He hopes that there can be more cooperation and less duplication between public and private institutions. He asked how greater cooperation could be achieved. He noted that construction of higher education facilities had declined in recent years. He asked if state-level authorities could improve their planning for facilities. Finally, Representative Sieben noted that appropriations for the State University System have been frozen at their 1977 levels. He asked what effects the freeze has had on services which the state universities provide.

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MR. KENNETH LINDNER, DR. ROBERT O'NEIL AND REPRESENTATIVE RICHARD FLINTROP

Three officials from Wisconsin addressed the Task Force on February 19, 1981. They were Kenneth Lindner, Secretary of Administration; Robert O'Neil, President of the University of Wisconsin System; and Richard Flintrop, Member of the Assembly. The three officials discussed the funding mechanism for the University of Wisconsin System.

Mr. Lindner observed that budgeting formulae were the product of an era when enrollments, resources, and esteem for higher education were increasing. Formulae were convenient and seemingly justifiable means for apportioning resources to growing colleges and universities. In recent years, however, competition for stable or declining resources and decreased esteem for education have undermined formula budgeting. Campus administrators, moreover, painfully discovered that with formula budgeting, resources decline as well as grow with enrollments. Mr. Lindner advocated formulae which are simple to understand and allow flexibility within the system and institutions. He believes that each campus should have the latitude to develop its individual strengths. He also questioned the policy of low tuition at public institutions of higher education.

President O'Neil commented on the problems he sees in Wisconsin's fixed and variable cost funding formula. He disputed the original estimate of fixed costs at 10 percent, suggesting instead a figure closer to 50 percent. He fears that the formula base has not taken into account increased enrollments since 1975-76, shifts in enrollments from low-cost to high-cost programs, and shifts

in resident and non-resident enrollments. He also expressed his concern that the formula would not take into account sudden increases in enrollments, the impact of inflation, and the special costs of part-time students.

Representative Flintrop explained that the Wisconsin legislature had only a general responsibility for developing the University of Wisconsin budget. The legislature traditionally has treated the University as a single line item, except for occasional special projects. There are, however, informal understandings between the University and the legislature over the use of resources. He believes that, on the whole, management of the University of Wisconsin System has been good. The legislature, wishing to see improvements in certain areas, did establish statutory thresholds for average costs at institutions and requires 10-year planning by the University.

Representative Flintrop believes that funding levels ultimately reflect the amount of resources a state wishes to allocate to higher education. Decisions do not result from any formula, so talk of variable costs is really senseless. He feels that the University should make the tough managerial decisions, recognizing the political limitations to some actions such as closing campuses. Failure to make those decisions would leave a vacuum which would draw the legislature and the governor deeply into the development of the University's budget. That, Representative Flintrop believes, would ruin the University.

DR. GEORGE WEATHERSBY

George B. Weathersby, Commissioner of the Indiana Commission for Higher Education, addressed the Task Force on March 19, 1981. Dr. Weathersby discussed the implications of two different strategies which a state may adopt in supporting higher education. He then related Indiana's experience with the strategy the state has pursued in recent years.

One of the two approaches is to treat all institutions, public and private, as if they were public. The other is to treat all institutions as private. The first approach is prevalent today. Treating the provision of higher education as a public activity often entails state management of institutions and resources. Mechanisms for this include student aid, aid to private institutions, program approval and coordination, and specified allocation of resources within institutions. While increasing equity among institutions, this approach decreases institutional autonomy and competition. Treating the higher education system as a private source of services places the state in the role of purchaser of educational and related services. The state determines the services it wishes to purchase and makes capital available to students and institutions to finance their own choices of services to purchase or provide. Institutions have autonomy to compete among themselves, to choose the services each will offer, and to allocate resources internally according to their choices.

Dr. Weathersby observed that the two strategies are really extremes of a continuum with many points in between extremes. Once a state selects a place on the continuum, it should also adopt a funding mechanism that implements the strategy. Four criteria may be used to assess the funding mechanism.

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These are the incentives which the mechanism creates, the financial stability it engenders, the equity among institutions it allows, and the simplicity or ease with which it is understandable to the political and educational community.

Indiana has chosen a strategy that treats all institutions as private providers of services. The state's budget for higher education reflects the state's priorities for the services it wishes to purchase and the price it is willing to pay for them. Public and private institutions are free to decide which services they will provide. The state determines the price it will pay based on marginal costs, changes in the mix of services, changes in program quality, and changes in market prices for goods and services. The state also provides a market for capital construction costs in both the public and private educational sectors.

By considering marginal costs, the state does not unduly reward or penalize institutions for changes in enrollments. This provides financial stability to the systems. By using market prices for goods and services in conjunction with marginal costs of education, the state is able to let economic factors rather than enrollments determine the price that it is willing to pay for its purchase. This contributes to equity by placing public and private institutions on a more equal footing in selling services to the state. The budgeting system does require the state to allow greater institutional competition and freedom to choose programs to offer. The state may, thus, have to accept some duplication.

DR. DAVID BRENEMAN

David Breneman, Senior Fellow in the Economic Studies Program at the Brookings Institution, spoke to the Task Force on April 23, 1981. He commented on the direction of federal policy on education, state strategies for providing higher education, financial support for private institutions, and financial support for community colleges.

After predicting a sluggish economy for the 1980s, Dr. Breneman discussed federal policy on education under the current administration. He anticipates a passive federal role in keeping with the administration's philosophy of state and local control over education. This policy extends to financial aid with proposed reductions in student grant and loan programs. Dr. Breneman expressed concern that assistance would be cut too deeply in the name of reform. He also expressed concern over the fiscal effects of suggested tax credits for tuition.

As the federal role in education becomes passive, Dr. Breneman expects that state and local actions will become more important. He outlined three options at the state level for providing higher education. The options are to let institutions compete in the educational marketplace, with the "losers" closing; to establish central planning and coordination; and to combine elements of the free market with central activity.

Dr. Breneman cited several problems with the higher education marketplace. Consumers of education often do not or cannot make fully informed decisions about the type of education they are purchasing. Because of various subsidies, the price of education in the form of tuition often does not reflect actual costs, thereby distorting the market. Considerable differences in tuition at public and private institutions and in-state and out-of-state institutions further distort the price for similar

services. Finally, expanded missions and intensive recruiting efforts are self-cancelling when undertaken by all institutions. The option of central planning and coordination may reduce duplication, but it also would result in heavy-handed and unpopular actions by state authorities. The third option, which Dr. Breneman finds most reasonable, would combine elements of the first two. States, he believes, can find ways to use central authority in order to bring fairness and equity to the marketplace.

On the subject of community colleges, Dr. Breneman observed that these institutions are in the center of competition. In competing with K-12, community education, vocational schools, four-year colleges and universities for students, they increase their vulnerability by expanding the services they offer. Minnesota, he noted, has a centralized system that does not face the major problem of balancing state and local funding that exists in other states. Dr. Breneman spoke favorably about the equity of cost-based funding by program and about fixed and variable cost budgeting. He spoke unfavorably about low relative tuition for community colleges and about state support for non-credit courses.

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DR. FRED CROSSLAND

Dr. Fred Crossland, Director of the Division of Education and Public Policy of the Ford Foundation, addressed the Task Force on June 11, 1981. He discussed the impact of demographic trends on higher education in the 1980s and 1990s. The situation, he observed, will present a serious challenge to political and educational leaders.

Everyone, Dr. Crossland noted, recognizes that the pool of traditional college-age students will decrease over the coming decade. No institution, however, admits that it will lose in the competition for declining numbers of students. Each institution proclaims its ability to maintain enrollments.

Dr. Crossland stated that all institutions may not equally share enrollment declines. Prestigious institutions, public and private, could lower standards in order to enlarge their recruiting pools and maintain enrollments. Flexible institutions, such as community colleges, can shift resources into new programs in order to meet shifting demands and attract students. Other institutions may not have the ability to reverse the dwindling pool of students. No one can accurately predict the magnitude of declining enrollments for higher education generally, for categories of institutions, or for specific institutions. Public policy, moreover, could influence enrollment patterns by favoring public or private institutions.

Dr. Crossland demonstrated the problem facing policymakers. He engaged in an exercise which illustrated what he termed "the tyranny of numbers." He distributed copies of a table showing the numbers of collegiate institutions in Minnesota classified by public sector and private sector and subclassified by type of institution. The table contained recent headcount enrollments by category of institution

and the percentage each category was of total enrollment. The remainder of the table was blank. Dr. Crossland challenged the audience to compute enrollments for each category of institutions under nine alternative sets of conditions. He posited three different magnitudes of enrollment decline and three different state policies — one favoring public institutions, one favoring private institutions, and one neutral. The fate of many institutions, he observed, could vary dramatically under alternative conditions.

Dr. Crossland emphasized the need for planning in higher education to cope with projected conditions over the next 20 years. Enrollment declines will occur, and they will have major impact at some institutions. State policymakers, he concluded, must face this reality and begin addressing it.

DR. WAYNE BROWN

Wayne Brown, Director of the Tennessee Higher Education Commission, addressed the Task Force on June 11, 1981. Dr. Brown discussed funding mechanisms for higher education in Tennessee. He spoke mainly of the performance-based aspects of funding which create incentives for public institutions in his state.

Tennessee, Dr. Brown informed the Task Force, has several components in its funding mechanism. One major element is regional equity, which is not related to institutional performance. Regional equity is an attempt to appropriate funds to public institutions in Tennessee at the same levels per student as the average levels at comparable institutions in the southern region. Tennessee has fallen short of this goal, most notably in the support of its research universities.

Dr. Brown then explained the performance-based incentives which have been incorporated into Tennessee's funding mechanism. A sum of money equal to a small percentage of all instructional budgets is set aside in an incentive fund. Institutions receive allocations from this fund as rewards for actual achievements, not promises of future results. There are five bases on which an institution may receive awards: (1) the number of nationally or regionally accredited programs that it offers; (2) higher test scores of graduates, by program, compared to test scores of graduates from other schools with similar admissions standards; (3) higher test scores of students upon graduation compared to test scores of those same students upon admission; (4) assessment of programs based on surveys of students and their employers; and (5) the amount of such surveying that the institution undertakes.

Dr. Brown noted that formula funding, based on such factors as enrollments and square footage, remains central to Tennessee's funding mechanism. Formula funding is a political necessity because it appears equitable and simple. Performance-based incentives, however, may gain wider acceptance and form a larger portion of total funding for higher education.

Dr. Brown cautioned his audience not to expect that incentives will increase the resources available to higher education. Only increases in state revenues or shifts in state priorities can accomplish that. Incentives can provide a rationale for shifting scarce funds among institutions to reflect educational, professional, and political goals.

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REPRESENTATIVE BOB McEACHERN AND SENATOR NEIL DIETERICH

On August 20, 1981, the Task Force heard an explanation of AVTI financing from State Representative Bob McEachern and State Senator Neil Dieterich. Representative McEachern is chairman of the School Aids Division of the House Education Committee. Senator Dieterich is chairman of the Schools Aids Subcommittee of the Senate Education Committee.

Representative McEachern briefly reviewed the growth of vocational education in Minnesota and the projected enrollment declines in the state's area vocational-technical institutes. He then discussed recent changes in AVTI financing. In the mid-1970s, he explained, the state provided aid to AVTIs on a per student basis in conjunction with local tax levies and limited amounts of tuition revenue. By 1981, the legislature eliminated the use of local taxes for AVTIs, initiated tuition for all AVTI students, and granted discretionary authority to the State Board for Vocational Education to set tuition rates. To reduce the impact of projected decreases in enrollments, the legislature adopted program-based aid rather than enrollment-based aid for AVTI instruction. The legislature also created several other categories of aid to be used for clearly designated purposes.

Representative McEachern posed several questions to the Task Force related to AVTI financing. He asked if the present method of financing provided enough funds for AVTIs to start new programs as needed; if provision of training aimed at satisfying the needs of a single, private firm were an appropriate means of maintaining AVTI enrollments; and if AVTI tuition should cover a higher percentage of operating costs. Representative McEachern also referred to proposed

legislation which would create a new governing authority for the AVTIs and community colleges in order to avoid duplication of effort.

Senator Dieterich addressed the program-based financing of AVTIs currently in use. He observed that the former enrollment-based aid was really average cost financing. It provided funds to each AVTI on the basis of the average instructional costs of all programs at all AVTIs. This arrangement, Senator Dieterich continued, was inadequate for meeting the expenses incurred in high-cost programs.

The instructional aid now in place takes into account the average salaries within instructional fields and within school districts. Enrollment is a minor factor in determining levels of aid. Salary increases for the instructors, who are employed by school districts, are restrained by the imposition of an inflation adjustment to the total amount of aid appropriated. This aid structure, Senator Dieterich maintained, provides stable financing for vocational education while adequately supporting high-cost programs. He also observed that program-based aid was more applicable to AVTIs than to collegiate institutions because vocational programs are readily identifiable and self-contained units of instruction.

Senator Dieterich spoke briefly about the other state aids to AVTIs for supplies, equipment, and support activities. The levels of these aids, he noted, are not determined by formula, but by negotiation. They are, he suggested, subject to greater legislative control and review. Senator Dieterich concluded by noting the state's support for adult vocational programs.

MR. JAMES LESKEE

On September 23, 1981, H. James Leskee, Director of Financial Aid for the Minnesota Higher Education Coordinating Board, addressed the Task Force. Mr. Leskee described the types of financial aid for students and current levels of support available through the major aid programs of the federal and state governments. He concluded his remarks by outlining issues in state financial aid policy for the 1980s.

Government aid programs, Mr. Leskee pointed out, are designed to fill the gap between the cost of attending school, including living costs, and the financial contribution which a student's family can be expected to make. Aid exists in the form of grants, loans, and work-study programs at both the federal and state levels. Federal and state grants combined may provide up to 75 percent of student financial need. On the average, state and federal grants provide 30 percent of costs with students and families contributing the remaining 70 percent. Reduced growth in federal and state expenditures for grants will increase the expected contribution from students and families. Grant recipients may also be eligible for federal National Direct Student Loans of up to \$2,500 per year to cover their costs. Other students may be eligible for federal and state subsidized Guaranteed Student Loans of up to \$2,500 per year. Minnesota and the federal government also encourage self-help through work-study programs.

Mr. Leskee explained that federal and state funds for grants and work-study in 1981-82 will remain at 1980-81 levels. Because qualified applicants will likely increase, the size of individual grants will likely decrease. Meanwhile, educational costs will continue to rise. This will result in heavier demands on the loan programs at a time when the

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federal government has tightened its funding and eligibility requirements. The effects of these developments will be seen in the 1982-83 academic year.

Mr. Leskee then outlined several issues in financial aid. He prefaced his comments by identifying some assumptions which will affect state policy. These assumptions are: a sluggish state economy producing no real increases in state revenues; continued inflation increasing educational costs; a conservative political climate restraining government spending; and steady and declining numbers of 18-24 year olds reducing demand for student aid, but only after the mid-1980s.

The first issue Mr. Leskee outlined was the likelihood of increased family contributions for a student's higher education, a reversal of the trend in the 1970s. The second issue was the possibility of complete termination of federal aid programs, leaving the state to decide whether it should assume a greater role in financial aid or continue its present emphasis of providing operating funds to institutions. The final issue raised was whether state decisions would lead to a pricing policy that emphasized either student access or student choice. By subsidizing low tuition, public institutions, the state would emphasize access. By providing substantial amounts of student aid, the state would make attendance at higher priced, private institutions a real option to lower income students.

III. RESOURCE PROJECTIONS BASED ON CURRENT FUNDING METHODS

A major activity of the Task Force has been to review 20-year projections of resources for Minnesota's public post-secondary institutions based on current funding methods. This chapter contains a review of current funding practices in Minnesota. Following the review are summaries of resource projections based on these practices.

REVIEW OF CURRENT FUNDING APPROACHES

Funding for public post-secondary education in Minnesota involves a variety of approaches. The legislature has adopted several methods for providing funds to the post-secondary systems. Each system, in turn, has internal procedures for allocating state funds to individual institutions.

Legislative Funding Methods

Legislative Appropriations Procedures. Before reviewing legislative funding methods, a brief description of appropriations procedures may be helpful. Appropriations for collegiate systems and for AVTIs undergo different processes. Within the legislature responsibility for recommending collegiate appropriations rests solely with the House Appropriations Committee and the Senate Finance Committee. Each committee reviews proposed systemwide budgets and considers requests for changes in funding levels. Although the committees seldom challenge existing activities and funding levels (the budget base), they scrutinize requests to expand or establish programs and activities. Approval of new items is necessary before the systems can begin them. For example, the legislature may have to approve additional faculty positions and appropriate money for salaries in order to start or expand an instructional program. Alternatively, the legislature may authorize the new or expanded program, but only if resources are shifted from another program without requiring the appropriations of additional state funds. The legislature, thus, retains some direct control over the level of services offered by the collegiate systems.

Responsibility for recommending AVTI appropriations rests primarily with education committees of the House of Representatives and the Senate.

Because local school boards operate AVTIs, the education committees include funding for AVTIs with financial aids to local school districts. In theory, the aids are entitlements to school districts to cover the operating costs of AVTIs. In reality, the State Department of Education apportions AVTI aids according to procedures which the legislature has authorized the department to establish. The education committees of the legislature, however, do not review operating budgets, nor do they authorize changes in funding for specific activities. After each education committee has drafted its aids bill, it sends the bill to the respective appropriations committee in each house for the actual appropriation of funds. Neither the House Appropriations Committee nor the Senate Finance Committee reviews AVTI aids extensively.

Enrollment Bulge Funding. In 1977, the legislature adopted the enrollment bulge policy for the collegiate systems. Anticipating that enrollments would decline after the early 1980s, the legislature decided essentially to freeze basic appropriations at 1977 levels. Except for inflationary increases and specially approved new items, there were to be no additional state funds for the systems.¹ The additional tuition revenue was deemed sufficient to meet the extra costs of the short-term increases in enrollments. If system-wide enrollments drop below the levels of the 1977 base, then, presumably, funding would be reduced directly in proportion to enrollment.

Core Funding. For several biennia, the legislature provided funding for Southwest State University and Metropolitan State University on a

¹The 1981 Legislature modified the bulge policy by appropriating funds to the State University System and the Community College System for enrollments exceeding certain levels. Further details about this change can be found in the appendix.

RESOURCE PROJECTIONS

separate basis from the other campuses in the State University System. In the case of Southwest the purpose of this special treatment was to provide a level of support staff that is greater than its enrollment would otherwise justify. This minimal level, or core, is designed to accommodate about 2,000 full-time equivalent students as compared to recent enrollments of 1,500-1,800. No change in funding for support services will result from increases or decreases in enrollment when enrollment is below 2,000. Should enrollment ever rise above 2,000, Southwest would be treated in the same manner as other state university campuses. Metropolitan is a non-traditional, upper division institution. The legislature provides a special appropriation which is not related to enrollments.

Program Funding. In 1979, the legislature approved a new funding policy for the area vocational-technical institutes. The legislature substituted program-based funding for the previous enrollment-based funding. Starting in Fiscal Year 1981, AVTIs received funds for instructional programs based on the cost of the programs. The purpose of this approach is to provide stable funding for vocational education. Changes in institutions' enrollments are considered, but they constitute a minor factor in the calculation of funding levels. Appropriations for support services and other expenditures are determined independently of instructional costs based on historic expenditure patterns and institutional circumstances.

Special Appropriations. The legislature has been making special appropriations to the University of Minnesota and, to a much lesser degree, to the other public systems. These state specials are separate from regular operating budgets. They cover items which the legislature considers to be of short duration or high priority.

System Allocation Methods

The governing boards of the various post-secondary systems have the responsibility for allocating funds to individual campuses. The legislature makes most appropriations on a systemwide basis for governing boards to distribute at their discretion. Each governing board has its own method for allocating resources. The State Board for Community Colleges recognizes an instructional core in its funding methods by assuring small campuses a certain level of support. The State University Board recognizes the notion of core funding and staffing to a limited extent in support programs. The University of Minnesota Board of Regents does not explicitly maintain core funding internally. The State Board for Vocational Education has limited discretion in apportioning instructional aids to AVTIs because distribution of those aids, by statute, must be related to previous instructional activity at each institution. The State Board can exercise more discretion in non-instructional aids.

Community Colleges. The Community College System has a series of complex formulae for allocating resources among its campuses. Many of the formulae are enrollment-based, while others are based on historical experiences. Some formulae also recognize economies of size by allocating fewer instructional resources per student over certain enrollment thresholds. A large institution would enroll more students than would a small institution in order to be allocated another faculty position. While large campuses receive fewer resources per student than small campuses, small campuses are assured of a certain minimum level of support. In this manner, the Community College System internally maintains core funding for small institutions.

State Universities. Southwest State University and Metropolitan State University receive core funding as a result of external legislative action. The remaining traditional campuses receive internal allocations of resources, except for physical plant, primarily in proportion to enrollments. After allocating a core of administrative positions to each institution, the system allocates additional administrative positions according to the proportion of systemwide enrollment at each traditional campus. Allocation of instructional positions to each campus, except Southwest State and Metropolitan State, reflects a fixed ratio of students to staff. Small campuses receive resources at the same rate as large ones. This allocation method recognizes virtually no economies of scale, as large and small campuses experience the same treatment.

University of Minnesota. The University of Minnesota does not allocate resources to its various campuses and units on the basis of a formula. Traditionally, the University appears to have made allocations by adjusting resources for instructional units in proportion to changes in enrollments and changes in amounts of available funding levels. Within the past two years, the University has attempted to reallocate resources internally to reflect changing priorities.

Area Vocational-Technical Institutes. Area vocational-technical institutes receive state funds in the manner prescribed in statute. Allocation of instructional aids follows school district salary patterns for programs which have been offered previously. Allocation of other aids (support, supplies, heavy equipment) follows historic patterns of need plus special needs as they arise at individual institutions.

RESOURCE PROJECTIONS

RESOURCE PROJECTIONS BASED ON CURRENT FUNDING METHODS

The Task Force has reviewed resource projections based on current funding methods.² The projections show staffing, expenditures, and revenue for each public post-secondary system and institution. The Task Force intends to review resource projections based on alternative funding methods. These projections will provide a basis for comparing the effects of different funding practices.

Area Vocational-Technical Institutes

The current AVTI funding method provides relatively stable levels of funding for post-secondary vocational education. The object is to fund programs while reducing the effect of changing levels of enrollments. Using this method, projected resources for AVTIs would decrease proportionately less than projected enrollments. The data in Table 1 illustrate the consequences. The selection of institutions is intended to compare the effects on St. Cloud AVTI, a large institution with projected enrollment growth, and Canby AVTI, a small institution with projected enrollment decline.

During the 1980s and 1990s, AVTI staff on a statewide basis would decrease at a slower rate than enrollments. As a result, there would be a richer ratio of students to staff — 10.9 students for every staff member in 1982, dropping to 9.3 students for every staff in 2001. Funds per student would increase as enrollments decline. From Fiscal Year 1980 levels, net revenues per student

for AVTI operations would rise 18 percent while state appropriations per student would rise 19 percent. At the same time, lower enrollments would produce less tuition revenue, leading to a decline in tuition revenue as a proportion of operating revenue.

The effect of the AVTI funding method would vary by institution. According to projections, St. Cloud AVTI would experience enrollment increases during the 1980s before a decrease would occur during the 1990s. Because of stable funding, staff, net revenues, and state appropriations per student actually would decrease for several years. Conversely, tuition revenue would increase as a proportion of operating revenue as enrollments increase. By Fiscal Year 1997, however, declining enrollments would result in net revenues per student and state appropriations per student rising by 4 percent over Fiscal Year 1980 levels.

Canby AVTI, in contrast to St. Cloud AVTI, would experience a considerable enrollment decline over the entire period. By Fiscal Year 1997, there would be a much richer ratio of students to staff, 6.4 students for every staff compared to 9.4 students for every staff in the early 1980s. Net revenues per student and state appropriations per student would rise 56 percent and 61 percent respectively over Fiscal Year 1980 levels.

On a per student basis, Canby AVTI would be twice as well off as St. Cloud AVTI. Canby would have a doubly rich ratio of students to staff, 6.4:1 compared to 13.1:1 at St. Cloud. Canby would receive nearly twice as much net revenue and state appropriations per student than St. Cloud would. Finally, Canby students would bear a significantly smaller share of institutional costs through tuition than would their counterparts at St. Cloud, .08 compared to .12 in Fiscal Year 1997.

Community Colleges

Historically, funding for community colleges has been related to enrollments. Until Fiscal Year 1977, the legislature made appropriations based primarily on anticipated need for personnel in the system. The number of faculty and staff positions reflected a specified ratio of students to staff. Appropriations for many non-personnel items reflected historical expenditure patterns not based on enrollments. Upon initiation of the bulge policy, the legislature froze enrollment-related appropriations at 1977 levels. In the event of declines in enrollments below 1977 levels, appropriations would revert to the earlier method. Within the system, allocations to individual institutions reflect some economies of size. The selection of institutions in Table 2 is intended to compare the effects of current funding methods of Anoka-Ramsey Community College, a large institution, and Rainy River Community College, a small institution.

The commitment of resources to the community colleges should be responsive to declining enrollments. This, to a degree, is the case. As Table 2 shows, staff positions would decrease with declining enrollments. The decrease in staff, however, would be proportionally less than the decline in enrollment. This would occur because community college enrollments would remain close to Fiscal Year 1977, or pre-bulge levels and losses in resources would be limited to the loss of bulge tuition revenue with little or no reduction in the pre-bulge appropriations base. Enrollment declines that are projected for 1997, thus, would result in a stable, systemwide 2.9 percent increase in operating expenditures per student and a 3.5 percent increase in state appropriations over Fiscal Year 1980 levels. The loss of tuition revenue would result in a

²A description of the methodologies and assumptions incorporated in the projections appears in the appendix.

RESOURCE PROJECTIONS

TABLE 1
PROJECTED ENROLLMENTS, STAFFING, REVENUES, STATE APPROPRIATIONS AND TUITION
FISCAL YEAR 1980 – FISCAL YEAR 2001
ALL AREA VOCATIONAL-TECHNICAL INSTITUTES, ST. CLOUD AVTI AND CANBY AVTI

Fiscal Year	Average Daily Membership (ADM)	Total Licensed Staff (Full-Time Equivalent)	Student/Licensed Staff Ratio	Net Revenue Per ADM (Constant F.Y. 1980 Dollars)	State Appropriations Per ADM (Constant F.Y. 1980 Dollars)	Tuition Revenue as a Proportion of Net Revenue (Constant F.Y. 1980 Dollars)	
All AVTIs	1980	31,717	2,974.30	10.66:1	\$3,438	\$2,473	.11
	1982	32,619	3,001.30	10.87:1	3,377	2,437	.11
	1987	30,990	2,996.30	10.34:1	3,514	2,543	.10
	1992	29,825	2,985.30	9.99:1	3,619	2,625	.10
	1997	25,726	2,900.30	8.87:1	4,045	2,950	.09
	2001	26,999	2,900.30	9.31:1	3,885	2,825	.09
St. Cloud AVTI	1980	1,522	113.40	13.42:1	\$2,657	\$1,990	.13
	1982	1,550	113.40	13.67:1	2,615	1,954	.13
	1987	1,602	113.40	14.13:1	2,541	1,891	.13
	1992	1,610	113.40	14.20:1	2,519	1,870	.14
	1997	1,429	109.40	13.06:1	2,750	2,062	.12
	2001	1,529	109.40	13.98:1	2,593	1,928	.13
Canby AVTI	1980	457	43.50	10.51:1	\$3,337	\$2,440	.12
	1982	390	41.50	9.40:1	3,652	2,672	.11
	1987	314	41.50	7.57:1	4,398	3,282	.09
	1992	295	40.50	7.28:1	4,599	3,437	.09
	1997	257	40.50	6.35:1	5,193	3,921	.08
	2001	279	40.50	6.89:1	4,829	3,625	.09

SOURCE: Minnesota Higher Education Coordinating Board.

decrease as a percent of operating expenditures.

Continuation of current funding methods would remain or reinforce contrasting financial patterns among institutions. Rainy River Community College, a small institution projected to experience consistent and proportionally large decreases in enrollment, would receive greater resources per student than Anoka-Ramsey Community College, a large

institution with fluctuating and slightly declining enrollments. Staffing at Rainy River would be doubly rich with one staff for every nine students compared to Anoka-Ramsey with one staff for every eighteen students by Fiscal Year 1997. Operating expenditures per student at Rainy River would be more than twice that at Anoka-Ramsey. Appropriations per student at Rainy River would nearly triple that at Anoka-Ramsey. At the same time,

students at Rainy River would pay for 12.3 percent of their institution's operating expenditures while their counterparts at Anoka-Ramsey would bear 27.7 percent of operating expenditures through tuition. Compared to 1980 levels, increases in operating expenditures per student at Rainy River would be 30.0 percent and 30.6 percent respectively. At Anoka-Ramsey, decreases would occur, -2.2 percent in operating expenditures per student and -3.0

RESOURCE PROJECTIONS

TABLE 2
PROJECTED ENROLLMENTS, STAFFING, EXPENDITURES, STATE APPROPRIATIONS AND TUITION
FISCAL YEAR 1980 – FISCAL YEAR 2001
COMMUNITY COLLEGE SYSTEM, ANOKA-RAMSEY COMMUNITY COLLEGE AND RAINY RIVER
COMMUNITY COLLEGE

	Fiscal Year	Full-Year Equivalent Enrollments (FYE)	Unclassified Staff (Full-Time Equivalent)	Student/ Unclassified Staff Ratio	Maintenance and Equipment Expenditures Per FYE (Constant F.Y. 1980 Dollars)	State Appropriations Per FYE (Constant F.Y. 1980 Dollars)	Tuition ¹ Revenue as a Percent of Net M&E Expenditures (Constant F.Y. 1980 Dollars)
Community College System	1980	21,454	1,304.60	16.44:1	\$2,343	\$1,642	22.32%
	1982	23,192	1,392.60	16.65:1	2,207	1,513	23.82
	1987	21,851	1,331.17	16.41:1	2,286	1,586	22.97
	1992	21,409	1,311.01	16.33:1	2,321	1,620	22.60
	1997	19,863	1,233.07	16.11:1	2,409	1,699	21.74
	2001	20,417	1,264.84	16.14:1	2,393	1,687	21.89
Anoka-Ramsey Community College	1980	1,962	107.50	18.25:1	\$1,951	\$1,273	27.10%
	1982	2,203	123.80	17.79:1	1,887	1,218	28.06
	1987	2,191	118.73	18.45:1	1,849	1,179	28.67
	1992	2,172	117.84	18.43:1	1,869	1,199	28.34
	1997	2,070	112.89	18.34:1	1,908	1,234	27.74
	2001	2,083	115.31	18.06:1	1,993	1,260	27.35
Rainy River Community College	1980	332	28.70	11.57:1	\$3,215	\$2,560	16.14%
	1982	340	31.69	9.75:1	3,596	2,936	14.38
	1987	276	28.15	9.81:1	3,720	3,053	13.89
	1992	271	27.65	9.80:1	3,764	3,096	13.72
	1997	232	25.56	9.08:1	4,178	3,497	12.33
	2001	244	25.74	9.48:1	3,992	3,316	12.92

SOURCE: Minnesota Higher Education Coordinating Board.

¹Tuition per resident FYE at the community colleges in Fiscal Year 1980 was calculated to be \$484. This does not include required student fees. Required student fees per FYE were calculated to be \$90, making the total cost of attendance per FYE \$574.

percent in state appropriations per student.

State Universities

In two major respects, state university funding is similar to community college funding. State appropriations historically have been related to staffing requirements as

calculated with student-staff ratios. Since Fiscal Year 1977, state appropriations based on enrollments have been frozen, as tuition covers the cost of increased enrollments under the bulge policy.

There are two major differences in funding, however. First, the legislature provides a separate

appropriation for two state universities, Southwest State University and Metropolitan State University. Second, the State University System allocates instructional resources to each institution equally on the basis of enrollment. Small state universities, excluding Southwest and Metropolitan, receive the same amount of

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TABLE 3
PROJECTED ENROLLMENTS, STAFFING, EXPENDITURES, STATE APPROPRIATIONS AND TUITION
FISCAL YEAR 1980 – FISCAL YEAR 2001
STATE UNIVERSITY SYSTEM, BEMIDJI STATE UNIVERSITY AND SOUTHWEST STATE UNIVERSITY

	Fiscal Year	Full-Year Equivalent Enrollments (FYE)	Unclassified Staff (Full-Time Equivalent)	Student/ Unclassified Staff Ratio	Maintenance and Equipment Expenditures Per FYE (Constant F.Y. 1980 Dollars)	State Appropriations Per FYE (Constant F.Y. 1980 Dollars)	Tuition ¹ Revenue as a Percent of Net M&E Expenditures (Constant F.Y. 1980 Dollars)
State University System	1980	34,741	2,158.18	16.10:1	\$2,739	\$2,043	22.93%
	1982	36,639	2,250.36	16.28:1	2,675	1,985	23.58
	1987	31,790	2,103.14	15.21:1	2,942	2,241	21.49
	1992	30,121	2,010.01	14.99:1	3,004	2,300	21.04
	1997	28,005	1,889.24	14.82:1	3,091	2,381	20.44
	2001	28,965	1,946.86	14.88:1	3,053	2,346	20.70
Bemidji State University	1980	4,148	233.50	16.36:1	\$2,820	\$2,178	22.37%
	1982	4,080	256.74	15.89:1	2,196	2,273	21.64
	1987	3,459	228.66	15.13:1	3,168	2,523	19.92
	1992	3,241	215.59	15.03:1	3,251	2,606	19.40
	1997	3,105	201.77	14.94:1	3,351	2,705	18.83
	2001	3,146	209.73	15.00:1	3,291	2,646	19.17
Southwest State University	1980	1,761	130.86	13.46:1	\$3,576	\$2,956	17.08%
	1982	1,696	130.86	12.96:1	3,720	3,100	16.42
	1987	1,207	130.26	9.27:1	5,195	4,571	11.76
	1992	1,122	130.26	8.61:1	5,586	4,961	10.94
	1997	1,060	130.26	8.14:1	5,911	5,286	10.34
	2001	1,040	130.26	7.98:1	6,024	5,398	10.14

SOURCE: Minnesota Higher Education Coordinating Board.

¹Tuition per resident undergraduate FYE at the state universities in Fiscal Year 1980 was calculated to be \$513. This does not include required student fees. Required student fees per FYE were \$135, making total cost of attendance \$648.

resources per student as the larger state universities. There are no explicitly recognized economies of size.

As a result of bulge funding through tuition only and of core funding for Southwest State University and Metropolitan State University, resources for the State University System would decline somewhat less

than enrollments. Declines in resources, however, would accelerate as system enrollments drop below Fiscal Year 1977 levels. At that point, state funding again would vary in direct relationship to enrollment. Results of projections appear in Table 3. By Fiscal Year 1997, the system would have a slightly richer ratio of students to staff, as there would be one staff for fewer than

fifteen students. At the same time, operating expenditures per student would increase 12.9 percent and state appropriations would increase 16.6 percent over Fiscal Year 1980 levels.

The effects of regular state university funding methods at most campuses would contrast dramatically with the effects of core funding at Southwest State University. For example, Bemidji

RESOURCE PROJECTIONS

TABLE 4
PROJECTED ENROLLMENTS, STAFFING, REVENUES, STATE APPROPRIATIONS AND TUITION
FISCAL YEAR 1980 – FISCAL YEAR 2001
ALL UNIVERSITY OF MINNESOTA CAMPUSES, TWIN CITIES CAMPUS AND MORRIS CAMPUS

	Fiscal Year	Full-Year Equivalent Enrollments (FYE)	Unclassified Staff (Full-Time Equivalent)	Student/ Unclassified Staff Ratio	Maintenance and Equipment Per FYE (Constant F.Y. 1980 Dollars)	State Appropriations Per FYE (Constant F.Y. 1980 Dollars)	Tuition ¹ Revenue as a Percent of Net M&E Expenditures (Constant F.Y. 1980 Dollars)
All University of Minnesota Campuses	1980	47,945	3,824.90	12.50:1	\$3,842	\$2,565	25.71%
	1982	51,050	3,927.23	13.00:1	3,676	2,401	27.32
	1987	45,942	3,692.26	12.44:1	3,819	2,369	30.07
	1992	43,879	3,542.44	12.39:1	3,897	2,430	29.53
	1997	39,187	3,199.43	12.25:1	4,035	2,525	28.67
	2001	40,744	3,313.28	12.30:1	3,986	2,491	28.98
Twin Cities Campus	1980	38,393	3,198.44	12.00:1	\$3,912	\$2,537	26.07%
	1982	40,933	3,283.59	12.47:1	3,754	2,385	27.59
	1987	37,682	3,147.97	11.97:1	3,883	2,338	30.47
	1992	36,042	3,025.50	11.91:1	3,962	2,398	29.93
	1997	32,054	2,727.57	11.75:1	4,116	2,496	29.03
	2001	33,391	2,827.47	11.81:1	4,060	2,461	29.35
Morris Campus	1980	1,418	101.41	13.98:1	\$4,207	\$3,339	20.34%
	1982	1,605	110.92	14.47:1	3,929	3,045	22.21
	1987	1,234	88.28	13.98:1	4,195	3,187	23.66
	1992	1,155	82.68	13.97:1	4,294	3,285	23.11
	1997	1,075	77.03	13.96:1	4,378	3,368	22.67
	2001	1,129	80.86	13.97:1	4,320	3,311	22.98

SOURCE: Minnesota Higher Education Coordinating Board.

¹Tuition per resident undergraduate FYE in the College of Liberal Arts at the University of Minnesota in Fiscal Year 1980 was \$870. This does not include required student fees. Required student fees per FYE were \$190, making total cost of attendance \$1,060.

State University, a small, regularly funded institution, would experience significant decreases in enrollment and nearly commensurate decreases in resources. There would be a slightly richer ratio of students to staff during the period of enrollment declines. Compared to Fiscal Year 1980 levels, operating expenditures per student would increase 18.8 percent and state appropriations per

student would increase 24.2 percent by Fiscal Year 1997.

Southwest State University would experience a relatively greater decrease in enrollment than Bemidji State University. However, Southwest's staffing levels would remain virtually unchanged. This would result in one staff for every eight students,

almost twice as rich as Bemidji's ratio, by Fiscal Year 1997. At the same time, Southwest would have increases in operating expenditures per student and state appropriations per student at 65.3 percent and 78.8 percent respectively over Fiscal Year 1980 levels. These are well below the increases at Bemidji and the system as a whole.

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University of Minnesota

The University of Minnesota, like the community colleges and the state universities, has had enrollment-related funding. Until 1977, the University of Minnesota received state appropriations, in large part, on the basis of enrollments. Since the adoption of the bulge policy, the University has had to depend on tuition revenue to cover the costs generated by enrollments over 1977 levels.

The University of Minnesota is unlike the two other public collegiate systems in several ways. It has adopted no formal procedure or mechanisms for allocating instructional resources to individual campuses and major instructional units though in practice enrollments are one of the bases for internal allocations and reallocations. Moreover, the University has no provisions for core funding which assures certain minimal levels of support for small campuses. All campuses are treated alike in the allocation of instructional resources. This is in contrast to the Community College System which has an internal core funding mechanism and the State University System which receives special appropriations for Southwest State and Metropolitan State. The effects of funding policies for the University of Minnesota appear in Table 4 which allows comparison of projected resource allocation at the large Twin Cities campus with the allocations to the University of Minnesota-Morris, a small coordinate campus.

Because of enrollment-related funding, instructional resources for the University of Minnesota would decline closely in proportion to

enrollments.³ This is evident in Table 4 which shows stable ratios of students to staff as enrollments decline. Instructional expenditures per student would rise slightly in Fiscal Year 1997, about 5 percent over Fiscal Year 1980 levels. State appropriations per student actually would decline from Fiscal Year 1980 levels, dropping more than 10 percent in the early 1980s but recovering by 1997 to 1.5 percent below Fiscal Year 1980 levels. The burden of tuition would increase early in the projected period but would remain fairly stable. Tuition would account for 30 percent of instructional expenditures by Fiscal Year 1987, but would slip to less than 29 percent by Fiscal Year 1997.

The systemwide pattern of resources declining with enrollments would apply to individual campuses of the University of Minnesota. As a result, there would be little enrichment in the ratio of students to staff. At the Twin Cities campus and the Morris campus the ratios would decline fractionally. Instructional expenditures per student by Fiscal Year 1997 would increase by over 5 percent at the Twin Cities campus and by over 4 percent at the Morris campus above Fiscal Year 1980 levels. State appropriations would fluctuate, initially dropping from Fiscal Year 1980 levels by more than 10 percent at the Twin Cities campus and the Morris campus. In Fiscal Year 1997, however, state appropriations per student would recover to about Fiscal Year 1980 levels. Tuition as a percent of instructional expenditures would fluctuate mildly at the two campuses.

The absence of a core funding policy is evident in a comparison of resource levels at the Twin Cities campus and the Morris campus. The Morris campus would maintain higher instructional expenditures and appropriations per student, and a lower tuition expressed in tuition as a percent of instructional expenditures. The magnitude of these disparities, however, is much less than exists between large and small campuses in the other public post-secondary systems.

Consequences of Current Funding Methods

Consequences of maintaining current funding practices have been the object of these projections prepared for the Task Force. These projections reveal several patterns. In the collegiate systems, which have enrollment-related funding, the decline in resources would be of less magnitude than anticipated declines in enrollment. One reason for this is expenditures not related to enrollments would remain stable. Another reason is that the bulge policy would hold state appropriations constant until enrollments slip below 1977 levels. This would result in increased expenditures per student for each system as a whole. For individual institutions, however, the situation likely would vary. Large institutions would have their resources withdrawn more in proportion to lower enrollments than small institutions would. The result would be greater expenditures per student at small institutions than at larger ones. Another aspect of this would be richer staff to student ratios at smaller institutions. Larger institutions, thus, would bear most of the burden, in effect giving up resources to maintain smaller institutions.

³The term "instructional" is used to denote resources used for direct instructional activity and support activities for instruction. Resources devoted to noninstructional activities, such as research and medical services, are excluded.

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**TABLE 5
REDUCTIONS IN STATE APPROPRIATIONS
PUBLIC POST-SECONDARY SYSTEMS
1981-83 BIENNIUM**

System	Original Total Appropriations*	Reductions*	Revised Total Appropriations
Community Colleges	\$ 94,385,600	\$ 3,553,100	\$ 90,832,500
State Universities	198,643,100	7,487,100	191,156,000
University of Minnesota	542,731,000	20,329,000	522,402,000
Area Vocational- Technical Institutes	192,062,500	8,704,200	183,358,300
Total	\$1,027,822,200	\$40,073,400	\$987,748,800

* Includes all appropriations except capital construction and debt service. Does not include approximately \$10,000,000 of supplemental salary appropriations for the collegiate systems which the legislature cut late in 1981 from its earlier appropriations for the 1981-83 biennium.

The situation for the area vocational-technical institutes would be somewhat different from the collegiate systems. The current method of program-based funding would provide relatively stable levels of resources to the AVTIs despite declining enrollments. In fact, lower tuition revenue resulting from declining enrollments would require additional state resources to maintain stable funding levels. Some AVTIs actually may experience rising enrollments. Because of stable funding, however, these AVTIs would not experience matching increases in resources. As a result, expenditures per student at growing AVTIs would decline while expenditures per student would increase at AVTIs with falling enrollments.

These projections do not take into account changes that have occurred since spring 1981. There have been substantial reductions in state appropriations and operating budgets for post-secondary education. As a result of measures to meet the

state's fiscal problems, the public post-secondary systems lost a total of \$40 million for the 1981-1983 biennium, as shown in Table 5. The decreases will occur mostly in Fiscal Year 1983. Incorporation of these reductions in the projections might make some projected patterns more pronounced. For example, disparities in resources per student between large and small institutions may widen. Small institutions would continue to receive necessary resources for maintaining an operating and instructional core. Reductions in resources would then have to occur at the large institutions. In fall 1981, administrative consolidation of the 5 small community colleges in north-eastern Minnesota occurred. The consequences will likely be a reduction in operating expenditures for those institutions.

IV. FUNDING ALTERNATIVES FOR THE FUTURE

The Task Force on Future Funding of Post-Secondary Education is examining alternative funding methods. These include methods not now used in Minnesota as well as the extension to other systems of methods which are used in one or more of the state's post-secondary systems. This chapter contains a discussion of the environment that will affect funding for post-secondary education in the future, followed by a discussion of several financial policy issues. Next, there is an examination of four approaches to funding — average cost, marginal cost, program funding, and performance funding. After a discussion of the relationship between funding methods and educational issues, the chapter concludes with some remarks on criteria for evaluating funding methods.

THE ENVIRONMENT: PROSPECTS FOR POST- SECONDARY EDUCATION

Over the next 15 years, post-secondary education in Minnesota faces the prospect of declining enrollments and resources. The two are inextricably related. Enrollments are projected to decline because there will be fewer 18-22 year olds, the traditional pool of post-secondary students. At the very least, fewer students will mean less tuition revenue. Beyond that, lower enrollments will weaken post-secondary education's claim to public resources. Government funds already have become scarcer due to economic conditions, federal policies and public sentiment, and there is little evidence of a major turnabout to restore previous levels of government activity. In the coming years, social programs, transportation, and environmental activities will compete with education for state funds.

The situation facing post-secondary education calls for an assessment of funding methods. If the state relies too greatly on enrollment-related funding while attempting to maintain existing services, it risks providing insufficient support to institutions with low enrollments. The primary virtue of any funding method should be its suitability for estimating resource requirements and then distributing actual resources. To a considerable degree, circumstances such as enrollment trends determine what is suitable. A method that operates well during an era of expansion may function poorly during an era of contraction. During periods of growth and prosperity, issues such as institutional size, mission, performance, and operating efficiency may seem unimportant in the race to meet burgeoning demands for education. When fiscal resources and demand dwindle, however, such matters may become important in determining levels of support for post-secondary education.

GENERAL QUESTIONS OF FINANCE

Public post-secondary education receives revenue from three major sources — tuition, direct state appropriations, and federal funds. The importance of each source varies by system. Tuition as a portion of costs associated with instruction has, until recently, amounted to about 10.5 percent at AVTIs, between 20 and 25 percent at community colleges and state universities, and about 25 percent at the University of Minnesota. State appropriations have covered most of the remaining costs. Federal funds contribute a major source of revenue at the University of Minnesota. Although much of the federal effort has supported research and other non-instructional activities, the federal government has provided direct support to the University for instruction in expensive health science programs. The federal government also has provided resources to AVTIs for special services such as counseling and guidance for handicapped students. In the community colleges and state universities, federal funds mostly have been available for student aid rather than institutional operations and educational activity.

Reductions in government support will have severe consequences for the financing of post-secondary education. Decreases in federal funds will force the state either to assume financial responsibility for certain programs or to reduce or terminate them. Meanwhile, decreases in state resources will shift the burden of supporting educational services to students through higher tuition. Declining enrollments will exacerbate matters as fewer students will generate less tuition revenue if tuition rates remain stable. In response, the state once again would have to determine whether to reduce services, increase appropriations, or raise tuition rates.

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Consideration of funding methods should take into account the impact on finance, particularly on tuition. As enrollment declines, different combinations of funding methods and tuition policies will affect the proportions of educational costs borne respectively by the state and by the students. For example, if total resources are allowed to decline in direct relationship to enrollment, costs per student will remain constant. Because cost per student would be constant, both tuition rates paid by the student and tuition as a percent of educational costs would remain constant. If, on the other hand, total resources are maintained at a stable level as enrollments decline, costs per student will increase. This would present a choice. Tuition rates could remain stable, thereby decreasing the portion of educational costs paid directly by students. This, in turn, would require increased state appropriations to make up the growing difference between cost per student and tuition per student. In contrast, tuition as a percentage of costs could be fixed, thereby maintaining the portion of educational costs paid directly by students. As cost per student grew, tuition rates paid by students would grow proportionately. State appropriations per student, thus, would not have to increase as much to meet increasing costs.

ALTERNATIVE FUNDING METHODS

Funding methods for post-secondary education essentially are rules by which resources are made available for the delivery of educational services. These rules may apply to any or all of the three major phases of the funding process. The first phase is the formulation of a request for resources by the post-secondary institutions and systems. The second phase is the determination of actual funding levels by the legislative and executive branches of state

government. The third phase is the allocation of appropriated resources to the institutions providing educational services.

Confidence in the funding method by the legislature and the executive branch is critical to the method's effectiveness. Neither the legislative nor the executive branch has the capacity to reconstruct the formulation and allocation process. In large part, funding decisions may either explicitly or implicitly incorporate the request generated by the funding method. Even then, changes in requested funding levels will likely occur to reflect fiscal circumstances or legislative and executive priorities. However, wholesale disregard of requests derived from the funding method would make the entire process a burdensome, unproductive exercise.

Since the 1950s, funding for post-secondary education increasingly has been related to measurable levels of educational activity or performance. Measures of activity may include enrollment, number of programs, and identifiable improvements in educational effectiveness or operational efficiency. Four categories of funding methods are the subject of the following discussion. Two of the categories, average cost and marginal cost, are related directly to enrollments. There are variations of each method. The other categories are program funding and performance funding. Some of the methods are or were in use in Minnesota. Others are in use elsewhere. The choice regarding funding methods, thus, may include the extension of existing methods now practiced in Minnesota as well as the adoption of new methods.

Average Cost

Funding on the basis of average costs provides a specified amount of money for each enrolled student or full-time equivalent student. This approach rests on three assumptions. First, the cost per student for providing educational services may be derived or estimated prior to the calculation of aggregate costs. Costs and resource requirements are supposed to be built upon the basis of actual or anticipated enrollments. Second, the cost of services may be allocated equally to every student. Each student, regardless of academic program or individual need, supposedly requires the same amount of resources. Third, the cost per student remains constant regardless of institutional size. Within the same system, for example, the cost per student at an institution with an enrollment of 10,000 would be the same as the cost per student at an institution with an enrollment of 1,000. There are no recognized economies of size, nor are there recognized minimum levels of support for small institutions.

Funding may incorporate recognized differences among post-secondary systems on the basis of mission or other characteristics. Research universities, offering programs from lower division instruction to professional training and advanced research, would incur high average total costs in comparison to community colleges which essentially are limited to lower division instruction. Variations in funding levels per student for these different institutions may reflect functions and costs.

Average Total Cost. Funding on the basis of average total cost provides resources for every student based on the costs of all services and activities occurring at educational institutions. These services and activities may include instruction, research, academic support services (e.g., libraries), student support services (e.g., counseling),

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public service, institutional support (e.g., president's office) and physical plant operations. The calculation of resources to be provided to post-secondary systems or institutions involves multiplying the average cost per student by the number of students.

Differential Average Costs. Funding on the basis of differential average costs provides resources for every student based on the separate cost of each program, service, and activity occurring at educational institutions. Separate cost figures may be derived for instruction, research, academic support services, student support services, public service, institutional support, and physical plant. Within these broad areas, costs may be calculated for each program or function. There could be separate costs designated for lower division, upper division, and graduate instruction; for business, liberal arts, and nursing programs; for admissions and records, student counseling, and foreign student services.

This method, in effect, combines program-based and average cost approaches to funding. The calculation of resources to be provided to post-secondary systems or institutions occurs in three phases. First, the cost per student for each program and function is determined. The greater the number of separately funded programs and functions, the greater will be the number of distinct costs which must be computed. Second, the cost per student for each program and function is multiplied by the number of students in the particular program or function. This yields a total cost for each activity. Third, the total costs for each program and function are added together. The result is estimated total operating costs which becomes the basis for a funding request.

The calculation of funding in the manner could be complicated and expensive. This would be especially so if there were to be an accounting of

overlapping or induced costs among programs. An example is liberal arts requirements and electives for nursing students. The cost of liberal arts instruction provided to nursing students should be attributable to the nursing program. Compiling all the data needed to estimate costs from every program or function would be formidable. Even without accounting for overlapping or induced responsibilities, the computation of differential average costs would consume considerable time and resources.

Marginal Costs

Funding on the basis of marginal costs rather than average costs usually results in the appropriation of less money per student within a reasonable range of enrollment. With a marginal approach, resources increase or decrease only to the extent that total cost would change as a result of having to educate more or fewer students. For example, an institution with 1,000 students might require \$1,000,000 to operate. The addition or subtraction of one student might only require a change in expenditures for supplies amounting to \$100. This marginal cost of \$100 would be the amount provided to or withdrawn from the institution using marginal funding. Funding by average total cost, in contrast, would result in a change of \$1,000 for each student (\$1,000,000 divided by 1,000 students).

Marginal funding implicitly assumes the existence of fixed and variable costs. Marginal funding essentially applies only to variable costs. Fixed costs are the initial or start-up costs that must be incurred regardless of enrollments. Basic administrative functions and physical plant operations must be in place whether an institution has 1,000 or 10,000 students. Variable costs are the costs that change directly with enrollments. Examples include instructional staff, student counselors,

and classroom supplies. Of course, all variable costs do not change at the same rate or by the same amount for each student.

A marginal cost approach to funding requires a significant expenditure of resources. It involves the collecting and analyzing of considerable amounts of financial data to determine patterns of costs. Cost analysis is necessary to estimate the resources required for different levels of enrollment.

Limited Marginal Funding — The Indiana Approach. Indiana uses a marginal approach to funding its post-secondary institutions. The funding method is designed to cushion the financial impact of fluctuating enrollments. Institutions experiencing increased enrollments are not necessarily rewarded with added resources while institutions experiencing decreased enrollments are not necessarily punished with reduced resources. In fact, by including tuition in the calculation of available resources, state funds actually can be withdrawn from growing institutions as tuition revenues would cover estimated marginal costs. Indiana's funding method is designed for a limited range of enrollments, however. Increases or decreases in enrollments beyond a certain magnitude would generate unreasonable levels of support.

Fixed and Variable Costs. Funding on the basis of fixed and variable costs involves separate support for each type of cost. Offering any educational service at all would require full funding of those costs defined as fixed. Provision of other resources would depend on costs generated by enrollments.

The variable portion would, in reality, reflect average variable costs. It would resemble average total costs in that a specified amount of resources would be provided for each student. However, average variable costs would be less

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than average total costs because the fixed items already would have been covered.

Core Costs. Though similar to fixed and variable funding, core funding implies the existence of small institutions which must be sustained with a prescribed minimum level of resources. This level of support is based on a minimum breadth of instructional and support activities deemed necessary for fulfilling an institution's mission. The instructional and support core, in effect, may be the fixed cost of an institution capable of servicing a specified number of students. At or below this enrollment, the institution would be assured of the prescribed amount of resources. Enrollments above that level would generate additional resources based on average variable costs for other institutions.

Bulge Policy. The bulge policy for funding public collegiate institutions in Minnesota is a marginal cost method. Basic state support was frozen, except for inflation allowances, at levels related to 1977 enrollments. Additional funds are to come from tuition. Tuition revenues from higher enrollments are supposed to be adequate for meeting the additional costs generated by the increased number of students.

Program Funding

Program funding provides resources based on the cost of individual instructional programs and, perhaps, support activities. All costs covered by this funding method may be viewed, in effect, as fixed. There is no recognized variation in cost based on enrollment. Another way to view it is a core funding procedure for every program. Each program is a self-contained unit to receive either full funding or no funding at all. Partial support would be considered inadequate. Changes in enrollment may be accommodated by altering the number of fully-funded programs.

Performance Funding

Performance funding is, and probably will remain, a minor source of support for post-secondary education. As a supplement to other funding methods, it serves as an incentive for better educational or operational performance at institutions. Incentives may be more effective during periods of fiscal expansion when additional resources for appropriations are available. Rewards for good performance may be granted and clearly discerned as an addition to regular appropriations. During periods of fiscal contraction, performance funding may have the more negative, less pleasant attribution of diminishing the magnitude of a reduction in resources.

One example of performance funding exists in Tennessee. An amount of money equal to a small percentage of total state appropriations is available to institutions which can demonstrate improvements in or high quality of educational performance. Measures of performance include the degree of improvement in student test scores relative to improvements in test scores of students attending comparable institutions elsewhere.

FUNDING METHODS AND EDUCATIONAL ISSUES

Funding methods may have an impact on educational issues. In some cases the connection is close, in others remote. Some funding methods may directly support or implement a policy. Other methods may actually obstruct the implementation of policies. There are some policy areas where funding methods, by themselves, have no impact. Policy decisions must occur outside of the funding process. Once the decisions are made, funding methods may be helpful in implementation.

Educational Quality

Several funding methods may directly support the maintenance of educational quality at post-secondary institutions. Performance funding may provide material incentives for sustaining or enhancing the quality of educational services. Within the marginal funding category, fixed and variable cost funding and core funding may set a floor beneath which the quality of educational services will not fall. Similarly, program funding guarantees full support for programs without reference to fluctuating enrollments.

Average cost funding, in contrast, may result in erosion of quality. If enrollments decline, resources may diminish proportionally. This would continue without regard to the effect on the breadth and effectiveness of services which institutions could provide with fewer resources.

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Institutional Choice

Some funding methods could be used to preserve choice among institutions for students seeking post-secondary education. Core funding, through its protection of an institution's educational integrity, could help maintain a variety of institutions that might be crippled if resources were based solely on enrollment. Fixed and variable cost funding could serve a similar purpose.

Declining Enrollments

Funding methods differ significantly in regard to declining enrollments. Program funding responds the least to declining enrollments by providing stable levels of support for educational services. At the other extreme, average cost funding maximizes the impact by reducing resources in direct relationship to declining enrollments. Marginal cost methods — limited marginal cost funding, fixed and variable cost funding, and core funding — respond to declining enrollments but have provisions for avoiding severe financial and educational dislocation.

Tuition

Funding methods may affect attempts to relate tuition to operational costs, particularly during periods of severe enrollment declines. Maintaining tuition as a constant percentage of operating costs would be easiest with average cost funding. Because resources would decrease with enrollments, operating costs would automatically decrease at the same rate. Cost per student would, thus, remain constant and so would tuition levels calculated as a percentage of cost. With other funding methods, such as the marginal approaches,

resources would likely decrease at a slower rate than enrollments. More resources would remain available to educate fewer students. This would result in increased operating costs per student. If students were responsible for paying a fixed percentage of their cost of education, tuition levels would have to rise along with the rising costs of instruction on a per student basis.

Access

Funding methods cannot guarantee geographic access to post-secondary education. Location of institutions is a decision that rests with the legislature or governing boards. Once a decision regarding location is made, institutions will receive resources in accordance with the existing funding methods.

Diversity

Diversity of instructional settings and modes is ultimately a matter for governing boards and institutional administrators to determine. Funding methods distribute resources and, in some cases, may place constraints on the range of educational services. Funding methods do not directly determine the manner in which institutions provide those services.

Adequacy

Funding methods cannot guarantee adequate funding for post-secondary education. They merely are mechanisms for formulating requests, estimating need, and distributing resources in a predetermined manner. Some funding methods may address adequacy in a limited way. Core funding, for example, would guarantee adequate support for small institutions. It would not necessarily provide adequate support for all institutions. In fact, resources might have to be diverted from large institutions to ensure the specified

minimum levels of resources would be available at the small ones. The method distributes existing resources. It does not determine how much there will be to distribute.

Adequacy means providing enough resources to achieve specified objectives. Decisionmakers must consider what objectives they would like to achieve, how much the achievement of the objectives will cost, and how much the state is willing to spend on post-secondary education. If willingness to spend does not match estimated requirements, a reassessment would be in order. Objectives might have to be altered. Estimates of cost might have to be reexamined and, perhaps, revised. Proposed appropriations levels might have to be adjusted.

The process of assuring adequacy, of matching resources and objectives, does not involve a formula. It is based on confidence — confidence that objectives, cost estimates, and expenditures are realistic and presented in good faith. Ultimately, this must reflect mutual trust and confidence among the persons who determine policy for post-secondary education.

FUNDING ALTERNATIVES

POSSIBLE CRITERIA FOR EVALUATING ALTERNATIVE FUNDING METHODS

Funding methods are mechanisms with which the state seeks to attain its goals for post-secondary education. Every funding method has inherent characteristics that affect the way in which resources are provided, distributed, and used. Provision, distribution, and use of resources, in turn, affect educational activities and outcomes.

The suggested criteria below are standards by which funding methods may be judged. Decisions over the importance of some criteria may have to be made. Several criteria may conflict — that is, the more one standard is applied, the more limitations may exist in the application of another. This may require giving greater emphasis to some criteria when assessing alternative funding methods.

Criteria may relate to the funding of institutions. Attainment of certain goals for post-secondary education may directly depend upon the status and performance of individual institutions. The legislature makes policy and appropriations for specific institutions and sometimes for specific programs. Therefore, alternative funding methods must be evaluated, where proper, in terms of the impact on institutions as well as systems.

The following are suggested criteria. They may be refined, discarded or supplanted with others.

1. The funding method should contain explicit incentives for increasing productivity through the adoption of new educational technology.
2. The funding method should contain incentives for the reallocation of resources within systems or institutions from programs having low demand to programs having higher demand.
3. The funding method should contain incentives to governing boards to anticipate changing needs for education and training by establishing priorities for the allocation of resources and for the creation, location, continuation, and termination of programs.
4. The funding method should provide funds to systems and institutions in an equitable manner based on explicitly stated, predetermined factors such as size, mission, unusual program costs, and the possibility of achieving economies of scale.
5. The funding method should recognize fixed and variable costs in the operation of post-secondary institutions and should apportion resources accordingly.
6. The funding method should recognize marginal cost patterns to reduce the impact of annual changes in enrollments on resources available to institutions.
7. The funding method should be clearly understandable to all parties to reduce suspicion, hostility and criticism which a subtle or complicated funding formula might engender.
8. The funding method should contain explicit incentives for the provision of high quality instruction as demonstrated by clearly identifiable measures of performance.

V. FUTURE ACTIVITIES

Over the coming months, the Task Force on Future Funding of Post-Secondary Education will analyze and evaluate specific alternative funding methods. The Task Force will conclude its work with the issuance of a final report.

FISCAL PROJECTIONS BASED ON ALTERNATIVE FUNDING METHODS

The Task Force will select for further consideration several funding methods from the alternatives it has reviewed. In some cases, the Task Force may decide to take a method currently used in one of Minnesota's post-secondary systems and apply it to other systems. In other cases, the Task Force may decide to apply different funding methods from those now in use. The resulting fiscal projections will be similar in format to the already completed projections based on current methods.

EVALUATION OF FUNDING ALTERNATIVES

With the various fiscal projections, the Task Force will be able to analyze the consequences of alternative funding methods. The Task Force could, for example, compare the total operating costs for the post-secondary systems and the total state appropriations generated under different funding methods. Other items of analysis and comparison could be the impact of resources available to different systems and to large and small institutions within systems. The effect on tuitions as a percentage of instructional cost would be yet another possible matter of concern. The Task Force will be able to use this fiscal data in conjunction with a set of criteria for evaluating funding methods.

FINAL REPORT

Following evaluation of alternative funding methods, the Task Force will issue its final report. The report will likely contain the findings which emerge from the various projections as well as conclusions which the Task Force has drawn. The Task Force will forward the report to the Higher Education Coordinating Board for its consideration by the end of 1982.

APPENDIX: METHODOLOGIES AND ASSUMPTIONS FOR RESOURCE PROJECTIONS

This section describes the methodologies and assumptions used to simulate future expenditures, staffing levels, and required appropriations for Minnesota's four public systems of post-secondary education.

AVTIs

The methodology used to simulate future expenditures, staffing levels, and required appropriations for the AVTIs is based on current funding policies and a set of assumptions about the behavior of AVTIs and the revenues provided to AVTIs.

State funding for the AVTIs consists of several categories of aid to which the state appropriates money. AVTIs receive aids based on formulas specified in state statutes and policies used by the State Board for Vocational-Technical Education in allocating funds to the institutes. Instructional aid, the largest category of aid, is allocated on the basis of a formula which takes into account:

1. Average statewide program costs.
2. The number of full-time equivalent licensed instructional faculty in the AVTI.
3. Average state compensation at an AVTI compared to the average for all AVTIs.
4. Inflation.
5. Changes in enrollment by more than 5 percent in two years.

The other categories of aid are supply aid, support services aid, equipment aid, and repair and betterment aid. The State Board for Vocational-Technical Education is responsible for allocating these aids to the AVTIs. Allocations by the State Board are based on expenditures covered in each category, tuition

revenue, the level of available federal aid and, of course, the amount of state appropriations for these aids.

Expenditures in post-secondary institutions are determined by many factors including enrollments, staffing, institutional mission, inflation and available funds. Since the primary objective of these simulations is to assess the consequences of current state funding policies as enrollments decline, factors other than enrollment changes are held constant in the first set of simulations. Several assumptions are made in order to isolate the effects of enrollment declines. These assumptions may be changed in subsequent simulations of current policies or alternative policies. The assumptions for the AVTIs include:

1. All 33 AVTIs will continue to operate with no physical plant expansion or contraction.
2. Each AVTI will continue to offer its current mix of programs.
3. The number of instructional staff in each AVTI will not change unless enrollments in an AVTI decrease or increase sufficiently beyond the 5 percent enrollment buffer to result in a decrease or increase in the AVTI's instructional aid equal to or greater than the AVTI's average program cost.
4. Instructional supply expenditures will vary proportionately with enrollments.
5. Non-instructional supply expenditures, support service expenditures, and capital expenditures will be held fixed at Fiscal Year 1980 levels in constant dollar simulations.

6. Total revenue will equal total expenditures. Thus, revenue from all sources will increase at the same rate as expenditures.
7. Federal revenue, sales revenue, and revenue categorized as other will remain fixed at Fiscal Year 1980 levels in the constant dollar simulations.
8. Tuition revenue will vary proportionately with enrollments.

Enrollment projections from the Higher Education Coordinating Board and expenditure and revenue data from the State Department of Education are used in preparing these simulations.

COMMUNITY COLLEGE SYSTEM

The methodology used to simulate future expenditures, staffing levels, and required appropriations for the community colleges is based on current legislative funding policies, the allocation procedures used by the State Board for Community Colleges, and a set of assumptions about (1) the behavior of community colleges and (2) the revenues received by community colleges.

Historically, staffing of the Community College System has been enrollment related. Since Fiscal Year 1974, funding has been based on an enrollment level which has been smaller than actual enrollments. Thus, the Community College System has received state funds and tuition revenue for enrollments up to the legislative enrollment base and tuition revenue only for enrollments above that base. This policy, known as the bulge policy, was modified by the 1981 Legislature due to unanticipated enrollment increases. The system now receives full state funding and tuition revenue for enrollments up to a base of 20,235 Full Year Equivalent (FYE). Enrollments from

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20,236 FYE through 21,247 FYE are supported by tuition revenue only. State appropriations of \$533 per FYE and tuition revenue support enrollments from 21,248 FYE through 22,864 FYE. Enrollments above 22,864 FYE are supported by tuition revenue only.

The Community College System receives state funds through seven accounts. The Maintenance and Equipment account is the largest and covers most operating expenditures of the colleges and system office. The other accounts include the Repair and Betterment account, the Learning Center account, the Program Development account, the Student Loan account, the Work-Study account and the Contingency account. The State Board for Community Colleges allocates funds from these accounts to the colleges. The allocations to the colleges are based on enrollments, the volume of student activities, the number and type of occupational programs, and the size of the physical plant.

Expenditures in post-secondary institutions are determined by many factors including enrollments, staffing, institutional mission, inflation, and available funds. Since the primary objective of these simulations is to assess the consequences of current state funding policies as enrollments decline, factors other than enrollment changes are held constant in the first set of simulations. Several assumptions are made in order to isolate the effects of enrollment declines. These assumptions may be changed in subsequent simulations of current policies or alternative policies.

The assumptions for the Community College System include:

1. All 18 community college campuses will continue to operate with no expansion or contraction of physical plant.

2. Each community college will continue to offer approximately the same proportion of academic and occupational instruction as it did in Fiscal Year 1980.
3. Although Community College System expenditures, as a whole, are related to enrollments, expenditures and staffing in certain categories will remain at Fiscal Year 1980 levels. The categories include:
 - a. Community Education,
 - b. Academic and Administrative Data Processing,
 - c. Financial Aid,
 - d. Student Help, and
 - e. Physical Plant Operations.
4. Total revenue will equal total expenditures. Thus, revenue from all sources will be available in sufficient amounts to match the projected expenditure levels.
5. Fee revenue will remain at Fiscal Year 1980 levels.
6. Tuition revenue will vary directly with enrollments.

Enrollment projections from the Higher Education Coordinating Board and data on expenditure, staffing, and revenue from the Community College System office are used in preparing these simulations.

The findings of these simulations should be reviewed in the following context:

1. The simulations are based on Fiscal Year 1980 expenditure, staffing, and revenue data. Staffing ratios and expenditure rates which were in effect in Fiscal Year 1980 are carried forward. The effects of rescissions and funding cuts are not reflected in these simulations.

2. Changes in staffing or expenditures resulting from the reorganization of the five northeastern Minnesota community colleges are not included in the simulations.

STATE UNIVERSITY SYSTEM

The methodology used to simulate future expenditures, staffing levels, and required appropriations for the state universities is based on current legislative funding policies, the allocation procedures used by the State University Board, and a set of assumptions about (1) the behavior of state universities and (2) the revenues received by state universities.

Historically, staffing and, consequently, a majority of funding for the State University System have been enrollment related. However, since Fiscal Year 1977, state funding for Bemidji, Mankato, Moorhead, St. Cloud, and Winona State Universities has not been provided for enrollments above 30,005 full-year equivalent (FYE). Enrollments above this base at the five universities have been funded by tuition revenue only. This policy, known as the bulge policy, was modified by the 1981 Legislature due to unanticipated enrollment increases. The system now receives full state funding and tuition revenue for enrollments at the five universities up to a base of 30,005 FYE. Enrollments from 30,006 FYE through 31,505 FYE are supported by tuition revenue only. State appropriations of \$653 per FYE and tuition revenue support enrollments from 31,506 FYE through 33,775 FYE in Fiscal Year 1982 and 31,506 through 34,216 FYE for Fiscal Year 1983. Enrollments at the five universities above 33,775 FYE in Fiscal Year 1982 and 34,216 FYE in Fiscal Year 1983 are supported by tuition revenue only.

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Southwest and Metropolitan State Universities have been funded separately by the state. Because of relatively low enrollment levels and enrollment fluctuations, Southwest and Metropolitan have been provided a fixed staff and a basic budget which do not vary within broad enrollment ranges.

The State University System receives state funds through six accounts. The Maintenance and Equipment account is the largest and covers most operating expenditures of the universities and the system office. The other accounts include the Repairs and Betterment account, the Open Appropriations account, the Federal Student Loan State Matching account, the Federal Work-Study State Matching account, and the State University Board Contingent account. The State University Board allocates funds from these accounts to the universities and the system office. The allocations to the universities are based on enrollments, program offerings, size of physical plant, and actual expenditures in certain categories.

Expenditures in post-secondary institutions are determined by many factors including enrollments, staffing, institutional mission, inflation, and available funds. Since the primary objective of these simulations is to assess the consequences of current state funding policies as enrollments decline, factors other than enrollment changes are held constant in the first set of simulations. Several assumptions are made in order to isolate the effects of enrollments declines. These assumptions may be changed in subsequent simulations of current policies or alternative policies.

The assumptions for the State University System include:

1. All seven state universities will continue to operate with no expansion or contraction of physical plant.

2. Each state university will continue to offer approximately the same mix of academic programs as it did in Fiscal Year 1980.
3. Although State University System expenditures, as a whole, are related to enrollments, expenditures and staffing in certain categories will remain at Fiscal Year 1980 levels. The categories include:
 - a. summer session,
 - b. public service,
 - c. academic and administrative data processing,
 - d. financial aid,
 - e. student help,
 - f. physical plant operations,
 - g. separately budgeted research,
 - h. library acquisitions, and
 - i. supplemental staffing and funding for high-cost programs.
4. Total revenue will equal total expenditures. Thus revenue from all sources will be available in sufficient amounts to match the projected expenditure levels.
5. Fee revenue will remain at Fiscal Year 1980 levels.
6. Tuition revenue will vary directly with enrollments.

Enrollment projections from the Higher Education Coordinating Board and data on expenditure, staffing, and revenue from the State University System office are used in preparing these simulations. The simulations are based on Fiscal Year 1980 expenditure, staffing, and revenue data. Staffing ratios and expenditure rates which were in effect in Fiscal Year 1980 are carried forward. The effects of rescissions and funding cuts are not reflected in these simulations.

UNIVERSITY OF MINNESOTA

The methodology used to simulate future expenditures, staffing levels and required appropriations for the University of Minnesota is based on legislative funding policies and a set of assumptions about (1) the allocation policies used by the Board of Regents, (2) the behavior of the University of Minnesota, and (3) the revenues received by the University of Minnesota.

Historically, staffing and, consequently, a majority of funding for instructional activities at the University of Minnesota have been related to enrollment. For purposes of the enrollment bulge funding policy, the base enrollment level for the University of Minnesota is set at 48,742 full-year equivalents (FYE). Enrollments above this level are to be funded by tuition revenue only. However, FYE enrollment at the University of Minnesota did not exceed that base level until Fiscal Year 1981. Further, the University was not allowed to retain all of the bulge tuition when the bulge enrollments materialized. Since University of Minnesota FYE enrollments are not projected to exceed 105 percent of the bulge enrollment base in the current biennium, no partial state support is provided for bulge enrollments. Finally, due to the state's fiscal problems, substantial reductions are being made in all four public post-secondary systems' appropriations levels in the current biennium.

The University of Minnesota receives two types of state appropriations. The Operations and Maintenance (O&M) appropriation is the largest and funds most of the instructional and support activities. State special appropriations are made for specific instruction, research or public service activities. The O&M appropriations and tuition revenue are allocated in an annual internal budget which is developed by the University administration through a

APPENDIX

series of budget hearings. The allocations are based on legislative intent, student demand, and the decisions and principles developed in the long-term planning process. The final step in the allocation process is the review, modification, and approval of the internal budget by the Board of Regents.

Expenditures in post-secondary institutions are determined by many factors including enrollments, staffing, institutional mission, inflation and available funds. A large portion of expenditures at the University of Minnesota is devoted to its research and public service missions. The expenditures, staffing, and revenues simulated here are only those in regular instruction. Expenditures, staffing, and revenues for summer session and extension instruction, for separately budgeted research and public services, and for the support programs attributable to these activities are not simulated.

Since the primary objective of these simulations is to assess the consequences of current state funding policies for instruction as enrollments decline, factors other than enrollment changes are held constant in the first set of simulations. Several assumptions are made in order to isolate the effects of enrollment declines. These assumptions may be changed in subsequent simulations of current policies or alternative policies.

The assumptions for the University of Minnesota include:

1. All five campuses of the University of Minnesota will continue to operate with no physical plant expansion or contraction.

2. Each unit and campus will continue to offer approximately the same mix of programs as it did in Fiscal Year 1980.
3. Although instructional expenditures, as a whole, are related to enrollments, expenditures and staffing for certain activities will remain at their Fiscal Year 1980 levels. The activities include:
 - a. academic and administrative data processing,
 - b. library acquisitions,
 - c. physical plant operations.
4. Total revenue will equal total expenditures. Thus, revenue from all sources will be available in sufficient amounts to match the projected expenditure levels.
5. Other revenue, which includes indirect cost recoveries and other dedicated income, will remain at Fiscal Year 1980 levels.
6. Tuition revenue will vary directly with enrollments within each college and campus.
7. Allocations to colleges and campuses will be based on their Fiscal Year 1980 cost per student.

The FYE enrollments used in the simulations are those projected by the University of Minnesota Management Planning and Information Services (MPIS). However, MPIS does not project enrollments beyond five years. Enrollment levels beyond Fiscal Year 1986 are based on the MPIS Fiscal Year 1986 projection and the percent change in the HECB projected FYE enrollments. MPIS expenditure, staffing, and revenue data for the University of Minnesota are used in preparing the simulations. The simulations are based on Fiscal Year 1980 expenditure, staffing, and revenue data. Projected expenditures and revenues are adjusted to reflect the effects of funding reductions and tuition increases in the current biennium. Staffing levels, however, are not adjusted. Expenditures, staffing, and revenues are simulated at the campus level for the coordinate campuses at Duluth, Morris, Crookston, and Waseca. Due to its size and complexity, simulations for the Twin Cities campus are prepared for each of the following units:

1. Biological Sciences,
2. Health Sciences,
3. Law,
4. Management,
5. Veterinary Medicine, and
6. All colleges which admit freshmen.