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ABSTRACT

The focus of the session summarized in this paper was on how postsecondary educational institutions can better anticipate the future of higher education by using the "alternative futures approach to planning" model. The alternative futures model processes the best available information obtainable so that plausible alternative futures in a changing world can be anticipated, thereby limiting the number of unanticipated possibilities to the smallest possible set available for decision making. Areas discussed are the following: (1) the need for futures planning for higher education and the use of the alternative approach to planning as fulfilling that need; (2) an explanation of the alternative approach model compared to traditional long-range planning models; and (3) an explanation of how implementing the model's methodology can assist the institution in becoming more alert to what is happening in the world, make better assumptions as to how the world works, and assist in expanding the vision of possibilities, opportunities, and threats confronting higher education, its institutions, and its research agendas. A chart presents the results of small group consideration including events nominated as potentially affecting higher education and their implications. Contains seven references. (GLR)

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# Anticipating the Future of Higher Education

*Proceedings of a General Session at the 1990 Annual Meeting of the Association for the Study of Higher Education*

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# **Anticipating the Future of Higher Education**

## **Proceedings of a General Session at the 1990 Annual Meeting of the Association for the Study of Higher Education**

The last decade, indeed the last year, has been an extraordinarily turbulent time in Western civilization. We have witnessed the end of the cold war and the end of a war in the Gulf. Although the U.S. and coalition forces were victorious in the Gulf war, there is a question whether or not we will "win the peace." We saw an aborted attempt at a military takeover in the Soviet Union; we may see food riots or civil war in that unfortunate region. Europe '92 may incorporate Eastern Europe and become the largest free trade bloc the world has ever seen. In response, a number of nations are projecting joint economic ventures that may include free-trade: the U.S., Canada and Mexico (the North American Free Trade Agreement); Australia and New Zealand; Brazil and Argentina. These blocs may be protectionist, or they may be signals of international free trade. Impossible? Would the dissolution of Communism have been thought possible last year?

Such events, if they occur, will affect the future of every facet of the United States, including, of course, our institutions of higher education.

Most colleges and universities do not systematically incorporate the effects of potential global events into their strategic or their curricular planning. Most planning models, when and if they do pay attention to the external environment, focus on trends, called "planning assumptions." These assumptions typically focus on demographics, or on legislative trends. The models work well when the external environment is relatively stable and predictable. They do not help when the external world is unstable and unpredictable.

The purpose of this session at the 1990 meeting was to focus on how we can anticipate the future in order to plan more effectively. I used a video by Joel Barker, *Anticipating the Future: The Business of Paradigms* (1989) to initiate the session. Barker, in turn, paid allegiance to Thomas Kuhn, author of *The Structure of Scientific Revolutions* (1962) for introducing him to the concept of paradigms.

### Conduct of the Session

I began my presentation with a brief review of the signals that led to the end of the Cold War and to the Iraqi invasion of Kuwait. Both of the events had caught the U.S. government by surprise. Why? Why were our officials not able to anticipate these dramatic events? Why had they not seen the signals?

To respond to these questions, I showed a video by Joel Barker, *Anticipating the Future: The Business of Paradigms* (1989). Barker says that it all has to do with paradigms. He cites Thomas Kuhn, author of *The Structure of Scientific Revolutions* (1962), describing paradigms as conceptual and methodological frameworks that define scientists' models within which they interpret data related to their area of interest. Kuhn found that paradigms act as filters that screen data coming into the scientist's mind. If the data agree with the paradigm, they are recognized and understood. Data that do not match the expectations created by the paradigm, however, tend to be ignored, or are distorted until they fit the paradigm.

Barker calls this phenomenon the "paradigm effect." This "effect" may keep us from successfully anticipating the future, Barker argues, because we try to discover the future by looking for it through our existing lenses (paradigms). He illustrates this with a variety of examples, including the impact the invention of the quartz watch made on Swiss watch manufacturing. In 1968 the Swiss dominated the world of watchmaking, with 65% of the world marketshare and 80% of the profits. In 1978 their marketshare was less than 10%; by 1981 they had to fire 50,000 of their 65,000 watchmakers. By contrast, in 1968 the Japanese had virtually no marketshare in watchmaking; today they dominate the market. What happened? Although the quartz movement watch was invented by Swiss research and development specialists in 1967, the concept was rejected by their employers because it did not fit the watch paradigm—there were no bearings, gears, or mainsprings. In fact, the Swiss did not even protect their invention. Seiko of Japan representatives saw a model at the 1967 annual watch congress, and, as Barker says, the rest is history.

Barker maintains that the Swiss watch manufacturers were blinded by the success of their old paradigm. When confronted with a new and different development in watchmaking, they rejected it. Consequently, they experienced a "paradigm shift." The

assumptions, the rules they lived by, had changed. They did not anticipate this shift because they had what Barker called "paradigm paralysis"—"the terminal disease of certainty." We must develop "paradigm flexibility" to look for signals of impending paradigm shifts, to anticipate the future successfully.

I have found the Barker video helpful in assisting decision makers to discuss change and problems with dealing with an uncertain future. The video provides them with a common language and insight into their own behavior, the behavior of others, and the difficulty of accepting new ideas and concepts. However, the showing of the video at the ASHE conference raised a storm of controversy—many colleagues strongly objected to the "trivialization" of the concept of "paradigm."

Kuhn had argued that paradigms and paradigm shifts exist *only* in scientific disciplines, where the rules, examples, and measures are precise. Citing the Webster dictionary definition of paradigms as patterns or models, Barker expands that definition to include sets of rules and regulations that establish boundaries and provide guidelines as to how to be successful within those boundaries. Indeed, a sociologist would say that Barker uses the term paradigm synonymously with normative structure, and that his coined term of "paradigm effect" is akin to "socialization into a normative structure." In this light, "paradigm paralysis" can be considered synonymously with "closed mind," "paradigm flexibility" synonymously with openness to new ideas, and "paradigm shift" as the development of a new normative structure.

After a lively discussion about the appropriateness or inappropriateness of such terminology, I concluded this part of the session by referring back to the questions posed at the beginning of the session concerning the inability of our government to recognize signals of the end of the cold war or the Iraqi invasion.

I made the following points:

- Government officials were not using a planning model designed to anticipate paradigm shifts—the dramatic collective change that upset people's worlds because the assumptions, the rules they lived by, are changed. When paradigm shifts occur, people have to learn new rules even while suffering from the effects of old rules. The build-up of

US Forces in Saudi Arabia, for example, was hampered by inadequate sea and air lift capability, a capability not developed sufficiently because the implications of the old paradigm called for prepositioning war materials in Europe as opposed to ferrying them across if "the balloon went up."

- To anticipate the future, we must look for signals of impending paradigm shifts. There were signals that the Berlin wall would come down. It was well-known that the sentiment for unification was strong in both West and East Germany. Because the West German constitution had unification as a stated goal, it never recognized the East German government. In August 1989, when Soviet leadership did not support the East German government in its attempt to stem the flow of its citizens to West Germany through other Warsaw pact countries, the population surge was like the hole in a dike; the dike fell; the rest is history

I followed this specific example with a discussion of the alternative futures planning model itself.

### **The Alternative Futures Planning Model**

This model is based upon the following assumptions (Boucher and Morrison, 1989):

1. It is not possible to predict the future, but it is possible to forecast events in terms of their probability of occurrence and it is also possible to forecast whether trend levels will increase, decrease, or stay virtually the same over the period in question.

2. Forecasts must sweep widely across possible future developments in such areas as demographics, technology, economics, and politics.

3. Forecasts must take into account the interrelatedness of the areas noted above and across international, national, regional, and local dimensions. For example, an agricultural innovation leading to greater crop production in an underdeveloped country may lead to political stability in that country. Or, a significant increase (or decrease) in OPEC oil prices will dramatically affect the economy of the industrialized countries, which in turn will affect . . . , etc.

4. The primary purpose of developing and analyzing multiple futures is to assess goal alternatives in a complex and uncertain planning environment. The process does not replace conventional forms of analysis. Instead, it complements other information resources that help us evaluate institutional missions, objectives, resources, capabilities, ongoing programs, and current strategies.

5. Good forecasts derive primarily from human judgment, creativity, and imagination, not mathematical extrapolations based upon historical data. Mathematical trend forecasts have their bases in previous or existing interrelationships of variables and therefore rest upon an assumption that the future will be like the past. This assumption becomes more untenable as we proceed into the future because events may occur that can affect the prior interrelationships among variables or trends themselves. Therefore, in "paradigm language," the alternative futures planning model is idiographic, not nomothetic.

6. The criterion for forecasting is not accuracy. Forecasts are used to stimulate planning action. The action we take may change the forecast. To use a simplified example, if the air traffic controller sees two blips approaching each other on the screen, he or she will immediately forecast a collision without even the certainty of what the blips represent (i.e., a small private plane or a flock of birds). By using the forecast, the controller will direct the airplanes away from each other, thus avoiding a collision. This example is somewhat simplistic, but it makes the point: forecasts may overstate the case, but they are made to be used. The criteria for forecasting, therefore, rests on clarity, credibility, and plausibility—not accuracy.

The planning model based upon these assumptions is shown in Figure 1. Basically, the model states that from the experience of organizational leaders or through environmental scanning, leaders identify issues or concerns that *may* require attention. These issues/concerns are then defined in terms of their component parts—trends and events, which are then forecast. These activities constitute the beginning of an external analysis.

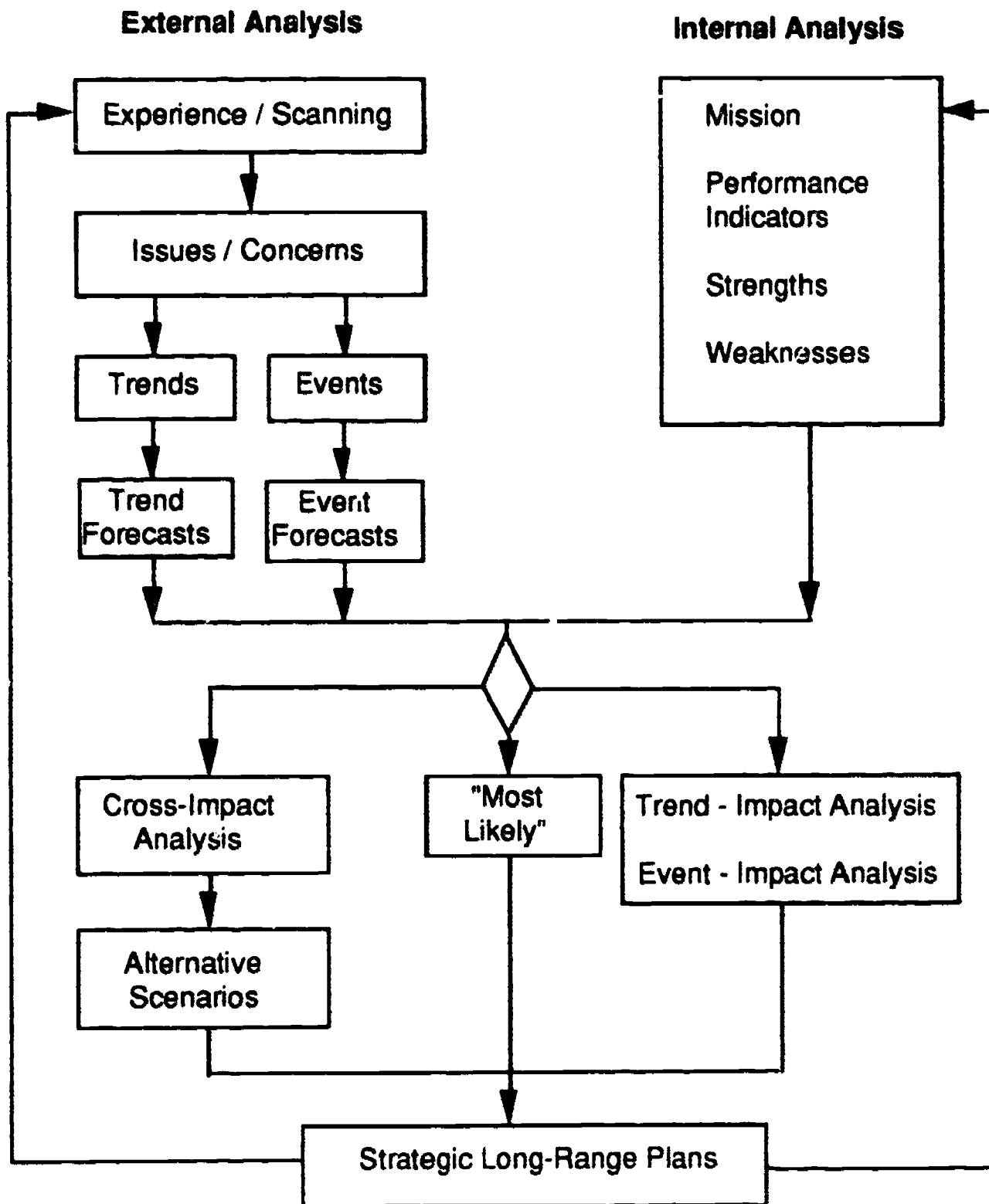


Figure 1. The Alternative Futures Approach to Strategic Planning



There is also a need for internal analysis, which consists of defining the organizational mission, performance indicators, and strengths and weaknesses. Merging the internal analysis with the external analysis constitutes strategic long-range planning.

This merger may be conducted in several ways. First, the traditional approach is to consider the results of the internal analysis in the "most likely" future, a future derived from forecasted trends and events that are expected to occur. This approach provides little consideration to developments less likely to occur.

As noted above, the distinction between the traditional approach to long-range planning and the alternative futures approach is that the latter approach forces us to think of the implications of possible developments that, if they occurred, would change our future. As shown in Figure 1, there are two submodels of this approach. The simpler method is to conduct a trend and an event impact analysis of the implications of these potential external developments on the mission, performance indicators, and strengths and weaknesses of the organization. It is relatively easy to conduct this analysis.

A more sophisticated approach to conducting an external analysis is to generate alternative futures from the trend and event forecasts through cross-impact analysis. The essential idea behind cross-impact analysis is to define explicitly and completely the pairwise causal connections within a set of forecasted developments. In general, this process involves asking how the prior occurrence of a particular event might affect other events or trends in the set. When these relationships have been specified, it becomes possible to let events "happen"—either randomly, in accordance with their estimated probability, or in some prearranged way—and then trace out a new, distinct, plausible and internally consistent set of forecasts. The cross-impact analysis allows us to assess the effect of one event's occurrence on the probability of other events and can develop the understanding that events of the future are frequently interrelated. Furthermore, through assessing interrelationships, events are identified that, should they occur, have the potential to be powerful "actors" in the organization's environment. The information gained from a cross-impact matrix will assist us in developing the organization's alternative futures and in establishing the causal relationships in a scenario.

Whichever approach is used, the process is iterative. We must continually scan to identify signals of change not identified previously, or changes in the probabilities of events or in trend levels in the trend and event set. We must also continue to collect data specified by the performance indicators, and to be alert to changes in mission as well as strengths and weaknesses.

There was not sufficient time to describe in detail the various methodological approaches used in the alternative futures approach to planning (these are described in the sources listed in last section of this paper). I launched headlong into the participation phase of the session, explaining that our planning objective was to improve our understanding of possible future environments within which higher education will be operating, thus providing an enriched and more informed background against which to examine the strengths and weaknesses of higher education and encouraging flexibility in objectives. By examining more than just the most likely developments and with a continuous and ongoing mechanism for scanning external trends and events, we would be proactive in planning. Although the future can never be surprise-free, this method is likely to significantly reduce uncertainty and keep us well informed.

I explained that the remainder of the session would be an opportunity for session participants to experiment in identifying potential events and in forecasting their implications for higher education. I asked participants to avoid, in Barker's language, "paradigm paralysis," and to be open to new ideas.

I "primed the pump" by asking: What signals exist that portend an impending paradigm shift in higher education? Consider the following:

- The cost of computer circuit components has been decreasing 25% per year.
- Today's micro-computers are as powerful as 1985 mainframes.
- Satellite teaching is increasingly viewed as a solution to productivity problems.

- The number of institutions requiring entering students (undergraduate and graduate) to own microcomputers is increasing.
- In a few years, it will be possible to have a university research library available at home (or in a dorm room) through relatively inexpensive CD ROM technology.
- Economic global competition is increasing along with a corresponding concern among business leaders that US college graduates are not well prepared.

I concluded by saying that these signals imply a dramatic shift in the way we will conduct college and university teaching in the next decade. That is, it may well be that some 60 to 80% of instructional delivery will be conducted via computer, interactive multimedia, and satellite technologies. Relatively few of the professorate, who currently rely on classroom lectures, are prepared to design instruction using these technologies. If indeed the rules for preparing and implementing instruction via these means occur, most of the professorate will be "back to zero."

### **Small Group Sessions**

Now we were at the point of departing from the normal general session format. I told the audience that we would divide up into small groups to do the first task—brainstorm potential paradigm shifts, or potential events, that, if they occurred, would affect the future of higher education. I noted that a paradigm shift in either Kuhn's or Barker's terminology would be an *event*; but that the term "event" includes other occurrences of phenomena that do not represent the complete change of perspective that Kuhn's concept of paradigm implies. Simply put, "events" were defined as discrete, confirmable occurrences that make the future different from the past.

A number of colleagues previously had agreed to serve as small group leaders and stationed themselves around the ballroom. Session participants joined them so that we had some 10 groups of no more than 10-15 people each.

We had only 15 minutes to brainstorm potential events. I then asked each group to select one event and do the following tasks in sequence: a) describe the "signals" that

indicate that the event could occur, b) describe the implications for colleges and universities if that event occurred, and c) describe the implications for higher education as a field of study if it occurred. Each group had a recorder to keep notes of the discussion; there was time for only one report because we only had about 45 minutes for the entire exercise.

Even so, group recorders gave me over 70 potential events their groups identified as having some likelihood of occurring within the next 10 years that, if they occurred, would affect higher education. Many of these events are listed in Figure 2.

Each group selected one event for analysis. Figure 3 contains the essence of these analyses. Note that not all groups had sufficient time to conduct the analysis of the implications of the event on higher education as a field of study. Also, observe that the forecast of one event—a war in the Gulf; U.S. loses—became "dated" in March/February 1991. Recall that in early November 1990 (date of the conference) it was not clear that there would be a war. It was also not clear how well US technology designed for Europe would fare in the desert, or how well "green" U.S. troops would fare against battle hardened Iraqi troops. Thus although conjecturing this event was sound given the available information, the forecast turned out "wrong."

Does this vitiate the analysis? I think not. The implications of this event (see Figure 3) for colleges and universities still appear reasonable, and could stimulate appropriate anticipatory action by college and university administrators. Certainly the war had an effect on our economy—some analysts said that it pushed the U.S. into a recession, which has adversely affected budgets. There is more interest in Middle Eastern studies, more "problems" for Arab students, and the possibility of a new or extended GI bill has been increased as has the probability of increased research funding for "star wars" technology. Administrator/faculty initiatives in these areas could pay dividends. And professors of higher education may want to give increased attention to the issues involved with "globalization of the curriculum," and the desirability of initiating courses/seminars in comparative higher education.

A final observation. Note that the third event in Figure 3, post-tenure review, does not mean "after tenure is eliminated." Rather, this event concerns the formal evaluation of tenured faculty in somewhat the same way untenured faculty members are reviewed when

**Figure 2  
Nominated Events**

<b>Social/Educational</b>		<b>Technological/ Economic</b>	<b>Political</b>	
<ul style="list-style-type: none"> <li>•Single parent households equal dual parent households</li> <li>•70% of immigration is Hispanic</li> <li>•English is no longer primary language in US</li> <li>•Half of college and university presidents are women</li> <li>•Average SAT scores of entering college freshmen fall 100 points</li> <li>•50% of educational delivery system is based on technology</li> <li>•Women majoring in math and science increase 50%</li> <li>•K-12 and post-secondary education becomes viewed as a continuum</li> <li>•Education is valued for substance, not credential</li> <li>•Extended campus is not across town but across world</li> <li>•College enrollments are cut in-half</li> </ul>	<ul style="list-style-type: none"> <li>•Teaching equals research for university tenure</li> <li>•Post-tenure evaluation becomes the norm</li> <li>•Tenure is eliminated</li> <li>•Faculty members are rewarded for teaching basic courses</li> <li>•50% of states adopt voucher system for public schools</li> <li>•Higher education becomes available everywhere; campuses are no longer needed</li> <li>•Faculty members who are community activists are valued</li> <li>•Japanese firms "buy" 20 more American colleges</li> <li>•35% of college faculty members hold union membership</li> <li>•Post-doc is required entry credential for faculty appointments</li> <li>Federal financial aid is eliminated</li> </ul>	<ul style="list-style-type: none"> <li>•50% of courses have 50% global focus/content</li> <li>•70% of faculty members use computers</li> <li>•US public school system collapses</li> <li>•Multicultural access to higher education increases</li> <li>•Teaching becomes major focus of colleges and universities</li> <li>•US colleges and universities adopt a common record keeping system</li> <li>•Major American universities establish campuses in Europe and Middle East</li> <li>•European Community (EC) adopts common accreditation procedures</li> <li>•30% of US college faculty members have one or more degrees from a foreign institution</li> <li>•Russian, Chinese, and East European students in U.S. colleges and universities increase by 50%</li> <li>College funding is doubled</li> </ul>	<ul style="list-style-type: none"> <li>•Fossil fuels are replaced</li> <li>•Instructional technology changes significantly</li> <li>•40% of communication occurs via electronic mail</li> <li>•30% of publications are in electronic format</li> <li>•Change in telecommunications links occurs</li> <li>•Half of DoD budget is released to higher education</li> <li>•Availability of print media (books, journals, etc.) markedly declines</li> <li>•US establishes common market relationship with Mexico</li> <li>•World undergoes economic depression for five years</li> <li>•European Community '92 happens</li> <li>•Funding is capped at current levels</li> </ul>	<ul style="list-style-type: none"> <li>•Educational institutions are evaluated on success of students</li> <li>•Funding is based on quality, not numbers</li> <li>•Colleges and universities are internationally owned</li> <li>•War in Gulf; US loses</li> <li>•Colleges are <i>required</i> to do assessment</li> <li>•Higher education is no longer responsible for credentialing</li> <li>•Bush is assassinated; Quayle becomes president</li> <li>•Higher education is made compulsory</li> <li>•Revolution occurs in Mexico</li> <li>•Universal public service is required before a person can enter post-secondary education</li> <li>•Discrimination is eliminated</li> </ul>

**Figure 3  
Event Impact Analysis**

Event	Signals	Implications for Colleges and Universities	Implications for Higher Education as Field of Study
Elimination of tenure	<ul style="list-style-type: none"> <li>•Elimination of tenure in English universities</li> <li>•Filing of University of Pennsylvania tenure decision</li> <li>•Increase in state-wide collective bargaining</li> <li>•Universal questioning of existing tenure requirements</li> <li>•Teaching vs. research</li> <li>•Increased use of quantitative requirements for workload</li> <li>•Increase in non-tenure track appointments</li> </ul>	<ul style="list-style-type: none"> <li>•Difficulty in attracting new faculty</li> <li>•Greater administrative flexibility</li> <li>•Productivity redefined</li> <li>•Changed nature of research</li> <li>•Changed criteria for continuation</li> <li>•Academic freedom reassessed</li> <li>•Unions strengthened</li> <li>•Power shift from collegial review to union and administration</li> <li>•Increased formalization of faculty evaluation</li> </ul>	<ul style="list-style-type: none"> <li>•Greater emphasis on applied studies</li> <li>•Greater emphasis on technology</li> <li>•Enrollment declines in higher education programs</li> <li>•Fewer professors</li> </ul>
Depression	<ul style="list-style-type: none"> <li>•Cost of military venture in the Mid-East</li> <li>•Scarce resources</li> <li>•Increased unemployment</li> <li>•Trade deficits</li> <li>•Stock market decline</li> </ul>	<ul style="list-style-type: none"> <li>•Enrollment shifts</li> <li>•Value of endowments decline</li> <li>•Need for increased financial aid</li> <li>•Reduced access to higher education; corresponding change in composition of student body</li> <li>•Increased questioning of the need for a college education</li> </ul>	<ul style="list-style-type: none"> <li>•Increase in historical studies related to 1930s</li> <li>•Greater use of enrollment analysis</li> <li>•Increase of financial studies of all types</li> </ul>
Universal Adoption of Post-tenure Review	<ul style="list-style-type: none"> <li>•Increased calls for accountability</li> <li>•Increased calls for cost effectiveness</li> <li>•Aging faculty/large number of retirements, changing the rules</li> <li>•Business paradigm of "output," overpowering professional paradigm/values</li> <li>•Uncapped retirement ages</li> <li>•Post-tenure evaluation now in some institutions</li> </ul>	<ul style="list-style-type: none"> <li>•Need for more specifics in what and how we measure faculty; need to measure everyone in the same way</li> <li>•Question of how much security tenure offers</li> <li>•Development of a form of tenure recertification</li> <li>•Power shift between tenured/untentured</li> </ul>	<ul style="list-style-type: none"> <li>•Use of faculty members in higher education programs to help define the standards used to judge post-tenure evaluation</li> <li>•Increased importance of "recertification" or the continuing educational needs of faculty members</li> <li>•New emphasis on how to measure effectiveness</li> <li>•Studies on how these measures affect different groups</li> <li>•Studies of the effects of faculty turnover on institutions</li> </ul>

Figure 3 continued

Event	Signals	Implications for Colleges and Universities	Implications for Higher Education, as Field of Study
<p>War in Gulf; US Loses</p>	<ul style="list-style-type: none"> <li>•Saddam hanging tough</li> <li>•Arab world disintegrating</li> <li>•Attempted assassinations of world leaders</li> <li>•Reservists sent to desert</li> <li>•Draft "talk" on political agenda</li> <li>•Question of how U.S. weapons systems will fare in desert</li> </ul>	<ul style="list-style-type: none"> <li>•Increased student disruptions</li> <li>•Drop in enrollments</li> <li>•Drop in colleges budgets</li> <li>•Extension of G.I. Bill</li> <li>•Reinstatement of draft</li> <li>•Renewed interest in Middle East</li> <li>•Increased Muslim voice</li> <li>•Increased anti-Arab bashing</li> <li>•Increased visa problems for Arab students</li> <li>•Increased political polarization of faculty</li> <li>•Drop in funding, (except for particular research)</li> <li>•Hiatus in journal publications (more <i>Change</i> and <i>Chronicle of Higher Education</i>)</li> <li>•Increased curricular emphasis on current events</li> </ul>	<ul style="list-style-type: none"> <li>•Emeriti Prof to return</li> <li>•Less funds to study higher education</li> <li>•Less chance for diversity</li> <li>•More attention to study of international and comparative higher education</li> </ul>
<p>2010 Minority Explosion</p>	<ul style="list-style-type: none"> <li>•Demographic projection of U.S. Census</li> </ul>	<ul style="list-style-type: none"> <li>•Experiments with single race/gender schools</li> <li>•Under-prepared academic "boat people"</li> <li>•Insufficient numbers of positive role models</li> <li>•Training of welfare/mother/formalization</li> <li>•Rise of hate crimes racially cooled</li> <li>•Insufficient support structures for minority students</li> <li>•Increased racial harassment requires new strategies for conflict management</li> <li>•Underprepared faculty to teach remedial courses</li> <li>•"Bakke" challenges to access</li> <li>•Channeling work force by class</li> <li>•Adult re-entry—new population of students</li> </ul>	<ul style="list-style-type: none"> <li>•Growing legitimacy in study of "minority" issues</li> <li>•Challenge of conflict perspective</li> <li>•Study the relationship between scarce resources and minority issues</li> <li>•Study how administration treats minority faculty/students</li> <li>•Study effects on scholarship/research</li> <li>•Study who sets research agenda</li> </ul>

Figure 3 continued

Event	Signals	Implications for Colleges and Universities	Implications for Higher Education as Field of Study
<p>Credentialing responsibility of universities eliminated</p>	<ul style="list-style-type: none"> <li>•Corporations spend as much on professional development as do colleges and universities on academic programs</li> <li>•Competency tests are increasingly being used to establish credentials</li> <li>•Program review and assessment calls into question many institutions granting credentials</li> <li>•The relationship between salary and credentials is lessening</li> <li>•Affirmative action introduces a new criteria in hiring</li> </ul>	<ul style="list-style-type: none"> <li>•Reduced demand for higher education</li> <li>•New campuses irrelevant</li> <li>•Shift to service orientation</li> <li>•Tenure and funding formula jeopardized</li> <li>•Government support of college and universities stops</li> </ul>	
<p>World without war</p>	<ul style="list-style-type: none"> <li>•Global citizenship</li> <li>•Redistribution of resources</li> <li>•World-wide government and economies</li> <li>•A world without difference or appreciation of diversity</li> </ul>	<ul style="list-style-type: none"> <li>•Community-based research</li> <li>•Collaborative reward system</li> <li>•New paradigm</li> <li>•Cooperative need-based education rather than competitive education systems</li> <li>•Empowerment of formerly oppressed people</li> <li>•From analysis to synthesis</li> </ul>	
<p>National test replaces ETS/ACT (Federal control over entrance and exit testing)</p>	<ul style="list-style-type: none"> <li>•Federal task force on outcomes of education</li> </ul>	<ul style="list-style-type: none"> <li>•Students become smarter with elimination of multiple choice exams</li> <li>•Less flexibility for faculty (how and what they teach)</li> <li>•More narrow, focused curriculum</li> <li>•Improved (testable) learning</li> <li>•Improved quality of data bases for research</li> <li>•Fewer people entering higher education</li> <li>•Increased confidence of private sector in graduates</li> <li>•Testmakers' creativity stimulated</li> <li>•Improved R&amp;D in testing</li> <li>•Intercollegiate athletics back to a mature status</li> </ul>	



Figure 3 continued

Event	Signals	Implications for Colleges and Universities	Implications for Higher Education as Field of Study
Student Takeovers of Universities	<ul style="list-style-type: none"> <li>•Women and minorities entering mainstream</li> <li>•Racial and religious tension</li> <li>•Inadequacies of curriculum</li> <li>•High tuition</li> <li>•Disappearance of political parties</li> <li>•Dan Quayle as potential president</li> <li>•Blurring of institutional margins</li> <li>•Substantive conflict between competing values</li> <li>•New world order</li> <li>•Economic depressions</li> <li>•Redistribution of economic/political power</li> <li>•Big green movement--environmental conflict</li> <li>•Institutional changes</li> <li>•Disruption of norms in ways of knowing</li> </ul>	System renewal and restructuring	
Drinking age is eliminated	<ul style="list-style-type: none"> <li>•Increased pressure for colleges/universities to assume in loco parentis role</li> <li>•Greater acceptance of teens using alcohol</li> <li>•Ease of obtaining beer/alcohol</li> <li>•Increased pressure from the courts</li> <li>•Increased drinking off campus</li> <li>•More students have cars</li> </ul>	<ul style="list-style-type: none"> <li>•Increased need for educational programs</li> <li>•Increased public disapproval of college student behavior</li> <li>•Drinking problems more public</li> <li>•Increased attendance at community colleges (parents want to keep students home)</li> <li>•Alcohol removed as rite of passage</li> <li>•Increased importance of student affairs offices</li> <li>•Emphasis on personal health development</li> <li>•Variety of activities on campus increased</li> <li>•Changes in Frat/sorority structures</li> </ul>	<ul style="list-style-type: none"> <li>•Increased emphasis on alcohol issues in the curriculum</li> <li>•Changes in research--impact of change, comparison studies</li> <li>•Study comparisons between U.S. and universities overseas as they relate to drinking provisions</li> <li>•Study changes in legal handling of liability</li> </ul>

they are considered for reappointment or tenure. Either the elimination of tenure or the adoption of post-tenure review could occur. Either event has implications for higher education and for the study of higher education if it does occur. Of course, we do not know whether either event will occur, or whether even one of these events will occur. All we can do is search information data banks for "data" (i.e., descriptions of what has happened, what is happening and what "experts" forecast could happen) in order to assess their probability of occurrence. Even so, we know that *if tenure is eliminated*, the probability of universal adoption of post-tenure review is affected (i.e., if currently tenured professors retain tenure until retirement, the probability of post-tenure review for these professors is increased; if they do not retain tenure, the probability of post-tenure review for anyone goes to zero). By examining the implications of both possibilities, we stimulate plans and actions for our institutions, and for our research agendas.

### Summary

The objective of this session was to focus on how we can anticipate the future of higher education using the alternative futures approach to planning model. The points I wanted my colleagues to "buy" were these:

- Given that we live in an age where our concept of the overall mission and delivery of higher education has undergone revision, we know that we will be faced with a future that will be unlike the past. The alternative futures approach to planning is a paradigm, a model, for addressing this uncertainty.
- This model differs from traditional long-range planning models based upon a single set of environmental assumptions about the future by recognizing that although the future is a continuation of existing trends, it is subject to modification by events that have some probability of occurrence. *Environmental uncertainty is caused by potential events. We cannot predict the future because uncertainty is a product of our incomplete understanding of trends, potential events and their interrelationships. However, by using the best available information we have, we can anticipate plausible alternative futures and thereby limit the number of unanticipated possibilities to the smallest possible set.*
- By implementing the methodological tasks defined in this paradigm, we become much more alert to what is happening in the world, we make explicit our assumptions of how the world works, and we expand our vision of the possibilities, opportunities, and threats confronting us, our institutions, and our research agendas.

At the outset I chose to depart from the customary lecture given at such sessions by incorporating video and small groups in the session to achieve these objectives. Was this a success? Yes and no. A good number of participants (20-30%) walked out of the session at the conclusion of the video presentation and the discussion that immediately followed. Many of these people were angered by Barker's making the concept of paradigm synonymous with group norms, perhaps confirming their prejudice of the value of futurists in academia. Others probably did not want to engage in small group activity because they did not like such activity or because they did not think that anything of value would come out of it.

Those who participated appeared to enjoy the work and the approach used. We had very little time after the introduction and showing the video, only 45 minutes or so, to implement ambitious objectives—identify events or potential paradigm shifts that would affect the future of colleges and universities, identify the signals of these events, and draw out the implications of these events for higher education and for the study of higher education. Still, a good number of potential events were identified and analyzed.

You, the reader, must judge if the results were worth the time expended.

#### Note

This paper was extended and modified from a manuscript of the same title published in the *ASHE Newsletter*, 1991, Volume 4 (2), pages 5-9.

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### About the Author

James L. Morrison received his Ph.D. at the Florida State University in 1969. He was lecturer in sociology at the University of Maryland, European Division and graduate assistant in sociology at the University of Munich (1964-65), instructor in sociology at the Florida State University (1968-69), and assistant professor of education and sociology at the Pennsylvania State University (1969-73). He moved to Chapel Hill as associate professor of education in 1973 and was promoted to full professor in 1977. At UNC he teaches courses in planning, evaluation, and research.

He has designed and implemented professional development seminars on planning and forecasting for the UNC-Chapel Hill Continuing Education Center, H + E Associates (Great Britain), and the Fuqua School of Business at Duke University. In addition, he has made over 90 retreat presentations in the last six years for such associations as the World Future Society, the Society for College and University Planning, the American Association for Higher Education, the Association for the Study of Higher Education, the American Educational Research Association, the Association for Community and Junior Colleges, the North Carolina Association for Institutional Research, the Southern Association for Institutional Research, the European Association for Institutional Research, the Association for Institutional Research, the National League for Nursing, and the American Association of School Administrators.

He has served as a planning consultant to a number of colleges (Caldwell, Hood, Lenoir-Rhyne, Saint Augustine's), universities (Alabama, Arizona State, Clemson, Tennessee, and the Virgin Islands), university systems (Maine), university continuing education centers (Georgia), community college systems (South Carolina), community colleges (Northwestern Michigan College), educational agencies (U.S. Corporation of Education and the North Carolina Corporation of Public Instruction), school systems (Orange County [Orlando] Public Schools), educational consortia (Consortium for the Advancement of Public Education) and public agencies (U.S. Department of Labor, Public Pension Guaranty Corporation). In the corporate world, he served as a planning consultant to Ethan Allen, Inc., and currently serves as a faculty member in the executive leadership training program of Caltex Petroleum Corporation. His consulting activities focus on assisting organizations in developing environmental scanning/forecasting systems to augment their strategic long-range planning processes.

He served as vice president (Division J—Postsecondary Education), the American Educational Research Association, and as convener of the Forum on Environmental Scanning, The American Association for Higher Education. He also served two terms as a member of the Board of Directors, Association for the Study of Higher Education; chaired the special interest group on futures research, the American Educational Research Association; chaired the editorial board, *The Review of Higher Education*, and served as consulting editor of *The Review of Educational Research* and *The American Educational Research Journal*. He currently serves on the environmental scanning committee of United Way of America.

He is author and coauthor of over 50 publications focusing on the application of futures research techniques in planning and policy analysis, including *The Alternative Futures Approach to Long-Range Planning: A Handbook for Army Long-Range Planners* (Corporation of the Army, 1990), *Applying Methods and Techniques of Futures Research* [with William L. Renfro and Wayne I. Boucher] (Jossey-Bass, 1983), and *Futures Research and the Strategic Planning Process* [with William L. Renfro and Wayne I. Boucher] (Association for the Study of Higher Education, 1984). The latter two publications and two articles, "Establishing an Environmental Scanning Capability to Augment College and University Planning," and "Managing Uncertainty" [with Thomas V. Mecca] have been cited as critical reading in *A Guide to New Planners* (Norris and Poulton, Society for College and University Planning, 1991).

He retired from the U.S. Army Reserve (Colonel, USAR, Civil Affairs) in May 1991. From 1986-1991 he served as Deputy Commander, Individual Mobilization Augmentee, U.S. Army Research Institute for the Social and Behavioral Sciences. His assignments included serving as a long-range planning consultant for the Office of the Deputy Chief of Staff for Operations, the Office of the Deputy Chief of Staff for Doctrine, the U.S. Army Reserve Personnel Center and the Office Chief, Army Reserve. In July 1990, President Bush via the Secretary of the Army awarded him the Meritorious Service Medal for training Army long-range planners in the alternative futures approach to planning model and for assisting the Chief, Army Reserve in using this model to develop the 1990-2020 Army Reserve long-range plan. In April 1991, President Bush via the Secretary of the Army awarded him the second highest award authorized for peacetime, the Legion of Merit Medal, for his career contributions to planning for the Total Army.

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