This executive summary provides an overview of the current status of the following aspects of statewide planning for telecommunications in education: (1) governance structures; (2) the role of public broadcasting organizations; (3) state telecommunications administration divisions; (4) the role of higher education institutions in coordinating planning efforts; (5) the involvement of state departments of education; (6) the role of the governor's office and the state legislature; (7) the role of faculty; (8) the role of interstate coordinating organizations; (9) program development and technology development; (10) the cost effectiveness of technology; and (11) the value of coordinated planning. (GL)
STATEWIDE PLANNING
FOR TELECOMMUNICATIONS IN EDUCATION

EXECUTIVE SUMMARY

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Each of the states has a unique system for governing and coordinating the operations of educational telecommunications. Governance in some states (Kentucky, South Carolina, Nebraska) is assigned to the public broadcasting board or commission, which coordinates educational telecommunications. In other states (Florida, Delaware, New Jersey, and in a limited way, Arizona), the governance is assigned to an administrative agency such as a department of telecommunications, which procures telecommunications services and facilities for state agencies. Still other states (e.g., Texas, Oklahoma, Michigan) give the governance function to State Departments of Education or Higher Education. Finally, many states have no central telecommunications governance system, but some self-initiated, cooperative telecommunications arrangements may be found among ad hoc organizations of educational institutions.

Each system of governance has advantages and disadvantages for the development of an integrated educational telecommunications network. Each system gives rise to misgivings and controversy among
educational telecommunications planning participants, but respondents favored coordinating, not controlling telecommunications planning organizations.

Coordination and governance of statewide telecommunications planning is less complicated in states that have had low involvement in educational telecommunications use, where traditional, firmly entrenched telecommunications coordinating agencies do not exist. By contrast, coordinated planning is more difficult in states where agencies have already established telecommunications domains.

Public Broadcasting Organizations

Thirty-one states have statewide educational broadcasting authorities, typically independent agencies, but often with formal or informal connections to state education agencies. The advantages of coordination by public broadcasting organizations are that public broadcasting entities have technical facilities and expertise and are aware of technological alternatives. The disadvantages are that some public broadcasters have a preoccupation with broadcasting as the sole mode of transmission, and public broadcasting programming priorities have become oriented away from instructional programming toward general audience programming. Nevertheless, coordination by public broadcasting authorities seems to be facilitated where a state public broadcasting system exists and the state commission holds licenses for all or most of the stations.
State Telecommunication Administration Divisions

In some states telecommunications divisions within state administration departments are given responsibility for procurement of telephone systems and provision of telecommunications networks for state agencies and public elementary, secondary, and post-secondary educational institutions. Degree of control and coordination varies considerably, from specific control to loose coordination through the assessment of institutional needs, assistance in developing independent telecommunications systems, or making final decisions to purchase equipment and services.

The major advantage of coordination by telecommunications divisions lies in the ability to cut across artificial institutional boundaries, turf issues, and territoriality, and coordination can make significant cost savings possible. Such telecommunications divisions are particularly effective where they have sensitivity to special program and telecommunications planning needs of elementary, secondary, and higher education.

Higher Education Institutions

Few higher education institutions provide statewide planning coordination. More typically, they plan for their own institutions' instructional and marketing needs. In some states, university system-wide planning incorporates multiple campuses and a variety of
uses, including voice, data, and video interconnections for administrative and instructional purposes, but generally, telecommunications planning by higher education institutions is fragmented. In few states do many or all post-secondary institutions participate in the planning, so statewide consensus is difficult to achieve. Furthermore, colleges and universities are notoriously independent in adopting technology, and appear to engage in technological competition with other higher education institutions. In some states higher education coordinating boards have provided a planning structure.

State Departments of Education

State Education Departments tend to be strong locations for telecommunications planning. Most education departments have the personnel to develop and implement technology initiatives. In states like Kentucky and Virginia, the Department of Education is providing funding for K-12 technology initiatives. Uses of technology tend to be more restricted and traditional in education departments where technology personnel are not available, and the department usually does not provide technology leadership. In such cases, individual school districts form their own ad hoc technology consortia.

Many school districts have individual arrangements with colleges or universities to receive advanced placement and enrichment courses via telecommunications systems. Those arrangements tend to frustrate planning for a single educational telecommunications system, but it
appears to satisfy the immediate needs of the school districts.

**The Role of the Governor's Office and the State Legislature**

In general, statewide educational telecommunications systems are strong in those states where there is firm support from the state government. Lack of funding at the institutional or state level was most frequently reported to be the principal impediment to coordinated planning. The education of politicians in instructional technology has been identified as a high priority if technology development is to attract state funding. Thus, when the issue of telecommunications has the attention of the governor and key respected individuals, the chances of developing and funding a coherent statewide system are much greater than where there is no official involvement. In addition, planning committees need to have a realistic understanding about limitations of state resources for telecommunications development.

**The Role of Faculty in Technology Planning Efforts**

While many faculty members remain suspicious of educational technologies, faculty members must be included in any telecommunications planning process. Faculty usually learn about technologies and only later develop applications of technologies. Assuming that the most effective uses of technology will be made by faculty members who understand its potential, a comprehensive needs assessment should be preceded by educational technology information
seminars for faculty and education administrators. Telecommunications decisions will consequently reflect the more comprehensive planning and the resulting systems will have considerable longevity.

A range of other faculty issues needs to be treated if faculty are to be involved in the technology planning. Articulated policies regarding faculty involvement in technology, faculty incentives for using technology, such as compensation or teaching load adjustment should be considered by educational institutions. Certainly the institution must avoid penalizing faculty members who use technology for instructional delivery.

The Role of Interstate Coordinating Organizations

A few organizations are stimulating interstate educational telecommunications planning and coordination by providing technical and management expertise to state planning committees, and they provide a forum for states to plan cooperatively.

The Organization of State Broadcast Executives (OSBE) assists its members in the development of state broadcasting policy and in planning for new broadcasting and related services. Currently, OSBE is investigating whether to provide a variety of instructional programming to its members via satellite.
The Western Interstate Commission for Higher Education (WICHE) attempts to provide excellence in education by providing a vehicle for interstate cooperation and reducing duplicative efforts in the states. Regarding telecommunications, WICHE has surveyed its member states' planning, construction, and programming activities, and the Commission is facilitating interstate sharing of facilities and programs. WICHE is also considering the development of a Western Regional Telecommunications Cooperative, specifically established to enable states to share educational programs and to expand members' access to specialized courses, faculty, and technical expertise.

Program Development and Technology Development

The consideration of telecommunications systems development in the context of the special needs of education demands that programmatic needs should drive the technology, not the inverse. Educators were emphatic in their position that program needs assessments should precede the technology development, but it is possible that the availability and presence of technology stimulates creative program development.

Cost-Effectiveness of Technology

Various positions on cost-effectiveness of educational technology are apparent. The view that technology development is an extremely expensive capital project, and any state involvement must be limited is countered by the view that technology is less expensive
than conventional delivery means. The middle position seems to be that most telecommunications systems are not inexpensive, nor do they actually save money over conventional means of program delivery, but they may be a cost-effective method for delivering excellent instruction to areas that would otherwise lack the instruction.

The Value of Coordinated Planning

There is little variance of opinion about the value of coordinated telecommunications planning. Most educators and telecommunications specialists recognize economies of scale in the development and installation of telecommunications services for multiple institutions. As a result, educators, and more particularly telecommunications experts, have strong inclinations to develop systems that will be widely used and to provide equity in educational programs. Uniform systems of telecommunications can make education widely available to the most dispersed populations. A few respondents hold a variant position that exhaustive telecommunications planning is impossible and perhaps undesirable at a time when technological advancements are rapid. Planning can scarcely keep pace with technological change, and educational institutions are not equally prepared to adopt technology. Nevertheless, the benefits of coordinated planning seem to outweigh the detriments.

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