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AUTHOR	Lausberg, Clement H.
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ABSTRACT

This state- and national-level funding model was designed to assist community and junior college administrators, state agency officials, and officers in the executive and legislative branches of state government. The principal objectives of the model are to: (1) officially recognize post-secondary education as a public responsibility; (2) equalize state support among college districts; (3) equalize support among college disciplines; (4) provide a statewide uniform student fee schedule; (5) provide equal educational opportunities for all students; and (6) protect local control over state-appropriated funds. The state model contains information pertaining to funding categories, special student fees, high cost institutions, and opportunity grants. The national model covers eligibility, costs, and matching grants. Recommendations made include: (1) more research on funding models is necessary; (2) computers should be used to determine financial consequences of selecting various alternatives; and (3) all levels of public education need comprehensive funding models to support basic educational objectives. (RN)

A FUNDING MODEL FOR COMMUNITY COLLEGE OPERATING COSTS

By

Dr. Clement H. Lausberg
United States Office of Education

Foreword by

Dr. Robert L. Breuder
Florida State University

Department of Higher Education
Florida State University
Tallahassee, Florida

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FOREWORD

Public education in the United States represents a massive investment of financial resources. Since state and local governments provide the majority of support for public education, the latter places continuous demands on state government. Complete funding of present and future public educational commitments assures spiralling education budgets for state governments.

The competition that has always existed between education and other public needs for available resources will certainly continue. As a result, state officials are being compelled to establish priorities among these public needs and to allocate available resources on the most complete and accurate information available. In order to meet these demands, it becomes essential that appropriate funding models be developed and utilized in the allocation process.

During the past decade, community/junior colleges have increasingly become an emerging state educational responsibility. Accompanying the dramatic increase in state aid for community/junior colleges has been the expressed need for developing a funding model for operating costs for this important segment of American higher education. This publication presents a funding model for public community college operating costs as developed by Dr. Clement H. Lausberg as a part of his dissertation research.

The principal objectives of the community college funding model, as developed by Dr. Lausberg, are for state government to: (1) officially recognize post-secondary education as a public responsibility; (2) equalize state support among community college districts; (3) equalize funding support among community college disciplines; (4) provide a statewide uniform student fee schedule; (5) provide equal educational opportunity for all students; and (6) protect local control over the use of state appropriated funds. In addition, Dr. Lausberg urges the recognition of a national responsibility to provide equalization of educational opportunity on an interstate basis.

Since this model should prove helpful to community/junior college administrators, state agency officials, and officials in the executive and legislative branches of state government, the Center for State and Regional Leadership (operated jointly by The Florida State University and The University of Florida) has published this report as a part of the program supported by a grant from the W. K. Kellogg Foundation. Those interested in more detailed information concerning Dr. Lausberg's research may request excerpts from his dissertation by writing to the Center.

Robert L. Breuder
Assistant Professor
of Higher Education

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CHAPTER I

INTRODUCTION TO THE MODEL

This study derives a funding model for community college operating costs. The model presented attempts to promote the fundamental educational objectives of these post secondary institutions. Financial resources are channelled not only to the college transfer academic program, but to a comprehensive curriculum including the full breadth of occupational offerings, adult basic and general education, developmental courses for the educationally disadvantaged, and community based instruction courses. Ideally the model will help state and national governments in recognizing a responsibility for post secondary educational experiences for all citizens.

Need for Funding Models

The need for appropriate funding mechanisms for community colleges is underscored by the phenomenal growth of this post secondary educational institution. In the decade from 1960 to 1970 alone, student enrollment soared from 660,000 to over 2,500,000, a 400 per cent increase.[1] This trend in community college expansion is expected to continue

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[1] Report of the Committee on Labor and Public Welfare, Education Amendments of 1971, Senate Report No. 92-346 (Washington, D.C.: U.S. Government Printing Office, 1971), p. 66.

throughout the 1970's as states and local communities establish new institutions and existing colleges provide new services to their communities. Wattenbarger, Cage, and Arney in a 1970 study projected enrollments of over 4,500,000 by 1980 if colleges provide service to 20 students per 1000 population, even then cautioning that this estimate may be a conservative one.[2]

Judicial rulings could also force urgent consideration of new funding models for community colleges. Court rulings in California, Minnesota, Texas, New Jersey, and Arizona have struck down public school funding statutes under both state and national constitutional provisions. These court cases in each instance have ruled the equal protection clause of the Fourteenth Amendment prohibits the basing of public school financial resources on local property tax paying ability. These decisions could be extended to a national basis if the U.S. Supreme Court upholds the Texas decision of Rodriguez v. San Antonio in the 1972-73 fall term, thereby having a substantial impact on all state funding models for public education.

State funding of community colleges could come under close scrutiny in light of these court cases. Arney in a 1969 survey of state community college funding patterns found

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[2] James L. Wattenbarger, Bob N. Cage, and L. H. Arney, The Community Junior College: Target Population, Program Costs, and Cost Differentials, National Education Finance Project, Special Study No. 6 (Gainesville, Florida: Institute of Higher Education, University of Florida, 1970), p. 31.

that half of the states were providing less than fifty per cent of operating support,[3] and a 1970-72 survey by Tollefson revealed a weighted mean level of 45.6 per cent in state support.[4] A significant number of states rely on the local property tax for community college support, a source characterized by potentially unconstitutional wide variations in local property tax paying ability.

In addition, the Education Amendments of 1972 enacted into law in June, 1972 authorize direct Federal support for the establishment and expansion of state community college system. The new legislation requires the designation of state advisory councils on community colleges charged with the development of statewide plans. Under the community college provisions, the Commissioner of Education can distribute establishment grants for planning and development, expansion grants to existing community colleges to expand enrollments and establish new campuses and leasing grants to encourage community colleges to lease available facilities.[5] When funded by Congress, the entrance of the

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3 Lawrence H. Arney, A Comparison of Patterns of Financial Support with Selected Criteria in Community Junior Colleges, Ed.D. Dissertation (Gainesville, Florida: University of Florida, 1969), pp. 56-57.

4 Terence A. Tollefson, National Council of State Directors of Community Colleges, Final Report on Community College State Agency Data (Trenton, New Jersey: New Jersey Department of Higher Education, 1971), Appendix.

5 Conference Report, Education Amendments of 1972. Senate Report No. 92-798 (Washington, D.C.: U.S. Government Printing Office, 1972), p. 197.

Federal government into the funding of state community college system will require an appropriate adjustment to existing state community college funding models.

Basic Objectives of the Community College Funding Model

A 1969 survey of state community college directors identified several dominant themes which they thought should be included in any funding pattern. The state directors placed the primary burden on state government to recognize and support the development of comprehensive community colleges. State government should officially recognize post secondary education as a public responsibility, adopt a unified state plan, assure equalization of educational opportunity, and protect local decision making authority. These same major themes are carried into the funding model presented in this study, along with recognition of a national responsibility to provide equalization of educational opportunity on an interstate basis.

The following section gives a fuller description of each of these major objectives promoted under the funding model as an introduction to the funding model itself.

Objective 1 - State Recognition of a Post Secondary Education Responsibility

The funding model places primary planning and fiscal responsibility on the state. States should develop a master plan which provides for community colleges or equivalent post secondary educational institutions within commuting distance of all state residents. Such plans should guarantee admission to all post secondary students and provide alternative educational offerings, including college transfer, occupational, developmental, and community based instruction courses for the residents it serves.

A principal responsibility for maintaining adequate support for the state master plan rests with the state legislature. It must statutorily enact the state funding statute and appropriate the funds for community college operations on a continuing basis. Major questions are posed in the funding model for legislative determination, including the relative proportion of state and local support, the number and level of funding categories, student fee rates, and the funding of non-college credit courses. A conscious effort is made to avoid prescription; individual states are left open to determine major policy questions based on their educational philosophy and fiscal circumstances.

The state-level community college agency must also be heavily involved in the development of the state funding model. The leadership of key community college officials is essential to the initiation, implementation, and future evolution of the funding model. The state agency will generally be the principal information source for the legislature in the collection and interpretation of statewide cost data, as well as a vital participant in the resolution of major policy issues. It will be incumbent on the community college agency to keep in close communication with local educators as new funding patterns and the necessary reports on educational courses, students and costs.

Objective 2 - Equalization of Support Among Districts

Community college operations are primarily funded from state and local funding sources. In the ten states with the most extensive community college growth in 1969, all had a joint state-local funding partnership, with the overall percentage of total operating support ranging from sixty-two to ninety-two per cent.[6] In these same states, the median level of Federal support was only three per cent of total operating costs and student fees were a substantial twenty-one per cent of the total. In equalizing state support between community college districts, all of these sources must be included in allocative determinations.

The funding model proposed in this study proposes a state supported system or a fully equalized state-local partnership. This position is based on the theory that, with the exception of income from gifts and auxiliary enterprises, all educational funding sources should be included under equalized state funding formulas. No where within a state should the quantity of educational support be dependent on the tax paying ability of the community college district. The state government is charged under the funding model with equalizing support through state takeover of local financing, a state-

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6 Arney, Patterns of Financial Support.

wide property tax, or the requirement of a common local millage rate.

Equalization of support among districts also requires that high cost educational settings be recognized with additional funding. Whenever valid cost data is available, the proposed funding model calls for adjustments based on size, geographical location, or sudden increases or decreases in enrollment. Individual states are free to apply appropriate factors, whether it be for smaller institutions where overall costs are higher, a municipal overburden factor for urban centered institutions, or a special increment for rapid growth institutions.

Objective 3 - Equalization of Financial Support Among Disciplines

Funding formulas which do not adequately recognize cost differentials deter community colleges from fulfilling their mission as comprehensive post secondary institutions. Many educational experiences most needed by the community, including occupational and technical offerings, special adult programs, and remedial courses for the economically disadvantaged, cost more than the regular academic disciplines. Approximately the same proportion of total course cost should be allocated, regardless of the course offered. Educators should not have to delay a compensatory education course or a high cost nursing program because the state funds a lesser share of total costs.

In order for state support of course costs to remain constant over time, there must be some protection against the steady erosion of inflation. Regardless of whether a state provides funding for high cost education, without a cost of living adjustment the cost differential loses meaning. The proposed funding model therefore provides for base year data to be updated annually on the best available economic indicators, with the cost of living adjustment applied to state allocations.

Objective 4 - Equalization of Financial Support Among Students

Although leaders in the community college movement have long advocated the free tuition principle, student charges have been levied in every state with a community college system. Even states legally prohibiting tuition such as California, Nevada, and Missouri collect registration fees and other charges from students. In his 1969 survey of community college funding patterns, Arney found only three states (California, Arizona, and Hawaii) with less than two per cent of costs derived from student fees, and the median average percentage of operating costs by this source was 21 per cent.[7]

The funding model proposed in this study provides for a uniform student fee schedule. In most states, locally determined student fee structures have resulted in a wide variety of student fee charges. Wide variations exist between colleges in charges for out-of-state tuition, college credit,

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7 Arney, Patterns of Financial Support, p. 75

or out-of-district students. A student's fees should not be dependent on where he lives. The uniform fee schedule is designed to correct this practice by establishing statewide uniform rates for such general student categories as college credit, non-credit, out-of-district, and out-of-state students.

Objective 5 - Local Control and Initiative

Local control of community colleges is advocated under the proposed funding model. The model calls for the allocation of specific amounts per full-time student, with the elimination of all earmarking and categorical restrictions. Colleges should not be forced to relate salary schedules to the rank and contractual status of instructors as determined in the state capitol, nor be required to spend minimum amounts for expenses or administrative services. Under the model, community colleges are free to spend their dollars as they determine, receiving a lump sum allocation for the entire college. It is intended that local institutions will experiment with alternative learning strategies and adopt efficiencies within a college-wide budget, thus utilizing opportunities for creative academic leadership.

The funding model also establishes an opportunity grant fund to allow colleges to exercise local initiative beyond the basic state program of support. Uses of the opportunity grant fund would be determined by each state, but possible priorities might include staff development, statewide manpower needs, or special faculty project money. The opportunity grant would be administered by the state community college agency, which should prompt it to take a leadership role in state curriculum reform or staff development. The amount for opportunity grants is to be set at a percentage of the basic state allocation as determined by individual states.

Objective 6 - National Incentive Grants

There is a national interest in the development of a comprehensive post secondary educational experience within commuting distance of all the nation's citizens. As residents move from one state to another, they carry the occupational skills and educational background acquired in their native state. To the extent they lack employment skills, migrating citizens can create a burden for the state to which they are moving. In our increasingly mobile society, the residents of one state have a stake in the quality of education provided in each other state.[8]

National incentive grants are proposed in the funding model to assist state community college systems to further expand in the future. Until now, the tremendous expansion of community colleges has been spearheaded almost entirely by state and local governments. In most states, the statewide Federal contribution constitutes less than ten per cent of

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[8] Advisory Commission on Intergovernmental Relations, Staff Memorandum, May 19, 1972.

overall operating costs. The specific method endorsed in the funding model calls for directing Federal aid toward increasing the level of state community college support and facilitating the transfer of local taxes to the state level. Matching Federal grants would be awarded for either annual state aid increases or the direct replacement of local taxes on an equalized state basis, but increases in local support for community colleges on an unequalized basis would not be eligible for Federal aid.

CHAPTER II

PRESENTATION OF THE FUNDING MODEL: STATE LEVEL

Basic Formula

The funding model focuses on state allocations for operating costs to community colleges. State costs are derived from total cost figures with adjustments for cost of living, carryover fund balances, Federal funds, and student fees. With the exception of income from gifts and auxiliary enterprises, all funds are included in the algebraic formula: A+B = T+G+J-(C+D+DG) where:

A = sum of state allocations divided by statewide FTE, or state allocation per FTE

B = sum of local allocations divided by statewide FTE, or local allocation per FTE

T = sum of statewide total expenditures divided by total FTE, or total cost per FTE

G = cost of living adjustment for average loss in purchasing power from base year to funding year

J = allowance for carryover fund balances

C = Federal funds for instruction divided by total FTE, or Federal funds per FTE

D = uniform fee deduction per FTE

DG = cost of living adjustment for student fees per FTE

The basic model is applicable to the policy decisions of individual states. States are free to determine not only the relative overall level of support, but procedures for local property tax equalization, Federal funds deductions, cost of living adjustments, and uniform student fees. The decisions made by states on these questions will determine the relative state allocations as a portion of total cost in the basic algebraic formula.

The formula is applicable primarily to state supported systems without any local contributions to operating costs, or to states which include local contributions on an equalized basis adjusted for variations in local ability to pay. This latter criterion would be satisfied in states with a statewide property tax or states that subtract a uniform millage in the distribution of state operating funds, provided that no millage is permitted above this required effort. Under these conditions, state and local contributions can be distributed on the basis of educational need rather than wealth. Both state sources (A) and local sources (B), under these circumstances can be viewed as equalized state dollars; or

$$A = T+G+J-(C+D+DG)$$

The average equalized state allocation (A) can be made after all policy decisions have been made regarding cost of living factors, carryover fund balances, Federal funds and student fees. Individual states will base their decisions upon their educational philosophy, past history of allocative decisions, and the fiscal constraints on appropriations. An illustration of the model based on <u>hypothetical</u> figures for the 1970-71 fiscal year follows:

$A = T+G+J-(C+D+DG)$

A = equalized state allocation per FTE

T = total average cost per FTE = $1,200 in base year

G = cost of living adjustment = 4% from 1969-70 to 1970-71 = $48

J = allowance for carryover balances = 1%

C = Federal funds per FTE = $40

D = uniform student fee per FTE = $250

DG = cost of living adjustment for student fees = 4% from 1969-70 to 1970-71 = $10

When these factors are placed in the formula,

$A = T+G+J-(C+D+DG)$

$A = 1200 + 48 + 12 - (40 + 250 + 10)$

A = equalized state allocation per FTE = $960

Adjustments may also be made to the basic state allocations for cost variations between educational disciplines, fees for special student categories, and allowances for high cost educational settings. Again, states are free to make these decisions on the basis of their data base and funding philosophy. Total state and individual community college allocations will then be accordingly adjusted for these policy decisions.

Funding Categories

State funding models should recognize cost variations between various categories of course offerings. A single composite average allocation for all FTE's can penalize a community college which exercises its responsibilities as a comprehensive post secondary institution. The extra costs involved in most occupational offerings or special development programs for adults go unrecognized under such a method. A course in auto mechanics, nursing, or technology will generally have smaller classes, greater equipment costs and higher overall costs per FTE, and these costs should be recognized in the funding model.

The number of funding categories or levels to be established in a given state will be dependent upon expenditure data. At a minimum, separate funding levels ought to be established for occupational and academic courses. In the absence of expenditure data demonstrating the higher costs, a funding ratio could be established on the basis of other state cost studies or professional judgment. Florida cost studies in 1969-70 and 1970-71, for example, revealed an overall ratio of 1.30 for occupational courses as opposed to 1.00 for academic courses.

When possible, however, funding categories should be established by educational discipline costs. The Florida cost analysis system in 1970-71, for example, permitted the designation of any number of cost categories as statewide average costs were collected for each of thirty educational disciplines. Twelve cost categories were designated in the application of the model to Florida, with each educational discipline placed in a funding category. Table I depicts the range of funding categories from .8 to 1.9, with the funding level for each.

TABLE I

Proposed Funding Categories For Educational Disciplines

Funding categories	Range of state costs per FTE	State allocation per FTE
.8	up to $ 655	$ 655
.9	$ 656 - 740	740
1.00	741 - 820	820
1.10	821 - 900	900
1.20	901 - 985	985
1.30	986 - 1065	1065
1.40	1066 - 1150	1150
1.50	1151 - 1230	1230
1.60	1231 - 1310	1310
1.70	1311 - 1395	1395
1.80	1396 - 1475	1475
1.90	1476 - 1560	1560

List of disciplines by funding category

.8 (to $655): Library Science, Military Science, Psychology, Public Affairs, Social Science, Interdisciplinary Studies, Citizenship

.9 ($656 to $740): Business and Management, Letters, Mathematics

1.00 ($741 to $820): Agriculture and Natural Resources (academic), Architecture and Engineering, Area Studies, Physical Science, Law, Biological Studies

1.10 ($821 to $900): Distributive, Office

1.20 ($901 to $985): Engineering, Fine and Applied Arts, Foreign Languages, Health Professions, Post-High School

1.30 ($986 to $1065): Communications, Computer and Information Services, Education, Home Economics (academic), Trade and Industrial

1.40 ($1066 to $1150): Agriculture (occupational), Home Economics (occupational)

1.50 ($1151 to $1230): Technical

1.60 ($1231 to $1310):

1.70 ($1311 to $1395):

1.80 ($1396 to $1475):

1.90 ($1475 to $1560): Health

State allocations are primarily based on the number of full-time equivalent students (FTE's) in the designated funding categories, but adjustments are also possible for special student fees, high cost educational funds, and a state opportunity grant fund. Total state allocations are then represented by the sum of these individual adjustments.

Special Student Fees

The funding model requires the setting of uniform student fee policies for special student categories. Such special categories as out-of-state, out-of-district, and non-college credit may be charged at a higher or lower level than the regular college credit student. Adjustments to the over-all state allocation are necessary as the state allocation is based on normal college credit students. Otherwise, the state would be rewarding out-of-state students with a higher level of funding and penalizing those institutions exercising their responsibilities to the community.

Florida, for example, had a wide variation in student fees between institutions in 1970-71. The statewide average income from student fees was $248.54 per FTE in 1970-71, with variations from $121.31 per FTE to $321.97 per FTE among institutions. Out-of-state tuition, for example, ranged from $75 to $200 per semester above normal college credit fees, and out-of-district charge from no additional cost to $75 per semester in extra charges. Fees for community based instruction courses eligible for state-level funding also varied greatly among institutions.

The application of the model to Florida therefore proposed the following uniform fee schedule:

Out-of-state tuition = $150 additional per semester or $300 per year

Non-college credit high school students fee = $0

Out-of-district students fee = $0

State funded community based instruction = $100 per semester or $200 per year

Based on the number of full-time students falling in each category, appropriate adjustments are made to state and individual community college allotments.

High Cost Institutions

A similar adjustment was made for high cost institutions in the Florida example. Due to higher average operating costs per FTE at institutions with under 1,300 FTE, a subsidy of $165 per FTE was added to their allotment. Providing appropriate cost data was provided, similar adjustments could be made for other size institutions or for urban based colleges in the funding model.

Opportunity Grants

The funding model also includes opportunity grants to permit community colleges to exercise local initiative. Support should be available for those colleges and faculty members who carefully plan and articulate imaginative innovations. The opportunity grant would vary in purpose between states, but might include such priorities as staff development, special programs for the economically disadvantaged, or the meeting of statewide manpower needs. The opportunity grant fund would be administered by the state community college agency including the authority to review grant applications and make awards. The amount of the opportunity grant fund would be state determined.

Total state allocations would then be determined by adding together the adjustments for funding categories, student fees, high cost educational settings, and opportunity grants. The state budget is built on the statewide totals of individual college budgets. Each institution would prepare its budget request based on anticipated enrollments, its mix of students, and other applicable cost factors.

Current Year Funding

Allocative decisions should be made which are consistent with planning operations throughout the community college system. Faculty must be hired, equipment purchased, and course schedules released on a regular timetable. For this reason, the state-local community college agency will be required to collect early estimates of FTE, and for those states funding by discipline, estimates of FTE in each discipline. Later adjustments can be made, but the application of a reliable projection technique by the state agency is essential.

Funding should be sensitive to upward or downward adjustments in enrollment. Appropriate mid-year and year-end adjustments to initial enrollment projections should be made. Such an allocation technique provides for current year funding by adjusting for increases or decreases in enrollment during the funding year. Fast-growing institutions are protected under this procedure, and safeguards can also be built into the formula for colleges with declining enrollments.

To illustrate how the current year funding technique might work, assume that the state agency collects the FTE projections by February 1 for inclusion in the next fiscal year beginning July 1, with the state legislature funding on the basis of these figures. The statewide total of support, then, would be available for distribution by the state agency to individual colleges. The initial allocation to each college could be updated on the basis of actual FTE enrollments in March after first- and second-semester (or quarter) registrations are available. Any final adjustments to be made after March could be carried into the next fiscal year. Procedures such as these would force the individual institution to project its enrollment accurately in order to avoid later budget cuts because of low actual FTE counts.

Collection of Information on Educational Outcomes

The funding model places first priority on the equalization of educational inputs, but also requires evidences of educational outcomes. At a minimum, the educational institution should keep records on the number of students who have completed courses, programs, and degrees, as well as an accounting of those who did not. On a broader basis, states could consider requiring the community college to assist in the placement of each student who leaves the college, or to collect information on job placement or academic advancement opportunities. Whatever requirements are established by a state, the information and reports collected should be made an integral part of a comprehensive Management Information System.

CHAPTER III

PRESENTATION OF THE FUNDING MODEL: NATIONAL LEVEL

Basic Formula

Federal aid should assist in the development of fully equalized state support systems. Aid should be directed toward increasing the level of state community college support and facilitating the transfer of local taxes to the state level. The specific method proposed in the funding model is a twenty-five per cent matching Federal grant for either annual state aid increases or the direct replacement of local property taxes on an equalized state basis. In this latter category, either the adoption of a statewide property tax or the inclusion of local property taxes under state formulas on an equalized basis would be supported. On the other hand, increases in local support for community colleges on an unequalized basis would not be reinforced by Federal grant.

To illustrate how the incentive grant would work, assume several hypothetical state situations.

> State A: a full state support system. The state increases its aid to community colleges by $10 million over the level of the previous year. The total amount of increase eligible for matching grant is twenty-five per cent, or $2.5 million.

State B: unequalized state-local partnership. Total increase in aid of $10 million is provided, $6 million from the state level and $4 million from local sources on an unequalized basis. Only the $6 million state increase is eligible for the Federal grant, or $1.5 million.

State C: fully equalized state-local partnership. The state eliminates the local property tax, replacing it with a statewide property tax of $4,000,000 while increasing state aid by $6,000,000. Both statewide property tax and other state aid are eligible for the twenty-five per cent Federal matching grant, or $2.5 million.

State D: partially equalized state-local partnership. Total state and local aid increases by $10 million, of which $6 million is in state funds, $2 million in local property tax equalized for wealth under state formula, and $2 million in growth in unequalized local support. The state aid and equalized local support qualify for a matching grant of $2,000,000 on the $8,000,000 from equalized state and local sources.

The Federal matching grants are designed to be continuous rather than granted for only one year. In order to remain eligible for the grants, states with equalized aid would have to maintain at least the existing level of funding per FTE. The Federal incentive grant can easily be included within the proposed state funding model. Both the statewide average cost per FTE in all courses and the deduction for Federal funds would be increased by a similar amount, thereby leaving the equalized state amount unchanged. If the state equalized amount were not maintained at the previous year's level, the Federal matching grant would be withdrawn.

Requirements for Eligibility

National incentive grants should further the orderly expansion of state community college systems. Basic objectives of state funding models, including state recognition of its responsibility for post-secondary education, equal educational opportunity for all students, and the availability of community colleges within commuting distance of nearly all the residents of the state, should be reinforced with Federal funding.

Eligibility for national grants would be contingent upon a statewide master plan for community colleges. Master plans would stipulate the offering of a comprehensive curriculum, including lower-division academic courses, occupational and technical offerings, and special programs for adults, the economically disadvantaged, and the community. Further, if the educational needs of students are to be served by this curriculum, additional funds would be made available for high-cost educational programs. The state plan would also establish an appropriate timetable for providing a community college to each area of the state, as well as for articulating community college development with other public and private post-secondary institutions. As of 1969, only twenty-two states had a master plan for community colleges, an indication that careful state-level planning is still needed in many states.[9]

National incentive grants would be denied to those states which charge excessive student fees. An equal educational opportunity implies a philosophy of free or low tuition, and therefore those states who collect more than twenty-five per cent of operating costs in student fees should be ineligible for national grants. In 1969, for example, seven states whose fees constituted between 25 and 34 per cent of total operating costs[10] would thus not have been eligible for such grants. This requirement would add force to state-level arguments in favor of low student fees and tuition charges.

Any national incentive funding program should relate to an operational unit for community colleges in the U.S. Office of Education. The national community college office ought to be authorized to collect information from state community college systems. A national information system collecting data on costs, student enrollments, and curriculum offerings should be established for community colleges. This information system should be closely coordinated with the Higher Education General Information Survey (HEGIS) and parallel efforts for public schools and vocational education.

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[9] Arney, Patterns of Financial Support, p. 83.

[10] Ibid., pp. 56-57.

Cost

National incentive grants could exceed $100 million annually. For example, state support alone increased an estimated $153.2 million in 1970-71 over 1969-70 levels. Under a 25 per cent matching grant plan, $33.8 million would have been available for state governments that met eligibility requirements. Grant funds would flow primarily to those states with rapidly expanding community college systems, as demonstrated in Table II which lists potential grant allocations to the states for 1970-71. States with minimal investment in community colleges might well appropriate much larger sums in future years because of the national matching grant.

Matching Grants for Equalization

It is impossible to predict how many states would move to state equalized funding with national incentive grants. State circumstances vary in political climate, financial resources, and present disparity in support levels among districts. Some states might decide to phase in an equalization program over several years, or to increase state appropriations while equalizing.

To illustrate how the national incentive grant might be used as an incentive to state equalization, three alternative procedures were applied to Michigan. Under the first, all property taxes were eliminated under a full state support system. Secondly, all property taxes were equalized under state funding formulas with a ceiling on local millage.

TABLE II

Estimates of Matching National Incentive Grants for 1970-71

State	Year 1969-70	Year 1970-71	Increases in state funds	Matching nat'l incentive grants
Calif.	$114,000,000	$149,832,000	$ 35,832,000	$ 8,958,000
Florida	63,202,000	81,139,000	17,937,000	4,484,250
New York	44,000,000	68,000,000	24,000,000	6,000,000
Illinois	38,263,000	48,507,000	10,244,000	2,561,000
Michigan	40,696,000	46,266,000	5,570,000	1,392,500
N. Carolina	42,230,000	42,230,000	--	--
Texas	35,138,000	39,312,000	4,174,000	1,043,500
New Jersey	15,600,000	20,000,000	4,400,000	1,100,000
Maryland	7,845,000	17,093,000	9,248,000	2,312,000
Oregon	11,636,000	13,502,000	1,866,000	466,500
Ohio	8,531,000	13,257,000	4,726,000	1,181,500
Wisconsin	10,200,000	12,145,000	1,945,000	486,250
Penna.	5,738,000	11,400,000	5,662,000	1,415,500
Arizona	8,649,000	10,954,000	2,305,000	576,250
Iowa	9,700,000	9,700,000	--	--
Mississippi	6,185,000	8,922,000	2,737,000	684,250
Missouri	8,733,000	8,733,000	--	--
Colorado	4,794,000	4,482,000	--	--
Kansas	2,650,000	3,147,000	497,000	124,250
Nebraska	950,000	1,900,000	950,000	237,500
Oklahoma	200,000	1,775,000	1,575,000	393,750
Wyoming	1,774,000	1,774,000	--	--
Arkansas	1,000,000	1,700,000	700,000	175,000
Louisiana	1,344,000	1,642,000	298,000	74,500
Georgia	1,200,000	1,500,000	300,000	75,000
Idaho	700,000	1,187,000	487,000	121,750
N. Dakota	750,000	750,000	--	--
Indiana	500,000	530,000	30,000	7,500
New Mexico	240,000	245,000	5,000	1,250
TOTALS	$486,448,000	$621,624,000	$135,488,000	$ 33,872,000

Source: Data for states: Chambers, M. M., "Grapevine", No. 150 (Normal, Illinois: Illinois State University, January 1970). Data rounded to thousands.

Finally, a partial equalization plan was attempted where local property taxes would be phased into equalized state support formulas over several years. In each of the examples, it was assumed that additional state money would be needed to prevent wealthy districts from losing funds.

Full State Support

Michigan community colleges levied 26.5 million property taxes for operating costs in 1970-71. If all these property taxes were eliminated and replaced with statewide taxes, the state could reallocate the 26.5 million on an equal amount per pupil basis (i.e., $365) or even fail to appropriate any additional state support above the current level. In all likelihood, however, enough new state dollars must be allocated to cover the loss of local property taxes for all districts, or nearly all districts. This means the state must increase its support per pupil to an amount close to that of the wealthiest district.

When this principle is followed, state funding must be increased by $500 per FTE to cover the loss of property tax support in Washtenaw of $502 per FTE. The increase in overall support for each district will be equal to $500 per FTE minus the lost local property tax support. The poorer the district in local property wealth per FTE, the greater will be the increase over current support levels.

The full state support proposal just outlined would require $36,300,500 in state funds. If the no loss guarantee were included to protect four districts from losing funds at an additional cost of $378,000, the total cost of $36,678,500 would be eligible for a twenty-five per cent matching national incentive grant of $9,169,625. The total state cost of the program would be offset by the reduction of $26,481,000 in local property taxes. Table III lists the effects of the full state funding proposal on each community college district in Michigan, again arranged according to local property tax paying ability.

Equalized Partnership

Michigan required each community college district to levy one mill in local property taxes for operations in 1970-71. This one mill effort was unequalized among the districts. By simply placing this mill under state funding formulas and increasing the foundation program amount by $500 per FTE, a fully equalized state-local partnership would result. Equalization would occur based on the amount of the deduction, with the poorer districts receiving a proportionately larger state allocation. Additional millage over the required local effort of one mill would be eliminated.

Although the results would be the same allocation for all community college districts as under full state support, this approach would require an increase of only $13,231,000 in state funds. The equalized state partnership would be eligible for a national incentive grant, however, on both the shift of $23 million in local property taxes and the $13.6 million increase in state funds, or $9,169,625.

TABLE III

Effects of Full State Support Plan: Michigan, 1970-71

Institution	Increase in state funds of $500/FTE	Elimination of general fund operating mills	Overall increase (decrease)/FTE
Kirtland	$500	$539	$(39)
Washtenaw	500	652	(152)
Oakland	500	479	21
West Shore	500	451	49
Kalamazoo Valley	500	447	53
Delta	500	433	67
Genesee	500	430	70
Lake Michigan	500	425	75
Monroe	500	501	(1)
Montcalm	500	337	163
Mid-Michigan	500	368	132
Glen Oaks	500	394	106
Schoolcraft	500	421	79
Lansing	500	311	189
St. Clair	500	324	176
Macomb	500	275	225
Jackson	500	343	157
Kellogg	500	248	252
Highland Park	500	214	286
Muskegon	500	506	(6)
Southwestern	500	202	298
Alpena	500	369	131
Grand Rapids	500	171	329
North Central	500	169	331
Bay de Noc	500	157	343
Henry Ford	500	386	114
Northwestern	500	111	389
Gogebic	500	110	390
Statewide:	$500	$365	$135

Partial Equalization Plan

The requirements of a full state support system or an equalized state-local partnership may be financially prohibitive for Michigan. Even the $13.6 million increase in state funding required under the equalized state partnership would represent a 35% increase over 1970-71 state support of $39,188,000.

One partial equalization plan would be a two-step process, with a fully equalized state-local partnership occurring at the end of two years. During the first year, a uniform required effort of .5 mill would be deducted before distribution of state funds, with an increase in state support level of $250 per FTE. The second step would require an additional increase of $250 per FTE and .5 mill effort, with the completed equalization program having the same dollar consequences as the proposed fully equalized state-local partnership.

State funding increases for the state-level plan would be $6,804,589 or exactly one half of the funds required for the fully equalized plan. The entire increase of $18,150,250 would be eligible for the national incentive grant despite $11,544,661 of that amount represents increased required effort of .5 mills. The twenty-five per cent incentive grant would be equal to $4,584,813 for each of the two steps in the equalization process.

The incentive grant approach to equalization was readily adaptable to Michigan. In each case, the matching incentive grant provides a significant inducement to state action. The examples used are not the only alternatives; numerous other combinations could be developed with different support levels, local millage requirements, and phasing timetables.

Table IV reviews the major equalization options explored for Michigan, with the final column listing the incentive grant.

TABLE IV

Review of Major Equalization Options

Michigan	State funds increase	Local millage increase	Total eligible	Amount of incentive grant
Full state funding	36,678,500	--	36,678,500	9,169,625
Equalized partnership	13,609,178	23,069,322	36,678,500	9,169,625
Partial equalization	6,804,589	11,534,661	18,339,250	4,584,813

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Adaptability of the Funding Model

The funding model presented in this study is designed for adaptability to individual state support systems. Although there may be widespread agreement on such overarching objectives as state recognition of its post secondary educational responsibilities, equalization of educational opportunity, and the maintenance of local control and initiative, states are required to make many major policy decisions under the funding model. The alternative policy decisions reached in each state will undoubtedly be shaped by the educational philosophy of state leaders, and by the fiscal constraints which often force policy makers to choose between desirable alternatives. In some states, it may be possible to only partially adopt the funding model, or to phase in its major provisions only over a period of years.

State-Local Partnership

The first major hurdle for states is the adoption of a full state support system or a fully equalized state-local partnership for financial community college operating costs. Most states possess a combination of state and local resources for funding the bulk of operating costs, and fully equalizing resources for local wealth may be financially prohibitive. Many states will find it politically impossible to fully equalize their present state-local funding partnership without outside resources, especially when political compromises will have to be forged in the development of new funding levels. In some states, these compromises may require support levels which do not penalize wealthy community college districts while raising the support level of their poorer districts.

Many states, in the absence of Federal support, may have to increase the level of state support and/or phase in equalization over a period of years. Even these commitments may well place an intense budgetary strain on state governments, especially in those states facing substantial community college growth and greater operating costs. The adoption of plans for equalization of community college funding may therefore require a multiyear commitment on the part of both state legislative and executive leadership to a basic change in funding patterns.

States continuing to rely on property tax for community college funding must also enact uniform property tax assessment techniques. Without it, underassessed districts will be rewarded with greater state funds and well assessed districts will be penalized. The state must take the responsibility for assuring equity in property tax assessment practices between districts and a uniform exemption policy under state law. Without either a statewide assessment procedure or vigorous review of local assessment practices by a state agency, discrepancies are likely to occur. States must therefore view uniform assessment practices as an important component of an equalized state-local funding formula.

Level of Community College Support

Individual states will have to judge whether their current level of community college support is appropriate. The funding model endorses the recognition of the higher costs of occupational education courses and the funding of non-college credit courses. For states which now do not provide this support, the costs of conversion could be high. Adjusting Missouri state funding to a 1.3 level for occupational FTE and state support of non-credit FTE at the rate of college credit FTE in 1970-71, for example, would have required over a $3.3 million increase in state-level funding of $9.2 million for that year.

States will also have to carefully assess their basic level of community college support. Ideally, greater support could be given to those educational programs which are accomplishing their objectives, with funding support reduced or withdrawn for those which are not. This approach will not be put into practice, however, in the near future. Statistical measures of educational success have not been agreed upon, and information on outcomes beyond degrees earned is not uniformly collected.[11] The level of basic support cannot

[11] James Edward Matthews, A Study of Certain Input-Output Relationships in Selected Community Colleges (Gainesville, University of Florida, 1970).

at the present time, then, be related to program results.

Most discussion of appropriate funding level must therefore center on sufficient inputs in the way of faculty, instructional equipment, and appropriate classroom environment in the determination of satisfactory funding levels. Many states will wish to compare their funding levels with other states or with the national average. These comparisons must be undertaken with extreme caution. Such interstate comparisons commonly do not recognize varying definitions of full-time equivalent students (FTE), separate accounting practices, and classification systems for educational course offerings which exist among states. Without recognizing these distinct limitations and adjusting for them, such interstate comparisons can be misleading and potentially dangerous for use in state policy making.

The allocative approach selected by individual states will also be dependent to an extent upon the level of sophistication of their information system. Those states without a cost analysis system are obviously limited in their ability to set funding levels, and may well have to settle for general funding levels for all academic and occupational courses or rely on another state's cost analysis system. These states might well take such interim steps while they develop reliable cost information for their own state on a more detained basis, but they are obviously limited in their capacity to establish funding levels immediately for each of thirty or more educational disciplines.

Local Control and Initiative

The funding model presented in this study attempts to preserve local control over educational decisions in spite of state responsibility for equality of support between districts, students, and programs. Individual states must exercise care that increased state support does not have an adverse effect on creativity or innovation in the classroom. States must therefore closely examine the practical effects of any statewide requirements imposed on individual community colleges.

The funding model calls for allocating funds on the basis of lump sum allocation per FTE. States are free, however, to place restrictions on such funds, including requirements to spend allocated funds in designated disciplines, provisions relating to the rank and contractual status of instructors, or maximum or minimum spending levels for categories such as expenses or administrative services. It is recommended that such state restrictions be kept to a minimum; local institutions should have the flexibility to set priorities, shift funds between programs, and try alternative learning strategies if local control and initiative is to be a practical reality.

Equalization of Support Among Students

Individual states are also best qualified to determine what their student fee schedule should be, although a uniform student fee schedule is urged in the funding model.

Educational opportunity should not be dependent on a student's place of residence, and therefore individual community colleges should not be given the authority to set their own fee schedules. Hopefully, states can establish broad statewide guidelines without straitjacketing local community college officials.

Decisions on student fees should be consistent with the basic educational purposes of community colleges. Excessive fees can deny admission to a student from an economically disadvantaged background, preclude an out-of-state student from attendance at state community colleges, or unfairly penalize a student taking a short-term course of four or six weeks duration. States must carefully review such questions as the appropriate share of operating costs to be borne by out-of-state students, fees for out-of-district students, appropriate charges for community based instruction, and special tuition waivers or reduced fees for students from low income families. All of these decisions place a heavy responsibility on each state to carefully weigh its student fee policies to assure that its community colleges are indeed comprehensive community based institutions.

High Cost Educational Settings

The funding model also calls for individual state adjustments for high cost educational settings. Smaller institutions, for example, often find it impossible to operate large classes, offer comprehensive curricula, or to have full sections of vocational classes. On the other hand, community colleges located in urban areas may have higher costs for the same services, such as average salary amounts, the purchase and servicing of equipment, and personal services in general. Other high cost considerations may stem from large multi-campus operations, or a rapid gain or loss in students.

State adjustments for high cost educational settings are often difficult to justify. In most states, the appropriate statistical evidence is unavailable, so policy decisions must be based on professional judgment or political convenience. It is suggested that states take the necessary steps to obtain reliable evidence of high cost educational settings as the basis for policy determinations, such as cost-of-living differentials for urban areas, cost analysis studies of the effects of institutional size or organizational arrangements, or the additional costs incurred with a sudden rise or fall in pupil enrollment.

Visibility of Costs

The proposed funding model exposes support sources for community college operations to public scrutiny. The practical effects of such public visibility are not, of course, without risks to the community college community. The state legislature may tamper with the allocation figures per FTE on narrow political grounds, question fundamental assumptions about curriculum, or react negatively to specific allocation requests. Although this admittedly places a limitation on the satisfactory operation of the funding model proposed in this study, appropriations can be slashed or questions asked under any publicly supported funding formula.

Federal Funds

States obviously cannot rely on the national incentive grant advocated in this study. Even if Congress were to pass reasonably equivalent legislation, it would be subject to the same hazards as other Federal funds, including under appropriations, and uncertain continuing support. States planning an orderly expansion of their community college systems need reliable sources of funding support, and definite assurances of Federal matching grants when equalizing local property taxes.

The recently enacted Education Amendments of 1972 may, however, provide an alternative Federal funding source for implementing portions of the funding model presented in this study. State-level advisory committees planning the orderly growth of community college systems under the new law should carefully deliberate community college funding arrangements. Such characteristics of the funding model as equalization of support between districts, increased allocations for high cost education programs, and special student fee provisions could be included within a state master plan, and therefore be eligible for possible matching Federal funds. It is through this new national legislation that states might find the outside resources necessary to fully adopt the proposed funding model.

Recommendations

Research Topics

State legislative staffs, community college agencies and independent scholastic researchers need to explore funding models further. The most obvious project to be considered would be a companion capital outlay allocation model to accompany this model for operating expenditures. The initial offering of a course is often dependent upon the availability of start-up costs, a fact that funding categories based on ongoing expenditures do not recognize. Under many state funding formulas, all courses are funded at the same level of capital outlay support, thus discouraging high-cost offerings. There is a need for a comprehensive capital outlay formula which recognizes actual cost differences in the context of all available funding sources.

State and community college officials will want to analyze cost data from the community colleges carefully. Analysis needs to be made of why certain colleges are consistently higher or lower in costs per FTE. In a similar vein, cost variations within educational disciplines can also be investigated. These research results could be communicated internally among a college staff or on a broader basis throughout a statewide college system. Exciting new teaching innovations could be disseminated on a systematic basis to other faculty and administrative staff throughout the state.

Adjustments in the funding model for student fees and extra costs accruing from institutional size could also encourage additional research. A comprehensive policy on student fees including reductions for students from lower socio-economic backgrounds or enrollment in non-credit courses could be useful for many state community college systems. Sophisticated adjustments, on the other hand, could be made for variations in costs resulting from institutional size and geographic location. Such research efforts could provide important supplemental information for an examination of a state funding law.

More research effort needs to go into the development of valid measures of educational output. The funding model requires that at least minimum information be collected as a condition of funding support. Measurements of outcomes will require more specific delineation of educational objectives in operational terms in all educational disciplines, as well as the techniqes to measure whether they have been achieved. Such research should have a high priority at all levels of the educational system.

Computer Simulation

Final determination of answers to the major policy questions posed in the funding model will require cost data for alternative approaches. State legislators and local community college officials will want to know the financial consequences of selecting various combinations of alternatives. These can best be determined by placing the funding model on a computer, with such factors as carry-over balances, student fees and cost-of-living adjustments as variables. In this manner individual college and statewide allocations can be calculated for different student fee levels, level of state support, or varying adjustments for cost-of-living, carry-over balance, or institutional size factors. It is recommended, therefore, that any state seriously applying the funding model computerize the relevant state data as an aid to rational decision-making.

Future Directions

All levels of public education need comprehensive funding models that further basic educational objectives. Debates on educational funding formulas must extend beyond equal dollars per pupil to the adequacy of support provided, full recognition of cost differentials between educational programs, the necessity of a comprehensive curriculum serving all students, the desirability of local control over the setting of educational priorities, and the relationship between expenditures and educational outcomes. The task of future theorists, policy-makers, educators, and public-spirited citizens will be to work together in the development of educational support systems which fully recognize all of these elements within the definition of equal educational opportunity for all citizens.

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