This paper traces the Colorado Legislature's House Bill 1187, Article 13 from its inception through to its present implementation and addresses various pertinent issues in regard to accountability. The legislation mandates accountability in higher education within Colorado. The issues discussed are the rationale and underlying concepts, schools of research in the literature, and the policy's relation to and effect on the internal environment of institutions of higher education. In addressing the process of HB 1187's development, an overview is presented that outlines the outcomes sought, the strategies involved, and the roles of key policy makers and the people who have implemented those policies, as gleaned from interviews with them. Finally, the views on this issue and its meaning for higher education are provided. Contains a 37-item bibliography. (GLR)
Mandated Accountability in Colorado Higher Education:

Alan C. Frantz
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Department of Foreign Languages
Idaho State University
Pocatello, Idaho
83209
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On May 7th, 1985, at 8:50 a.m. at the Colorado State Capitol, Governor Richard D. Lamm signed into law House Bill No. 1187, which concerned the reorganization of higher education in Colorado. Article 13 of HB 1187 required the state to establish a higher education accountability program. Thus Colorado became one of the few states to enact legislation mandating accountability. As of March of 1991, forty-two states had some type of statewide programs in place, but only six of them were mandated by legislation. The rest of the initiatives were established or encouraged by a state governance board.¹

The accountability movement is not new, at least the intent is not, although the format may be. Graduating seniors in the nineteenth century were examined orally by lay members of the community. That practice gave way gradually to the earning of credits for "seat time." Charles Eliot called for the general exams again during his tenure at Harvard. Part of his reasoning was that such exams evaluated the teachers as well as the students. Abbot Lawrence Lowell succeeded Eliot, and although an opponent of Eliot's free elective system, he did agree with the general exam concept and continued Eliot's advocacy of it. Such exams gained popularity in the late 1920s and 1930s, but faded with the advent of war.²
Accountability reemerged in the 1980s, with many prominent educators voicing "the need to assess," among them Derek Bok, Alexander Astin, Ernest Boyer, and William Bennett. Pat Hutchings and Ted Marchese say, "It was in part from educators themselves, then, that state policy makers took their interest in assessment."3

In this paper, I trace HB 1187, Article 13 from its inception through to its present implementation and address various pertinent issues in regard to accountability. These issues are the rationale and underlying concepts, schools of research in the literature, and the policy's relation to and effect on the internal environment of institutions of higher education. In addressing the process of HB 1187's development, I overview the outcomes sought, the strategies involved, and the roles of key policy makers and the people who have implemented those policies, as gleaned from interviews with them. Finally, I present my personal views on this issue and its meaning for higher education.

The Underlying Concepts

What do we mean when we say "accountability?" The terms one hears and reads in accountability discussions are "assessment" or "outcomes assessment." "Accountability" seems to mean that the institution is to be held accountable to the people who pay for it, be they taxpayers or tuition-payers. These people have a "right to know" how well the institution is
doing with its funds, and the institution is then "burdened" with various reporting requirements. Hutchings and Marchese say "assessment" is about student learning, and is in fact a "set of questions" about the "college’s contribution to student learning. . . what the degree implies. . . how student learning can be improved. . . " and other questions." Patrick Terenzini holds that "assessment requires reconsideration of the essential purposes and expected academic and nonacademic outcomes of a college education." He regards definitional issues as key to the success of an assessment attempt. The words have differing meanings to different educators. In coming to a common understanding of the meaning of assessment, Terenzini requests that three questions be kept in mind: "What is the purpose of the assessment? What is to be the level of assessment? What is to be assessed?" Using a general typology by Peter Ewell, he then outlines a "Taxonomy of Approaches to Assessment," which he believes will be useful for the assessment committee engaged in its conceptual stages of planning. "An inadequate conceptual foundation for an assessment program will produce confusion, anxiety, and more heat than light." Terenzini is intrigued by R. A. Yanikoski’s suggestion that we think and speak in "terms of ‘progress assessment’ rather than ‘outcomes assessment.’" The switch can be important symbolically as well as conceptually. . . ‘assessing progress’ implies an ongoing, formative process, which, in turn suggests that time remains to make any necessary improvements."
My formulation of assessment and accountability would sum them up for the context of higher education as follows. Assessment measures the intellectual, cultural, and maturational growth and development of college students for the purpose of improving instruction and learning, which in turn provides accountability to the institution's constituencies.

The definitional issues provide us with the rationale for assessment and accountability measures—improving our educational system and informing the public of its state and progress. They also lead us to what assessment and accountability measures should not do. Jeffery Aper, Steven Cuver, and Dennis Hinkle advocate that state policy makers be explicit about how the assessment information will be used: "... assessment mandates seem to imply that something is wrong with the institution and needs to be corrected." Some policy makers have wanted assessment for purposes of comparison between institutions or for decisions regarding budget cuts or reallocations. Many educators warn against this kind of usage of assessment. They fear assessment will not be done properly if jobs or programs are at stake. There are enough problems as it is in trying to determine what to measure and how, without complicating matters with threats. Better would be positive incentives as rewards or aid towards further improvement.

How are the outcomes of a college education to be measured? This is a fundamental issue which evokes myriad further questions. Many measurements have been developed to
date, from commercial standardized tests to home-grown tests to portfolios. About the only two things that people agree on are first, that tests only measure a portion of that which they would like to measure, and hence, second, that multiple measures are necessary even to approach some semblance of valid measurement. Trudy Banta and Gary Pike voice the sentiment of many, that "in fact, the process of reexamining educational goals may be at least as valuable as testing students to determine what they have learned. . . .that perfect instruments are not available must not, however, prevent faculty from beginning to reflect systematically on the efficacy of their programs and methods of instruction."9

What is the relationship of outcomes assessment to undergraduate education, to liberal education, or to the general education component of a baccalaureate degree? This question entails some of the most troubling conceptual issues of the entire assessment movement. Before one can assess such education, one must know what it is. Gary Miller distinguishes between general education and a liberal arts education. The difference is "revealed most clearly in the assumptions about content and method that one brings to the curriculum." General education builds on an "inseparable relationship between the individual and community."10 Liberal education has traditionally "centered around the classical humanist traditions passed down by the writers of ancient Greece and Rome." He illustrates the differences thus:
Liberal education, founded on rationalist assumptions, oriented toward essentialism, and based in the methods of logic, is concerned with ideas in the abstract, with the conservation of universal truths handed down through the years, and with the development of the intellect. General education, founded on instrumentalist assumptions, oriented toward existentialism, and based in psychological methods, is concerned with experimentation and problem solving for individual and social action, with the problems of the present and future, and with the development of the individual. The differences between the two are fundamental.

It stands to reason then, that such fundamental philosophical differences may require differing approaches and expectations in regard to the assessment of the institution's student outcomes. If the institutional mission and goals reflect the prevailing viewpoint of undergraduate education by the faculty, and assessment is undertaken based on and consistent with that mission and those goals, then assessment may proceed with the expectation that it will in fact measure what the institution says it imparts to the students.

What happened to the German concepts of Lehrfreiheit und Lernfreiheit? The professor is to have (some) freedom regarding what to teach, and the students are to have (some) freedom regarding what they wish to learn. But the student's freedom also requires the student to assume responsibility for his or her own education. Such is the position of the American Council on Education's 1949 "Student Personnel Point of View." However, the assessment/accountability movement appears largely to ignore this aspect of education, placing the responsibility for student learning mostly on the shoulders of the faculty. My position is that while faculty members can and should improve their teaching
abilities, and their efforts alone may improve a student's learning, the main responsibility still rests on the student. Hutchings and Marchese must have found some evidence that other faculty members and administrators share this view, for they write that "some campuses are beginning to think, as well, of students' accountability for their own learning, and are teaching students to 'self-assess,' to take responsibility, to ask the 'what-it-adds-up-to' question of themselves as learners." More colleges and universities need to make this a part of their assessment efforts.

Academic freedom and institutional autonomy are two concepts dear to the heart of higher education. Some faculty members perceive assessment and accountability mandates, be they from the state legislature or policy making board, as inroads on these valued domains. There is reason for concern. Pressure is increasing on regional accrediting associations to include assessment in their accreditation criteria. Such pressure is coming from the US Department of Education and the Congress.¹⁴

In 1986, the Texas State Board of Education directed that future (secondary level) "French, German, and Spanish teachers have their oral proficiency assessed, 'using procedures, criteria, and a passing score in accordance with the ACTFL guidelines.'"¹⁵ How long before they try to do the same for college professors? (Or should they not?)

Even though "ethics" are back in style, this area is conspicuously lacking as a fundamental concept in the assessment
debate. The closest that people come is to say that assessment is something they should be doing anyway, even without a state mandate. George Robinson and Janice Moulton do not specifically speak to assessment in their book *Ethical Problems in Higher Education*, but they do ask some of the same questions which assessment people are asking:

A college degree is a credential that conveys a set of expectations that the holder has reached a certain level of intellectual competence, proficiency, and judgement. It is a required credential for many jobs and for graduate and professional schools. But what does the granting of a degree actually say about the graduate? What can one expect of the holder?  

The authors do not provide answers to those questions, rather, their book is devoted to the process for finding such answers. Are ethical issues a part of the assessment discussion? If they were, institutions might have to swallow hard and put their priorities back in order. Hutchings and Marchese remark that institutional rewards are for "sponsored research, victories on the football field, and sheer enrollment." They quote Missouri's higher education commissioner Charles McClain as asking, "How often has an institution been rewarded because its students learned more?" Yet is not "student learning" a basic reason for the existence of the higher education institution? It seems, then, that from an ethical standpoint, the institution has the duty to increase student learning, if it can. Indeed, the institution is already being rewarded and should always be making its best efforts.
I have just discussed how the conceptual issues relate to assessment, and included how the mission and goals are fundamentally involved with the assessment process. This necessarily involves the trustees, or governing board of the institution. In a few states, the legislature has mandated that assessment take place. Typically, the statewide governing board is responsible for the next step, that of formulating policies for implementation by the institutions. In most states, the governing boards themselves originated the policies. In a few cases, the institutions themselves originated their assessment process, calling it curricular restructuring or similar. Whoever may initiate the process, the people who actually implement it are the same: the students, faculty, staff, and administrators. In order for anything meaningful to result, they must be involved and supportive. There will likely be some people who do not see the value in the assessments, or for other reasons may simply not want to be involved, but the assessment proceeds in spite of them, though perhaps not as smoothly. If there are too many who are opposed, however, and especially if they are faculty members, the assessment effort may fail. Terenzini states that "the active and visible support of senior executive officers (particularly the president and chief academic officer) is absolutely necessary but, unfortunately, not sufficient. Faculty support is also needed, and without it prospects for a successful assessment program are dim." Once the governing board passes its new assessment policies on to the president, he or she may
establish a committee to develop implementation procedures. The faculty, administrators, and/or staff members (i.e. testing center personnel) who sit on the committees then hash out all of the conceptual issues and decide how and what to measure. The tests are then administered and possibly evaluated by the various departments or the testing center, and the students are the ones who must sit for the exams. Not only in terms of time, but also of funding do assessment measures cost the institution. Some additional funds may be allocated by the state, some may be awarded as grants, but mostly the dollar amounts are paid from the institution’s regular budget. Where standardized tests such as the GRE, GMAT, or other tests for graduate and professional schools are a part of the assessment package, the students bear the costs (though they would be doing so anyway). Thus, from the students to the president, the entire internal environment is affected by assessment and accountability measures.

Schools of Research

The literature I reviewed for this project varies widely. I have placed the books and articles into three categories: undergraduate education (for an understanding of the conceptual issues involved), outcomes assessment (for an understanding of current theory and practice), and external sources of policy (for an understanding of these sources of assessment mandates).

Five works appear in the undergraduate education category. Miller wrote an in-depth study of general education, and as
quoted earlier, takes great care to distinguish between it and liberal education. Glenn Irvin, writing for Change magazine, advocates appointing a separate faculty for general education. His argument is based on the premise that a faculty whose primary emphasis is teaching rather than research would be more beneficial to student learning. In the context of student outcomes assessment, his idea has merit. Boyer devotes his "Part III: The Academic Program" of College: The Undergraduate Experience in America to language, general education, and the major. A strong advocate of "writing across the curriculum" and the "integrated core," Boyer would have the major and general education "intertwined." "If a major is so narrow and so technical that it cannot be discussed in terms of its historical and social implications, ... then the department is offering mere technical training that belongs in a trade school, not on a college campus, where the goal is liberal learning." Those people not familiar with Miller's work on general education (cited earlier) may take Boyer's chapters at face value, but Bruce Kimball reasons that Boyer's and others' attempts to "intertwine" general and liberal education cannot work, due to the fundamental differences in the underlying concepts of general education and liberal education. The two opposing views of education which have been argued throughout the ages stem from the two interpretations of the Greek word logos: "reason" and "speech." Kimball traces the differences in those meanings through history, and concludes, "All the reports complain about
how the departments and specialized majors have devoured liberal education. But none of them have tried to conceive of an undergraduate education without departments and majors, which in their most recent incarnations have been with us only for the last century."

James D. Koerner is the editor of "an exchange of views" on the place of computer technology in the liberal arts. Stephen White wrote the position paper, and ten authors responded, among them Jacques Barzun and Frederick Rudolph. White argues gracefully that times have changed, and so should the liberal arts curriculum. Nine of the ten respondents agree after their own fashion and with their own clarifications and modifications. The tenth (Barzun), according to White's "Afterword," was unclear in his leanings. The value of this work lies in the wide array of perspectives on liberal arts given by these accomplished authors."

The second category of articles and books deals with outcomes assessment and accountability. That this is an emerging area of importance for research is attested to by Marcia Mentkowski and Arthur Chickering. They authored an article which identified the most important current research topics according to participants at recent AAHE and AERA Division J (Postsecondary Education) annual meetings. They list 57 research questions on institutional and student outcomes assessment that were considered to merit attention."

David Winter, David McClelland, and Abigail Stewart provide
a convenient bridge from the category of undergraduate education to the next, outcomes assessment, for their book deals with such assessment in the liberal arts. As products of and now professors in liberal arts colleges, the authors are committed to the concept of liberal education. They sought "to clarify the effects that liberal arts institutions are supposed to have on their students and then apply the most appropriate techniques, instruments, and analytic procedures of psychological research to determine whether they in fact have these effects, and, if so, why and how." Banta and Pike also deal with the question of instrumentation in assessment. They analyzed the ACT COMP and ETS Academic Profile, two commonly used commercial instruments. They determined that "both are reasonable measures of individual differences. . . [but] neither test yields definitive information for use in evaluating general education programs." They advocate the use of multiple instruments.

Terenzini and the team of Aper, Cuver, and Hinkle wrote the articles which deal with the conceptual and definitional issues, to which I have already made extensive references. Terenzini discusses definitional, organizational, implementational, and methodological issues. Aper et al. put assessment into perspective by contrasting the accountability and improvement approaches, and the state policy versus institutional approaches to assessment.

Four works provide an overview of accountability or assessment history and the current state of affairs. Peter
Ewell, Joni Finney, and Charles Lenth give us the up-to-date status of assessment in the various states. Hutchings and Marchese provide an extensive discussion of the entire assessment issue, plus a look at the University of Virginia and University of Connecticut. Edward Hines discusses the state's role in assessment and quality. Boyer devotes a chapter of his book to the topic of outcomes assessment. In addition to agreeing with what many other authors say about the topic, he "recommends that students be asked to write a senior thesis that would relate the major to historical, social, or ethical concerns." He also encourages higher education to take assessment upon itself, warning against external interference. Published in 1987, his warning was already too late.

Clifton Conrad and Richard Wilson co-author an ASHE-ERIC report on academic program review. This handbook provides the practitioner with models of program review, perspectives on quality, and the different aspects of program review. It also contains an extensive bibliography on review and assessment literature up to 1985, its date of publication.

Five authors appear in the category of external sources of policy. The first, Susan Fuhrman, focuses on legislative policy making, including accountability and assessment, but on the K-12 level. However, since legislatures too often adopt (and try to adapt) K-12 policies to higher education, this is a valuable study for us in higher education. Hines' book, listed above already, tackles in detail the relationship between higher
education and state governments. The other three authors focus on accreditation and the regional agencies. Kenneth Young presents a history, explanation, and critique of accreditation, plus identifies important issues. Fred Harclerode's article discusses the impact of five private constituencies on higher education; among them are accrediting agencies. T. R. McConnell calls "accountability for student development" a "complicated process." His work, one of the early ones to broach the topic, asks many of the questions which others have been attempting to answer for the past decade.

Colorado's HB 1187

At this point, I will trace the legislative history of HB 1187, Article 13, from its inception through to its implementation and current status. In addition, I will report on three specific interviews with assessment officers from two campuses and one assessment specialist from the National Center for Higher Education Management Systems (CHEMS), who shared his views on Colorado assessment efforts and how they fit into the national picture. This is accomplished within the five-stage framework for public policy, with emphasis on the fourth and fifth stages: 1) Background of the policy; 2) Formulation of policy through the legislative process; 3) Adoption of policy—enactment into law; 4) Implementation of policy; and 5) Outcomes assessment of policy. This paper itself reflects the fifth stage, that of outcomes assessment, or reflection upon the policy
formulation and its outcomes after some passage of time.

Stage 1: Background of the policy. In the 1970s and early 1980s, "educators, legislators, and the public expressed increasing concerns about the effectiveness and efficiency of higher education," not only in Colorado, but across the entire nation. Representative Paul Schauer proposed legislation in 1984 which would have reorganized Colorado higher education. His bill did not pass, but it did stimulate debate and resulted in a citizen's committee to examine Colorado's higher education system, the Higher Education Committee. Its purpose was "to analyze and assess higher education in Colorado and make recommendations to the General Assembly."  

During the same time period, public schools K-12 were experiencing accountability concerns. Colorado Senator Alvin Meiklejohn was a member of a local school board which boasted positive results from its accountability program. This was the background for his injecting accountability into the higher education bill during the next stage.

Stage 2: Formulation of policy through the legislative process. The Higher Education Committee issued a report to the General Assembly in January, 1985. It contained recommendations to the Assembly ranging from public policy objectives to governance, mission, and financing. It recommended creation of a statewide governing board in order to improve quality, access, diversity, efficiency, and accountability in Colorado higher education. The committee's objectives included program review,
for which was stated, "Our recommendations on quality call for more accountability by public institutions of the results of educational programs. There should be more explicit evaluation of student progress and achievement. Such evaluations should be subject to public scrutiny."35

Although Representative Schauer was a member of the Higher Education Committee when he drew up HB 1187, he did not include Article 13 on accountability. That was added by Senator Meiklejohn, who had served as a member of the local school board and thought that higher education could benefit from accountability measures as did his school district. It was also Senator Meiklejohn who introduced the two percent noncompliance penalty, unique in assessment mandates across the country. The Colorado Commission on Higher Education (CCHE) became authorized "to retain a sum not in excess of two percent of the appropriation for any institution which has not implemented or is failing or refusing to some degree to implement any part of the higher education accountability program or fails to comply with the policies and standards of the commission in regard to this program."36

Stage 3: Adoption of policy--enaction into law. HB 1187 became law when signed by Governor Lamm on May 7, 1985. However, there was little noticeable reaction to Article 13 by higher education people, due mainly to the sweeping changes made in the organization of higher education in Colorado. Plus it was one of many items added to the bill.37 The two-page Article 13 (see
appendix A) intended that the state colleges and universities be made accountable for "demonstrable improvements in student knowledge, capacities, and skills. . . ," develop goals and performance objectives, identify activities which would help students obtain the goals and objectives, and develop "the means for evaluating the achievement and performance of students."

Article 13 also required the colleges and universities to design and implement assessment programs, taking into consideration the "knowledge, capacities, skills addressed," and the individual mission of the institution. The results were to be made public; the institutions were to have a "high degree of public involvement" in the developmental stage; and the institutions and their governing boards were to do all of this "under the policy direction of the Colorado commission on higher education." The commission was directed to report annually to the governor and legislature, plus was empowered to retain the penalty of two percent of appropriations as quoted above.38

Up until this point, none of the conceptual issues regarding assessment or accountability in undergraduate education had been considered. Article 13 was strictly an adaptation from a K-12 model. During stage 4: Implementation of policy, the conceptual issues began to be addressed. The CCHE went through its own "policy stages" by sponsoring "information papers, faculty conferences and participating in assessment studies." As a result, the CCHE issued its first policy statement in February, 1988, directing the state's institutions to submit goals and
objectives by June, 1988, accountability plans by December, 1988, and a report by October, 1989. The CCHE needed these reports in order to submit its first accountability report in January, 1990 to the General Assembly. NCHEMS was engaged to write a "white paper" on accountability and to assist in reviewing and evaluating the institutions' plans.

Thus far, in order to implement the wishes of the legislature, CCHE researched or contracted for research into accountability measures, formulated policy guiding the initial institutional plans, then collected and evaluated those plans. A few institutions to this point had engaged in discussion of assessment procedures and how they might fit into their own ongoing curricular evaluations. Then they designed their first plans. Some were returned for modifications, and by October of 1989, the first round plans were all accepted as excellent, satisfactory, or provisional. Each institution selected its own committee of faculty, administrators, and/or staff to take charge of the assessments, and each was to design the plan with consideration given to the institution's own mission and goals. This is an important point in the assessment process, since institutions are not all working with the same types of students or instructing in the same types of programs.

One year after the initial reports were accepted, there was a wide range of progress in the assessment process. Two institutions, Ft. Lewis College and Aims Community College "exceeded expectations" with their 1990 reports; Otero Junior
College at first "did not meet expectations," and in fact later faced the 2% noncompliance penalty. Otero's problems appear to stem from a lack of communication and errors in judgement. Otero has since improved its communication with CCHE, submitted a revised plan, and is presently not facing the penalty. The remaining institutions "met expectations." Many of them had begun to compile data on their students, and those who were already engaged in an internal "assessment" program were in better positions to do so. Many of the institutions were already able to report how they had made instructional changes in their programs, due at least in part to the assessment program.

Interviews

Stage 5: Outcomes assessment of policy. For insights into the prior stages of policy, plus information on how assessment was progressing, I interviewed the assessment officers from Ft. Lewis College (FLC) and Metropolitan State College of Denver (MSCD), and staff members of the Colorado Commission on Higher Education (CCHE) and the National Center for Higher Education Management Systems (NCHEMS). I also corresponded with a staff member of the Colorado Legislative Council and the assessment officer at Otero Junior College (OJC). I selected these three colleges because the CCHE identified them as having varied levels of success with their assessment proceedings. FLC was rated as highly successful. MSCD was supposedly running into some difficulties, and OJC was rated unsatisfactory enough to have
faced the two percent noncompliance penalty.

Roger Peters is professor of psychology and director of the Office of Assessment at Fort Lewis College in Durango. At the time the accountability mandate appeared, FLC was already involved in assessment on its own, engaged in "massive revamping of the general education program." Peters and three other faculty members had received a grant in 1986 "to set up model programs that would work so well that all others would want to emulate them." They had a head start on the state mandate; they had already spent a year discussing what they wanted to measure and how, beginning with the mission statement and definitions of goals. He would have liked two years for that conceptual portion of the program. When the state mandate came through, many faculty members were skeptical. Some thought it an intrusion by people who did not know what they were getting into. Staff members were not much involved, but administrators were supportive, especially the Vice President for Academic Affairs, who saw it as an opportunity to let people know how well the college was doing. The students found it a bother--more testing! There has been a significant change in the attitude of the faculty since that time. Now people are coming to Peters for help in outcomes assessment in their disciplines and for the assessment portions of their grant applications.

Peters identified the measures they use at FLC as the ACT College Outcomes Measures Program (COMP) and Defining Issues Test of Moral Development (DIT). They also consider the GRE scores of
those students who sit for that exam. They are moving into qualitative measures, as well, interviewing samples of their constituencies including minority groups, and surveying their students and alumni with an ACT instrument. The long term plan would integrate assessment into the general education program, to become another "fact of life." Art, psychology, English, and other departments will have strong departmental assessment and will serve as models. FLC's head start on assessment helped with the plans which were required to be turned in to CCHE. So far, FLC has received high ratings from the evaluators.

Peters stresses the need for improving the assessment instruments. They are somewhat valid for some content areas, but there are flaws (though the DIT is good, he says). They measure what they purport to measure, at least at FLC, but do not measure all that needs to be measured. Additional efforts are needed for improving the measurements. Asked whether he found the outcomes assessment process valuable, his answer was an unqualified "yes." The results will help to improve instruction, and besides, "at a minimum, we're doing something to protect our colleagues from state bureaucracy."42

Charlotte Murphy was Associate Vice President of Academic Affairs at Metropolitan State College of Denver. HB 1187 came at a time when MSCD was reorganizing its general studies program, so there was already discussion about the conceptual issues involved, driven mainly by the provost. The department chairs had been actively involved with the assessment efforts, and there
was a sense of a good fit with what they were already doing and what HB 1187 required. Nonetheless, there were others who did not see it as a good fit at all, and who continued to focus their efforts on their general studies program rather than HB 1187. As the process progressed and became more established, it became better accepted, with only a few small enclaves of faculty who found little of value in it. MSCP's initial plans were approved "rated excellent" by CCHE, and were possibly even too ambitious. CCHE was skeptical about MSCP's ability to do all they projected in their plans, but Murphy was optimistic, venturing, "we're going to pull it off." Problems did occur, however, with their plans to test all incoming students and place them into appropriate courses for their skill levels. For some students transferring from two-year colleges, this was not possible due to the articulation agreements with those colleges. If the student passed a course at that college but remains weak, MSCP cannot require that student to repeat that course or enroll in a remedial course.

MSCD uses a Nelson Denney pre-assessment measure, an ETS writing measure, an in-house mathematics measure, plus surveys of alumni and employers of MSCP graduates. Murphy believes that the measures of skills are accurate, but cites problems with measuring outcomes of general education. She knows of a problem solving test developed in New Jersey which is reputedly good, but it is expensive. The problem lies mainly in "how to measure" for characteristics supposedly affiliated with the BA degree. Murphy
finds assessment to be a worthwhile process, however, it is costly—in terms of personnel, computer system modifications, measurement instruments—a whole new layer of overhead. She does not think that the movement has peaked yet, but to her, the "higher education pendulum" has swung to the point now where numbers are attached to everything. She expects that we will soon reach the assessment "point of diminishing returns."43

Peter Ewell is Senior Associate with NCHEMS in Boulder. He has been involved with outcomes assessment for many years and is well-grounded in the conceptual issues and research. He wrote the "white paper" for CCHE in the early stages of its policy development. Ewell expressed confidence that many of the established measures "like the SAT, do what they say—measure broad cognitive skills. The question is, are these tests measuring what the people (legislators) intend to have measured?" He feels that a key to any successful assessment effort is to clarify the intent of that assessment. He finds the assessment process valuable, especially at the institutional level, "the process is as important as the end results." One thing he stresses: the "s" on "tools" and "measures." He advocates the use of multiple measures, and among them production measures, task-based simulated problem-solving measures, and if possible "authentic assessment," but that is intensive and expensive.

Colorado is one of only six states which have legislative mandates for accountability or assessment of higher education (most are required by the governing or coordinating board). But
Colorado's assessment program has many similarities and some differences compared to those in other states. Architecturally it is similar to other states which leave the specifics up to each institution, also taking into account that institution's role and mission in the state system. But even so, Ewell would have liked to see even more flexibility in the CCHE policy rule-making, making them guidelines to follow the spirit rather than the letter of the law. The major point where Colorado departs from the norm is the penalty of two percent of appropriations, which can be assessed if an institution fails to meet the requirements. He would rather see positive incentives rather than a penalty. Stephanie Cunningham, an academic officer of the CCHE, said that Ewell was against that penalty from the beginning, but she takes the position, "it did cause people to sit up and take notice."

In February, 1992, the CCHE submitted its most recent "Report to the General Assembly." According to Cunningham, it differs significantly from prior reports. The changes are due to dissatisfaction expressed at a Joint Education Committee hearing, that earlier reports did not inform the committee about statewide issues. The committee also felt that CCHE simply took the word of the institutions. She writes further:

The legislative committee's overall theme during this entire hearing is that CCHE was supposed to be an arm of the legislature, not an advocate for higher education institutions. So the attached report is much more regulatory in tone and has a small statewide issues section. . . . This year's [institutional] reports were much more sophisticated in both content and presentation. Measures, data, and interpretation were explained more clearly and appear to be useful to the institutions. Some reports discussed faculty interest in the data; this is the first time many of the
faculty have had this kind of data at their disposal. What I saw in the reports is that the faculty and administrators are beginning to recognize the importance of the links necessary for a student to obtain both the student's and faculty's education goals. As an example, 1) students who do not take their required English courses early in their educational career will not be ready to write research papers in Senior level courses; 2) students who do not have the prerequisites for a course will not be as prepared as those that do; 3) advising into the correct courses is invaluable to the student; and 4) if students are unable to take core courses or the core courses are extremely diverse, they are not prepared adequately for upper division courses in all areas.46

While the four examples may seem to be more common sense than anything else, it is valuable that the institutions' research validates that common sense. This lends more weight to the accountability argument and helps justify continuing the resources of time, effort, and money poured into it.

Research by Carol Boyer and Peter Ewell, and cited by Hines, reflects the picture of the Colorado higher education response to its accountability mandate:

Institutions in five states were categorized into three patterns of response to assessment. First, some institutions, including major research universities, resisted assessment, and opposition tended to provoke more direct state actions to achieve compliance from institutions. The majority of institutions fell into a second category, those that completed only those tasks required by the state. Third, campuses viewed assessment as an opportunity to achieve local initiatives. In such a proactive response, campuses moved ahead of state mandates.47
My personal watchword is "balance." I believe that the people who pay for our postsecondary educational system have a right to expect that their money be well spent. I also believe that it is important to preserve institutional autonomy and academic freedom. Professors need a degree of Lehrfreiheit and freedom to engage in scholarly activity. Students need a degree of Lernfreiheit, but do likely need some academic guidance, and definitely need to accept the responsibility for their learning. However, wherever possible, professors also need to improve their teaching, which should enable students to improve their learning. Due to the difficulty of defining what needs to be measured, how it can be measured, and the costs in time and money required for such research, institutions have not generally pursued these questions of their own volition. Thus I find the present policy push to be valid. There are good arguments for assessment and accountability, ethical and practical, and budgets are limited. This would cause no problems if every college graduate displayed obvious, valued competencies. Unfortunately, there are many people who do not complete their college education, and some who do, do not "measure up" to whatever expectations the waiting employers and publics have of college graduates. Thus there is doubt that the funding is as well used as it might be. Because institutions of higher education have not as a rule become
voluntarily involved with assessment, state level policy makers have forced the issue. Once the painful years have passed, and accepted, reliable assessment measures are in place, educators will look back on this time and wonder what took them so long. The proper "balance" between institutional autonomy and constituencies' "right to know" needs to be found and preserved.

Even if we never reach the point of accepted, reliable measures, the process is still valuable, much more so than the alternative: doing nothing. Just forcing people to think through the conceptual issues, to define their philosophies of the purposes of education, is of great value. These are things every educator at every level should be doing, anyway. Indeed, one legislative staff member shared with me that, "many institutions documented faculty participation and in some cases, excitement over student outcomes information never before available. Measurement of general education skills has shifted measurement from the first two years to the entire college experience; more institutions developed general education measures for the juniors and seniors."

What is the significance of the assessment and accountability debate for higher education? The debate is important because it marks a time of change, and change is necessary for institutional health. According to Seymour Sarason, there are five components for change in education: outside stimulus, involvement, sustained motivation, change of attitudes, and desire to reduce dissidence between educational
organizations and the community. Assessment and accountability have 1) their outside stimulus—the policy makers; 2) their involvement—at every level in most states; 3) their motivation—to improve instruction, comply with policies, and retain funding; 4) their change of attitudes—not only faculty members have changed as the value of the process became clearer; and 5) reduced dissidence—people want to please their constituencies and keep the government off their back.

Assessment is not going to go away, especially now that the accrediting agencies are being pressured to make it a part of their evaluation. The costs in time, personnel, money, and opportunity are great, but they are worth the price. I have been impressed with the genuine interest of the people I interviewed and evident in the literature for student learning, improving curriculum, and in discussing the fundamental issues which form the bases of education. However, interest alone will not suffice: to do the best possible assessment (and provide the best evidence of accountability), higher education personnel have to approach it coherently, with due care given to each step. Key words here are "higher education personnel." Hines concludes his assessment chapter with the admonition: "Governors and other state leaders can serve as the catalysts for identifying assessment as an important activity; however, the process and implementation of assessment must remain within the sphere of colleges and universities."
consider the underlying ethics, issues, and concepts; define their institutional mission and goals in relation to those concepts; define their terms and clarify the intents of the assessment; and look to the research base for ideas and to avoid pitfalls. They must determine and develop their measurement instruments and scoring techniques, and project how they will interpret and make use of the results. They must also find funding for it all, implement their plans, and evaluate their assessment program. This sequence brings them back full circle: Are they measuring what they desired to measure according to the original underlying values? The process may be never ending. . .
Appendix A

governing boards shall be required to implement these directives not later than September 1, 1989.

SECTION 2. 23-10-203 (1), Colorado Revised Statutes, as amended, is amended BY THE ADDITION OF A NEW PARAGRAPH to read:

23-10-203. Reduction in forces - reasons and priorities. (1) (f) When the Colorado commission on higher education directs the governing board of a state-supported institution of higher education to discontinue an academic or vocational degree program area pursuant to section 23-1-107.

SECTION 3. Title 23, Colorado Revised Statutes, as amended, is amended BY THE ADDITION OF A NEW ARTICLE to read:

ARTICLE 13
Higher Education Accountability

23-13-101. Higher education accountability program. (1) It is the intent of the general assembly:

(a) That institutions of higher education be held accountable for demonstrable improvements in student knowledge, capacities, and skills between entrance and graduation;

(b) That these demonstrable improvements be publicly announced and available;

(c) That institutions express clearly to students their expectations of student performance; and

(d) That these improvements be achieved efficiently through the effective use of student and institutional resources of time, effort, and money.

(2) The general assembly declares that the higher education accountability program developed under this article be designed to measure objectively both qualitative and quantitative achievement. The program shall first develop broad goals and specific performance objectives for higher education and then identify the activities of institutions of higher education which can advance students towards these goals and objectives. The program shall then develop a means for evaluating the achievement and performance of students.

(3) The higher education accountability program shall require that:

(a) Institutions of higher education shall design and
implement a systematic program to assess the knowledge, capacities, and skills developed by students in academic and cocurricular programs. In changing current systems of assessment, institutions of higher education shall ensure that the instruments and methods used are appropriate for:

(I) The knowledge, capacities, and skills addressed; and

(II) The stated objectives of undergraduate education at each institution.

(b) Statements of expected student outcome shall be described in terms of knowledge, intellectual capacity, and skills and may include other dimensions of student growth, such as self-confidence, persistence, leadership, empathy, social responsibility, understanding of cultural and intellectual differences, employability, and transferability.

(c) Each institution of higher education shall continuously examine and adjust the content and delivery of its curriculum and cocurriculum offerings to correspond with its expectation of the knowledge, capacities, and skills of its students.

(4) The results of the institutional assessment shall be communicated to the public, its students, and potential students.

(5) The development of institutional goals and objectives, student outcome statements, standards of expectations, and actual student performance and assessment and evaluation procedures shall be accomplished by the institutions of higher education with a high degree of public involvement.

(6) The governing boards and institutions shall carry out the direction of this article under the policy direction of the Colorado commission on higher education. The commission shall report annually to the governor and the general assembly on the development and implementation of this article.

(7) Commencing July 1, 1990, the commission is authorized to retain a sum not in excess of two percent of the appropriation for any institution which has not implemented or is failing or refusing to some degree to implement any part of the higher education accountability program or fails to comply with the policies and standards of the commission in regard to this program. Any such funds retained by the commission under this subsection (7) shall be reverted back to the general fund.
Notes


14. See current reauthorization of the Higher Education Act of 1965, HR 4471 Section 1205A.


17. Hutchings and Marchese, p. 28.


23. Marcia Mentkowski and Arthur W. Chickering, "Linking Educators and Researchers in Setting a Research Agenda for


35. Higher Education Committee, p. 29.


37. Personal interview with Dr. Frank Armijo, Chief Academic Officer, Colorado Commission on Higher Education, Denver, Colorado, February 1, 1991; and telephone interview with Stanley Elofson, Assistant Director of the Legislative Council, Denver, Colorado, March 1, 1991.


40. Letter received from David R. Kuebbeler, 22 January 1992. Dr. Kuebbeler is Director of Counseling Services and the assessment officer at Otero Junior College.

42. Telephone interview with Dr. Roger Peters, Professor of Psychology and Director of the Office of Assessment, Ft. Lewis College, Durango, Colorado, February 25, 1991.

43. Telephone interview with Dr. Charlotte Murphy, Associate Vice President of Academic Affairs, Metropolitan State College of Denver, March 4, 1991.

44. Telephone interview with Dr. Peter Ewell, Senior Associate, National Center for Higher Education Management Systems, Boulder, Colorado, March 5, 1991.


46. Letter received from Stephanie Cunningham, 12 February 1992.


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