

DOCUMENT RESUME

ED 453 811

IR 020 694

TITLE Report on a Study of Access to Higher Education through Distance Education (Austin, Texas, August 7, 2000).

INSTITUTION Texas Higher Education Coordinating Board, Austin.

PUB DATE 2000-09-00

NOTE 25p.

AVAILABLE FROM For full text: <http://www.thecb.state.tx.us>.

PUB TYPE Collected Works - Proceedings (021)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS *Access to Education; Computer Assisted Instruction; *Distance Education; Educational Development; Educational Needs; Educational Objectives; Educational Technology; *Higher Education

IDENTIFIERS *Texas; Texas Higher Education Coordinating Board

ABSTRACT

Texas' new higher education plan sets goals of enrolling 500,000 more students in higher education and increasing the number of certificates and degrees awarded by 50%, by 2015. Distance learning technology, which is already opening doorways to higher education, is poised to play an even larger role in helping Texas reach these goals. The Texas Legislature in 1999 directed the Coordinating Board to study the effects of and accessibility to distance education for under-represented groups in Texas. A symposium was convened of 42 distance education and technology experts representing all levels of education, business, community groups, all areas of the state, and its major population groups to provide information on the effects of and accessibility to distance education for under-represented groups in Texas. Discussion of barriers to distance education for all Texans focused on supply and demand. On the supply side, participants noted the high cost of technology, inefficiencies resulting from the independent actions of institutions producing distance education courses, and the lack of incentives for faculty to produce and provide distance education courses. On the demand side, participants noted that many Texans lack: access to computers and the Internet, knowledge about computers and technology, and motivation due to perceived or real feelings that the system is non-responsive. Participants noted many positive steps institutions were taking to develop their distance learning capabilities. They reported more distance learning courses and labs, more strategic planning in developing distance education programs, and more partnerships with public education, business and the community. Barriers discussed in the symposium are surmountable, participants said. They noted that public higher education institutions in Texas, in partnership with others, are having success in opening access to higher education through distance education, although more can be done. List of participants is appended. (AEF)

Report on a Study of Access to Higher Education Through Distance Education

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THECB Strategic Plan

Coordinating Board Philosophy

The Texas Higher Education Coordinating Board will promote access to quality higher education across the state with the conviction that access without quality is mediocrity and that quality without access is unacceptable. The Board will be open, ethical, responsive, and committed to public service. The Board will approach its work with a sense of purpose and responsibility to the people of Texas and is committed to the best use of public monies.

THECB Strategic Plan

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EXECUTIVE SUMMARY

Texas' new higher education plan sets goals of enrolling 500,000 more students in higher education and increasing the number of certificates and degrees awarded by 50 percent, by 2015. Distance learning technology, which is already opening doorways to higher education, is poised to play an even larger role in helping Texas reach these goals. Effective implementation of distance learning technology requires an understanding of associated barriers that prevent Texas from using it, how it can be used to support student participation and success, and how the state can support efforts to successfully implement it.

The Texas Legislature in 1999 directed the Coordinating Board to study the effects of and accessibility to distance education for under-represented groups in Texas (Rider 18(2) of House Bill 1, 76th Texas Legislature, page III-51).

The Coordinating Board convened a symposium of 42 distance education and technology experts representing all levels of education, business, community groups, all areas of the state, and its major population groups to provide information on the effects of and accessibility to distance education for under-represented groups in Texas.

The discussion of barriers to distance education for all Texans focused on supply and demand. On the supply side, participants noted the high cost of technology, inefficiencies resulting from the independent actions of institutions producing distance education courses, and the lack of incentives for faculty to produce and provide distance education courses. On the demand side, participants noted that many Texans lack access to computers and the Internet, lack knowledge about computers and technology, and lack motivation due to perceived or real feelings that the system is non-responsive.

Participants noted the many positive steps institutions were taking to develop their distance learning capabilities. They reported more distance learning courses and labs, more strategic planning in developing distance education programs, and more partnerships with public education, business, and the community. The barriers discussed in the symposium are surmountable, participants said. They noted that public institutions of higher education in Texas, in partnership with others, are having success in opening access to higher education through distance education, although more can be done.

Participants identified a number of goals for the state. On the supply side, Texas should work to

- lower the cost of distance education technology,
- provide incentives for collaboration between institutions to reduce the inefficient use of distance learning resources, and
- integrate distance education as a legitimate faculty function.

On the demand side, Texas should

- support partnerships that make computers and the Internet more accessible,
- continue to help Texans become technologically literate, and
- focus on distance education opportunities that respond to the needs of Texans.

No consensus in how to achieve these goals was reached by participants. They noted there are difficult issues that must be resolved. If distance education is to be a much used doorway to participation and success in higher education for all Texans, Texas must begin work now on resolving the issues that prevent these goals from being reached.

INTRODUCTION

Digital technology is changing the face of higher education. Almost all full-time higher education faculty and staff in Texas have computers at their desks. Most institutions have electronic course scheduling procedures. The state maintains an electronic common application form for entering students.

Technology is also opening direct doorways to higher education for many Texans. Most public institutions of higher education in Texas provide and/or receive distance education courses. Through partnerships with public schools, other institutions, communities or business, or directly to the student, the number of remote sites providing access to electronic courses is growing.

Distance education has not reached its full potential. Coordinating Board data show that about 4 percent of course offerings at public institutions of higher education are electronically delivered although the full extent of such offerings may be somewhat higher. Some faculty offer their students an option to participate in the course electronically even though the course is officially designated an "on-site" course, for example.

Electronic delivery of educational services is likely to rise dramatically as the technology improves, more efficient delivery systems become established, and more people become technologically literate. As distance education grows, the potential to change the face of higher education increases as well. Many who look to the future describe the "college without walls" and tout its efficiencies and flexibility over traditional educational institutions. It is more likely, however, that distance education will co-exist with our traditional classroom model of instruction, together offering more choices of educational delivery to meet the needs of Texans.

The increased attention on distance education comes at a time when Texas is embarking on an effort to dramatically increase participation and success in public institutions of higher education in Texas. Texas' new higher education plan calls for an enrollment increase of 500,000 students by 2015, more students than are currently enrolled in either public universities or in public community and technical colleges. The plan also calls for a 50 percent increase in the number of degrees, certificates, and other measures of student success over this same time period. To achieve these goals the plan emphasizes the need to close the gaps in participation and success among groups within Texas, as well as between Texas and other key states. Public higher education institutions are likely to rely more and more on distance education to help reach these goals.

While distance education promises to open the doors to higher education for many Texans, it may not open the doors for all Texans. Distance education requires technology that is often unaffordable, and

technological familiarity and knowledge that is often unattainable. This is the digital divide: those in the lower economic range of society (disproportionally Black or Hispanic) have less access to, and subsequently less familiarity with, high technology and the benefits it provides.

The digital divide's potential for keeping doorways to higher education closed for many Texans threatens the state's ability to achieve the goals of the higher education plan. Closing gaps in participation and success among Texans could be made even more difficult if institutions in the state rely increasingly on technology that may not be a viable option for many Texans. It is important therefore to understand the barriers to participation and success that are currently present in distance education, how to overcome these barriers, and how the state can support increased access for all Texans.

The Texas Legislature in 1999 directed the Coordinating Board to study the effects of and accessibility to distance education for under-represented groups in Texas (Rider 18(2) of House Bill 1, 76th Texas Legislature, page III-51). The rider states:

The Texas Higher Education Coordinating Board, in consultation with institutions of higher education may conduct the following studies regarding...(2) Distance Education. This study is intended to review the effects of and accessibility to distance education for under-represented groups in Texas...

On August 7, 2000, the Coordinating Board convened an ad hoc committee of distance education and technology experts for a symposium to study the effects of and accessibility to distance education for under-represented groups in Texas. Committee members participated in a series of guided focus groups to identify barriers to participation and success, share their successes in helping institutions overcome these barriers, and consider the state support necessary to build on their successes.

PARTICIPANTS

Symposium participants were selected to ensure the widest range of knowledge and experience in all aspects of distance education and related technology. Participants represented public education, community and technical colleges, universities, business, and community groups from every region of Texas. A particular effort was made to invite participants involved in active collaboration with business, public education, junior and senior colleges, and the community in providing distance education, such as those in partnerships receiving grants from the Telecommunications Infrastructure Fund. Many of the participants have focused their attention on distance

education delivery in economic depressed communities, on urban and rural communities, and on distance education for individuals with disabilities. Most participants were experienced in the use of distance education. A complete list of the 42 participants and their affiliations is in the appendix.

SETTING THE CONTEXT

Three experts who have excelled in efforts to understand technology access problems opened the symposium.

Sharon Strover is a faculty member and Director of the Telecommunications and Information Policy Institute at The University of Texas at Austin. She has been conducting a study of the “digital divide” in Texas for the Electronic Government Task Force sponsored jointly by the Texas Department of Information Resources and the Texas Public Utility Commission. She related some key results of that study:

- People who do not use the Internet tend to be older, poorer, and are more often members of minority groups.
- About 50 percent of the population over 60 does not use the Internet and frequently does not use computers.
- Lower income and education levels are associated with not using the Internet.
- Hispanics and African Americans, especially those below the \$30,000-40,000 income range, are less likely to use the Internet.
- Living in a rural location is linked slightly to reduced Internet use.

Carolyn Purcell, the Executive Director of the Texas Department of Information Resources, represented that organization as well as the Education Technology Coordinating Council (ETCC). Her presentation centered on the work of the ETCC, which was established to represent the interests of both the State of Texas and of state agencies and institutions of higher education to ensure the cooperation and coordination of the state’s efforts to implement educational technology initiatives. The Council is developing a statewide master plan for educational technology, giving particular attention to the coordination of pre-service and in-service training for teachers and librarians. Agencies participating in the Council include:

- Texas Education Agency,
- Department of Information Resources,
- General Services Commission,
- State Board for Educator Certification ,
- Telecommunications Infrastructure Fund Board,
- Texas State Library and Archives Commission,
- Texas Higher Education Coordinating Board, and
- The colleges of education at the public universities.

Ana Sisnett, Executive Director of Free-net, a community-based group working to provide free Internet access to individuals, spoke about partnerships between the local community, business and institutions of higher education. She identified community-wide access barriers and shared her recommendations to eradicate these barriers:

- Create comprehensive strategies for addressing adult literacy, multilingual services, government technology, and other concerns outlined above using customer input.
- Encourage state agencies and Texas educational institutions to make their technology resources and skills-sharing more easily available to under-served communities through collaborations with community technology providers.
- Promote awareness campaigns on the importance of equitable access to social services, training, information technologies, and telecommunication infrastructure to ensure access to existing and future e-government services in all Texas communities.
- Support innovative and sustainable public-private training initiatives that demystify telecommunication policies and services for all Texas communities (and agencies).
- Encourage greater coordination among all Texas e-government, community technology, and technology volunteerism initiatives

DELIBERATIONS

Participants were divided into small groups to discuss the following questions:

1. *What prevents participation in (electronic) distance education instruction provided by public institutions of higher education in Texas?*
2. *What are the best ways to make distance education in higher education more accessible to all Texans?*
3. *What policies should be considered to facilitate making distance education in higher education more accessible?*

Participants in each small group had a wide range of knowledge and experience. To encourage fresh ideas, the participant make-up of the small groups was changed for each question. After answering each question, the small groups reassembled in a plenary session to hear from each of the groups and to discuss together the common findings that emerged.

Coordinating Board staff collated this information into a draft report. The draft report was sent to the participants for comments. On October 26, 2000, the Coordinating Board approved it for submission to the Texas Legislature.

RESULTS OF THE SYMPOSIUM

Participants discussed the many ways in which distance education may be delivered, noting that not all methods are digital (e.g., correspondence courses) and that there are different digital technologies (e.g., teleconferencing versus Internet). Participants agreed that to get the most value out of this symposium, discussion should focus on distance education based on digital technology. Further, participants noted that to examine accessibility issues as they relate to different types of digital technology would be less productive and counter to the prevailing notion that multiple technologies represent a good strategy to open more doorways to higher education for Texas.

Symposium participants noted dozens of issues that affect accessibility to distance education, and discussed ways to encourage full participation and success and develop state policies that support access. These discussions are summarized below using a supply and demand model. Supply refers to factors that affect the number of course offerings and the efficiencies in their delivery. Demand refers to factors that affect individuals' ability and willingness to engage in distance learning. Generally, participants noted that distance education opportunities for students are directly related to the institutions' ability to provide those courses and students' access to the necessary hardware, Internet, or other resources needed to participate.

Barriers to Distance Education

Participants noted several key issues that provide a context for the discussion of barriers to distance education. First, distance education may not be suitable for some students. Eradicating barriers to participation in distance education will contribute to increased access, but Texas will have to continue its other efforts to increase enrollment and success in higher education to meet the goals of the new higher education plan.

Second, different students may prefer different types of distance education delivery systems. Continuing to use, explore, and discover a variety of digital technologies, in any combination that works, increases opportunities for more Texans to participate in higher education.

Third, digital technologies are in various stages of development and deployment in distance education. Generally, newer technologies pose more accessibility problems than older technologies. For example, increased access to cable television and the development of related technology makes some telecommunication courses much more readily accessible than Internet-based courses.

Supply Issues

Participants discussed a number of factors related to the ability of institutions to provide distance education courses. Key among these are cost, institutional cooperation, and faculty participation.

Distance education courses are costly. The hardware and software technology is expensive and the speed of its development requires continual upgrading. There are fees to pay for Internet connections. Also an institution must pay for these services whether it initiates the course or simply receives it. Institutions with a highly developed distance education program have usually obtained funding from grants and other outside sources.

Technical staff are needed for maintenance and trouble-shooting to keep the system operating effectively. Funds for hiring and retaining personnel with technological expertise to set up and maintain the educational technology equipment and programs take a substantial institutional commitment. These individuals can make significantly more money in the private sector.

This cost is magnified for the state because in many cases, institutions are developing courses independently, requiring that each buy the necessary technology and hire the necessary personnel to design and operate it. For example, each may be independently negotiating telecommunication connection fees. Because of regulatory requirements, there is a wide variance in what institutions across the state are paying. In essence, the economies of scale that keep distance education technology affordable are lost when each institution is competing with similar courses for the same students.

Although many, if not most, institutions are encouraging faculty to incorporate technology into their curriculum, there are few incentives, except personal ambition, to produce a distance learning course. Producing a distance education course requires a substantial amount of time and knowledge of the technology, and there is no apparent advantage for faculty to pursue these labor-intensive activities. Indeed, there may be a great disadvantage: distance education activities may interfere with activities for which faculty are currently evaluated (e.g., teaching load, student-related activities, generation of research funds, publications, or public service).

Two other faculty-related issues affect the supply of distance education. First, the uncertain legal status of intellectual property rights for faculty may keep them from developing distance education courses. Second, as many institutions may be relying on faculty to make their own choice to develop distance education courses, only faculty with an interest are doing

so, resulting in a schedule of offerings for the institution that is less cohesive and more random.

These factors dampen general access to distance education, but may also result in disparities in where and to whom distance education is accessible. For example, high connectivity costs prevent institutions with fewer resources, or those in economically depressed areas of the state, from participating fully in distance education opportunities. Faculty at these institutions do not have the high-tech resources needed to learn the technology necessary to produce or receive distance education that a high-tech center or larger metropolitan area can provide. Similarly, such areas of the state do not have the resources to recruit technologically savvy staff to support the technology for distance education.

Demand Issues

Participants noted several issues related to demand: computer access, student preparation and motivation, and a responsive distance education system.

A computer and some means of connection are necessary to access Internet-based distance education. Three classes of physical access exist: a home computer, a computer at a "remote" center sponsored by the institution offering distance education, or a computer at one of numerous community-based centers.

As family income increases, so does the probability of owning a personal computer. Income is also related to education, and people without a bachelor's degree are less likely to own a computer than people with a bachelor's degree. It is probably also more likely that computers owned by people with lower income do not have the computing power, or the Internet access, necessary to participate in distance education.

Remote centers are usually located in facilities operated by or in conjunction with other higher education institutions. These extend the reach of the institution, and perhaps the choice of courses for students, but individuals must still travel to and from these centers as they would to a regular classroom. In some cases, at some times, there may be fewer computers than students needing to use them. A significant advantage, however, is that someone is usually present with the knowledge and skills to assist the student either with the technology, the course content, or both.

Community-based centers offer free Internet access to anyone. They may be sponsored by non-profit organizations, business, and/or local governments. They are usually located in community centers and libraries, although they may be found in local schools as well (for use in the evening).

Since these centers are primarily operated to offer Internet access to people who cannot afford their own computer or Internet access, they are usually concentrated in economically disadvantaged sections of metropolitan areas and rural communities. These resources might not serve distance education well, however. To meet the high demand for them, an individual's time at the terminal is usually limited, often to as little as 15 minutes.

In summary, participation in distance education may require specialized equipment that is too expensive for many families. Efforts to provide that equipment to remote or community-based centers are underway by higher education institutions, local governments, or community groups. But use of these resources still may require student travel, and might not provide the resources to allow the amount of time on the Internet that distance education could need. The computer access problem is especially acute for those with physical or other disabilities that require specialized hardware or software to access the Internet and participate in distance education.

The academic preparation disparities that already exist among groups in Texas are mirrored, and perhaps more pronounced, with respect to the knowledge and exposure to technology that help students successfully engage in distance learning. Participants discussed two aspects of preparation: a basic understanding of the computer and the Internet, and the academic skills and discipline apparently necessary to do well in distance learning.

While increasingly simple to operate, the computer remains a complicated tool that requires technical knowledge to operate effectively. Used as an educational delivery tool, the student must understand the underlying logic of the software, what function keys do, and how to troubleshoot problems. The ability to navigate the Internet is also essential.

Our experts also noted that successful distance education requires a disciplined approach by students. Participants stated that the instruction and interaction between faculty and student become more personalized and better meet the student's needs. On the other hand, the interaction is less *situationally* structured, placing more responsibility on the student to keep up with the lessons, the activities, and the homework. One participant noted that distance education might be perceived negatively by students who expect the immediate gratification of the many computer games to which young people have been exposed.

Access to an Internet-connected computer, familiarity and knowledge about the computer, and the student discipline associated with success in distance learning are factors correlated with family income, and create disparities in who participates in distance learning.

Participants felt that more people would use distance education if it were more responsive to their needs. Participants noted that often students do not know where to look to find appropriate distance education classes, are not provided a coherent program sequence that leads to a definable outcome (e.g., certificate or degree), or may want courses not offered by distance education. Students may also fear or find that they do not get the technical support they might need.

Strengthening the Supply of and Demand for Distance Education

Participants noted that institutions are addressing barriers to participation and success in distance education. They are finding ways to cut costs, particularly through collaboration with others, strategically planning courses of instruction best suited to distance education, and marshalling the faculty and technological expertise necessary to the effort. They are also working in collaboration with others — particularly with business, community groups and public education — to provide the computers and Internet access necessary to participate in distance education, strengthen the technological skills of students, and generally create a more user-friendly distance education process.

In this context, participants also identified what the state could do to support their continuing efforts to make distance education more accessible to all Texans.

Strengthening Supply

Participants noted that institutions are being very deliberate in their search to reduce costs. The system offices are working with their member institutions to identify needs and strategically negotiate equipment, and sometimes personnel, to support distance education. Community colleges are collaborating to provide distance education services to particular regions of the state.

In a similar manner, participants suggested that the state might play a role in reducing the cost of distance education technology by working to enhance the collective buying power of institutions. Savings would occur with a statewide assessment of institutions' technology needs and a mechanism for purchasing this equipment collectively. Likewise, negotiating a state rate for connectivity would likely result in a low price that can be shared by all the institutions. Finally, there may be greater leverage in obtaining outside funding with grant proposals that focus on statewide needs of higher education.

Institutions are increasingly involved in collaborating to produce and deliver distance education courses. Systems are working to determine course series that fulfill basic educational requirements across their member institutions. Universities are collaborating with community and technical colleges to design, produce, and deliver transferable courses. Community and technical colleges are collaborating both within and across community college districts to bring these doorways to higher education to all parts of the state.

Participants agreed that greater collaboration among institutions in producing distance education courses, particularly courses that fulfill basic requirements for most institutions, is reducing costs and increasing supply. Participants noted that incentives to encourage these collaborative efforts are likely to further decrease the cost of distance education and further increase the supply of appropriate courses and programs leading to job skills, certificates, or degrees. This collaboration would also provide a framework for negotiating the purchase of equipment and obtaining outside funding as noted above.

These collaborative efforts could be increased by developing a system to monitor the various collaborative efforts across the state. In this way, participants noted, the state could be more efficient, encouraging partnerships between institutions with the necessary delivery infrastructure and institutions with the capacity to produce distance education courses but no delivery infrastructure.

As institutions strategically develop their distance education course inventories, they also are mustering the academic personnel needed to produce and provide these courses. In some cases, institutions are freeing faculty from their other duties to allow them to sharpen their technological skills. In other cases, institutions are considering ways to increase the technological skills of all their faculty.

Participants believed that producing and providing distance education courses would increase if these efforts were recognized as another legitimate faculty function. This appears to be happening as institutions work collaboratively to identify courses and provide the faculty to develop them. The participants thought that perhaps these efforts would be further encouraged if some or all distance education courses were funded through the formula at higher rates to offset the additional work necessary to produce and offer those courses.

If distance education is to effectively open doorways to higher education for all Texans, there must be a greater supply of appropriate distance education courses. The state can help by working to reduce the cost of the technology of distance education, encouraging more and supporting

collaboration among institutions, and finding ways to support efforts to integrate the production of distance education courses as another legitimate duty for faculty.

Strengthening Demand

Participants noted that perhaps the weakest link in the supply/demand chain is the availability of computers and Internet access to all Texans. The programs most successful in making computers and Internet access available to people are collaborative efforts between business, community groups, public education, community and technical colleges and universities. These programs usually target a specific audience in a particular region or area of the state.

One participant envisioned providing access to a computer at any Texas public higher education institution so that any Texan could take a distance education course offered by any other institution. Participants noted that widespread availability of computers is an investment in technology that will produce rich dividends for the state. These collaborative efforts should be encouraged, with appropriate incentives, by the state.

Participants noted that more Texans are understanding computers and the Internet as these tools continue to play a larger role in education, business, and recreation. For examples, high school students must complete a one-credit computer technology course, and more teachers are integrating the use of the computer into classroom learning in the sciences, social sciences, English, and math. More adults are taking courses in computer and computer literacy at community and technical colleges. The computer knowledge divide is probably narrower than the digital divide.

Participants also note that people who had achieved academic success in the past are less intimidated by distance learning. Texas' aggressive effort to enhance the overall academic quality of its high school graduates is likely to result in more students who will be comfortable with and successful with distance education.

Our experts noted that the personal motivation of students to engage in distance education involved many of the factors described above. Generally, people are more motivated to pursue distance learning when they have access to computers and the Internet, when classes they desire are available, and when they have the knowledge and skills to be successful. Convenience, as well as the potential financial rewards from learning new skills, were also cited as motivations. One participant noted that many might not be motivated because they do not realize that they should be. Many people were reluctant to use the debit card system because it was new and "high tech," but after they tried it and saw its benefits, they use it regularly.

A "system" of distance education in Texas is beginning to take shape. Participants noted the Virtual College of Texas, operated by the Texas Association of Community and Technical Colleges, which provides access to all distance education courses offered by all public community and technical colleges across the state. Several university systems also offer a consolidated slate of distance education course offerings through a centralized web portal. Participants noted that a further consolidation of these efforts would stimulate collaboration, help identify appropriate courses and course sequences, and provide wide and user friendly access to higher education.

Participants cautioned, however, that distance education students will probably continue to require other services traditionally offered by higher education. Academic advising, assessment services, career guidance, placement services, and similar resources are also important to students. As more students use distance education, there probably will be a higher demand for innovative strategies to provide student support services.

Participants said that distance education opportunities would be enhanced by creating a greater demand for it. This would require increased availability of computers and Internet access, more preparation in technology and its applications, and a system that is responsive to student needs.

SUMMARY AND CONCLUSIONS

The symposium on distance education and accessibility focused on supply and demand issues as they affect which Texans participate in distance education. Participants discussed the many ways in which institutions are successfully meeting the challenges of the digital divide, and considered ways the state could further support these efforts.

Participants identified a number of goals that would benefit the state. Texas should work to lower the cost of distance education technology, provide incentives to encourage collaboration between institutions to reduce the inefficient use of distance learning resources, and integrate distance education as a legitimate faculty function. Texas should support partnerships that make computers and Internet more available, continue to help Texans become technologically literate, and focus on distance education opportunities that respond to the needs of Texans.

Pursuing these goals will help public institutions of higher education in Texas provide a coherent series of high quality courses leading to identifiable skill areas, certificates or degrees, keep costs affordable, provide computers that are easily accessible and part of a reliable system, and provide the

technical support to help students deal with technological problems as they occur.

No consensus on how to achieve these goals was reached by the participants. They recognized that a variety of strategies at the state, institutional, and regional levels probably would be needed. They also noted that many difficult issues remain to be resolved. For example, issues of property rights (who "owns" the course), funding (which institution gets funding for the course), and centralization of effort (what kind of collaboration works best) will probably affect how accessibility issues are addressed in the future.

Participants expressed confidence that higher education is responding positively to the challenge to make distance education accessible to all Texans. Although no specific strategy could be identified to accomplish this, participants noted that state support in the areas identified in this document would help institutions in meeting this challenge. For distance education to be a much used doorway to participation and success in higher education for all Texans, Texas must begin work now to resolve the issues that prevent these goals from being reached.

APPENDIX

List of Participants

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