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ABSTRACT

This publication presents the Colorado Statewide Master Plan for its higher education system from 1993 through 1998 and is organized around eight goals. The goals are: (1) to assist Coloradans to become citizens of the nation and the world by providing access to highest quality education; (2) to provide equal access for those who have historically been underserved by higher education, including Native Americans, Hispanic Americans, African Americans, and Asian Americans; (3) to sustain excellence in undergraduate and occupational education; (4) to maintain the quality of graduate and research programs and to enable their continuing contribution to the economic future of the state; effectiveness, efficiency, and productivity in the area of higher education in wise stewardship of the state's resources; (6) to strengthen higher education's accountability to the citizens of Colorado by continuing to implement meaningful programs of assessment; (7) to strengthen partnerships between government, higher education institutions, the state, business community, and students; and (8) to work with elementary and secondary education to articulate expectations for students entering higher education. Following an overview of the statewide master plan, the Colorado Commission on Higher Education's vision statement is presented with a description of the context for that vision, and a restatement of the eight goals and objectives. An analysis of the future education environment nationally and internationally follows. A final section discusses the roles of state administration, legislature, the state Commission, governing boards, citizens, and the business community. (JB)

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ED 404 891

# Colorado Commission on Higher Education

## Colorado Higher Education

# Master Plan

1993-1998



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**Colorado Commission on Higher Education**

**Colorado Higher Education**

# Master Plan

**1993–1998**



# Introduction

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**T**he future presents a major challenge to the Colorado higher education system. Over the course of the next ten years, Colorado will experience unprecedented enrollment growth as more and more Coloradans turn to higher education to meet their needs and respond to their desires. At the same time, the state may not be well positioned to provide sufficient funding to absorb this growth.

This master plan focuses on the issues likely to emerge as demands on higher education increase between now and the year 1998. The foundation of this plan is our vision statement, which describes higher education's commitment to provide access to success for all Coloradans. Goals and objectives flow from the vision statement, providing measures to guide and evaluate progress in achieving the vision. Higher education leaders need managerial flexibility to respond to changing conditions in the state. Knowing this, we have intentionally crafted our objectives in broad terms that can bend with the times, rather than setting rigid strategies that are likely to become useless with the passage of time.

The task before Colorado higher education is to collaborate with citizens, employers, and elected officials to guide the state to the best possible future by applying the principles of this master plan. The master plan concludes with specific recommendations that we believe all participants in the process must adopt in order to lead Colorado's higher education system into the next century.

We are confident that by working together, Coloradans will confront future challenges and fulfill our vision of providing a higher education system that delivers superior teaching, research, and scholarship.

## *Members of the Colorado Commission on Higher Education*

Robert L. Hawkins, Chair  
Alexander E. Bracken  
Marshall A. Crawford  
Peter R. Decker  
Steven W. Farber

Brian Hall, Vice-chair  
Christine Johnson  
James P. Johnson  
Deedee Gale Mayer

## **Acknowledgments**

Many individuals generously contributed to the development of this master plan. Higher education governing board members, chief executive officers, and other staff provided valuable insights and guidance throughout the process. Citizens, elected officials, and interest groups attended CCHE public forums throughout Colorado and shared their dreams and concerns about higher education. The higher education academic council was especially valuable in reviewing and editing innumerable master plan drafts, frequently upon very short notice. Energy and direction for this project were provided by David Longanecker, CCHE Executive Director, 1988–1993.

The Colorado Commission on Higher Education is grateful for the efforts of all who contributed to this master plan.



# Executive Summary

**A**fter wide consultation that included participation by the state’s administration, members of the General Assembly, the governing boards of Colorado’s institutions of higher education, the higher education community, and members of the public from throughout Colorado, the Colorado Commission on Higher Education adopted the following vision statement to lead Colorado’s public higher education institutions into the twenty-first century.

## CCHE Vision Statement For Colorado Higher Education

Colorado public higher education is built on the understanding that both the individual and society benefit from high-quality public and private higher education. To realize this benefit, the individual and society both must contribute. The individual participant must put forth an effort commensurate with the opportunity that has been provided. The state, in turn, must continue to recognize the benefits provided by higher education and ensure that its institutions have sufficient funds from public and private sources to provide quality education and training.

Colleges and universities must provide opportunities for citizens to receive the academic and occupational education they need to be productively employed and creatively engaged in civic life. Recognizing that our civilization rests not only on the transmission of existing knowledge but also on the search for and creation of new knowledge, the state will maintain a variety of colleges and universities to serve the diverse educational needs of its citizens. To assure public accountability, the state’s colleges and universities must demonstrate that they provide these educational services effectively and efficiently within the level of resources provided, and that in doing so they are careful stewards of the public trust.

In order to implement this vision, eight goals and accompanying objectives were adopted and incorporated into the master plan:



*Goal One: To assist Coloradans in becoming citizens of our nation and the world by providing access to educational opportunities of the highest quality.*

- identify, prioritize, and, as funding permits, offer the range of educational, cultural, and artistic opportunities needed to respond to the changing career aspirations and workforce needs of Colorado’s citizens.

- maintain the differentiated system of admission standards, thus assuring individual students of entry into institutions for which they are best prepared and at which they will be most successful.

- emphasize the increasing significance of international education as a means of promoting global awareness and the economic competitiveness of the state, particularly through the internationalization of the curriculum.

- identify the financial resources necessary to achieve the goal of providing equal access to higher education for all students regardless of their socioeconomic background.



*Goal Two: To provide equal access for those who have historically been underserved by higher education, including native Americans, Hispanic-Americans, African-Americans, and Asian-Americans.*

- organize campus communities in a manner that encourages, values, and respects ethnic and cultural diversity.

- identify the academic and financial resources necessary to achieve the goal of increasing the statewide minority share of graduates to 18.6 percent by the year 2000.

- increase the number of minority faculty and administrators in order to provide role models and mentors for students and to enhance campus diversity.

- increase services to students who need extra assistance to succeed because of educational, economic, cultural, language, physical, or other disadvantage.

*Goal Three: To sustain excellence in undergraduate and occupational education.*

- ensure that all programs are of the highest quality within the limits of available resources by continuing and expanding the state's nationally recognized assessment program.

- balance the demands for growth and quality and the need to maintain both undergraduate and graduate programs by careful review of existing programs in light of the state's resources.

- identify and implement effective and cost-efficient delivery models for providing access to more rural communities, including expanded telecommunication offerings and other forms of distance education.

- review existing academic programs for their quality, demand, and effectiveness. Based upon these measures, form judgments to determine the continuation, improvement, or discontinuance of programs.

*Goal Four: To maintain the quality of graduate and research programs and to enable their continuing contribution to the economic future of the state.*

- assist the creation of research partnerships among institutions of higher education, the federal government, industry, and small businesses in order to accelerate the transfer of knowledge and information into the marketplace.

- encourage a strong investment in high-quality graduate education and research on the campuses, consistent with their roles and missions, in order to attract further grants and contracts to support Colorado's economic development.

*Goal Five: To continue to improve effectiveness, efficiency, and productivity in every area of higher education in wise stewardship of the state's resources.*

- identify and study ways to improve student persistence and decrease the length of time to degree completion; in particular, identify institutional practices and policies that may impede student progress.

- continue to increase faculty productivity.

- reduce unnecessary overhead costs within the system by reviewing the system's infrastructure, including streamlining compliance with state regulations and reducing reporting requirements.

*Goal Six: To strengthen higher education's accountability to the citizens of Colorado by continuing to implement meaningful programs of assessment.*

- reexamine and evaluate current methods of assessment and accountability to ensure that

the public better understands and recognizes the value and effectiveness of higher education in Colorado.

- continue to support the nationally recognized institutional assessment system and begin integrating assessment with other policies that monitor quality, streamline procedures, and reduce associated costs.

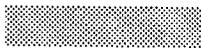
- enhance accountability by providing full reporting to the public of appropriate comparable data about the performance of Colorado colleges and universities.



*Goal Seven: To link higher education more closely to the communities it serves by fostering partnerships among institutions of higher education, the state, the business community, and the students.*

- seek responsible and fair levels of support for higher education from the state, the private sector, and the individual student in order to ensure that higher education institutions have sufficient funding to provide both access and quality educational experiences.

- encourage students to have high expectations that promote personal effort, self-esteem, and responsibility commensurate with the state investment in public education.



*Goal Eight: To join with the K-12 education system to articulate clear expectations of entering students in order to promote their academic performance, success, and retention in Colorado's universities and colleges.*

- examine how higher and secondary education can cooperate more effectively to prepare entering students to succeed in higher education.

- work with the state's educators to learn about current student-assessment practices in the K-12 system, appropriately review higher education admission policies, and coordinate K-12 curriculum and assessment with higher education admissions standards.

- continue to ensure that teacher education programs adequately prepare teachers for the classroom and that professional education addresses the changing needs of the K-12 system.



This master plan acknowledges the international, national, and state environments that directly affect higher education and will to a great extent determine its future. The master plan's goals and objectives build upon the following premises:

Colorado's economy will be increasingly service-oriented and global. Public higher education will need to incorporate more information on U.S. business partners in Asia and the Pacific as well as in Europe and, potentially, the Russian republics. Higher education can assist Colorado in attracting multinational corporations to relocate into the state.

Colorado's population will become increasingly diverse. The state's higher education institutions will play a more proactive role in the equitable distribution of education resources among all ethnic groups within the state. They will also participate in retraining and lifelong learning. While participation rates among all ethnic groups have increased, public higher education will seek an 18.6 percent minority systemwide graduation rate within one generation.

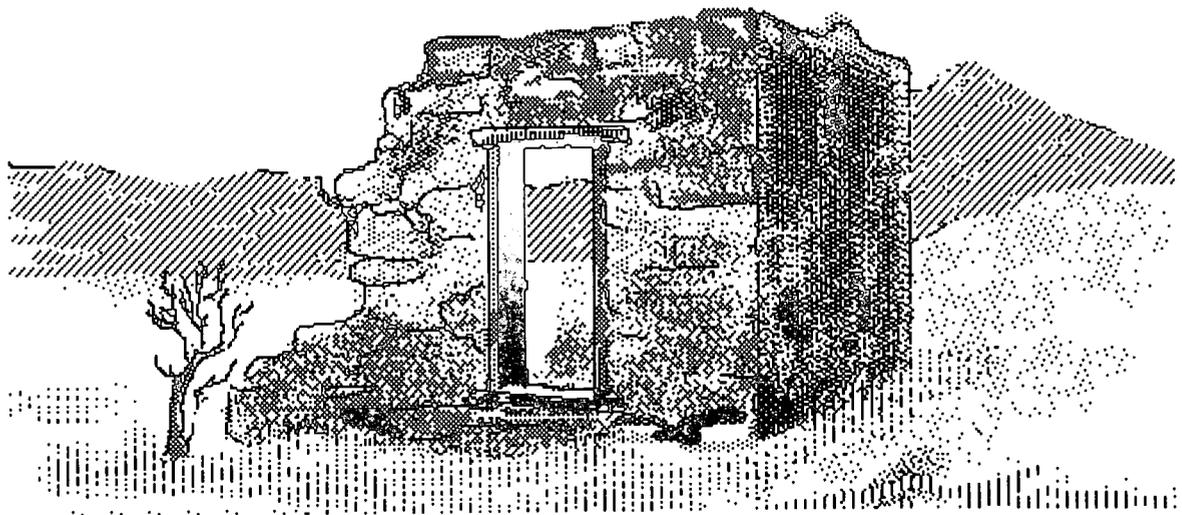
Colorado's resources will be stretched to meet the needs of the state's increasing population, expected to grow almost 20 percent by the year 2001, or from 3.1 million to 3.6 million, with an increase in the traditional college-going age of 71,000 people. Public higher education will require an additional \$100 million annually to meet the need. Effectiveness and efficiency in the use of these funds will be demonstrated through continuing programs of assessment and accountability.

Meeting Colorado's higher education needs will require the cooperation of all partners within the state. The master plan can succeed only with the full participation of those involved in the support and delivery of higher education services.

- The state administration is asked to seek the funds necessary for higher education to continue to be a strong contributor to the state.
- The General Assembly is asked to continue to recognize higher education as an investment in Colorado's future and understand the pressing need for a sufficient funding base and capital improvements to meet the increasing need for higher education access in the state.
- The Colorado Commission on Higher Education will make the case in the strongest terms for the critical need to obtain additional operating and capital funds. The Commission will also monitor the relationship between tuition and state-funded, need-based financial aid sufficient to provide educational

opportunity to qualified students who do not have adequate resources on their own.

- Governing boards are asked to work within the vision of the master plan to ensure equitable access to all of Colorado's people. Boards are also asked to ensure that campus-based programs respond to the state's needs with high-quality programs delivered to all parts of the state effectively and efficiently.
- Colorado's citizens are asked to recognize the financial challenges faced by higher education and to understand that it may not be possible to provide access with the same degree of convenience or the same level of tuition and fees as previously offered.
- Colorado's business community is asked to assist in reaching the goals of the master plan by making sure that programs are current and effective in preparing students for the workforce and by supporting the creation of a tax base that is adequate to sustain the state's investment in higher education.





# The Statewide Master Plan for Higher Education: An Overview

In 1985, the Colorado General Assembly passed House Bill 1187, which established a broad and ambitious set of expectations for the state's higher education community.

In particular, it directed the Colorado Commission on Higher Education to develop a master planning process designed to promote the state's goals for higher education. This process was put in place and culminated in the adoption of the *Colorado Statewide Master Plan for Higher Education 1987-1992*.

This document successfully provided direction to the higher education community during the period of time it was in force. Today, however, conditions facing higher education have changed so substantially as to require new planning to chart the state's course for the future. These changed conditions, particularly the passage of Amendment 1, present new challenges to higher education that call for different responses from those envisioned in the previous master plan.

Since 1987, the demand for higher education services in Colorado has grown 14 percent. Because of increased enrollment, combined with the limited availability of state funding, higher education has been challenged as never before to meet the higher education needs of its citizens. This is a particularly critical moment for the state, since Colorado is poised to enter the competitive international marketplace and is most in need of an educated and trained workforce. And it is the institutions of higher education that will play the key role in its preparation.

If historical patterns continue and projections are correct, Colorado's higher education institutions will be expected to serve 37,000 to 82,000 *additional* people by the year 2001. While this volume of demand demonstrates a high level of public confidence in the enduring quality and value of higher education, it raises the question of how higher education can maintain access while still retaining the excellence for which Colorado's higher education institutions are nationally recognized. New forms of planning are called for and new responses required.

Planning for this document began in February 1992. Work was already in process when the Colorado

constitution was amended in November 1992 through the passage of Amendment 1. That amendment has to some degree influenced and shaped the goals and visions presented here. The discussions have benefited from the participation of the governing boards of Colorado's higher education institutions. Their leadership and cooperation have helped to form this master plan.

In undertaking the master planning responsibility required by statute, the Commission also sought advice through a series of public meetings and hearings over a three-month period. All told, four hundred people came forward to share their vision for higher education in this state. The Commission thanks them for their cooperation.

What emerged from this process was the recognition that Colorado needed a master plan for higher education with clearly established, measurable, and realistic goals and objectives to set the agenda for public higher education over the next five years.

In setting this agenda, the Commission determined to address only the most critical issues facing higher education in Colorado. These are represented by the eight goals of the master plan itself:



(1) to provide Coloradans with access to educational opportunities of the highest quality by responding to changing career aspirations and workforce needs, maintaining differentiated admission standards, emphasizing international education, and identifying the necessary financial resources to assure student financial assistance;



(2) to provide equal access to those who have been historically underserved by higher education; organize campuses to encourage respect for diversity; recruit additional minority faculty and administrators; and achieve the goal of 18.6 percent minority graduation systemwide by the year 2000;

(3) to sustain excellence in undergraduate education and occupational education within available resources by balancing the demands for growth and quality, and by efficient delivery of services throughout the state;

(4) to encourage strong investment in graduate education and research consistent with each institutional role and mission; to facilitate the creation of research partnerships designed to accelerate the transfer of discoveries into the marketplace; and to attract further grants and contracts to support the state's economy;

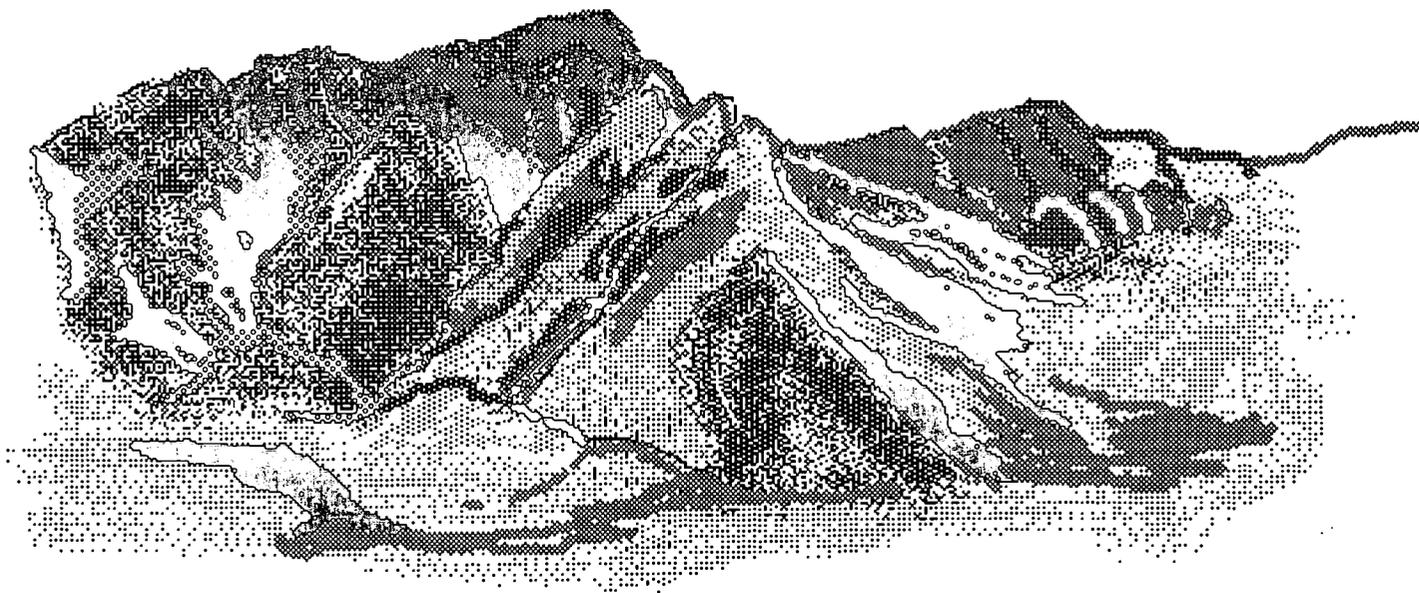
(5) to continue the wise stewardship of the state's resources by identifying ways to improve student persistence and shorten the length of time to graduation, ensuring the best use of faculty time, and reducing unnecessary overhead costs and paperwork within the system;

(6) to strengthen higher education's accountability by continuing to implement meaningful programs of assessment;

(7) to foster partnerships between higher education and the communities it serves by seeking fair and responsible levels of support from the state, the private sector, and the student, and encouraging students to have high expectations that promote personal effort and responsibility; and

(8) to join with K-12 education to articulate clear expectations of entering students and to ensure that teacher preparation programs adequately prepare teachers for the changing needs of the K-12 system.

These goals and objectives form a master plan that sets out an agenda of change for the state's institutions. It is designed to recognize and respect their differing roles and missions while understanding that the state's resources determine to what extent these goals may be fully achieved. As such, it should be seen as a compass rather than a road map, a set of guiding principles rather than a game plan. It is important to note that in setting this agenda, the Commission has continued to honor the key values of *quality*, *access*, *diversity*, and *accountability* that formed the basis of the previous master plan. The Commission has also reaffirmed the values expressed in the 1987 plan and has used these goals as the basis for the vision statement for Colorado higher education included here.



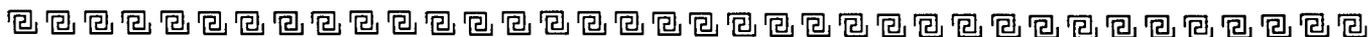


# CCHE Vision Statement For Colorado Higher Education

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Colorado public higher education is built on the understanding that both the individual and society benefit from high-quality public and private higher education. To realize this benefit, the individual and society both must contribute. The individual participant must put forth an effort commensurate with the opportunity that has been provided. The state, in turn, must continue to recognize the benefits provided by higher education and ensure that its institutions have sufficient funds from public and private sources to provide quality education and training.

Colleges and universities must provide opportunities for citizens to receive the academic and occupational education they need to be productively employed and creatively engaged in civic life. Recognizing that our civilization rests not only on the transmission of existing knowledge but also on the search for and creation of new knowledge, the state will maintain a variety of colleges and universities to serve the diverse educational needs of its citizens. To assure public accountability, the state's colleges and universities must demonstrate that they provide these educational services effectively and efficiently within the level of resources provided, and that in doing so they are careful stewards of the public trust.



# The Context of the Vision Statement

The master plan for Colorado higher education is based upon one fundamental fact: Public education, including both K-12 and higher education, has contributed more than any other single activity to Colorado's well-being. This contribution is measured in terms of the state's economic vitality, its ability to function as a democratic society, and the quality and self-fulfillment of its individual citizens.

Colorado's economy is, however, becoming more focused on information and service. In this technological world of international markets, the state will require new workforce skills. If Colorado is to remain competitive in this global economy, its citizens must do more than read, write, and compute effectively. They must think critically and analytically; write and speak persuasively and logically; possess the skills to become independent learners; and, increasingly, be familiar with cultures, histories, and languages other than their own.

The workforce of the future, in effect, will require those personal traits that higher education is uniquely qualified to foster.

Thomas Jefferson once commented on the impossibility of maintaining a working democracy without an educated citizenry. "If a nation expects to be ignorant and free," he said, "it expects what never was and never will be." Jefferson, of course, could not have foreseen the demographic, cultural, and economic forces that have shaped the nation as it enters the twenty-first century, but he understood clearly the relationship between education and freedom. Jefferson's concept of an educated citizenry has served as the premise upon which Colorado's system of public education has been based.

If the primary goal of education is to equip individuals to assume roles as responsible citizens in an open, democratic, and pluralistic society, higher education must play a significant role by preparing

citizens for careers or career advancement. A career is more than a means of earning a living; it also embraces the nature of relationships with others and a system of values that defines those relationships. As important as preparation for the world of work may be, education is far more than job training, for it develops the skills for lifelong learning. Within this larger framework, successful higher education provides learners with marketable skills as well as with the opportunity to fulfill their potential as thinking, caring, and socially engaged individuals.

Historically, Colorado's higher education institutions have provided these services effectively and efficiently throughout the state. In fact, with one exception, all Colorado cities of 3,000 or more population are

within a 30-mile drive of college-level courses. Colorado higher education has benefited thousands of individuals and furthered the collective welfare of the state. In return, both the state and the individual are expected

to accept the responsibility of assuring that higher education fulfills its mission.

For its part, the state must provide funding for a quality higher education system for reasons other than the social benefits derived from an educated populace. State leaders understand that an educated population is far less likely to require costly social or correctional programs. In light of this, the state also recognizes the need to create and sustain a diversity of institutions to provide the variety of programs and opportunities required by a population with differing educational and occupational needs and goals.

For individuals currently in the K-12 system, one expectation is that they prepare themselves to enter higher education without the need for extensive remedial studies. They are asked to focus time, energy, and resources such that completion of a program of study can occur in a timely manner. They are also asked to be prepared to assume a fair share of the cost of the education. These are reasonable expectations, since

*Colorado's colleges and universities accept their responsibility to be wise stewards of the state's resources and to be held accountable for their use.*

the state underwrites approximately 70 percent of the cost of each undergraduate resident student's higher education.

Colorado's public institutions of higher education are marked by their diversity. Our institutions have missions ranging from occupational education and undergraduate teaching to research and graduate education. This diversity is cherished because it is understood that the transmission of preexisting bodies of knowledge and the discovery of new knowledge through research and development are essential to economic development, to the humane learning needed for a just and civil society, and to the training of the world's next generation of leaders.

In light of the public investment in and hopes for higher education, Colorado's colleges and universities accept their responsibility to be wise stewards of the state's resources and to be held accountable for their use. This *accountability* takes the form of frequent strategic planning efforts that evaluate, through a program of assessment, the cost-benefit of the education and services provided to the state.

Much has been written nationally on the topic of accountability, some of it misleading. The important point is that the form of accountability adopted for Colorado's higher education system must reflect the uniqueness of each institution. Colorado will not be well served if higher education becomes valued only for issuing degrees rather than for truly educating its citizens and holding them to high expectations.

Similarly, assessment, an essential activity within higher education, must not be defined narrowly in terms of what can be measured; rather it must make rigorous evaluations against recognized standards of excellence. The former measurement, while appropriate for basic skills and tasks, will not serve well in evaluating the skills necessary for Colorado citizens in the twenty-first century.

Despite these concerns, higher education in Colorado will not excuse itself from the thorough self-analysis needed to maintain a high level of public confidence. The public deserves reassurance that resources are being used well and wisely and that students are being stimulated to perform at the peak levels of their ability.

The remainder of the 1990s will be a difficult time for higher education in Colorado. It will be a period of increased demands and, no doubt, limited financial resources. If the vision set forth in this document is to be realized, educational institutions, individual learners, and the state must all fulfill their roles.

Educational institutions must continue to change. The challenges of the 1990s will make it imperative, in fact, that colleges and universities reprioritize what they do. Faculties must reassess the allocation of their time, especially as it relates to their role as teachers. The curriculum must change in order to prepare students for a multicultural society and international economy. Institutions will need to give high priority to undergraduate teaching; to the ways in which technology can produce cost savings and greater efficiency and learning; and to the needs of a new student clientele who have different expectations of the system.

To paraphrase the title of an important national study, Colorado is "A State at Risk." How this risk is managed will depend in large measure on what happens in the sector of higher education during the balance of this decade. That is why the master plan and, more importantly, the vision statement that serves as its guiding principle are critical for our times.





# Goals and Objectives

*Goal One: To assist Coloradans in becoming citizens of our nation and the world by providing access to educational opportunities of the highest quality.*

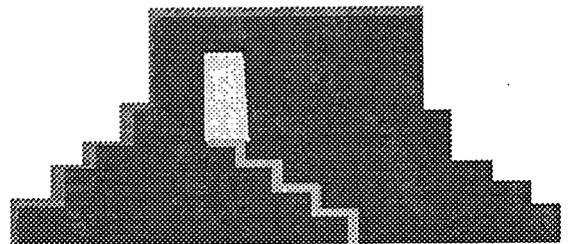
- identify, prioritize, and, as funding permits, offer the range of educational, cultural, and artistic opportunities needed to respond to the changing career aspirations and workforce needs of Colorado's citizens.
- maintain the differentiated system of admission standards, thus assuring individual students of entry into institutions for which they are best prepared and at which they will be most successful.
- emphasize the increasing significance of international education as a means of promoting global awareness and the economic competitiveness of the state, particularly through the internationalization of the curriculum.
- identify the financial resources necessary to achieve the goal of providing equal access to higher education for all students regardless of their socioeconomic background.

*Goal Two: To provide equal access for those who have historically been underserved by higher education, including native Americans, Hispanic-Americans, African-Americans, and Asian-Americans.*

- organize campus communities in a manner that encourages, values, and respects ethnic and cultural diversity.
- identify the academic and financial resources necessary to achieve the goal of increasing the statewide minority share of graduates to 18.6 percent by the year 2000.
- increase the number of minority faculty and administrators in order to provide role models

and mentors for students and to enhance campus diversity.

- increase services to students who need extra assistance to succeed because of educational, economic, cultural, language, physical, or other disadvantage.



*Goal Three: To sustain excellence in undergraduate and occupational education.*

- ensure that all programs are of the highest quality within the limits of available resources by continuing and expanding the state's nationally recognized assessment program.
- balance the demands for growth and quality and the need to maintain both undergraduate and graduate programs by careful review of existing programs in light of the state's resources.
- identify and implement effective and cost-efficient delivery models for providing access to more rural communities, including expanded telecommunication offerings and other forms of distance education.
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- identify and study ways to improve student persistence and decrease the length of time to degree completion; in particular, identify institutional practices and policies that may impede student progress.
- continue to increase faculty productivity.
- reduce unnecessary overhead costs within the system by reviewing the system's infrastructure, including streamlining compliance with state regulations and reducing reporting requirements.

*Goal Six: To strengthen higher education's accountability to the citizens of Colorado by continuing to implement meaningful programs of assessment.*

- reexamine and evaluate current methods of assessment and accountability to ensure that the public better understands and recognizes the value and effectiveness of higher education in Colorado.
- continue to support the nationally recognized institutional assessment system and begin integrating assessment with other policies that monitor quality, streamline procedures, and reduce associated costs.

- enhance accountability by providing a full reporting to the public of appropriate comparable data about the performance of Colorado colleges and universities.

*Goal Seven: To link higher education more closely to the communities it serves by fostering partnerships among institutions of higher education, the state, the business community, and the students.*

- seek responsible and fair levels of support for higher education from the state, the private sector, and the individual student in order to ensure that higher education institutions have sufficient funding to provide both access and quality educational experiences.
- encourage students to have high expectations that promote personal effort, self-esteem, and responsibility commensurate with the state investment in public education.

*Goal Eight: To join with the K-12 education system to articulate clear expectations of entering students in order to promote their academic performance, success, and retention in Colorado's universities and colleges.*

- examine how higher and secondary education can cooperate more effectively to prepare entering students to succeed in higher education.
- work with the state's educators to learn about current student assessment practices in the K-12 system, appropriately review higher education admission policies, and coordinate K-12 curriculum and assessment with higher education admission standards.
- continue to ensure that teacher education programs adequately prepare teachers for the classroom and that professional education addresses the changing needs of the K-12 system.



# The Environment Facing Colorado Higher Education

**H**igher education in Colorado operates within an international, national, and local context. Internationally, the state's institutions of higher education are called upon to prepare graduates for a global marketplace within which the nation's businesses and corporations will increasingly compete. Nationally, higher education is affected by national initiatives, federal legislation, and judicial opinion. Within Colorado itself, higher education is challenged to remain responsive to the state's demographic changes, economic opportunities, and the demand for educational services. What follow are highlights of how these forces are shaping educational planning for the state.

## The International Environment

- The U.S. is part of a global economy, symbolized by the formation of trading blocs. The largest of those in place is the European Common Market, representing 344 million people. If the U.S. Congress ratifies the North American Free Trade Agreement (NAFTA), the U.S. will enter into this contest of giants in cooperation with Canada and Mexico.

- U.S. trade interests increasingly involve Asian and Pacific nations. While Japan has the largest economic output, some of the most robust growth has occurred among the Southeast Asian nations (Brunei, Indonesia, Malaysia, the Philippines, Thailand, and Singapore). Once China reaches full economic potential it will become one of the world's largest single markets. Higher education in Colorado will need to ensure that the curriculum includes a broader perspective than the traditional European models and displays a more multicultural focus.

- Many multinational corporations, among them many of U.S. origin, transfer their operations to sites around the world where it is most advantageous to do

business. These businesses are most likely to relocate where there is a highly skilled workforce available and a reasonable cost of living. Higher education will have a role to play in assisting Colorado to attract these national and international companies into the state.

## The National Environment

- The nation is becoming increasingly diverse. According to the report *One Third of A Nation*, by the year 2000 one-third of all school-age children in the U.S. will be from minority groups. Education has traditionally been the means for upward mobility in American society, yet minority groups have been the most difficult to recruit and retain in higher education. Higher education will be asked to play an even more proactive role in more equitably distributing educational services among all ethnic groups.

- The nation's governors have established a set of national education goals to be achieved by the year 2000. Among these is the call for 90 percent of all students to graduate from high school, renewed emphasis on science and mathematics in the curriculum, and increased adult literacy and lifelong learning. All of these are likely to have profound implications for higher education.

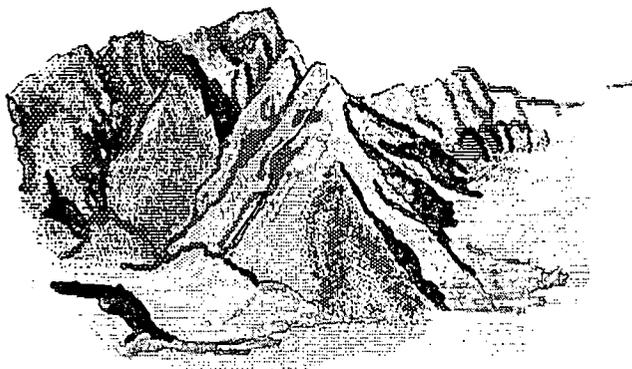
- There is now a stronger link between education and productivity. In the report *America's Choice: High Skills or Low Wages*, the Commission on the Skills of the American Workforce argued that measurable and precisely defined standards of achievement must be universally developed, technical and professional certificates should be widely offered, employers should be encouraged to provide further training for their employees, and upgrading of skills should be part of

U.S. public policy. Such a public policy would necessarily place increased demands on the nation's colleges and universities.

- There is a growing tendency to require the use of assessment tools across the nation's campuses. Two thirds of all institutions undergoing accreditation reported that assessment is part of their self-study procedures. Colorado has provided a national model for these activities.

- New federal accountability requirements have been enacted, requiring that all higher education institutions publicly disclose general graduation rates as well as those associated with intercollegiate athletics, and campus crime levels.

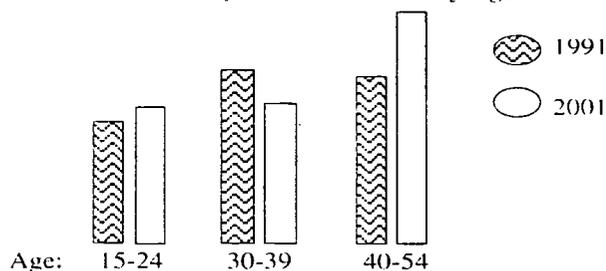
- When asked in 1991 to name the most important challenges facing their institutions over the next five years, higher education administrators identified finances, program quality, faculty issues, enrollment, physical facilities, modern technology, and diversity as their main concerns.



## The Colorado Environment

- Projections show that Colorado's population will grow by almost 20 percent by the year 2001. This will mean an increase from 3.1 million to 3.6 million state residents. This increase will not be uniform by age group. Those aged 40-54 will increase by 39 percent, while those aged 30-39 may decrease by 15 percent. Those of traditional college-going age are projected to increase by 71,000, or 15 percent. In addition, the number of Colorado high school graduates is projected to increase by 33 percent.

Colorado Population Growth By Age



- Colorado's workforce will become increasingly Hispanic, African-American, Asian-American, and native American. Roughly 30 percent of new workers will be from these groups, as will 25 percent of higher education enrollment. While enrollment in Colorado institutions has become increasingly diverse, participation rates still do not match the ethnic representation for the total state population. In fall 1991, ethnic minorities were 15 percent of total in-state enrollment, an increase from 11.4 percent in fall 1987 but still short of the goal of 18.6 percent minority systemwide graduation by the year 2000.

- Population growth will be distributed over both rural and urban areas. The largest increases, however, are projected for the urban counties, where a 14 percent increase is predicted. Cost-effective methods of serving both populations will need to be identified.

- Colorado's population is one of the best educated in the nation. Currently, Colorado ranks sixth among the states in the percentage of citizens who have completed four or more years of college. It is seventh in terms of the percentage who have completed some college.

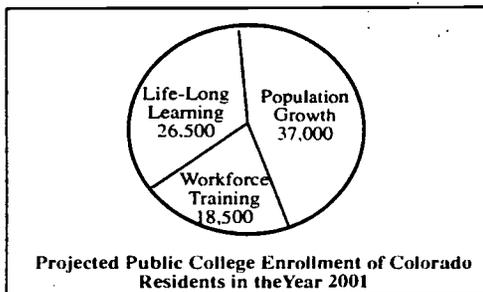
- Between 1980 and 1990, the share of manufacturing jobs in Colorado declined from 23 percent to 18 percent relative to total jobs within the state. At the same time, service industries experienced growth. This trend is projected to continue through the next decade, requiring new workforce skills and retraining opportunities.

- Colorado is positioning itself aggressively to play a major role in the international future of the nation. The new international airport is one manifestation of this commitment.

## The Environment for Higher Education in Colorado

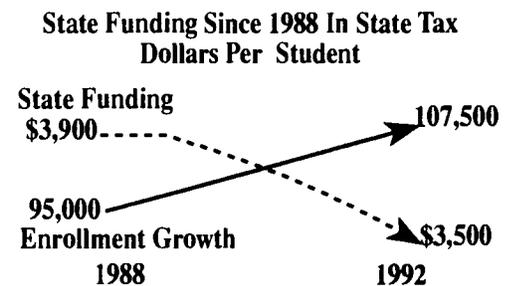
- Colorado institutions of public higher education are already experiencing pressure for increased access and service. Between 1986 and 1991, 32,000 additional students entered the system, affecting all campuses but placing particular pressure on the state's community colleges. It is interesting to note that in 1992, 14 percent of persons aged 15–54 living in Colorado enrolled in one or more college courses.

- Enrollment projections show a huge increase in demand for higher education. By the year 2001, the state's universities and colleges will serve an additional 37,000 to 82,000 students. This is equivalent to the entire population of Boulder or more than the current headcount enrollment of Metropolitan State College of Denver, UC-Denver, UC-Colorado Springs, the University of Southern Colorado, the University of Northern Colorado, Pike's Peak Community College, the Community College of Denver, and Colorado State University *combined*. This demand will result from an increase in the number of high school graduates, the need for workforce training and retraining, and con-



tinuing interest in adult lifelong learning programs. This increase is larger than that experienced in the 1960s when the so-called Baby Boom generation reached the nation's higher education institutions.

- State funding for public higher education in Colorado has not kept pace with resident enrollment increases and inflation. Since 1988, state general funding per student (adjusted for inflation) has declined by 8.2 percent. In 1992–93, Colorado ranked 47th among states in the level of state appropriation per student and 40th among states in state appropriation plus tuition revenue per student. If current projections hold and if the state portion of the cost of higher education remains stable, higher education institutions in the state will require an additional \$100 million annually for instruction. Increased costs for new facilities would range from \$136 to \$325 million.



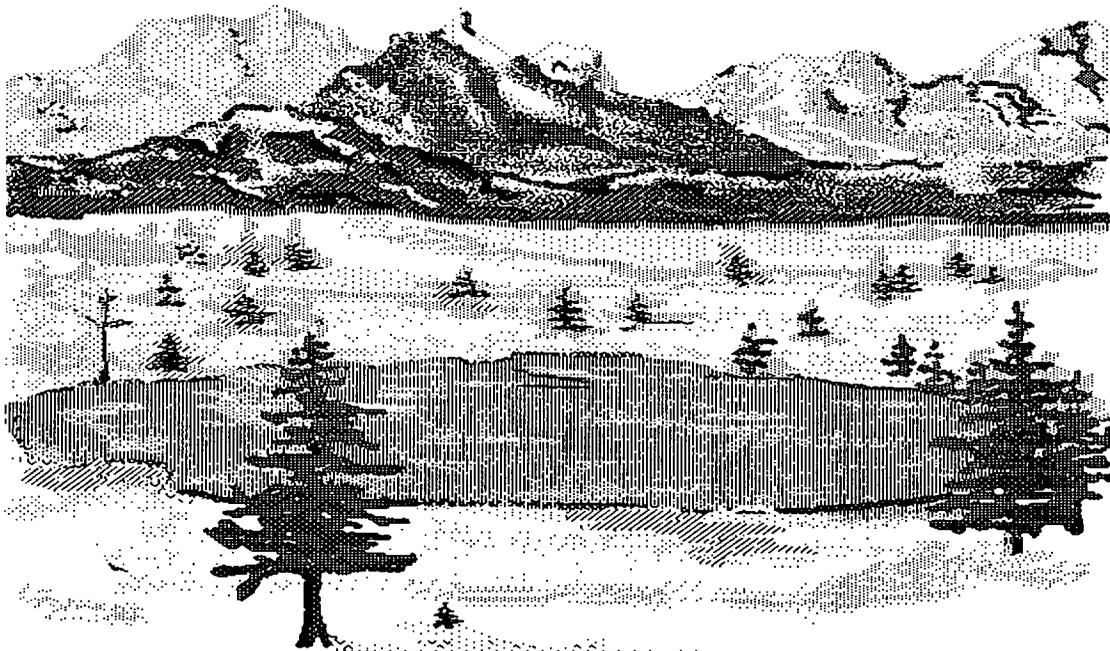
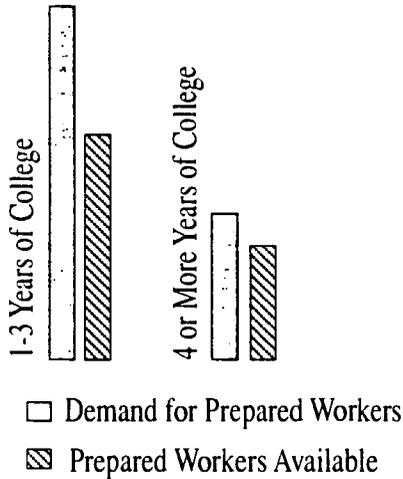
- Since 1987, tuition levels have increased by nearly 20 percent. Combined state funds and tuition have raised the funding level per student (adjusted for inflation) by 1.2 percent during the same period. Tuition may not be a significant source of additional funds for higher education unless tuition revenues are exempted from the Amendment 1 requirement, which mandates that combined state spending may not exceed the growth of inflation and population for the previous year. If tuition rates increase to the point that in-state students pay significantly more than 30 percent of educational costs, state-funded student aid will need to increase significantly to assist financially needy students.

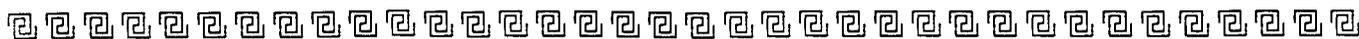
- In order to meet the projected educational demand of Colorado's workforce in the year 2000, an estimated 31,252 pre-baccalaureate degrees and 18,364 baccalaureate degrees will be needed annually between 1990 and 2000. Projections indicate that the state's higher education system (public and private) will produce only 50 percent of the pre-baccalaureate and 90 percent of the baccalaureate degrees required to

meet these future workforce needs. Reports from independent and proprietary colleges indicate that no expansion is planned that would address this increased demand.

• Colorado demographics suggest that the future workforce will be increasingly diverse. Public secondary education in Colorado has reached a graduation rate comparable to the state's ethnic population. In 1991, 20.7 percent of total high school graduates were from minority backgrounds: 13 percent were Hispanic, comparing favorably with their representation in Colorado's population (12.9 percent); similarly, African-Americans were 4.4 percent of graduates and 3.9 percent of the population; and Asian-Americans were 2.7 percent of the graduates (1.7 percent of Colorado's population). Although the number of Colorado minority high school graduates continues to grow, the college graduation rate of minorities is of great concern. In 1991, only 11 percent of Colorado public college graduates were minorities. To address this concern, the higher education community has established the goal that by the year 2000, minorities will account for at least 18.6 percent of all public college graduates. Colleges are increasing their recruitment and retention efforts to achieve this goal.

Comparison of Projected Workforce Needs and Available Workers





# Messages

**A** statewide system of higher education provides quality education through superior teaching, research, scholarship, and public service. To be truly effective, this system requires the collaborative efforts of all those who benefit from the services. Government, business, and individual citizens must state clearly their expectations of the system and then be willing to become partners in achieving this vision. Should any link in this chain of cooperation fail, the effects will be felt across the statewide system in terms of both quality and access.

*We...ask that the Governor be a critical advocate for higher education in Colorado.*

The master plan has set out what we believe to be significant, practical goals with a set of objectives designed to lead to their accomplishment. What follow are some specific recommendations to implement the partnership that will bring Colorado's higher education system into the twenty-first century.

## The Role of the State Administration

The Governor of Colorado has responsibility for the total operation of all public programs and must exercise judgment in the public interest. Given the broad contributions made by higher education to the economic and cultural welfare of the state, however, **we ask the Governor to seek the funds necessary for higher education to continue to be a strong contributor to the state. We also ask that the Governor be a critical advocate for higher education in Colorado.** It is important that the Governor's office communicate with the public about the importance of higher education to the future of the state, and the economic contribution that it represents.

Because of the projected demand for higher education services in the state, **we ask the Governor to continue working with the National Governors'**

**Association and other national organizations to increase federal funding for higher education nationally.** In return, we expect to achieve the goals set by the Governor's office and to justify the state's faith through strong accountability programs.

Finally, **we ask the Governor to voice personal goals and expectations of higher education. We also ask that the Governor continue to appoint to the governing boards highly qualified people who possess a broad perspective of state needs and how higher education can meet them.**

## The Role of the Legislature

As elected representatives of their constituents, members of the state legislature play key roles in determining the support and future direction of higher education. **We ask that legislators continue to recognize higher education as an investment in Colorado's future and understand the pressing need for a funding base and capital improvements to meet the increasing demand for higher education access in the state.**

Because of the importance of access and the full participation of all parts of Colorado's population, **we ask the legislature to assist us in providing programs and services to achieve parity in participation and success within one generation for all of Colorado's people.**

*We ask that legislators continue to recognize higher education as an investment in Colorado's future and understand the pressing need for a funding base and capital improvements sufficient to meet the increasing demand for higher education access in the state.*

Higher education in Colorado is committed to a policy of accountability and fiscal prudence. In order to accomplish this, **we ask the legislature to assist us by identifying and reducing any unnecessary reporting requirements that increase administrative overhead, and by recommending any management**

policy changes that would further increase our effectiveness.

Finally, we ask the legislature to clearly articulate legislative priorities for higher education and participate in its long-range planning efforts. We also ask that they help us achieve the appropriate balance between their very legitimate interests in higher education and the flexibility and autonomy that the governing boards need to maintain the high level of quality that the state deserves. This may require reexamination of the relationship between the General Assembly and the state's higher education institutions, including CCHE and the higher education governance structure.

## The Role of CCHE

As the agency responsible for statewide coordination of public higher education, the Colorado Commission on Higher Education has major responsibility with respect to each of the goals established in this master plan.

The Commission recognizes the need to make the case in the strongest possible terms to the administration, the legislature, and the general public for the critical need to obtain additional operating and capital improvement funds to meet the projected, unprecedented demand for higher education in Colorado.

It is the Commission's responsibility also to balance the need for institutional resources with the capability of citizens to pay for their education through tuition. In this respect, at the same time that the case for additional resources is being made, the Commission will monitor the relationship between tuition and state-funded student aid and will seek adequate state-funded, need-based financial aid to provide educational opportunity to qualified students who do not have sufficient personal or family financial resources to pay for education on their own. The Commission will ensure that these funds, once identified and obtained, are administered fairly both within public and private higher education.

The admission policies developed by the Commission, in collaboration with the legislature and the governing boards, have been designed to reflect the differing roles and missions of the institutions by placing students where their opportunity to succeed is

enhanced. The Commission will continue to maximize state funding by supporting students in higher education institutions where they can complete their degrees and certificates expeditiously.

The Commission also maintains and promotes excellence within the system through a program of responsible review and approval of academic program initiatives and policies that prepare the state's students for the future. The Commission will provide leadership in reviewing existing and proposed programs in light of their quality, effectiveness, efficiency, and contribution to Colorado's economic future.

While not wishing to diminish the appropriate management responsibilities of the state's higher education institutions, the Commission also fosters the continuous improvement and effectiveness of Colorado's educational system. The Commission will focus its efforts on developing reasonable and commonly understandable accountability measures and

*The Commission will focus its efforts on developing reasonable and commonly understandable accountability measures and assessment procedures to permit the Governor, the legislature, and the citizens of Colorado to better understand the productivity and performance of the higher education system.*

assessment procedures to permit the Governor, the legislature, and the citizens of Colorado to better understand the productivity and performance of the higher education system.

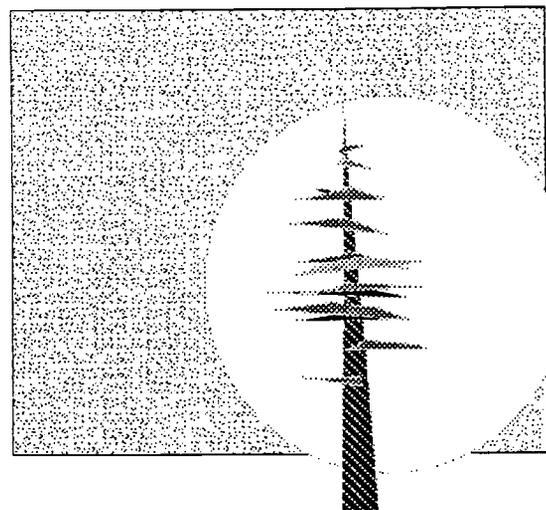
The Commission also works with the Governor and legislature by providing policy analysis and advice as to how the state can best achieve the highest-quality, most cost-effective, and most widely accessible delivery of educational services within the state. In this regard, the Commission will work with the legislature to examine the current governance structure for Colorado higher education to determine whether reorganization would produce a more effective structure.

Finally, the Commission has a major responsibility to coordinate efforts to link elementary, secondary, and higher education more closely. While programs are already in place to promote this cooperation, the Commission will coordinate statewide linkages and will sponsor continuing discussions as to how these linkages can be strengthened and expanded.

# The Role of the Governing Boards

Individual institutions operate both independently and as a part of the statewide system. This means that governing boards have responsibility both to their campuses and to the state as a whole. Recognizing, however, that no institution acting alone can resolve the current problems related to funding, access, and quality, governing boards are asked to ensure equitable access to all of Colorado's people. We also ask that they work within the vision of this master plan to maintain currency with Colorado's needs and expand their partnerships with the legislature, the business community, and with other institutions of higher education to ensure the effective management of scarce state resources.

On their individual campuses, governing boards are responsible for the quality of all undergraduate, graduate, and research programs. The boards are therefore asked to reaffirm Colorado's commitment to educational quality. This is imperative in light of Colorado's future workforce needs and the



standards and the basic competencies expected of entering students.

## The Role of the Citizen

Colorado is fortunate in the level of education of its citizens and in their current access to higher education programs. Since spending limits on public funds will affect the level of services in the future, we ask Colorado's people to recognize that it may not be possible to provide access with the same degree of convenience as before. We also ask that they

*The boards are therefore asked to reaffirm Colorado's commitment to educational quality.*

need for research in areas critical to the state's future and economic well-being.

As the front-line managers of the state's economic programs in higher education, governing boards are asked to develop a public accountability system of coordinated planning and information feedback to assure policy makers and citizens of student academic progress and the prudent use of public resources. This will include efforts to improve student retention and graduation rates.

Finally, governing boards have the responsibility to clearly indicate the student preparation levels that permit success relative to individual campus mission and expectations. In order to assist secondary schools in preparing students for success in higher education, we ask the governing boards to continue providing information on educational performance

*...we ask that citizens participate fully with secondary education to provide assistance and advocacy for strong educational programs in the state's K-12 system, and that they work with higher education to preserve the access and quality it now possesses.*

understand the financial challenges faced by higher education and the role that tuition plays in financing basic educational services. This may well mean increased tuition and fees.

In order to help higher education make the most effective use of resources, we ask that citizens participate fully with secondary education to provide

assistance and advocacy for strong educational programs in the state's K-12 system, and that they work with higher education to preserve the access and quality it now possesses.

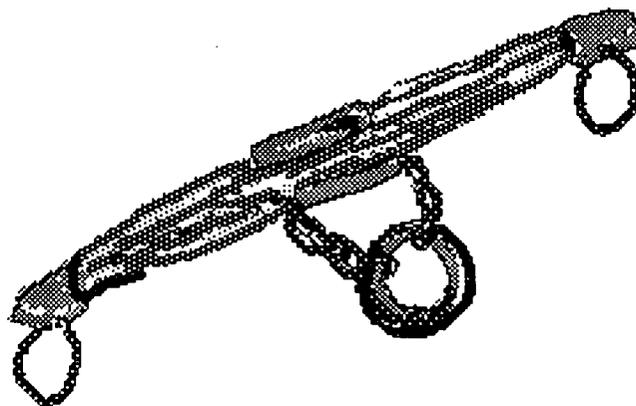
## The Role of the Business Community

*...we ask the state's business community to demand high quality from the state's graduates of higher education and to assist by making sure that higher education programs are current and effective in preparing students for the workforce.*

We ask the state's business community, as the primary employer of the graduates of higher education institutions in Colorado, to demand high quality from the state's graduates of higher education and to assist by making sure that higher education programs are current and effective in preparing students for the workforce. This will involve evaluation of employees, service on advisory boards, and sharing of resources wherever possible.

We ask that the business community understand the major demands that will be placed on higher education in the next decade. The increase in demand will be the largest ever experienced in Colorado, and higher education will need assistance in meeting these needs.

Above all, we ask also that as leading citizens of the state, businesses support the creation of a tax base that is adequate to sustain the state's investment in higher education. We ask this not only for the future of higher education but also to ensure the continuing excellence of Colorado's workforce.





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**U.S. DEPARTMENT OF EDUCATION**  
*Office of Educational Research and Improvement (OERI)*  
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