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IOWA DEPARTMENT OF EDUCATION
DIVISION OF COMMUNITY COLLEGES

A Report to the Iowa General Assembly

on

THE COMMUNITY COLLEGE
FUNDING FORMULA

January 1995

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PURPOSE OF THIS STUDY

CH. 101, Sec. 208 of the 1993 Session Laws states:

The department of education shall conduct a study of the current community college funding formula during the fiscal year beginning July 1, 1993. This study should examine the funding base year, current funding formula based on state needs, and propose recommendations for changes. The report of findings and recommendations shall be submitted to the general assembly by January 1995.

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Des Moines, Iowa 50319

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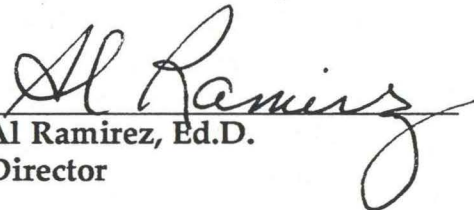
I. PREFACE

The community colleges are a critical component in the educational and economic infrastructure of Iowa. In their move from high school to the work force, 39.5 percent¹ of Iowa high school graduates use the community colleges to build their skills, qualify for better jobs, meet employer expectations, and achieve personal fulfillment. Once in the work force, growing numbers of Iowans use the community colleges as their avenue to new careers, continuing education, and lifelong learning.

In the tradition of local autonomy, Iowa's 15 community colleges have blended into the unique cultural and social fabric of their communities. They have stitched this social fabric tighter and made the local cultural colors more vibrant. It is by design, not accident, that they are accessible to virtually every citizen. Whether metropolitan, suburban, or rural, Iowans have the opportunity to expand their horizons through affordable higher education via the community colleges. Local economic development, too, is a valuable resource each community college brings to its area. Always nearby and available to help employers learn about new technologies and to train employees, the community colleges are a major local economic force that keeps jobs in Iowa. The cost of Iowa's community college system is approximately \$83 per capita², a true bargain considering the many benefits they provide.

This study reviews the current methodology for funding Iowa's community college system, the strengths and weaknesses of the funding formula, and the principles upon which a sound funding system should be based. Adequate funding is essential to secure the future health and vitality of the community college system and to enhance the quality of life for all Iowans.

This report is respectfully submitted to the General Assembly of the State of Iowa, this tenth day of January, 1995.


Al Ramirez, Ed.D.
Director

¹Source: Department of Education, 1992-93 Follow-up File of 1992 High School graduates.

²Based on 1990 census data showing that Iowa's population was 2.78 million, and 1994 community college general fund expenditures were \$232 million.

II. EXECUTIVE SUMMARY

Nationally, there was a movement in the 1950s and 1960s away from the concept of junior colleges to the broader concept of community colleges. This, in large part, was in recognition of a great need for quality postsecondary education that is easily accessible, generally affordable, and readily adaptable to the needs of local population groups. Iowa's community colleges continue to meet this challenging mission with cutting-edge services to students and businesses, and they are always in the continuous pursuit of excellence in education.

Funding is central to this pursuit of excellence and to a community college's ability to fulfill its mission. But the mission of a community college represents a social choice, not necessarily an economic choice, just as they are public institutions rather than private. The colleges have three major sources of revenue: tuition and fees, local levies, and state general aid. Within the confining bounds of these sources, the community colleges must achieve their purpose. There are three "A's" basic to every community college mission, they are:

Accessibility -- To be easily accessible to the people, community colleges have historically established locations throughout the state. Even though economies of scale may be achieved with fewer, larger institutions, the social benefits of nearby community colleges have been acknowledged as a high priority within Iowa. Nearby community colleges are a boon to local business as well. In the future, the Iowa Communications Network is positioned to accelerate this accessibility by presenting people with whole new avenues for lifelong success and fulfillment.

Affordability -- Community colleges are well-worn roads to better jobs and careers. People cannot travel this road, however, if they cannot pay the "toll." The "toll," of course, is the tuition and fees, lost income from work, and other current costs of going to college. Community colleges have large populations of non-traditional students, including adults displaced from their jobs, looking for new, good-paying careers; single parents trying to make ends meet as they train for a job; homemakers trying to enter the labor market for the first time; and people, in general, trying to improve their life's situation. The community colleges are there for these Iowans, but as tuition and fees rise, many of those who could best profit from a community college education are forced out. In the long run, poorer education translates into lower-paying jobs.

Adaptability -- Iowa has a decentralized system of community colleges that exercises considerable local autonomy. If a local business needs specialized training, its local community college is there to meet those training needs. If a community has special needs or interests, its local community college is there to meet those needs and interests. "Community" is central to the definition and mission of a community college.

These three building blocks of the community college mission require a significant financial commitment from the state. As reliance on tuition, fees, and local levies increases, the stress on these building blocks may compromise a community college's very purpose for existence. The first compromise is likely to be program quality.

For the past several years, Iowa has used a funding method based on a formula first codified in 1986. This formula, as well as its subsequent revisions, was designed with a dual purpose. First, the formula was to be an objective measure of community college funding need. That is, the formula was to provide a means for determining how much money the state should provide the system. This formula, still in code today, prescribes a level of state support based on certain percentages of "general fund need." In fiscal year 1996, state support plus local levy support is to equal 69 percent of the formula prescribed "general fund need."³

The second purpose of the formula was to be a means for distributing appropriations among the fifteen community colleges. Since the formula is an aggregation of the individual community colleges' "general fund need," this ought to be a fairly straight-forward process.

Unfortunately, the design of this funding method is flawed. Although the formula purports to determine the level of funding to be provided by the state, this power actually rests with the Legislature. Consequently, the Legislature may choose to fund the community colleges at some other amount, typically less than the formula calls for. Fiscal year 1991 was the last year the formula was fully funded by the Legislature, and by FY 1995 it was underfunded by \$35 million. In part, the formula no longer works because the Legislature does not fully fund it, but more to the point, it fails because it no longer reflects the reality of community college funding needs.

The formula does need to be re-worked. The recommendations outlined by this report suggest a set of principles with which to address this task. As the state establishes policies to ensure accessibility, affordability, and adaptability within its community colleges, a viable funding method should be devised that will:

1. Determine appropriate levels of funding to be supported by the state, local communities, and students;
2. Establish a sound foundation upon which the postsecondary education of Iowans is facilitated and optimized, thereby advancing the general welfare of local communities and the state;
3. Provide sufficient resources to ensure that all Iowans have access to high quality postsecondary education;

³General fund need is the gross general fund cost of operating the community colleges, per the formula.

4. Promote equity in the programs and services available to students;
5. Improve the quality and effectiveness of teaching and learning.

Developing formulas for funding higher education has some merit and value. Formulas apply an objectivity to funding that is difficult to achieve by other means. Still, such formulas are merely models of extremely complex business operations subject to a host of local, state, and national economic effects. Most models make use of averages to help even out the highs and lows -- reducing the effects of one-time anomalies and insuring the colleges against undue harm and undue gain. Yet, the great strength of averaging is also a great weakness. Colleges operate on the margin, not on the average, and there is potentially little room for averages to accommodate special cases. Therefore, if a formula is used to determine community college funding, it should be reviewed periodically and, when necessary, brought back into focus. This should not be done through tampering, however. In the past, it has been tempting to make adjustments to the formula in efforts to correct perceived inequities. Such efforts have confused the formula and have been universally unsuccessful in improving the formula's functionality.

In difficult economic times it is common practice for states to keep funding as simple and apolitical as possible, using across-the-board increases and decreases. If all state funded programs were in the same life-cycle phase, this method might have less consequence. But, in fact, state funded programs are in life-cycles that range from conception to completion. Recognition that some programs, community colleges included, may require funding beyond inflation or beyond average growth in state revenues is important if those programs are to reach healthy maturity and functionality.

There is no doubt that the community colleges of Iowa provide a backbone of support to people, businesses, and the communities. The good health of these institutions is of great concern to these local communities and to the greater interest of the state itself. To this end, the method for funding of the community college system should be improved.

III. INTRODUCTION

A. A history of Iowa's community colleges

Two-year postsecondary educational institutions have deep roots in Iowa's educational history. The first accredited junior college in the state was established by the Mason City schools in 1918. Additional public junior colleges were organized beginning in 1920, and the movement spread rapidly. By 1930, 32 towns and cities in Iowa had organized public junior colleges as a part of their public school systems. Through the years, some of these colleges were closed, although 10 later reopened. By 1965, 16 public junior colleges were operating with a total enrollment during the fall semester of the 1965-66 school year of 9,110. These institutions offered college parallel programs equivalent to the first two years of the baccalaureate degree program. A limited number of occupational and adult education programs were functioning during this period. In the same school year, 1,816 students were enrolled in postsecondary programs in 15 area vocational-technical high schools. These schools were started beginning in 1958, when federal funds were made available to states to develop and operate area vocational programs. These institutions operated parallel to the public junior colleges.

During the early 1960s several studies were conducted to assess the higher education needs of Iowans. In 1965, the 61st General Assembly enacted legislation that permitted the development of a statewide system of area two-year postsecondary educational institutions. The Department of Education was to direct the development of these schools as either area community colleges or area vocational schools. During the 1966-67 academic year, 14 merged area schools began operation. The 15th opened the following year. Of these institutions, 11 were comprehensive, offering college transfer, vocational, and adult education curricula. The remaining four, which for many years provided only vocational-technical and adult and continuing education programs, were granted comprehensive status in the late 1980s and early 1990s.

Currently, all 15 community colleges operate multiple sites. Credit and non-credit classes are conducted in over 650 cities and towns, providing Iowans with a wide variety of educational and community services not likely to be available by other means. Opportunities range from basic educational development to high tech business and industry training. With the implementation of the Iowa Communication Network, the curriculum of the community colleges has been enriched to include additional offerings.

B. The mission of the community colleges

In 1990, the following mission statement was adopted by the Iowa Association of Community College Trustees:

It is the mission of Iowa Community Colleges to offer quality programs, courses, and services to meet the community interest, student abilities and personal objectives of citizens of all ages and levels of education for the purpose of improving the quality of life, the economic conditions, and the public welfare of the state.

Although each institution serves the specific needs and expectations of its constituents, each college is accessible, comprehensive, community centered, flexible, and a partner with local business and industry. Educational opportunities which evolve from the college's mission statement, as stated in Iowa Code §260C.1, are:

1. The first two years of college work including pre-professional education;
2. Vocational and technical education;
3. Programs for inservice training and retraining of workers;
4. Programs for high school completion for students of post-high school age;
5. Programs for all students of high school age who may best serve themselves by enrolling for vocational-technical training while also enrolled in a local high school, public or private;
6. Programs for students of high school age to provide advanced college placement courses not taught at a student's high school while the student is also enrolled in the high school;
7. Student personnel services;
8. Community services;
9. Vocational education for persons who have academic, socio-economic, or other handicaps which prevent succeeding in regular vocational education programs;
10. Training, retraining, and all necessary preparation for productive employment of all citizens;
11. Vocational and technical training for persons who are not enrolled in a high school and who have not completed high school.
12. Developmental education for persons who are academically or personally underprepared to succeed in their program of study.

C. New legislative mandates and requirements

On behalf of the state's interests, the Legislature has impacted the community college mission through various mandates and requirements. Mandates without the necessary state financial support, however, steal from other areas, ultimately weakening the foundation upon which the entire system rests.

D. Results of the presidents' task force on funding

In the late spring of 1992 the community college presidents, in cooperation with the Department of Education, established a task force of four presidents to review the funding formula and make recommendations to the presidents for improving the process for calculating an appropriation request for state general aid and distributing that appropriation.

Over a period of nearly two years, this task force addressed several complex and controversial issues. The formula had created inequities resulting, in part, from variations in the contact hours generated by like programs at different institutions; therefore, the task force devoted a great deal of time and effort to considering changing the unit of measure from contact hour to credit hour. Questions had arisen regarding how contact hours generated by institutionalized students, in nursing homes, retirement villages and sheltered workshops, for example, should be claimed as reimbursable for state aid. Finally, the potential impact on the system and on each of the colleges of significant changes in the funding formula was considered.

The guiding principles that the task force developed and operated under were:

1. The funding formula should:
 - a. Reflect a commitment on the part of the state to recognize and support enrollment growth and quality in community colleges;
 - b. Strengthen accountability for use of state funds and increase confidence in the system of funding for community colleges in Iowa; and
 - c. Provide greater consistency and equity in funding students within program areas.
2. The funding of community colleges should be based on student-driven units of measure.

The final report of this task force is included in Appendix D. The recommendations contained therein were agreed upon by task force members, including Department representatives, as the best they could come up with at that time. At its March 1994 meeting, the Iowa Association of Community College Presidents approved the task force recommendations, although they agreed that the key issues needed further study.

IV. THE CURRENT FUNDING FORMULA

A. Origins of the formula

The single largest source of revenue for the general operating fund of the community colleges is state general aid. In past years, state general aid has been appropriated on a line item basis, essentially an incremental appropriation based on various funding procedures that frequently changed and lacked consistency. As a result of the increasing inequities in funding that resulted from this process, in 1985 the Legislature charged the Department of Education with establishing a task force to study community college funding and make recommendations for future appropriation of general state financial aid that would eliminate inequities by fiscal year 1990. The recommendations were to take into account the existing state financial aid for each college, the extent of the inequity existing for each college whose total state aid was below the state average, and the need for salary and support improvements at each. The State Board was to present its recommendations for area school funding for the fiscal year beginning July 1, 1986.

The Department established a 13-member area school funding task force, which included three community college presidents, three trustees, three representatives from business, industry and labor, and three community college faculty members. The key issues of concern to this task force were:

1. The complexity and inconsistency of various methods used to determine the appropriation;
2. The fact that the General Assembly never paid much attention to the early formulas; and
3. Inequities in funding related to enrollments that had developed over the years.

In its report to the General Assembly the task force outlined a set of operational concepts on which a proposed foundation program for funding the merged area schools of Iowa should be based. These operational concepts were as follows:

1. It is enrollment-driven.
2. The enrollment unit is the contact hour.
3. A three-year rolling average of contact hours eligible for state general aid is used.⁴
4. Direct instructional costs are based on five cost centers.
5. Indirect costs are based on four major non-instructional functions.
6. State average costs, excluding capital outlay, will be calculated by using FY 1985 as the base year.

⁴See the Department of Education's "Contact Hour Manual."

7. A foundation level of 65 percent of allowable costs funded by state and local tax revenues is established.
8. Annual allowable growth figures as computed for local school districts under the provisions of **Code of Iowa, 1985, §442.7** are used.
9. Salary improvement appropriations are included as a state commitment.
10. Public radio stations are included in the formula.
11. An extra stipend of \$50,000 is provided to merged area schools that have less than one million contact hours annually.
12. An appeal process to the State Board of Public Instruction is provided.

In 1986, the 72nd General Assembly adopted a new foundation formula for funding community colleges based on the recommendations of the task force.

B. How the formula works⁵

The current funding formula was written into the **Code of Iowa** in 1986.⁶ Through the years, the formula has been modified and complicated. Code changes include special treatments for salary supplements, incremental changes in state support, and other minor alterations. Most of these changes occurred in the 1990 Legislative Acts, but otherwise the formula remains substantially as it was first written and approved.

The funding formula provides a mechanism for quantifying the funding needs of the community college system. This is accomplished by defining and establishing a base funding level for five instructional cost centers and five noninstructional cost functions.⁷ Cost centers are an accounting device used to gather and record all expenses and contact hours within specific, defined categories; cost functions are formulas used to estimate noninstructional (indirect) costs as a percentage of the other cost centers. The sum of expenditures in these cost centers and cost functions generates the gross general fund need for the community college system. Using actual system-wide expenditures for fiscal year 1986, state-wide average cost rates were determined for each cost center. In the instructional cost centers, state average cost per contact hour were calculated.

⁵The formula process outlined in this report is described step by step in Appendix A. During the actual "running" of the formula, many of these steps have been combined and simplified, though all codified requirements are fully incorporated.

⁶See 86 Acts, ch 1256; and Code of Iowa, §260D.

⁷The instructional cost centers are: arts and sciences, voc-tech preparatory, voc-tech supplementary, adult basic education, and continuing and general education; the noninstructional cost centers are: general institutional, student services, physical plant maintenance and utilities, library services, and equipment.

State Average Cost per Contact Hour⁸
FY 87 - FY 95

COST CENTER	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94	FY95
Arts & Sciences	\$2.34	\$2.48	\$2.56	\$2.65	\$2.96	\$3.27	\$3.53	\$3.68	\$3.86	\$3.97
Voc-Tech Prep	\$2.67	\$2.82	\$2.92	\$3.02	\$3.34	\$3.68	\$3.95	\$4.12	\$4.31	\$4.43
Adult Basic Education	\$1.21	\$1.25	\$1.30	\$1.34	\$1.39	\$1.49	\$1.55	\$1.62	\$1.65	\$1.70
Voc-Tech Supp.	\$3.10	\$3.22	\$3.33	\$3.45	\$3.45	\$3.83	\$3.99	\$4.16	\$4.24	\$4.37
Continuing & General	\$2.02	\$2.09	\$2.17	\$2.25	\$2.33	\$2.49	\$2.60	\$2.71	\$2.76	\$2.84

For the general institutional cost function, an indirect cost percentage was calculated. Maintenance and utility averages were calculated on a square and cubic footage basis. The student services cost function used state average of student services cost per contact hour. The equipment and library cost functions were calculated as a percentage of other cost centers and functions.

When these rates (expressed as dollars per contact hour, dollars per square foot, etc.) are applied to each community college's eligible contact hours⁹, facility square footage, etc., the total amount of state support is determined. The intent of the original funding formula was for state financial support plus the general fund levy to equal 65 percent of the formula-derived costs. As a result of legislation enacted in 1990, the level of state support is increasing gradually until it reaches 70 percent in FY 97.¹⁰ This appears to be a commitment by the state to reduce local tax burdens and enhance accessibility to students through lower tuitions. Remaining support is to come from other sources, primarily tuition, fees, other local tax levies, and future allowable growth. To reduce the effects of one year anomalies, contact hours are calculated as a two year¹¹ rolling average using the most current data available.

⁸Source: Department of Education file SAC2.

⁹Not all contact hours are eligible for state aid. For example, nonresident student contact hours are not usually eligible for state general aid. See the Department of Education "Contact Hour Manual" for complete guidelines.

¹⁰§260D.17 also recommends that the General Assembly and governor increase this support to 75 percent by FY2002.

¹¹Originally a three-year rolling average was used. This was changed to two years in FY92.

Example:

Assume in FY96 the state average cost per contact hour for the vocational-technical cost center = \$4.569;

community college "X" has a 2-year rolling average of 1,000,000 voc-tech contact hours;

the formula calls for the state to support the cost center at a rate of 69%;
then, total support for college "X" is calculated as:

$$\$4.569 \times 1,000,000 \times 69\% = \$3,152,570$$

It is important to note that state general aid is calculated using a foundation of FY86 general fund data. This has in effect excluded a significant amount of community college expenses from state support. For example, Iowa has reduced its annual distribution of federal Carl Perkins II grant funds to the community colleges by nearly \$2.6 million since 1992.¹² This is lost revenue to the restricted fund (fund 2), but it is not recoverable through the funding formula since the formula only supports the general fund (fund 1).

The funding formula, as codified, does not allow for the FY86 foundation year to be recalculated.¹³ Instead, the state average rates per contact hour, per square foot, etc., are incremented by the state percent of growth for each budget year. This creates a new state average rate applicable to actual college contact hours, square footage, etc.¹⁴

Example:

The foundation year (FY86) state average cost per voc-tech contact hour = \$2.67820;
also, in FY86 there was a salary supplement of \$.04014 per contact hour to be applied in FY87;

the FY86 SAC plus the salary augment gives the basis upon which state allowable growth is calculated, that is, $(\$2.67820 + \$.04014) + \text{allowable growth} = \$2.71834 + \text{allowable growth}$;

in FY87, allowable growth = 3.843%; therefore, FY87 allowable growth for the voc-tech prep cost center = $\$2.71834 \times 3.843\% = \$.104466$; and

FY87 state average cost for the voc-tech prep cost center is calculated:

FY87 SAC = FY86 SAC + salary augment + FY87 allowable growth

or, FY87 SAC = $\$2.67820 + \$.04014 + \$.104466 = \2.8228 (See table on p.9)

¹²Iowa's federal Perkins II grant allocation rose from \$7.4 million in FY92 to \$8.3 million in FY94; however, the community college Perkins allocation dropped from \$5.36 million in FY92 to \$2.81 million in FY94.

¹³All cost centers and cost functions use expenditure data collected for the FY86 foundation year to calculate state averages. Thereafter, the state averages are incremented, but the foundation year is not recalculated.

¹⁴Calculations use a two-year rolling average of the most current data available; thus, in spring 1995 the Legislature will be appropriating for FY 96 using data collected for FY 93 and FY 94.

The 1986 foundation year has never been updated. To modify the formula an allowable growth is added to the FY86 rate. Thus, the formula allows two distinct ways for community college state general aid to change:

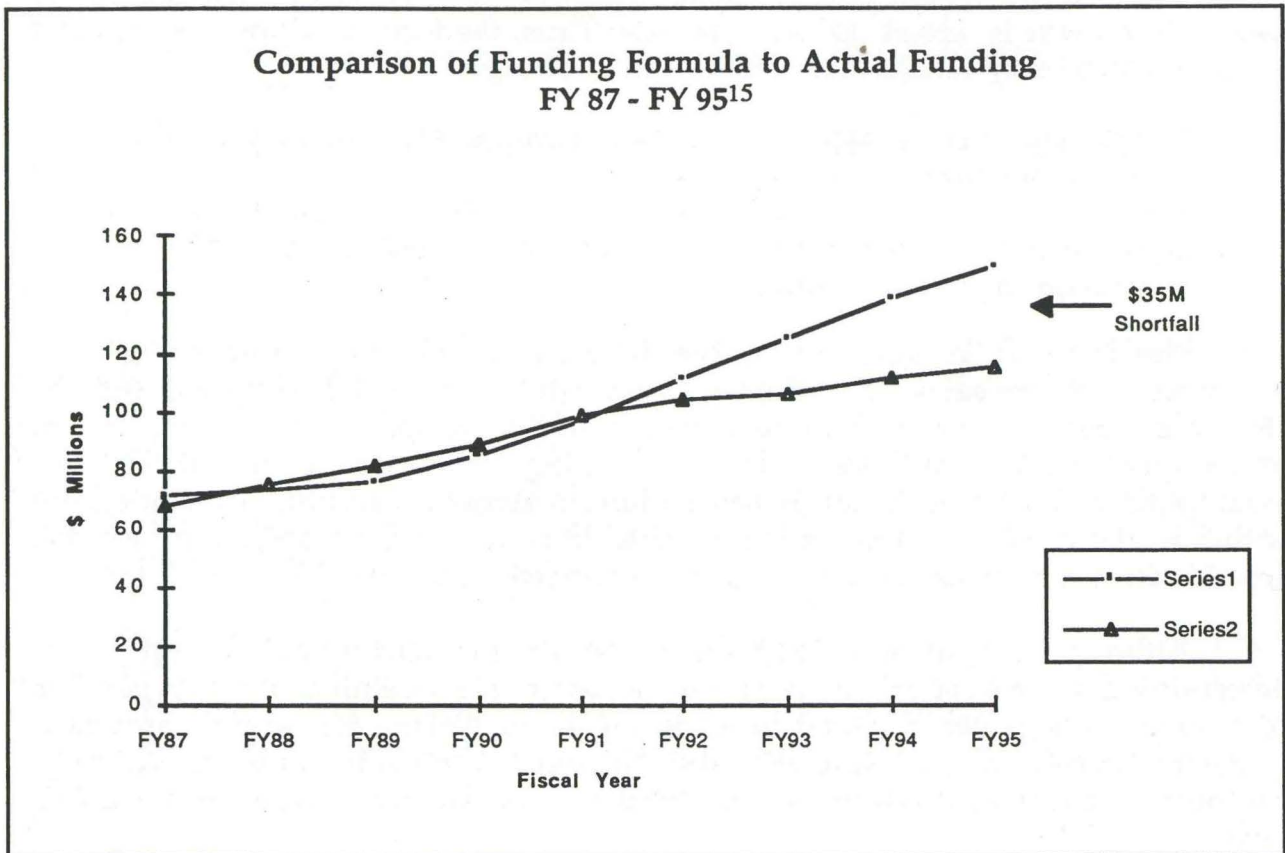
- 1) the rates per contact hour, square footage, etc., increase by the allowable growth amount; and
- 2) the actual contact hours, square and cubic footage, etc., of the colleges change over time.

The implicit assumption of the formula is that the allowable growth component compensates for inflation in an otherwise stable operation, and the change in operations, such as more contact hours, more space, etc., is compensated by applying the adjusted rate to actual operating conditions. Unfortunately, this assumption is flawed. Inflation is never uniform across expenditure categories, nor is this model capable of forecasting changes in actual costs of operation by using broad indicators such as contact hours and square footage.

Although the formula appears to be an inherently logical system for determining state support, it inevitably leads to the dilemma of an expanding community college general fund need during times when state revenue growth is sluggish. During the past several years, the Legislature's solution to this dilemma has been to suspend the formula and fund the community colleges at a reduced level.

C. The formula as determiner of level of support

The formula, as in Iowa Code, identifies the level of support the Legislature should appropriate to the community college system. In its inaugural year (FY88), the formula was nearly fully funded. However, this formula cannot encumber the Legislature, and by FY92 state aid began to consistently fall short of the formula-determined support level. FY91 was the last year the formula was fully funded, and in subsequent years the disparity between the formula and actual support has widened substantially.



The Code of Iowa requires the Department of Education to run the formula each year, but this is an exercise of little value. The current funding formula presumes to determine community college funding needs, yet the Legislature no longer funds such need. In fiscal year 1995, actual state support for community colleges was nearly \$35 million less than the formula prescribed. Although formulas provide indicators of community college funding needs, at best they merely model the real world. Model accuracy diminishes as changes in the real world escalate.

The current funding formula has other problems, too. The allowable growth assumes that expenditures within the cost centers and cost functions grow uniformly across all institutions. They do not. Though the variability in expenditure growth was inconsequential during the first years of the formula, it is now a serious problem.

It may seem reasonable to simply recalculate the foundation year. This can be done, and with known results: an updated foundation year will predict the current level of state support. This will occur since community colleges must balance their

¹⁵Source: 1987-1993, Legislative Fiscal Bureau; 1994-1995, Department of Education.

budgets, within tolerances, each year. Recalculating the base each year defeats the concept of "need" by lock-stepping community college funding to advances in state general aid. It also poses a serious problem if funding resources were suddenly redivided according to the revised base. Some colleges are going to lose substantial revenues and others will gain. An arbitrary redistribution of state general aid using this method may have potentially disastrous effects on those community colleges losing state funds.

Example:

Assume the base is recalculated each year. Inflation is two percent. Due to increased enrollments, the formula calls for a five percent growth in state aid. However, the Legislature is not obligated by this formula, and since state revenues are down this year, the Legislature decides to appropriate a two percent increase to the community college system. The formula distributes this two percent by the proration process described in section II. Result: all the colleges are affected, some worse than others.

In the next year, the base is again recalculated. This time, the state has a good year. But the community college "need," per the formula, does not reflect prior year losses. Therefore, those losses have become permanent.

D. The formula as a method for allocating funds

The goal of the current funding formula is, in part, to determine state funding requirements of the community college system. However, it has another equally important function: to provide a mechanism for distributing state general aid to the individual colleges.

Regardless of actual appropriations to the community college system, there must be some mechanism for allocating those appropriations to each college. The funding formula, until FY94, provided this mechanism even when the formula was not fully funded. Each college received a prorated allocation of its formula-determined shares.

Example:

If the formula was funded at 95 percent, then each college received 95 percent of its formula-determined share.

The use of the codified formula for allocating general aid appropriations became impractical in FY94. There were two major reasons: first, the formula no longer was a fair determiner of college operating needs; and second, growth in some colleges meant other colleges were facing significant reductions in state general aid -- even when their enrollments were stable. This happens because actual funding is heavily influenced by the growth in state revenues, whereas enrollment growth is not.

Since prorating appropriations using the formula was no longer viable, the community college trustees sanctioned a compromise method for allocating appropriations. Essentially, each college received its previous year's level of funding as a base, plus a share of additional appropriations using a new allocation method. The new monies, above and beyond the prior year's appropriations, were distributed in this way: 75 percent were inflation indexed, and 25 percent were growth indexed.¹⁶ This compromise has been accepted by the 1993 and 1994 Legislatures, and appropriations made accordingly.

¹⁶The actual distribution method is described in Appendix B.

V. FUNDING CONSIDERATIONS

A. The viability of funding formulas

Virtually any funding scheme will work in its inaugural year, if for no other reason than it is a time when the necessary parties have reached agreement. As time passes, virtually all funding techniques will lose luster and fail, either because the decision makers change or because the method is not adaptable to the ever-changing education needs of the population.

Enrollments were growing in the 1980s, and at the time the current funding formula was developed, enrollment evidently became a driving issue in funding Iowa's colleges. This seems reasonable considering enrollment growth requires new staff, more facilities, and generally more overhead expense. However, the formula ceased functioning well with a general downturn in the state economy. Community college enrollments commonly rise during recessions. People who cannot find jobs enter community colleges to train or retrain in fields where jobs can be found. Yet, during periods of economic downturn, state revenues rise more slowly or may even fall. The net result is community colleges can end up with more students and less money. To complicate matters further, local economies may be somewhat out of synch with the state's economy, such as a new manufacturing plant opening at a time when the rest of the state faces high unemployment. With the current formula, "being in the right place at the right time" with regard to the state's economy and local growth makes a big difference to the health and viability of individual institutions.

Examples:

- a) College A had significant enrollment growth between '85 and '87, and the formula is fully funded in '89 using rolling averages¹⁷ from '85-87. College A's base rises accordingly. Conversely, College B experiences little growth between '85 and '87 but much growth in '88-'91. In '90 and '91, a sluggish state revenue growth forces the formula to be underfunded. College A is relatively unhurt because its growth was funded during "good times," whereas College B goes uncompensated for its growth.
- b) College C received \$1 million last year in the form of local levies. A recession has hit farmers especially hard, causing property valuations to be adjusted downward, on average by five percent, thus reducing levy collections by \$50,000 this year. At the same time, inflation has reduced the buying power of \$1 million by three percent. In effect, College C has lost some \$80,000. If the formula was fully funded, this problem would not be as great since general fund (fund 1) levies are incorporated in the formula.

¹⁷A rolling average is a method to minimize the effect of occasional anomalies in contact hour growth. Rolling averages are calculated by adding the contact hours from the three most current years and dividing by three. Effective in 1992, rolling averages used the most recent two years.

- c) A college system receives \$100 million in state support out of a total system-wide budget of \$200 million, roughly 50 percent in state aid. Systemwide enrollments are stable. Inflation is roughly three percent, and the state increases its support to the colleges by \$3.5 million (3.5 percent). Meanwhile, inflation has increased college costs by \$6 million. Levy revenues are stagnant. So where do the colleges find the extra \$2.5 million? On the whole there is little choice. The colleges must cut services/payroll, and/or raise tuitions and fees. When this goes on for several successive years, problems become acute and threaten the health of individual institutions.
- d) Within the college system above, College D has lost two percent of its students and College E has enrollment growth of three percent. In addition to being unable to keep up with inflation, College D has lost tuition income, too, whereas College E is somewhat able to offset losses due to inflation through new tuition revenues.

These are examples of "cyclical" funding problems. Obviously, high school graduation rates, local economic conditions, and a host of other factors contribute to the fiscal health of individual colleges. The dangerous effect cyclical forces have on state revenues, with regard to a community college funding formula, is that these cyclical forces can randomly create winners and losers without regard to true need.

Enrollment is a widely used indicator of financial need when enrollments are rising. Given the commitment to accessibility the state made when it created the community college system, it seems reasonable that more students justify more state support. It would appear equally logical that fewer students justify less state support.

A different enrollment scenario is facing the Iowa community colleges in the future, as little statewide enrollment growth is anticipated. Even though enrollment is often a fair indicator of a college's need for state support, enrollment is only one indicator among many. While it may be tempting to assume a college having no significant enrollment change from year to year should be able to survive comfortably with inflation-indexed funding, in truth some colleges will prosper under such a scheme, some will suffer severely, and some will fall between the extremes. Why the difference? Management is important, but a driving factor is that the operating structure of colleges tends to be fairly rigid. Many expenses are fixed and relatively inflexible, at least over a period of several years.

Examples:

- a) A business program thriving in the 1980s hires additional faculty and adds new space; in the 1990s business programs are no longer as popular, yet the college has fixed costs that cannot be reduced easily in the short run and space that can be downsized/remodeled only at considerable expense.
- b) College A opened its doors in 1965, hiring a preponderance of youthful instructors at that time. Over the years there has been little attrition, and now in the 1990s the older faculty are rapidly retiring, being replaced by younger faculty at lower salaries. This provides the college with the flexibility to use inflation-indexed funding increases for nonsalary purposes.

- c) College B has more heterogeneity across the salary schedule. Inflation-indexed funding increases are used primarily to cover salary increases.
- d) College C is heavily invested in old-technology vocational programs that no longer attract new students and where placement of graduates is becoming more difficult. In order to service new students, not necessarily more students, investment in new-technology curricula is not only essential but expensive.
- e) College D is an older campus with mature buildings requiring extensive remodeling and repair. College E has newer buildings with low maintenance costs. Both colleges have similar enrollments and funding, but have significantly different capital and operating costs. The current formula considers general fund (fund 1) need only, and ignores problems such as this developing in the plant fund.

These are examples of "structural" problems in funding the colleges. Unfortunately, the colleges must deal with the realities of both structural and cyclical changes in enrollment, revenues, and expenditures. Making matters even more difficult, individual colleges may suffer these cyclical and structural effects to widely varying degrees. To whatever extent possible, the state funding system needs to be attentive to both types of effects. If it is not, otherwise worthy colleges may slowly succumb to a lack of adequate support.

B. Average versus marginal cost considerations

In business, if you produce a million cans of soup for \$200,000, then the average cost of producing a can of soup is twenty cents. But as you change the level of production, your costs do not go up and down by the average cost. Perhaps you, the soup manufacturer can produce another 100,000 cans of soup for \$10,000, or ten cents for each of these additional cans of soup. You can do this because you already have the equipment and assembly line in operation. This ten cents represents the marginal cost of producing another can of soup.

In college finance, it is common to derive an average cost per full-time equivalent student or average cost per contact hour. But in the business of community college education, actual costs go up and down on the margin, not on the average.

Example:

In the soup example, marginal costs were lower than the average costs. In education, this is not necessarily true. Consider a college with a new arts and sciences curriculum. In the first year, 60 students enroll in freshman English and the college hires adjunct faculty to teach two classes. In this case, the marginal cost of the additional contact hours is most likely significantly less than the average cost of contact hours across the curriculum. In the second year, there are 150 students enrolled and five classes are needed. The college hires a full-time faculty member with accompanying benefits, remodels/adds space, expands library offerings, etc., to accommodate this permanent

structural change in the college's curriculum. Now, the marginal cost of these new students may well be greater than the average cost.

Because over the long run costs do average out, colleges tend to hold their own when they are funded on an enrollment basis and enrollments are rising. The additional monies brought in from enrollment growth (tuition, fees, and state aid) give the college room to maneuver, an opportunity to adapt to changing costs. It is a different story, however, when enrollments are stable or declining. In such cases, much maneuvering room is eliminated.

Example:

A 10 percent drop in English enrollments is accompanied by a three percent increase in marginal costs because last year there were 150 students in five classes, and this year there are 135 students in five classes. The cost of running the five classes rose three percent (utilities, payroll, supplies, etc.) Overall, costs are up despite fewer students being served. And on top of this, tuition income has dropped, too.

There is a misconception that when enrollments go down, costs go down proportionately. This is not necessarily true. Course offerings are not fully dependent on enrollments. Course offerings are driven by instructional program demands as well as enrollments. Even when enrollments decline, some courses must continue to be offered to enable students to complete their programs of study.¹⁸

C. Requests for funding

The current funding formula attempts to encumber future legislatures to provide a level of support determined by forces largely external to the economic condition of the state. This is unrealistic and has not worked well. In considering future ways to fund the community colleges, the Legislature should consider methods wherein the needs of the community college system can be reasonably evaluated with respect to the many other pressing needs for state funds.

In any given prior year, the cost of running community colleges is known. In the future, it is important to strive for continuous improvement on this past performance -- always improving services relative to cost.

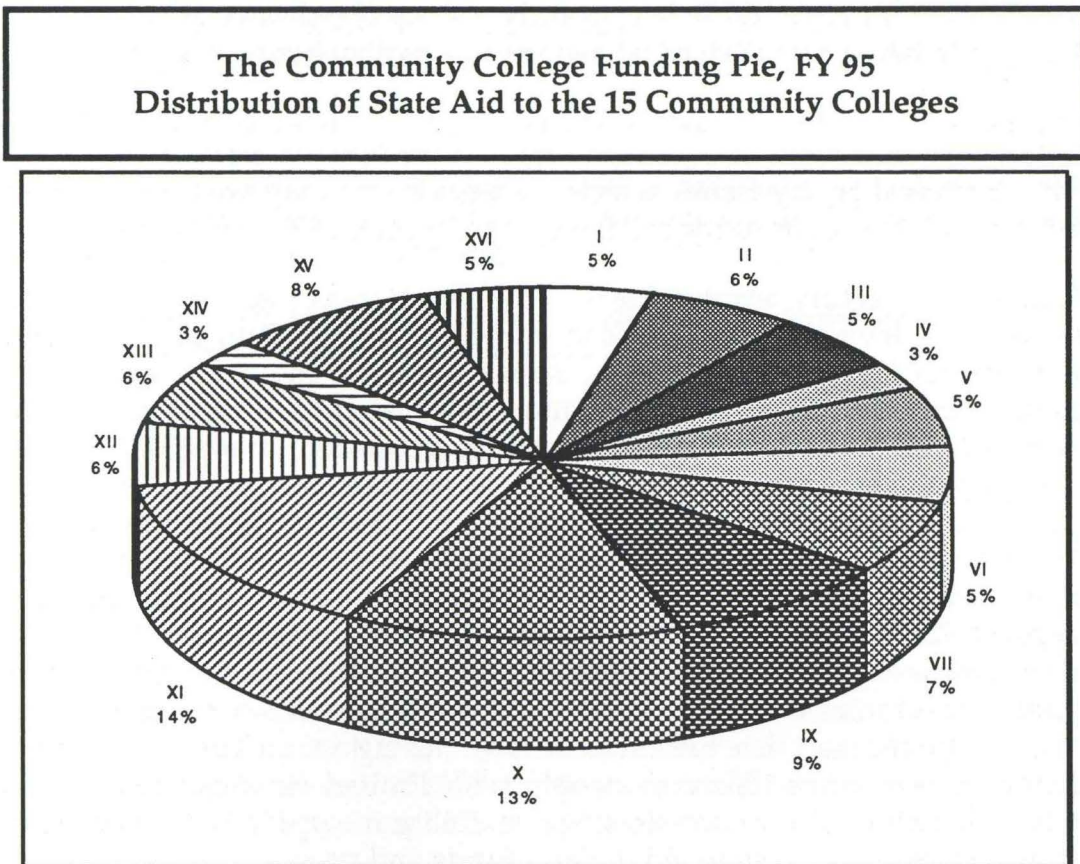
¹⁸Michael K. Townsley, *Deficit Prevention, Budget Control Model for Enrollment-Dependent Colleges*, NACUBO Business Officer, October 1994, p. 41.

D. Allocating appropriations to the colleges

Once a level of appropriations has been determined, the more difficult job of allocating the appropriations to the individual colleges begins. As previously pointed out, the structural and cyclical aspects to funding the colleges should be carefully considered in any new allocation method. Using the funding pie analogy, each college currently has a piece of the pie based on historic allocations. This piece of pie represents a percentage total of the whole pie, as well as an absolute amount of pie.

Example:

Consider the community college system's FY 95 funding pie of \$115.47 million. Each college's percentage share of this pie is shown in the following pie graph:



Now, consider what will happen if we increase any one college's absolute or percentage share of the total funding pie: increasing any one piece means that at least one other piece must be cut in size.

In FY94, the combined expenditures of the fifteen community college general funds were approximately \$232 million, and state general aid was \$111.5 million. Assuming FY94 inflation was about three percent, and assuming that inflation is a

rough estimator of the way system-wide costs rose in FY94, and holding all services constant, then the colleges will have general fund (fund 1) expenditures of about \$239 million in FY95, an increase of \$7 million over FY94. The Legislature appropriated \$115.5 million to the system for FY95, an increase of 3.6 percent or \$4 million. Where do the colleges get the other \$3 million? Most likely by cutting budgets and/or raising tuitions and fees.

A pie can be sliced into fifteen pieces in any number of ways. If next year's pie is the same size but sliced differently, some will get more pie, some will get less. When the state augments community college state general aid by the rate of inflation, it desires to keep next year's funding pie equivalent to this year's, thus compensating for inflationary increases in costs. But, in real terms, the pie is smaller: while costs and state general aid have risen with inflation, other sources of revenue have not. Property tax collections have lagged behind inflation for the past several years.¹⁹ Tuition rates, though upwardly adjustable, do not always generate more total tuition income due to cyclical swings in enrollments.

E. Equity issues

There are several equity issues which the Legislature may wish to consider in its future funding of the community college system. Some of these include:

-- Property tax equity among the fifteen college areas. Although general fund (fund 1) levy rates are uniform throughout the state, property tax valuations have wide variations; some parts of the state are more farmable, more industrial, or simply more populated than other parts. In consequence, some college areas suffer proportionately more than others by the cyclical and structural problems outlined previously.

-- Tuition rates vary from college to college. Nationally, tuitions at public two-year colleges averaged \$1,018; in Iowa, community college tuitions average \$1,526.²⁰ Iowa community colleges are limited by statute to tuition rates not to exceed the lowest resident tuition rate established by the Regents' universities.²¹ Due to lack of other income sources, some colleges have been forced to raise tuitions and are closing in on this limit, thus reducing college accessibility to people with limited financial resources. This tuition ceiling also reduces college flexibility in supplanting other lost revenue sources such as state aid, federal funds and property taxes.

¹⁹See appendix C-2.

²⁰Source: *The Chronicle of Higher Education Almanac*, September 1, 1994, pp. 5, 9.

²¹See Code of Iowa, §260C.23, subsection 2.

Average Tuition and Fees for Selected States²²
1991-1992

STATE	PUBLIC 2-YEAR	PUBLIC 4-YEAR
Illinois	\$1,074	\$2,829
Iowa	1,526	2,228
Kansas	872	1,803
Minnesota	1,742	2,660
Missouri	1,072	2,243
Nebraska	1,053	1,859
South Dakota	n/a	2,072
Wisconsin	1,469	2,173
Regional Average	\$1,258	\$2,233
National Average	\$1,018	\$2,352

Note: Iowa is about equal to the regional average for public four-year institution tuition and fees, but is 21 percent higher than regional averages for public two-year institutions. Iowa's public four-year institutions have tuition/fees about five percent below national averages, while Iowa's community college tuition/fees are about 48 percent higher than national averages.

Iowa ranks 12th highest nationally in public two-year tuition and fees, and 22nd highest in public four-year tuition and fees.

-- There is variation in the quality of community college facilities. Much of this variation ties back to property tax valuations. Areas with lower valuations have less flexibility in spending, which easily could translate into poorer facilities.

-- The use of contact hours in the distribution formula causes some inequities. One of the great strengths of Iowa's community college system is the ability of the individual colleges, by virtue of their local autonomy, to adapt to the educational needs of their communities. In doing so, however, differing views towards teaching have led to variations in the generation of contact hours.

²²Source: *The Chronicle of Higher Education Almanac*, September 1, 1994, p. 9.

VI. RECOMMENDATIONS

The Iowa Department of Education recommends that the Iowa General Assembly focus its deliberations on the principles and goals behind community college funding as well as the actual amount of money appropriated to each institution. By focusing on goals and principles, the debate is first on the "why" and then the discussion can move to the "how much." There are a number of principles which appear to be relevant even though some may conflict with others. It is through establishing a balance of conflicting goals and principles that the best understanding and support for community college funding will be derived. The principles listed below should be taken into consideration when developing the state aid appropriation to support a community college funding formula.

A community college funding system should:

- A. find the right balance of state, local and student funding sources;**
Community colleges have three primary funding sources: state aid, local property taxes, and student tuition. What is the desirable mix of those three? Should the student be responsible for 25 percent, 30 percent, or 50 percent of the cost of his or her education? Should the state policy for state aid and tuition for community colleges be the same as for the three Regents institutions? What percent of a college or university should be supported through state appropriations?
- B. be predictable, and protect colleges against undue harm from income losses;**
Funding for each college should be predictable. Short-and long-range planning, recruitment of staff and students, and community support are dependent upon being able to estimate future revenues for each college. Part of predictability is also having a minimum funding level from year to year.
- C. provide for an equitable distribution of state aid;**
The distribution of state funds provided to each institution should be determined based upon the state's role of assuring equity of access to community colleges. The state aid distribution should be fair to taxpayers, students, and community college staff across all community colleges.
- D. support the uniqueness of individual colleges and their ability to adapt to the educational needs of local communities;**
Each community college is uniquely suited to meet the needs of the community where it is located. A funding system should enhance that

and not interfere with the institution's uniqueness. Individual community colleges are at different stages of development. The financial needs of institutions are not the same. The finance system should allow for this uniqueness and developmental differences.

- E. be sensitive to the cost of programs;**
Community college funding should be based upon a close approximation of actual program costs rather than treating all programs the same. Vocational programs, liberal arts/transfer programs, and remedial programs all have different costs, and these should be recognized in the funding formula.
- F. be sensitive to the number of students enrolled;**
Increases in enrollment should result in funding increases. Enrollment is one basic element which should influence funding.
- G. accommodate changing and new missions;**
The funding of community colleges should accommodate special programs, special students, and special needs that are consistent with the evolving educational missions of the state and local communities. Some community college programs cannot be economically offered in multiple settings. These unique programs may need special funding.
- H. incorporate state-wide missions as well as local missions;**
Funding should be tied to the mission of the community colleges and the principles and goals established for funding the system collectively. While each community may have its own defined mission, state aid addresses the mission of community colleges as a system.
- I. support state-mandated programs and requirements;**
Full funding for new programs, requirements, and initiatives mandated by the state should be provided by the state. Students, local taxpayers, or staff should not be required to bear the cost of state mandates. New state mandates should not have priority over existing successful programs.
- J. encourage quality and efficiency.**
The level of funding and the use of the funds by community colleges should support the following: quality instruction, quality programs, quality faculty and staff, quality communities, and a quality future for Iowans. A funding system also should encourage operational economies and efficiencies.

Because external conditions are continually changing, it is important that any funding system is reviewed on a regular basis. A funding system is at best a model of the real world needs of the community colleges. To continue to be effective, it must accurately reflect this real world.

APPENDICES

APPENDIX A

The Community College Funding Formula

The community college funding formula is detailed in the **Code of Iowa, §260D**. Originally codified in 1986 for implementation in FY88, the formula has been modified in some minor ways since first implemented. This appendix provides a step-by-step review of the formula as it reads for FY 95.

The cost center concept

The funding formula is made up of five instructional cost centers and five noninstructional cost functions within the general fund (fund 1). The direct cost of instruction is accumulated to the cost centers, whereas the indirect costs which support instruction are calculated via the noninstructional functions.

1. Instructional cost centers
 - a) arts and sciences
 - b) vocational-technical preparatory
 - c) vocational-technical supplementary
 - d) adult basic education and high school completion
 - e) continuing and general education

2. Noninstructional functions
 - a) general institutional
 - b) student services
 - c) physical plant (including plant maintenance and utility costs)
 - d) library services
 - e) equipment purchases

For FY86, the sum of the expenses captured in these cost centers and functions provided an approximation of the annual general fund (fund 1) cost of operating the community colleges. By definition this became the gross general fund need for the system for FY86, and a foundation for future calculations. Net general fund need is gross general aid need less capital expenditures (i.e., for equipment). The formula determines the foundation for FY86, but never again.

The information required to run the formula comes from the Department of Education's AS-10 Year-end Enrollment Report and the Annual Square and Cubic Foot Facilities Report.

How the formula works

Because the actual calculation process has collapsed some of the following steps, the examples below use hypothetical data rather than actual.

Step 1: The formula calls for calculating a foundation support level per contact hour for each of the five instructional cost centers. This foundation support level per contact hour becomes a basis upon which all future year funding is derived. The FY86 net general fund need for each instructional cost center is divided by the average total contact hours reported in each cost center for the period FY83-FY85.²³ This equals the state average cost per contact hour (SAC) for each cost center.

In FY86 (the foundation year), for each instructional cost center, the following calculations were made. All costs were fund 1:²⁴

$$\frac{\text{(total costs of the center) - capital}}{\text{total contact hours (rolling average)}}$$

$$= \text{state average cost (of the center) per contact hour} = \text{SAC}$$

Example:

Assume the FY86 direct costs of running the vocational-technical preparatory program, statewide = \$33,000,000. Equipment costs for the program = \$1,000,000. The program had 10,000,000 total contact hours. Therefore, in FY86

$$\text{the state average cost per contact hour} = (\$33,000,000 - \$1,000,000) / 10,000,000 = \$3.20$$

This procedure resulted in five different state average cost per contact hour rates, one for each of the five instructional cost centers. These rates become the basis for all future rates: foundation year expenditures are not recalculated.

The state's objective in 1986 was to provide a state foundation support level equal to 65 percent of state average costs. That is, the state will support 65 percent of a community college's general fund need; the other 35 percent will come from other sources.²⁵ As a result of legislation enacted in 1990, this objective has gradually increased from 65 percent to an eventual 70 percent in FY97. The General Assembly also has established its intent to raise this support level to 75 percent by FY 2002.

²³The formula uses the most current data available.

²⁴Capital, in this equation, is equipment purchases within the general fund (fund 1).

²⁵The \$.2025 general fund levy authorized in §260C.17 is counted as part of the state foundation support level.

Note that the state intends to support the individual colleges according to the state average cost per contact hour, not the individual college actual cost per contact hour. Thus, colleges running programs costing less than the state average become winners, those costing more than the state average become losers.

Step 2: In FY87 and subsequent budget years, the Department of Management provides an allowable growth amount to be added to the state average cost per contact hour previously determined for each instructional cost center. The allowable growth for an instructional cost center is a dollar amount derived by multiplying the state average cost per contact hour by the state percent of growth²⁶ for the budget year.

Example:

The state average cost per contact hour for vocational-technical preparatory programs in FY86 = \$3.20. The state percent of growth factor = 3 percent. Then,

$$\text{FY86 SAC} \times \text{state percent of growth} = \$3.20 \times 3\% = \$.096 = \text{FY87 allowable growth}$$

and

$$\text{FY86 SAC} + \text{FY87 allowable growth} = \$3.20 + \$.096 = \$3.296 = \text{FY87 SAC}$$

This process is repeated for each instructional cost center.

Step 3: A complication to the formula occurred when the Legislature decided to provide salary improvement monies to the colleges. These monies were off formula when appropriated, but needed to be folded back into the funding base using some means. This was accomplished by distributing the salary improvement money in the year appropriated according to the respective share of total eligible contact hours each college had in the arts and sciences and voc-tech preparatory cost centers. However, subsequent years required the calculation of a state average by dividing the salary improvement appropriation by the sum of eligible contact hours in the two cost centers.

Example:

For illustration only, assume the state provided a salary improvement appropriation = \$2,000,000 in FY88. For the year appropriated, this money is distributed according to each college's share of arts and sciences and vocational-technical preparatory eligible contact hours. If college A has five percent of these contact hours, then it will be credited

²⁶State percent of growth is determined by school law.

\$100,000 assuming the formula is fully funded. However, to determine the salary improvement augmentation for future years, a salary improvement cost per contact hour is calculated by dividing the salary improvement appropriation by the sum of eligible contact hours in arts and sciences and voc-tech programs statewide. If there were 25,000,000 eligible contact hours in these two cost centers, then the salary improvement cost per contact hour would be calculated for each cost center first:

arts and sciences = 11,000,000 contact hours;
voc-tech prep = 14,000,000 contact hours; then
total eligible contact hours = 25,000,000

Each college will share these amounts according to its relative shares of eligible contact hours in these two cost centers. For future years, the FY88 salary improvement cost per contact hour for each cost center is calculated:

FY88 salary improvement appropriation
FY88 eligible contact hours

or:

$\$2,000,000 / 25,000,000 = \$.08$ per eligible contact hour

At the same time, the Department of Management provides a new allowable growth amount for each cost center and the Department of Education determines the new basis upon which FY89 shall be calculated:

Example:

For the purposes of this example, assume the FY88 allowable growth = \$.1155. Then for the voc-tech cost center, FY88 state average cost per contact hour is:

FY87 SAC + FY88 allowable growth = FY88 SAC

or:

$\$3.296 + \$.1155 = \$3.4115 = \text{FY88 SAC for voc-tech}$

In FY88 the salary improvement amount was distributed separately. In FY89, however, it must be folded into the state average cost per contact hour. Thus, for FY 89 the allowable growth factor must be applied to the sum of FY88 state average cost plus the salary improvement support per contact hour calculated above.

state average cost per contact hour (SAC) is \$3.63132. Therefore, the FY89 state foundation support for the voc-tech prep cost center is determined:

$$\begin{aligned} & \text{rolling average voc-tech eligible contact hours} \times \text{FY89 SAC} \times \text{state} \\ & \text{foundation support level} \\ & = 11,900,000 \times \$3.63132 \times 65\% \\ & = \$43,212,708 \times 65\% \\ & = \$28,088,260 \end{aligned}$$

Note: beginning in FY 93, the rolling average uses contact hours from the most recent two fiscal years.

Example:

Assume in FY92 there are 13,072,500 weighted contact hours (per step 4) in the voc-tech prep cost center. Also assume the current state average cost per contact hour (SAC) is now \$4.20. Then the formula-prescribed level for state foundation support is calculated thus:

$$\begin{aligned} & \text{rolling avg weighted voc-tech elig contact hrs} \times \text{FY92 SAC} \times \text{state} \\ & \text{foundation support \%} \end{aligned}$$

or:

$$\begin{aligned} & = 13,072,500 \times \$4.20 \times 65.5\% \\ & = \$54,904,500 \times 65.5\% \\ & = \$35,962,447 \end{aligned}$$

All five instructional cost centers are calculated in the manner described above. When the state foundation support for all five instructional cost centers is summed, the state foundation support for instruction is determined. Thereafter, the state foundation support for the noninstructional cost functions must be calculated.

STEP 6: Next, state support for the general institutional function cost is calculated. In the original code, general institutional costs were calculated to be 13.96 percent of total general fund (fund 1) expenditures. This percentage is to be recalculated every four years.

The general institutional function cost is calculated similarly to the instructional cost centers, except contact hours are not used. Again, using general fund (fund 1) expenditures in FY86:

$$\frac{(\text{FY86 total general institutional expense}) - \text{FY86 capital (i.e., equipment)}}{\text{FY86 total expenses (including instruction) - FY86 capital}}$$

In 1986, this yielded an administrative overhead rate of 13.96 percent. The general institutional function cost is this overhead rate multiplied by FY86 total expenditures:

$$\text{FY86 total expense (including instruction less capital)} \times 13.96 \text{ percent} = \text{general institutional function cost}$$

Beginning in FY87 and in succeeding years, the general institutional function cost is multiplied by the state percent of growth; this determines the allowable growth for the general institutional cost function:

$$\text{FY86 general institutional function cost} \times \text{FY87 state percent of growth} = \text{FY87 allowable growth}$$

and:

$$\text{FY86 general institutional function cost} + \text{FY87 allowable growth} = \text{FY87 general institutional function cost}$$

As with the instructional cost centers, the state foundation support level is a percentage of the general institutional cost function. (These percentages are the same as shown in Step 5.) Then, in FY 87 the state foundation support level for the general institutional function cost is:

$$\begin{aligned} & \text{FY87 general institutional function cost} \times 65 \text{ percent} \\ & = \text{FY87 general institutional function state foundation support level} \end{aligned}$$

This carries to future years in a similar fashion:

$$\begin{aligned} & \text{FY87 general institutional function cost} + \text{FY88 allowable growth} \\ & = \text{FY88 general institutional function cost} \end{aligned}$$

and:

$$\begin{aligned} & \text{FY88 general institutional cost function} \times 65 \text{ percent} \\ & = \text{FY88 general institutional function state foundation support level} \end{aligned}$$

and so on.

STEP 7: The student service function cost is calculated for the FY86 base year by dividing the total of all community college expenditures for student services by the total number of contact hours eligible for general aid. This yields a state average student service function cost per contact hour. As before, this cost per contact hour is multiplied by the state percent of growth to determine allowable growth for the new year.

$$\frac{\text{FY86 student service function cost - capital}}{\text{FY86 total eligible contact hours}}$$

=state average student service function cost per contact hour

When multiplied by the foundation support level for this function, which is the same table of percentages as in Step 5, the FY86 foundation support per contact hour for the student services function is determined. The foundation support level per contact hour multiplied by a rolling average of the two²⁷ most recent years' eligible contact hours determines the state's support for this function.

Consistent with other cost centers and functions, this cost per contact hour is incremented by the state allowable growth factor each year. Therefore:

$$\text{FY86 SAC} \times \text{FY87 state percent of growth} = \text{FY87 student function allowable growth}$$

and:

$$\text{FY86 SAC} + \text{FY87 student function allowable growth} = \text{FY87 SAC for student function cost function}$$

and, in keeping with other cost functions:

$$\text{FY87 SAC for student function} \times \text{rolling average total eligible contact hours} \\ = \text{FY87 student services function cost}$$

and:

$$\text{student services cost function} \times \text{foundation level support percent} \\ = \text{state foundation level support for the student services cost function}$$

In FY92, 25 percent of noneligible student contact hours became reimbursable by the formula. The number of noneligible contact hours calculated each year thereafter became funded by this function.

STEP 8: The physical plant function cost includes physical plant maintenance and utilities. It is important to note that in FY86 these costs were captured in the general fund (fund 1). In subsequent years, much of this type of expense has been moved to the plant fund by legislative mandate (e.g., §260C.22). This results in confusion, as the plant fund is not supported by the formula.

²⁷Rolling averages of two most recent fiscal years began in FY92; from FY87 - FY92, a three year rolling average was used.

Unlike the student services cost function, the physical plant cost function determines a foundation support level per square foot for maintenance-type expense, and a foundation support level per cubic foot for utility expense. Again, using FY86 as the base year for expenditures:

$$\frac{\text{FY86 physical plant maintenance expense}}{\text{FY86 facility square footage}} \\ = \text{FY86 state average maintenance cost per square foot}$$

similarly,

$$\frac{\text{FY86 physical plant utility expense}}{\text{FY86 facility cubic footage}} \\ = \text{FY86 state average utility cost per cubic foot}$$

The state foundation support level for this function is the same as shown in step 5. Again, this state average is incremented each year by an allowable growth amount. When the new state average is multiplied by the current square or cubic footage, current state foundation support is determined.

STEP 9: The library function cost is a fairly straight-forward calculation. The expense reported in the five instructional cost centers, general institutional support function, student services function, and the physical plant function are summed and multiplied by 3.33 percent, the average level by which the library function is supported. Beginning in FY92, this percentage has been increased by .4175 percent annually until it reached five percent in FY95.

The average level of library function support multiplied by the percent of state foundation support equals the foundation support level for the library function. Again, the percent of state foundation support originally was 65 percent of the function costs, but is gradually increasing to 70 percent in FY97 (see step 5).

STEP 10: The equipment purchase cost function is defined as a percentage of the five instructional cost centers, the general institutional cost function, student services cost function, and the physical plant cost function. Arts and sciences equipment is supported at .194 percent of the total of these costs, and voc-tech prep is supported at .776 percent, and the amount by college is determined by the percent of total eligible contact hours in arts and sciences and the voc-tech prep cost centers. Again, the foundation level support for equipment was originally set at 65 percent, but is gradually increasing to 70 percent in FY97 (see step 5).

STEP 11: Other aid included in the formula is then added:

- a) An amount for the operation of a public radio station. Funding for radio stations is incremented annually by the state percent of growth.
- b) Colleges with under one million contact hours receive \$50,000 beyond the above formula calculations, or five percent more in state foundation level support, whichever is greater.
- c) An amount equal to the general allocation determined under section 405A.2 (personal property tax abatement).
- d) Northwest Iowa Technical College is to receive \$38,000 for its heavy equipment program.

STEP 12: The formula calls for state general aid to equal the difference between the sum of the foundation support levels of the five cost centers and five cost functions and the amount raised by the \$.2025 levy raised by §260C.17. That is:

arts and sciences cost center foundation level support
+ voc-tech prep cost center foundation level support
+ voc-tech supplementary cost center foundation level support
+ adult basic education cost center foundation level support
+ continuing education and general education cost center foundation level support
+ general institutional cost function foundation level support
+ student services cost function foundation level support
+ physical plant cost function foundation level support
+ library services cost function foundation level support
+ equipment services cost function foundation level support
+ other aid described in Step 10
- amount raised by §260C.17 (\$.2025 tax levy)

= TOTAL STATE GENERAL AID REQUIRED BY THE FORMULA

APPENDIX B

Iowa Community College System Method for Distributing State General Aid, FY94-FY95

NOTE: For these two fiscal years, the Legislature suspended the formula as codified in §260D. The following method was used in lieu of the statutory funding method in FY94 and FY95. The data presented below uses actual FY95 appropriations as an example of the method.

Step 1: Determine the Amount of Allowable Growth in State General Aid

Last year's appropriations (FY94) =	\$111,520,702
× State percent of growth for FY95 =	<u>2.85%</u>
= ALLOWABLE GROWTH =	<u>\$3,178,340</u>

Step 2: Determine Additional Growth Beyond Allowable Growth

FY95 INCREMENTAL Appropriations =	\$3,950,000
- FY95 Allowable Growth =	<u>(3,178,340)</u>
= ADDITIONAL GROWTH =	<u>\$771,660</u>

Step 3: Determine the Amount of Allowable Growth in State General Aid

ALLOWABLE GROWTH =	\$3,178,340
× 75% =	<u>75%</u>
= AMOUNT TO DISTRIBUTE FOR INFLATION =	<u>\$2,383,755</u>

Note: this amount is distributed to each college using its pro rata shares of FY94 appropriations.

Step 4: Distribute 25% of Allowable Growth According to Table

ALLOWABLE GROWTH =	\$3,178,340
× 25% =	<u>25%</u>
= AMOUNT TO DISTRIBUTE BY TABLE =	<u>\$794,585</u>

	DISTRIBUTE				
	AMOUNT	BY INFLATION		BY GROWTH	
	\$79,459	90%	\$71,513	10%	\$7,946
	79,459	80%	63,567	20%	15,892
	79,459	70%	55,621	30%	23,838
	79,459	60%	47,675	40%	31,783
	79,459	50%	39,729	50%	39,729
	79,459	40%	31,783	60%	47,675
	79,459	30%	23,838	70%	55,621
	79,459	20%	15,892	80%	63,567
	79,459	10%	7,946	90%	71,513
	79,459	0%	0	100%	79,459
TOTALS	\$794,585		\$357,563		\$437,022

Using this distribution scheme, \$357,563 was distributed on the same pro rata basis as Step 3, and \$437,022 was distributed using pro rata shares from the codified formula.

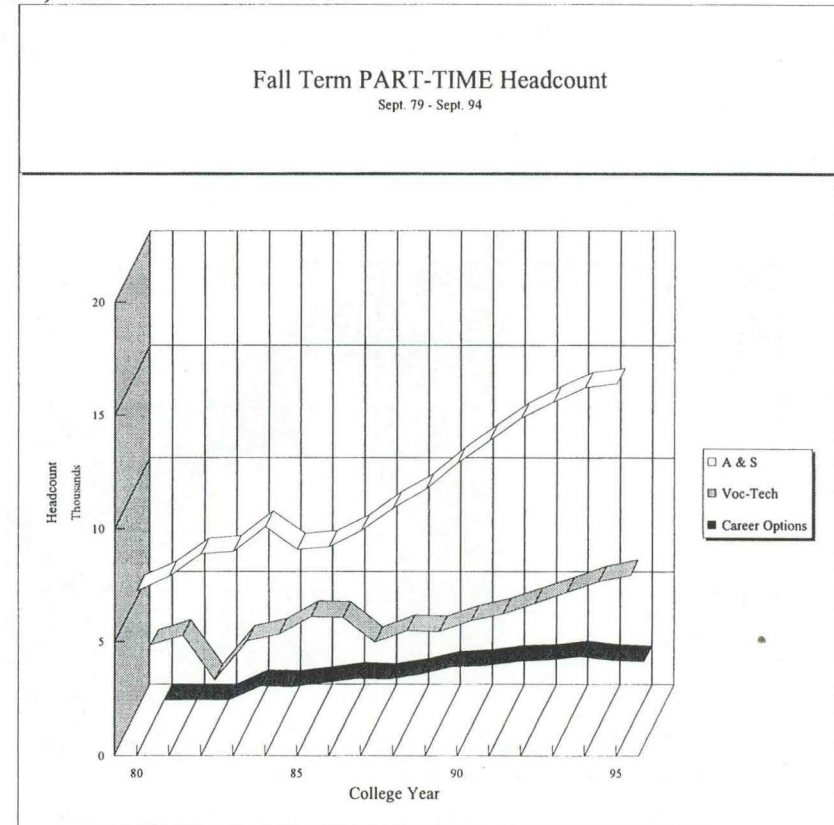
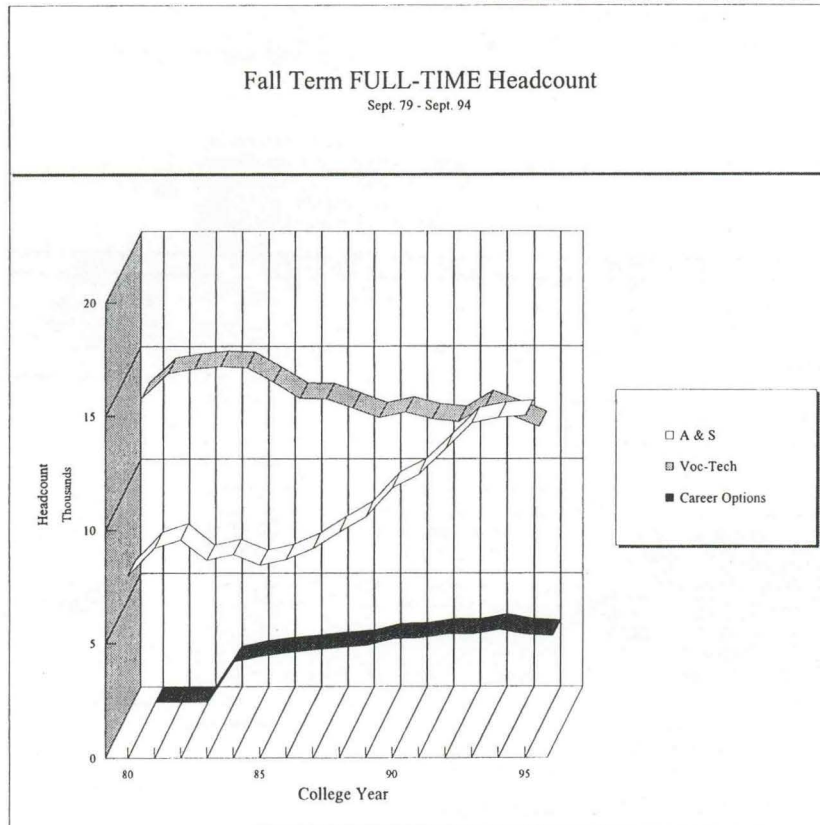
Step 5: Distribute Additional Growth by Codified Formula

ADDITIONAL GROWTH = \$771,660

This \$771,660 was distributed to the colleges using their pro rata shares of the codified formula.

APPENDIX C-1a

IOWA COMMUNITY COLLEGE SYSTEM FALL TERM ENROLLMENTS, SEPT. 79 - SEPT. 94*



Source: annual Fall Term Headcount report. Note: post-secondary enrollment options students are not included in this graphic presentation.
File:\srs94\fallhct9

APPENDIX C-1b

IOWA COMMUNITY COLLEGE SYSTEM TABLE OF FALL TERM ENROLLMENTS, SEPT. 79 - SEPT. 94*

FALL TERM FULL-TIME HEADCOUNT, SEPT. 79 - SEPT. 94																
FULL-TIME																
Fall Semester Full-Time Student Headcount																
TOTALS	79-80*	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90*	90-91	91-92	92-93	93-94	94-95
Arts & Sciences	7,993	9,219	9,586	8,676	8,921	8,452	8,700	9,196	9,912	10,564	11,816	12,421	13,540	14,701	14,934	15,023
Voc-Tech Prep	14,612	15,695	15,893	16,008	15,957	15,309	14,583	14,568	14,148	13,717	13,973	13,654	13,545	14,241	13,794	13,312
Career Options	0	0	0	1,766	2,026	2,165	2,280	2,400	2,487	2,780	2,812	2,986	2,984	3,192	2,983	2,923
TOTAL	22,605	24,914	25,479	26,450	26,904	25,926	25,563	26,164	27,061	27,061	28,601	29,061	30,069	32,134	31,711	31,258

COMMENTS: Between September 1989 and September 1994, full-time enrollments in the community colleges grew by about 9.3% overall. Most of this growth was in the Arts & Sciences (26.4%), with modest growth in Career Options (4.0%) and an overall decline in Voc-Tech Prep programs (-4.7%). Full-time fall enrollments peaked in '92, and have declined gradually since then,

FALL TERM PART-TIME HEADCOUNT, SEPT. 79 - SEPT. 94																
PART-TIME																
Fall Semester Part-Time Student Headcount																
TOTALS	79-80*	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90*	90-91	91-92	92-93	93-94	94-95
Arts & Sciences	7,266	7,891	8,901	8,999	10,074	9,104	9,215	9,910	10,902	11,708	12,887	13,881	14,875	15,599	16,253	16,426
Voc-Tech Prep	3,643	4,073	2,101	3,826	4,131	4,904	4,878	3,769	4,292	4,250	4,722	5,027	5,494	5,970	6,459	6,744
Career Options	0	0	0	624	597	770	961	930	1,133	1,468	1,525	1,709	1,767	1,914	1,760	1,706
TOTAL	10,909	11,964	11,002	13,449	14,802	14,778	15,054	14,609	16,327	17,426	19,134	20,617	22,136	23,483	24,472	24,876

COMMENTS: Between September 1989 and September 1994, part-time enrollments in the community colleges grew by about 30%. Unlike full-time enrollments, much of this increase was due to heavy growth in part-time Voc-Tech programs (43%); growth in Arts & Sciences was also significant (27.5%); while there was moderate growth in Career Option programs (11.9%). In the last two years, part-time enrollments appear to be stabilizing.

COMPARATIVE STATISTICS:

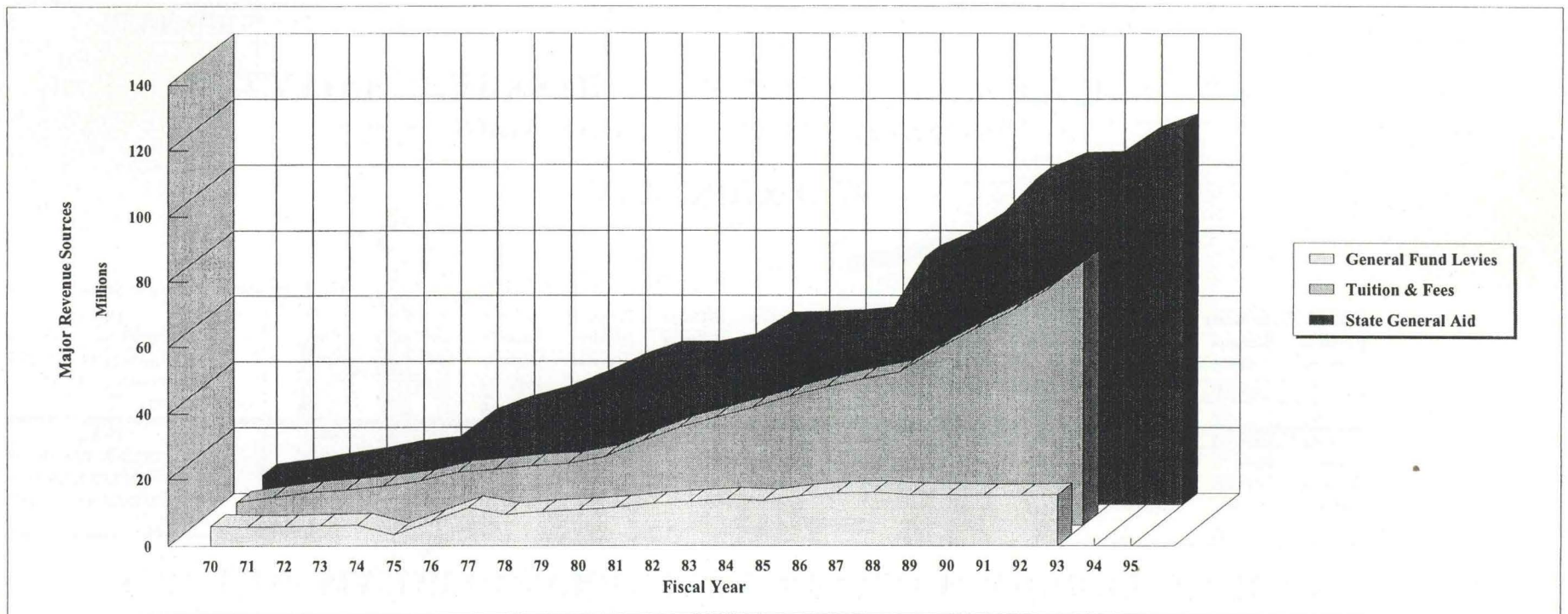
	ABSOLUTE GROWTH			% GROWTH		
	5 Years	10 Years	15 Years	5 Years	10 Years	15 Years
	(90-95)	(85-95)	(80-95)	(90-95)	(85-95)	(80-95)
Growth in Full-time Enrollment over:						
for: Arts & Sciences	3,207	6,571	7,030	27.14%	77.74%	87.95%
Voc-Tech Prep	(661)	(1,997)	(1,300)	-4.73%	-13.04%	-8.90%
Career Options	111	758	2,923	3.95%	35.01%	N/A
Total	2,657	5,332	8,653	9.29%	20.57%	38.28%

	ABSOLUTE GROWTH			% GROWTH		
	5 Years	10 Years	15 Years	5 Years	10 Years	15 Years
	(90-95)	(85-95)	(80-95)	(90-95)	(85-95)	(80-95)
Growth in Part-time Enrollment over:						
for: Arts & Sciences	3,539	7,322	9,160	27.46%	80.43%	126.07%
Voc-Tech Prep	2,022	1,840	3,101	42.82%	37.52%	85.12%
Career Options	181	936	1,706	11.87%	121.56%	N/A
Total	5,742	10,098	13,967	30.01%	68.33%	128.03%

APPENDIX C-2a

IOWA COMMUNITY COLLEGE SYSTEM

SUMMARY OF MAJOR GENERAL FUND REVENUE SOURCES, FY 70 - 95



Source: Community College Silver Anniversary Data; DE Warrant Data; file: \srs94\gaid3.

APPENDIX C-2b

IOWA COMMUNITY COLLEGE SYSTEM

TABLE OF MAJOR GENERAL FUND REVENUE SOURCES, FY 70 - 93

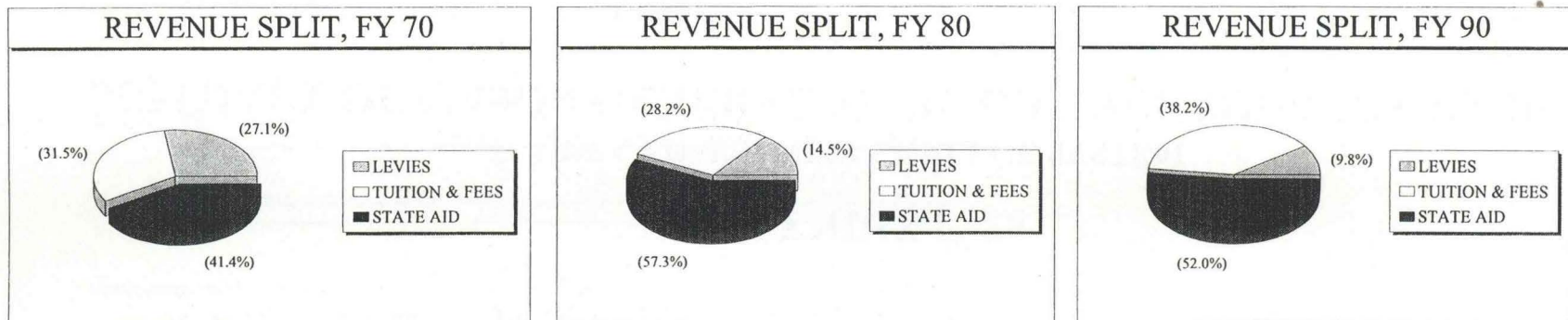
FISCAL YR >	70	71	72	73	74	75	76	77	78	79	80	81
TOTAL GEN FUND LEVIES	5,901,964	5,686,517	5,783,071	6,000,072	6,147,444	3,361,635	7,337,747	11,361,359	9,275,568	10,195,408	10,681,131	11,453,248
TOTAL TUITION & FEES	6,845,094	8,466,803	9,912,511	10,623,183	11,827,598	13,329,413	16,019,752	16,949,996	18,024,567	18,642,890	20,770,856	25,378,916
TOTAL STATE GENERAL AID	9,000,000	10,400,000	12,270,000	13,900,000	16,104,300	17,357,300	25,800,000	29,800,000	32,714,100	37,050,000	42,168,500	45,926,991
TOTAL	21,747,058	24,553,320	27,965,582	30,523,255	34,079,342	34,048,348	49,157,499	58,111,355	60,014,235	65,888,298	73,620,487	82,759,155
FISCAL YR >	82	83	84	85	86	87	88	89	90	91	92	93
TOTAL GEN FUND LEVIES	12,577,142	13,219,273	13,917,666	13,509,424	14,941,128	15,796,696	15,937,702	15,269,637	15,226,830	15,059,203	15,077,411	15,273,715
TOTAL TUITION & FEES	29,551,450	32,694,482	35,635,911	39,081,844	41,874,013	44,234,418	46,320,889	52,939,398	59,083,307	64,611,612	71,468,172	80,328,838
TOTAL STATE GENERAL AID	45,926,991	45,926,991	48,141,500	54,874,756	55,106,022	55,652,610	56,706,178	75,343,377	80,351,182	87,275,326	99,007,776	103,633,230
TOTAL	88,055,583	91,840,746	97,695,077	107,466,024	111,921,163	115,683,724	118,964,769	143,552,412	154,661,319	166,946,141	185,553,359	199,235,783

Source: Department of Education; file: gaid2.

APPENDIX C-2c

IOWA COMMUNITY COLLEGE SYSTEM

RELATIVE SHARES OF REVENUE SOURCES, FY 70, 80, & 90



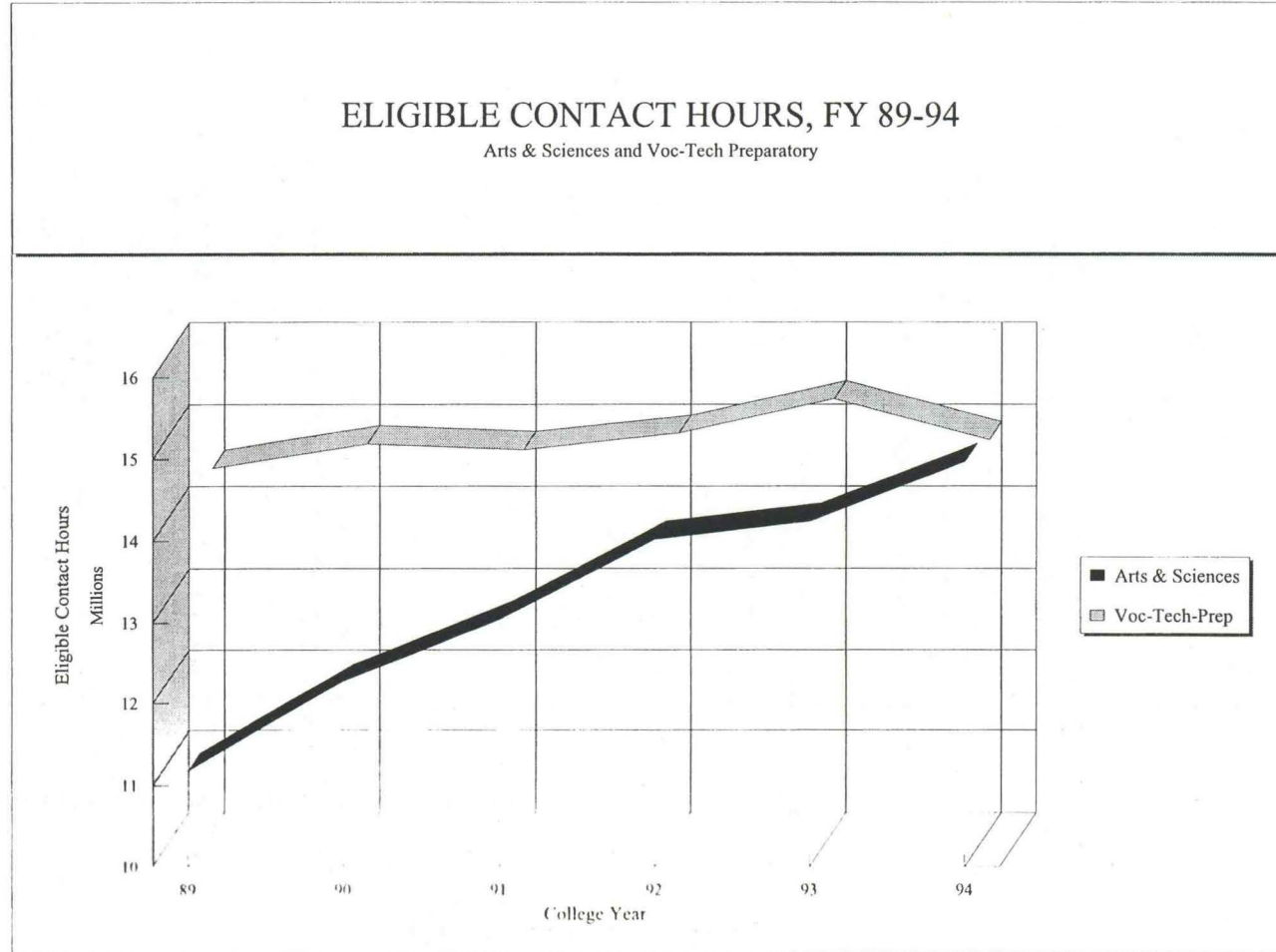
Source: Department of Education; file: gaid2.

APPENDIX C-3

IOWA COMMUNITY COLLEGE SYSTEM ELIGIBLE CONTACT HOURS

ELIGIBLE CONTACT HOURS, FY 89-94

Arts & Sciences and Voc-Tech Preparatory

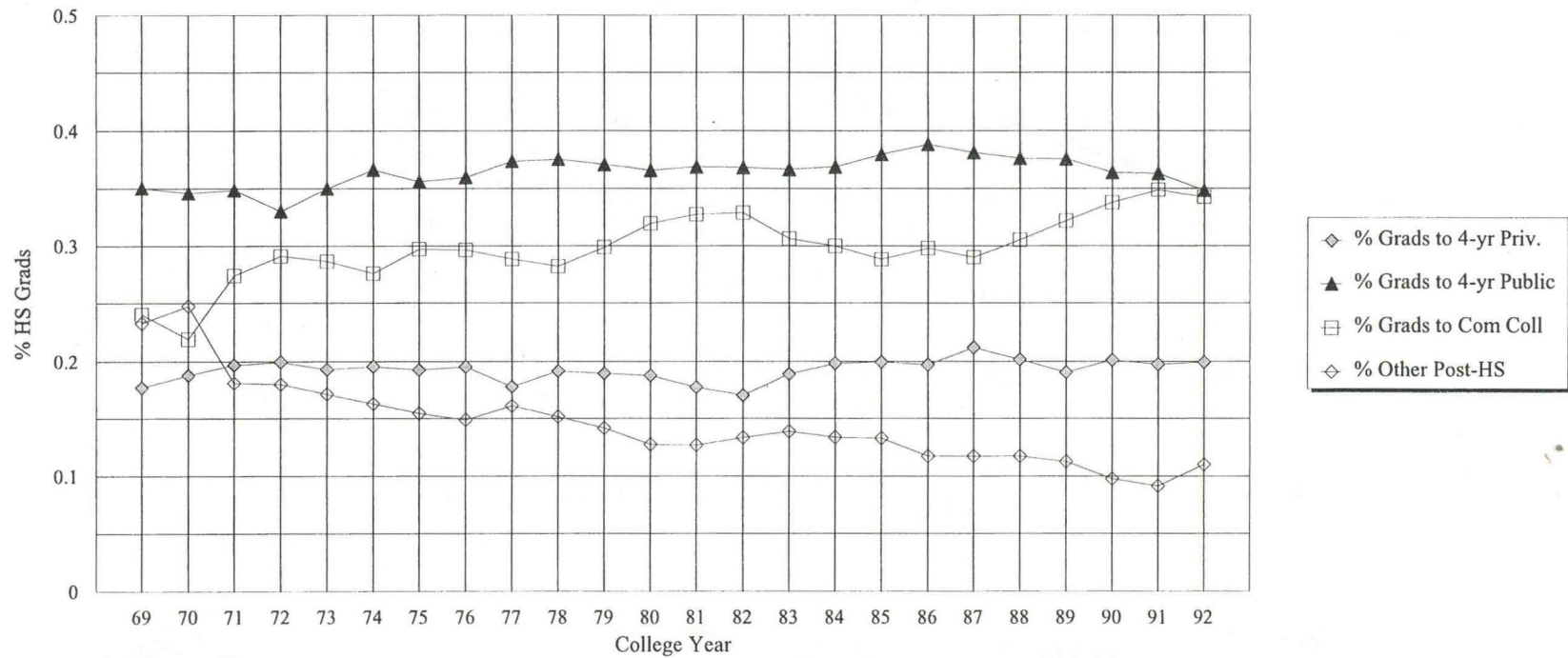


Source: Department of Education; file: contact6.

APPENDIX C-4

IOWA COMMUNITY COLLEGE SYSTEM

**Percentage of Iowa High School Graduates Pursuing Post-Secondary Education
1969 - 1992**



Source: Iowa Guidance Surveys (DE); file: \69-92HS1

APPENDIX C-5

Iowa Student Demographics

Iowa's community colleges serve students of all ages and levels of education. Assisting individuals to improve their quality of life and economic conditions is a fundamental purpose of the community college.

Virtually everyone who applies to a community college will be accepted. This includes many students who are traditionally outside of the mainstream of higher education: the economically disadvantaged, unemployed and underemployed adults, women, people of color, new arrivals to the United States, people with disabilities, and other adults who may not have been successful in other educational settings. Students are accepted with the characteristics and conditions which they bring with them to the institution.

The recent publication, *Alliances For the 21st Century*, prepared by the Iowa Association of Community College Trustees, depicts the following enrollment patterns and trends:

...94.1 percent of the community college students enrolled in the fall 1993 were Iowa residents, compared with 73.5 percent at the Regents universities and 64.5 percent at the independent colleges.

...62.98 percent of the new freshmen in Iowa colleges and universities who are Iowa residents were enrolled at public community colleges in the fall of 1993.

...In the fall of 1993, the total credit enrollment in Iowa's community colleges was 56,074 or 86.4 of the total enrollment at the three Regents universities.

...Among students enrolled in credit programs in the fall of 1992, 41.5 percent were male and 58.5 percent were female.

...Community college graduates tend to remain in Iowa to a much greater extent than graduates from other sectors of higher education.²⁸

²⁸Adapted from *Alliances for the 21st Century*, Iowa Association of Community College Trustees, 1994; pp. 15-16.

APPENDIX D

A Report to the Community College Presidents by the Presidents' Contact Hour Task Force on the Conceptual Framework for College Funding

March 1994

Guiding Principles

1. The funding formula should:
 - a. Reflect a commitment on the part of the state to recognize and support enrollment growth and quality in community colleges;
 - b. Strengthen accountability for use of state funds and increase confidence in the system of funding for community colleges in Iowa; and
 - c. Provide greater consistency and equity in funding students within program areas.
2. The funding of community colleges should be based on student-driven units of measure.

Conceptual Framework

1. For vocational-technical preparatory programs and for arts and sciences offerings, the unit of measure will be the **contact hour**. A maximum number of **contact hours** reimbursable for state aid will be calculated for each program area. Contact hours will be reimbursable for all hours that are within 125% of the state average number of hours approved by program area. Any program within hours approved at less than 80% of the state average will be calculated at 1.2 per hour.
2. Programs (i.e., vocational-technical and developmental) will be funded at a level that reflects their actual cost.
3. For non-credit instruction, the contact hour will continue to be the unit of measure. The following approaches will be used in calculating state reimbursement for eligible contact hours.

- a. **ABE/GED/ESL/High School Completion.** The current system for identifying reimbursable and non-reimbursable contact hours will remain.
 - b. **Institutionalized students.** All hours claimed for institutionalized students, except corrections (i.e., nursing homes, retirement villages, sheltered workshops) shall be claimed in a new cost center.
 - c. **Career Supplemental.** Hours generated in this cost center will remain eligible for reimbursement, except for those for which total costs are paid from state/federal grant programs or other sources of state aid (i.e., HF 623, corrections).
 - d. **Co-sponsored Programs** will be eligible for funding where there is active participation by the college in the development and/or delivery of the offerings.
 - e. **Continuing and General.** The current system for identifying reimbursable and non-reimbursable contact hours will remain.
4. All other categories of the current funding formula (i.e., the five educational support functions) will continue, but will be modified to reflect any change in the unit of measure.
 5. A new cost center for developmental education shall be developed and added to the formula.

Implementation Strategies

1. The revised funding formula will be recalculated; included in that process is a guarantee that no loss of income from the state to the total community college system will occur..
2. Changes in the funding formula will be phased in over a three-year period; during that period, no college should receive a smaller state appropriation than they did in the year prior to the year the changes in the formula become effective.
3. While colleges will continue to be free to develop programs of varying lengths, the Department of Education will establish the maximum **contact hours** eligible for reimbursement by program area. The Department will involve the community colleges in this process, and may be assisted by outside consultants.

4. The Department will collect necessary data and work with the colleges to adapt and refine the funding formula, as necessary.

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