DOCUMENT RESUME

ED 472 660 HE 035 634

AUTHOR Smith, Theresa Y.

TITLE The Consortium for Student Retention Data Exchange: A Case Study of Consortium Development. AIR 2002 Forum Paper.

PUB DATE 2002-09-00

NOTE 25p.; Paper presented at the Annual Forum for the Association for Institutional Research (42nd, Toronto, Ontario, Canada, June 2-5, 2002).

PUB TYPE Reports - Descriptive (141) -- Speeches/Meeting Papers (150)

EDRS PRICE EDRS Price MF01/PC02 Plus Postage.

DESCRIPTORS Academic Persistence; *College Students; *Consortia; Data Collection; *Higher Education; *School Holding Power; *Student Attrition

ABSTRACT

The Consortium for Student Retention Data Exchange was established in 1994. Its membership increased from 163 colleges and universities in 1994 to more than 400 in 2001. Over the past 8 years, the routine of working with a large and diverse group of institutions has culminated in a valuable collection of experiences and lessons. The 8-year consortium history was documented in a case study of consortium development. The topics included in this paper are: (1) the groundwork; (2) consortium organization; (3) maximizing survey participation; (4) ensuring data quality; (5) compiling data analysis; (6) confidentiality of data; and (7) recommendations on consortium development. (Contains 14 references.) (Author/SLD)

The Consortium for Student Retention Data Exchange:
A Case Study of Consortium Development

Theresa Y. Smith, Founding Director
Center for Institutional Data Exchange and Analysis
University of Oklahoma
1700 Asp Avenue
Norman, OK 73072

Paper Presented at the
42nd Annual Association for Institutional Research Forum
Toronto, Canada
June 2-5, 2002

The Consortium for Student Retention Data Exchange:
A Case Study of Consortium Development

Abstract

The Consortium for Student Retention Data Exchange was established in 1994. Its membership increased from 163 colleges and universities in 1994 to more than 400 in 2001. Over the past eight years, the routine of working with a large and diverse group of institutions has culminated in a valuable collection of experiences and lessons. The eight-year consortium history was documented in a case study of consortium development. The topics included in this paper are as follows: the groundwork, consortium organization, maximizing survey participation, ensuring data quality, compiling data analyses, confidentiality of data and recommendations on consortium development.

The Consortium for Student Retention Data Exchange:
A Case Study of Consortium Development

Transforming data into useful information is an important function of institutional research. This information enrichment process often requires the analysis of data in the context of interinstitutional comparisons. Saupe (1990) identified comparative analysis as a "common technique of institutional research." Harrington and Chen (1995) noted that "The collection, analysis and dissemination of institutional data could be traced to peer exchange between Harvard and the founding of Yale in 1701 (Cowley, 1960; Dressel, 1971; and Tetlow, 1979)." This common technique appears to have been in existence since the beginning of American higher education. Recent trends suggest that the number of interinstitutional data-sharing activities has been on the rise and the need for comparative data will only increase (Trainer, 1996).

Data-Exchange Consortia

As a way to facilitate the increasing need for complicated data exchanges, several consortia have been established since the mid-1960s. The approaches for organizing these consortia vary: some consortia are peer based; others, issue oriented. Major distinctions between these two approaches exist in the criteria required for membership and in the scope of data-exchange activities. Peer-based consortia define their membership based on a set of common institutional characteristics. Issue-oriented consortia enlist their participants based on a common interest in the same data issue. Typically, peer-based consortia facilitate multi-dimensional data exchanges within a pre-selected group of similar institutions, while issue-oriented consortia organize data exchanges on one focused issue among highly diverse institutions.

Examples of peer-based consortia include the Southern University Group (SUG) which was established in the mid-1960s (www.sair.org/about_sair); the Association of American Universities Data Exchange (AAUDE), in 1973; and the Higher Education Data Sharing Consortium (HEDS), in 1983 (Shaman and Shapiro, 1996). Examples of issue-oriented consortia include the Cooperative Institutional Research Program (CIRP) which was established in 1966 (www.gseis.ucla.edu/heri/heri.html, 2002); Oklahoma State University Faculty Salary Survey by Discipline, in1974 (www.okstate.edu/pbir/IR/FacultySalary.html); and National Cost Study of Instructional Costs and Productivity, in 1992 (www.udel.edu/IR/cost, 2002).

Information Technology and Consortium Development

A major reason for the recent growth in data-exchange activities is the advancement in information technology. The 1970s marked the emergence of information systems on college campuses. This development made it possible for institutions to conduct timely data analysis on a variety of institutional research topics. At first, the mainframe-based information technology was available to a limited number of large research universities. In the computing environment of the early 1980s, using punched cards for data exchange was celebrated as "an improvement over the questionnaire, in that the participant's computer is talking directly to that of the coordinator--no 'typos' creep in to impede communication, no human data transcription effort is required, and it is not necessary to send data listings to participants for verification." (Bloom and Montgomery, 1980).

In just two decades, the medium for data exchange has progressed from paper files, punched cards, electronic files, to shared on-line databases. The improvement in networking technology has significantly reduced the resources required for data collection, entry, analysis and dissemination. Issue-oriented consortium organizers no longer have to limit the number of participants because of resource concerns. On the contrary, they can benefit from increased membership in many ways. The larger an issue-oriented consortium is, the more likely it can deliver the following advantages: a richer data context for comparative analyses, a more diverse pool of institutions for constructing meaningful comparison groups and a lower cost for individual members.

Moreover, the advancement in microcomputer technology in the past two decades has extended the capabilities for producing complicated data analyses to even the smallest and the most distant campuses. The spread of automated data systems has enabled institutions to compile data on a variety of issues regularly. Today, most institutions routinely participate in data-exchange activities. Lack of data is no longer an issue that deters institutions from participating in a data-exchange consortium. These recent developments have contributed to a much more favorable environment for conducting interinstitutional data exchanges, especially for organizing large, issue-oriented consortia.

As a product of this new information age, the Consortium for Student Retention Data Exchange (CSRDE) was established in 1994. This issue-oriented consortium began with a diverse membership of 163 institutions. By 2001, the membership had increased to about 420 colleges and universities. In its eight-year history, The CSRDE has accumulated a valuable collection of

experiences in consortium organization and in data-exchange coordination. The purpose of this paper is to document these experiences and to present the CSRDE as a case study for future consortium development.

THE GROUND WORK FOR THE CSRDE

Background

The CSRDE Retention Survey evolved from a survey instrument originally designed for collecting the retention and graduation rates of first-time freshmen in the Big Eight, the Big Ten and the SUG institutions. Since the early 1980s, the University of Oklahoma (OU) has participated in two peer-based data-exchange consortia: the Big Eight Data Exchange (BEDE, changed to the Big Twelve Data Exchange in 1998) and the SUG. Because of geographical proximity, data-exchange activities in the BEDE often include the Big Ten public universities.

The BEDE and the SUG consortia work in very similar ways. The members meet at least once a year in the fall to exchange data and to share information on issues and expertise related to institutional research (IR). There are two ways in which data sharing takes place within each group: (1) ad hoc exchanges of various one-time data inquiries and (2) a defined package for regular and in-depth data sharing on selected data items. In the SUG data exchange, each data item has a designated coordinator. It is the responsibility of each coordinator to conduct survey activities and to conclude the process by distributing a comparative report to the participants. This process has yielded many useful and quality comparative analyses: Teaching Load Data Exchange, Administrative Salary Survey, Faculty Salary Survey, etc. This SUG data-exchange model was later adopted for organizing the CSRDE.

In 1989, as a part of the university planning at OU, student retention was identified as a critical area for improvement. When the university began its initiatives to increase student retention and graduation rates, the IR director anticipated that routinely produced retention reports, including data from the comparison groups, would soon become an integral part of the process. In the absence of a regularly conducted student retention data exchange, the OU IR director proposed a new retention data exchange at the annual BEDE meeting. The proposal was accepted by the BEDE representatives; and the proposer was asked to design the required survey instruments and to coordinate the BEDE retention survey.

Coincidentally, the SUG institutions also decided to include student retention as a SUG data-

exchange item at the annual SUG meeting two weeks later. To avoid duplication of efforts in retention survey design, the OU IR director, also a SUG member, became a convenient choice for coordinating the SUG retention survey. In a short time, the retention data exchange had assembled more than 30 institutions as its base for the first survey.

It is worth noting that among individual campuses, issues often emerge concurrently in response to significant national trends. In this case, several events in the 1970s and 1980s led to the common need for comparative retention data at many colleges and universities. First, the economic recession of the mid-1970s prompted greater demand for accountability by state and federal agencies (Peterson, 1986). Consequently, assessing student outcomes became increasingly important at colleges and universities. Second, enrollment projections forecasted a declining college-aged population for the late 1980s and 1990s. Increasing student retention rates became a strategy adopted by many campuses to soften the impact of the projected enrollment decreases. Third, minority college population increased at an accelerating rate throughout the 1980s with a total increase of more than 50 percent in one decade. Retention rates were significantly lower for this fast-growing minority population (Smith, 1995). Fourth, more than half of the BEDE, the Big Ten and the SUG universities began routinely reporting internal student-tracking data in the mid-1980s. By 1989, they were looking for a comparative context for interpreting the retention and graduation rates.

The Original Survey

The retention survey design began soon after the BEDE and the SUG meetings. The preliminary survey was then distributed to the consortia members for their review. This pre-survey review served an important function in ensuring a successful data exchange. In examining the preliminary survey instrument, consortium members could determine first-hand how data would be gathered and what data items would be required. The process also generated valuable comments and suggestions from the BEDE and the SUG representatives. They helped define survey data items, organize survey procedures and thereby reduced potential difficulties and problems. After several revisions, the survey instrument was finalized in late January of 1990.

The inaugural survey was distributed to 43 universities in the Big Eight, the Big Ten public and the SUG universities. Thirty-nine, or 91 percent, of the 43 universities responded to the survey.

Each year, separate reports were compiled as a result of this survey: the Big Eight Retention Study, the Big Ten Retention Study and the SUG Retention Study. The survey time line was simple: (1) survey distribution by March, (2) survey due in July, and (3) dissemination of comparative studies in August. The strategy for formulating comparison groups for these peer-based consortia was pre-defined. It simply followed the membership structure of each consortium.

A Sustainable Survey Base

Beside the consistently high response rates of the BEDE, the Big Ten and the SUG retention surveys, there were other indications of a wider interest in comparative retention data. In 1994, the AIR Forum evaluation results showed that 58 percent of the respondents ranked student persistence and retention as highly important to their professional role (Lindquist, 1999). Two years after the first comparative retention reports were published, the survey coordinator was invited to present information about the retention data exchange at several regional and national conferences. They included a Committee on Institutional Cooperation Conference (consisting of the Big Ten universities and the University of Chicago) and workshops sponsored by the National Science Foundation (NSF). From 1993 to 1995, similar studies were conducted for more than 70 institutions that participated in two NSF educational programs nation-wide.

By 1993, the survey instruments had been introduced to more than 100 four-year colleges and universities in six separate groups. These institutions represented a wide range of characteristics in mission, geographical location, admission standards and size. Despite the extensive scope of data collection required by this survey, the response rate was encouraging. "Sixty-seven of those institutions provided full responses to all racial subgroups surveyed." (Smith, 1995) By 1994, many other institutions had also expressed their desire to participate in the retention data exchange.

These events and several other conditions gave sufficient reasons for believing that a retention data exchange consortium was sustainable. First, the survey instrument demonstrated its applicability beyond those in the BEDE, the Big Ten and the SUG. Survey experiences with three other diverse groups of more than 70 institutions indicated that potentially 1,400 colleges and universities could benefit from the survey. Second, the survey process and logistics did not create significant added burdens to either the participants or the host institution. Third, the comparative data proved necessary and useful for the host institutions and for others in the higher education

community. Fourth, the survey base persisted and was likely to grow. The survey base might be further enhanced by the *Student Right-to-Know and Campus Security Act* which requires institutions to make available their graduation rates. Fifth, in the late 1980s and early 1990s, the strategic plan at OU actively encouraged external professional activities that could enhance the university's national visibility, reputation and/or resources. As a part of the strategic plan, national outreach became a part of the IR office mission. These events culminated in the decision to establish the CSRDE in August 1994.

ORGANIZING THE CSRDE

Membership Recruitment

Organizing the CSRDE began with membership recruitment. The prospective members were identified as four-year baccalaureate degree-granting colleges and universities. A recruiting package was sent to the president of each institution in late August. The package consisted of an invitation letter, a sample survey form, a calendar of activities and a registration form. The recruiting letter outlined the purpose, activities and responsibilities of the consortium; it also explained membership obligations and privileges. This simple letter presented important contractual information to prospective members for consideration.

The recruiting process recurred each of the subsequent seven years. Beginning with the second year, an executive summary of the previous year's CSRDE Retention Report was added to the package. In 1998, recruiting information was also posted on the web site, www.occe.ou.edu/csrde. It has proved to be an effective and convenient tool for communicating with the general public, the CSRDE members, and especially the prospective members.

Consortium Activities and Time Line

The CSRDE offers activities on two separate tracks. The core survey track relates directly to the retention data exchange and the supplemental track pertains to the annual CSRDE effective retention program award. The supplemental track solicits from individual campuses the case studies that document how institutional and student characteristics have affected the retention and graduation rates of their students. These presentations added perspectives and dimensions to the data exchange. The supplemental track also contributed to more frequent and active communications within the consortium. The combined activities of these two tracks were scheduled evenly over the

course of a year. In doing so, there were periodical, if not monthly, contacts between the survey organizer and the consortium members.

Special attention was given to the timing of survey distribution and report dissemination. The timing of survey distribution and data collection took into account the IPEDS reporting schedule, workload at the IR offices and scheduled holidays and vacations. Where possible, survey data definitions adhere to the IPEDS standards. Each year, the survey was distributed in mid-December or in early January. By then, the busy fall reporting season was over and institutional enrollment and retention files were available at most institutions.

MAXIMIZING PARTICIPATION

The principal rule for disseminating reports is timeliness. As a primary condition for joining a data-exchange consortium, participants expect timely and accurate information from the group (Teeter and Brinkman, 1992; Trainer, 1996; Sapp, 1996). Therefore, a consortium's existence often hinges on its ability to deliver accurate information before it can be obtained from other public sources. In the case of the CSRDE, the turn-around time between the last survey response and the finalized annual report was usually shorter than 30 days. Secondary considerations for report completion also existed. For example, the date for finishing the CSRDE report was usually targeted at about two weeks before the annual AIR Forum so that the reports could be distributed to the participants before the conference and the Executive Summary brochures could be printed in time for distribution at the conference site.

Deadlines

Trainer (1996) observed that "The key to success for a data exchange is the cooperation of its members." From a survey coordinator's perspective, perhaps the most challenging task in a data exchange is finding ways to maximize this cooperation. The survey response rate was 75 percent in the early years of the CSRDE and later improved to about 85 percent. While the majority of the institutions consistently completed their surveys before the due date, it was common for others to submit their responses after the deadline had passed. In scheduling survey activities, it is important to anticipate some delays. To maximize participation, a useful practice is to remind survey participants of deadlines, multiple times if necessary. When working with the CSRDE group, the survey coordinator usually sent three reminders: first an e-mail reminder two weeks before the

survey due date, followed by another one shortly past the due date, and a final prompt by phone, two weeks later. This was time-consuming but effective.

Survey Instrument

Keeping the survey instrument manageable for the participants is a key step in achieving a successful response rate. Special efforts were made to keep the survey size minimal. The data elements were reviewed carefully and only those essential items were included. Data items that may not be available at some institutions were included in the survey as "optional" items so as to encourage participation. It is important to note that the CSRDE survey experiences showed that over time both the quality and the quantity of survey responses improved. Eventually, the "optional" items, once considered novel, would become routinely available at most survey institutions. Overall, the survey response rate also improved, from 75 percent in 1995 to 85 percent in 2001.

Flexible Data Submission Formats

The CSRDE survey participants represented a wide range of institutional diversity, from public research universities with more than 50,000 students to private baccalaureate colleges with fewer than 800 students. When coordinating data-exchange activities in a large and diverse consortium, it is necessary to allow flexibility in survey response formats so that institutions could participate more easily. In the earlier years of the CSRDE, the format for data exchange was simple. One set of hardcopy survey instruments was used for all participants. Increases in membership diversity and the advancement in networking technology brought about simpler and more convenient formats for several groups within the CSRDE.

Adapting to a different data-sharing format can benefit both the participating and the host institutions. In 1995, the California State University System (CSU) of 22 campuses joined the CSRDE. To submit data for all these campuses, one single electronic ASCII file from the existing CSU reporting system was used to conveniently transmit the required data to the CSRDE computer. In 1999, AAUDE members participated in the survey using their own retention data exchange format. Similar arrangements were made for several other groups: the University System of Georgia, the University of North Carolina System, and the Oklahoma State Regents for Higher Education. In 1999, many CSRDE members indicated a preference to submit survey data in an electronic Excel file format. In response, an Excel survey form was placed in the CSRDE web site.

In 2001, about one third of the institutions used the Excel survey format and the file was submitted as an e-mail attachment. The next evolutionary development would be on-line web-based data submission. At the same time, for some institutions, paper processing may remain their preference.

ENSURING DATA QUALITY

A Sound Survey Instrument

Ensuring the quality of survey data begins with a sound survey instrument. The survey data elements should be clearly defined and the survey contents well researched. As stated earlier, the CSRDE retention survey instrument benefited from the pre-survey review by the BEDE and the SUG representatives. Later, the survey was also used for data collection in more than 100 institutions. As a result, potential problems were substantially reduced. Other measures were included to help prevent potential errors: a checklist with criteria for editing common errors and built-in editing functions to flag errors in the electronic spreadsheet so that corrections can be made.

A Vigorous Editing Process

To ensure the quality of data, it is vitally important that a vigorous editing process be pursued. A stringent editing process was put in place to correct as many errors as possible. The cause for these errors ranged from simple mechanical or data entry errors, to illogical data, inconsistency problems and misstated facts. Several editing steps were carried out to ensure data accuracy.

First step: preliminary edit. When each survey was received, the responses were visually inspected for completeness and general accuracy. This preliminary edit allows timely corrections by the survey respondent.

Second step: edit clerical or data-entry errors. This process was separately performed by at least three individuals. Each would check through the full set of materials once. For survey data that were submitted electronically, this step would not be necessary.

Third step: document the status of data reported. Each institution's survey responses were reviewed thoroughly. Missing data and any differences from the standard definitions were documented (Figure 1). This documentation was included in the annual report as an appendix.

Figure 1: Sample page of survey documentation with illustration data.

Documentation of 2000-01 CSRDE Retention Survey Responses

Institutions	Reporting Status of Admission Test Scores: ACT	SAT	Missing Data [2]	Percent Part-Time Included	2000-01 Update Reported	Confidentiality Required	Notes on Other Survey Data
Institution A	-	x	R, G	0.4%			SAT recentered for all years
Institution B	-	x	R, G				None
Institution C	-	x [1]					SAT recentered for all years
Institution D	-	x					None
Institution E	-	x	R				Data for underrepresented minorities not available
Institution F	-	x	R, G		No		Data for 2000-01 updates estimated
Institution G	-	-	All test data				Summer matriculants not included in 1993-95 cohorts
Institution H	-	-	All test data			Yes	None
Institution I	-	x [1]					SAT for special admissions excluded
Institution J	-	-	All test data				Data for the 1999 cohort estimated
Institution K	-	x [1]					Exchange students included as dropouts prior to 1999
Institution L	-	x	R.G				None
Institution M	-	x	1993-94				Enrollment of lower division students began in 1995.
Institution N	x	-					None
Institution O	-	x		1%			None
Institution P	-	x					None
Institution Q	x	-					Continuation rates to the 5th, 6th and 7th years not available
Institution R	x	-					1993 cohort graduation rates as of spring
Institution S	x	-					None
Institution T	x	-	R, G				Nonresident alien data not available
Institution U	x	-					Cohort based on end-of-semester census
Institution V	x	x		5%			Nonresident aliens reported in their respective race subgroups
Institution W	x	-					2-3% part-time students included for 1993
Institution X	-	x	R				Definition of full-time reduced from 80% to 60% load in 1994
Institution Y	-	x					Continuation to the 7th year not available

(1) SAT data recentered for all years
(2) Missing Data: R-data missing for race subgroups; G-data missing for gender subgroups

Fourth step: edit illogical errors, inconsistency problems and, sometimes, misstated facts by an automated editing process. An example of each type of data errors is provided as follows. (1) Illogical data: four-year graduation rate was greater than six-year graduation rate for the same cohort. (2) Inconsistency problems: the sum of males and females did not match the total. (3) Misstated facts: recentered SAT scores were reported for the years where old SAT scores were required. Type three errors often required a double check by an analyst for confirmation. They could not always be detected directly by the computer programs alone. However, it was helpful for the programs to flag potential errors, followed by a data analyst's investigation.

Fifth step: a final review of the data by a seasoned analyst. This step was carried out as a final edit to correct some errors that would require historical knowledge and background information about the project. The experiences and insights acquired from working with a project could not be easily built into an automated editing process.

Documenting Survey Data

"Regardless of the apparent usefulness of an exchange, one must remember that a perfect fit in definitions or in collections procedures among the participants is extremely difficult to attain, and as a consequence, some lack of synchronization in data and comparison should be expected." (Bloom and Montgomery, 1980) Documentation helps clarify these data differences. As a part of the documentation, missing data elements could also be noted (Figure 1). Thorough documentation contributes to a better appreciation of reporting standards and data quality. Many survey participants have come to regard the documentation of the CSRDE survey responses as a report on their performance in the data-sharing process. Even though this was not the original intent, the documentation did contribute to improved survey responses over the years.

Another aspect of data documentation is the data-editing process. When survey responses did not meet reporting requirements, they were excluded from the final report. Sometimes, only minor errors existed and editing could solve the data problems. Because of the short turn-around time, most of the editing activities occurred in-house. Instead of notifying individual institutions when their data required editing, documentation in the final report was a more practical way to keep institutions informed. The following is an example of the editing notes:

> "Because of the static nature of retention and graduation rates, infrequent missing data cells for an institution were replaced with the corresponding column averages

for that institution. This practice is necessary to ensure a more consistent comparison." (Smith, 2001)

Once the report was finished, the edited database became the official data source for the entire year. The database was used to compile peer comparison reports when they were requested; it was also used to generate new survey forms for the next data collection cycle. Multiple opportunities existed for survey participants to review their data as stored in the CSRDE database.

Data Analysis

In the CSRDE retention survey, data was shared at the aggregated level by individual institutions. Retention data was collected by race and by gender. To assist in the process of peer identification, data pertaining to institutional and student characteristics were also collected as supplements. The selection of characteristics data depended on three factors: (1) data availability, (2) relevance to student retention, and (3) applicability for peer identification. Institutional size, student age, average admission test scores, high school ranking, first semester GPA were a few examples of institutional and student characteristics data. "Whenever feasible, exchange activity should build upon work the institutions are already doing." (Trainer, 1996) Some supplemental data was derived from published reports to reduce the survey burden and to ensure consistency. For example, the data on institutional classification came from the Carnegie Classification of Institutions of Higher Education.

The CSRDE reports consistently indicated that institutional selectivity was the most significant factor in comparing institutional retention and graduation rates. Therefore, in the context of student retention comparison, institutional selectivity was the key criterion used for formulating meaningful comparison groups. Other significant factors included student race and gender, percent of part-time students, and public vs. private institutions. The annual retention report was divided into four sections of varying selectivity: highly selective, selective, moderately selective and less selective. Summary tables also displayed comparisons by race, gender, and other characteristics cited earlier. Two appendices, which provided extensive data about individual institutions, were included for reference purposes (Figure 2). These detailed data were useful for identifying institutional comparison peers.

In addition to the annual report, a six-page Executive Summary was produced for extensive

Figure 2: Illustrations for (1) display of characteristics data and (2) formats for displaying confidentiality requirement.

Six-Year Graduation Rates and Institutional Characteristics

1994 First-time Freshman Cohorts in 344 CSRDE Institutions

Confidential

For internal use by CSRDE members only

Public Institutions

Size	Colleges and Universities	Percent Part-time Undergrad	Cohort Head Count	1994 Admission Test Scores		Percentage of First-time Freshman Cohort						Retention Rates		Graduation Rates	
						High School Rank		1st-term	Underrep.	24 Years	Residence				
				ACT	SAT	Top 10 %	11-25%	GPA<2.0	Minorities	or Older	Housing	1st-yr	2nd-yr	5-yr	6-yr
	Master's I														
M	Institution A	7%	2,290		1103	31%	40%		9%	0%	98%	92%	86%	78%	80%
M	Institution B	47%	881		996 #			14%	7%	13%		67%	50%	19%	26%
M	Institution C	13%	1,422		890			42%	9%	1%		75%	61%	44%	48%
M	Institution D	18%	1,593	20.2				31%	6%	7%		70%	59%	32%	32%
M	Institution E	20%	1,147		1070	16%	38%	20%	9%	0%	90%	84%	73%	63%	65%
M	Institution F	19%	1,528	20.7		7%	20%	14%	3%	1%	77%	73%	60%	36%	42%
M	Institution G	33%	872		928	19%	33%	16%	18%	11%	44%	84%	75%	49%	58%
M	Institution H	14%	801		862				21%	9%		77%	60%	37%	41%
M	Institution I	12%	1,332		945 #	10%	21%	30%	97%	1%	87%	74%	62%	40%	44%
M	Institution J	18%	719		961 #	8%	21%	31%	97%	5%	86%	78%	65%	44%	49%
S	Institution K	18%	435		1064			25%	3%	2%		72%	61%	45%	50%
M	Institution L	23%	885	20.6					36%			61%	50%	35%	37%
M	Institution M	34%	736	22.0				21%	2%	2%		70%	59%	27%	36%
S	Institution N	22%	551	19.1		9%	23%	29%	2%	4%	78%	61%	51%	33%	38%
M	Institution O	8%	1,285	21.7		8%	14%	26%	4%	1%	88%	64%	51%	36%	41%
S	Institution P	20%	246									64%	44%	25%	30%
M	Institution Q	52%	946		810	9%	17%	32%	23%	4%	1%	62%	43%	20%	22%
M	Institution R	32%	728		963	15%	31%	19%	24%	4%	63%	83%	73%	49%	56%
L	Institution #232	31%	1,497		815				26%	2%		79%	66%	20%	32%
L	Institution T	31%	1,347		837				34%	1%		79%	67%	22%	34%
M	Institution U	5%	1,236		951	12%		25%	7%	0%		75%	66%	57%	59%
M	Institution V	14%	1,202		862	9%	21%		7%	1%	90%	70%	59%	45%	51%
M	Institution W	22%	642		908				21%	1%		73%	58%	36%	44%
M	Institution X	19%	1,151	22.5		18%	22%	23%	5%	4%	56%	72%	62%	43%	48%
S	Institution Y	17%	482									63%	49%	29%	34%

Size: L-large, 18,000 or more students; M-medium, 5,000-17,999 students; S-small, fewer than 5,000 students. * 1993 rather than 1994 data. # recentered SAT.

distribution in the higher education community. As a special privilege, survey participants could request a customized comparison report by submitting a list of self-identified peers. Less than 40 percent of the institutions requested customized reports each year. The annual report itself appeared to have been satisfactory for most of the consortium members. For those who requested customized reports, the selections reflected an interesting array of comparison groups, including selectivity peers, predetermined groups, in-state or regional competitors, and aspiration institutions (Teeter and Brinkman, 1992).

Data Confidentiality

The practice of honoring an institution's need for data confidentiality encourages data-exchange members to entrust their data with a consortium. This trust requires the cooperation of all consortium members. In recent years, only a handful of the institutions required data confidentiality --six of 344 institutions in 2001. The CSRDE data exchange is virtually an open process within the group. However, extra care was taken to prevent the potential misuse of data. A request for confidentiality was posted on each page where institutions were identifiable (Figure 2). Within a data-exchange group, it is essential to foster the culture of good stewardship for data. In the environment of trust, institutions can feel confident about sharing information with others.

Review the Consortium Activities

Improving institutional performance requires regular and timely evaluation of activities. Three sources of reviews were regularly pursued at the CSRDE. The most frequent source of reviews came from the individual participants. In the early years of the CSRDE, post-exchange surveys of participants were conducted. Later, because of the frequent contacts between the coordinator and the consortium members, this process was replaced by informal discussions. Working discussions with members by phone, via e-mail or at meetings brought about many good ideas for the CSRDE activities as well as improvements in the annual report format. This is one of the reasons why the CSRDE report was usually distributed in advance of the AIR conference. Conversations at the conference about the annual report were helpful exercises.

An official source of evaluation came from the external reviewers. Each year, two distinguished members in the higher education community were invited to review the CSRDE activities. Depending on the special need of a given year, the reviewers' expertise areas could vary,

from institutional research, higher education administration to information technology. Beginning with 1999, an advisory group of six seasoned institutional researchers was added to the review process. These external reviewers provided expert assessments and opinions about the CSRDE activities from different points of view. Their participation also strengthened the visibility and the prestige of the CSRDE.

The final source of review was the host institution itself. A log was kept in the office to record events that require improvements for implementation in the following year. The areas subject to this continuing review included: the reporting format, the logistics of a specific event, survey procedures, web design, computing software for data editing, etc. On-going learning and research in national databases, advancement of technology, student retention research and other current events were a necessity. The newly acquired knowledge was crucial in updating the standards for evaluating the consortium's performances.

Changes at the CSRDE

In its eight-year history, several changes occurred at the CSRDE. The consortium membership increased from 163 colleges and universities in 1994 to more than 420 in late 2001. Included in the membership was at least a dozen data-exchange consortia or state higher education systems. The media for data exchange moved from strictly paper to more convenient ASCII file transfers or other e-mail attachments. The survey instruments became more sophisticated and the reports, more comprehensive. Gradually, the survey environment shifted from a closed exchange towards an open data sharing within the CSRDE. Unlike the early years, institution names were no longer masked with unidentifiable numbers. In 1999, the CSRDE began expanding services to its members by leveraging external resources. A three-year NSF research grant was awarded for a data exchange in the retention and graduation rates of science, technology, engineering and mathematics (STEM) majors. This sponsored funding made it possible for institutions to exchange retention data on their STEM students. When needed, institutions could receive a small grant to supplement the cost of survey participation. These many changes could not have happened without the extraordinary collaboration of more than 400 institutions, in particular, the CSRDE charter members.

Summary

Since its establishment, the CSRDE has accumulated many remarkable experiences and

lessons. First, the development in information technology has removed barriers that once discouraged consortium development. Most institutions are now able to produce data on a variety of issues regularly and they participate routinely in data-exchange activities. The advancement in networking technology has substantially improved the ease in data collection, editing, analysis and dissemination. Consequently, the cost associated with data exchanges has become affordable for most institutions. These factors will contribute to a more favorable environment for developing large, issued-oriented consortia in the future.

Second, it takes grass-root support from individual institutions to develop and sustain a consortium. An easier and surer way to start a consortium is by working with a small number of institutions in the beginning. The CSRDE began with a dedicated group of professionals in the BEDE, the Big Ten and the SUG institutions. They had similar insights, purpose and commitment in developing a mechanism for exchanging retention data. The collaboration in the earlier years of the retention data exchange paved the way for a smooth data-exchange procedure and set high standards for the quality of data submitted.

Third, "Make participation in the exchange as easy as possible." (Trainer, 1996) This is especially true in developing issue-oriented consortia with a large and diverse membership. To maximize participation, it is important to keep the amount of survey data minimal. In the cases where data may not be commonly available, label the requested data elements "optional." In time, more institutions will be able to fully participate. Another way to make it simpler for participation is to allow maximum flexibility in the medium and the format for data submission.

Fourth, "An exchange should deliver a consistent, high quality product or service in a timely fashion and in a format that is useful to its members." (Trainer, 1996) This data-exchange ground rule is one of overriding importance. There is no substitute for accuracy and the credibility of a data-exchange consortium. As much as possible, measures should be taken to ensure the quality of data: beginning with a quality survey instrument, followed by a stringent and vigorous editing process, a thorough documentation on survey responses, and a sound data analysis procedure. With the best of efforts, small errors can still happen in the annual report. When errors do occur, it is important to make the necessary corrections and to notify the data users immediately.

Finally, it is important for a consortium to foster a culture of good stewardship for data. In an

environment of trust, institutions can feel confident in sharing information with others.

Conclusion

Relative to the long list of topics that could benefit from further comparative analyses, very few issue-oriented consortia exist. In a large issue-oriented consortium, a diverse community can come together to examine a common issue of interest. In return, the consortium can benefit its members in many ways: a larger context for comparisons, an in-depth and longitudinal investigation into an issue, an opportunity for networking, a common depository of expertise, a comprehensive database for formulating meaningful comparison groups, and a cost-efficient way to obtain comparative information. In the future, these benefits will increase the demand for more issue-oriented consortia. Ultimately, these newly organized consortia will contribute to better decision making on individual campuses.

Bibliography

Bloom, A. M., and Montgomery, J. R. "Conducting Data Exchange Programs." AIR Professional File, no. 5. Tallahassee: Association for Institutional Research, 1980.

Brinkman, P. T. (ed.). *Conducting Interinstitutional Comparisons*. New Directions for Institutional Research, no. 53. San Francisco: Jossey-Bass, 1987

Harrington, C. and Chen, H. Y. "The Characteristics, Roles and Functions of Institutional Research Professionals in the Southern Association for Institutional Research." Paper presented at the 35th Annual AIR Forum, Boston, Massachusetts. May 28-31, 1995

Lenth, C. S., and Christal, M. E. "National Data Bases and Statistical Resources on Higher Education: An Annotated Guide." In C. S. Lenth (ed.), *Using National Data Bases*. New Directions for Institutional Research, no. 69. San Francisco: Jossey-Bass, Spring 1991.

Peterson, M. W. "Institutional Research: An Evolutionary Perspective." In M. Concoran and M. W. Peterson (eds.), New Directions for Institutional Research, no. 46, 1986.

Sapp, M. M., "Benefits and Potential Problems Associated with Effective Data-Sharing Consortia." In Trainer, J. F. (ed.). *Inter-Institutional Data Exchange: When to Do It, What to Look for, and How to Make It Work.* New Directions for Institutional Research, no. 89. San Francisco: Jossey-Bass, Spring 1996.

Saupe, J. L. The Functions of Institutional Research (2nd ed.). Tallahassee, FL: Association for Institutional Research, 1990.

Shaman, S. M., and Shapiro, D., "Data-Sharing Models." In Trainer, J. F. (ed.). *Inter-Institutional Data Exchange: When to Do It, What to Look for, and How to Make It Work.* New Directions for Institutional Research, no. 89. San Francisco: Jossey-Bass, Spring 1996.

Smith, T. Y. (ed.), *2000-01 CSRDE Report: The Retention and Graduation Rates of 1993-99 Entering Freshman Cohorts in 344 U.S. Colleges and Universities.* Norman, Oklahoma: Center for Institutional Data Exchange and Analysis. 2001

Smith, T. Y. "The Retention Status of Underrepresented Minority Students: An Analysis of Survey Results from 67 U.S. Colleges and Universities." Paper presented at the 35th Annual AIR Forum, Boston, Massachusetts. May 28-31, 1995

Teeter, D. J., and Brinkman, P. T. "Peer Institutions." In M. A. Whiteley, J. D. Porter, and R. H. Fenske (eds.), The Primer for Institutional Research. Tallahassee, Fla.: The Association for Institutional Research, 1992.

Thomas, C. R., "Harnessing Information Technology in the Twenty-First Century." In Sanford, T. R. (ed.). *Preparing for the Information Needs of the Twenty-First Century*. New Directions for Institutional Research, no. 85. San Francisco: Jossey-Bass, Spring 1995.

Trainer, J. F. (ed.). *Inter-Institutional Data Exchange: When to Do It, What to Look for, and How to Make It Work*. New Directions for Institutional Research, no. 89. San Francisco: Jossey-Bass, Spring 1996.

Whitely, M. A., and Stage, F. K. (1987). "Institutional Uses of Comparative Data." In P.T. Brinkman (ed.), *Conducting Interinstitutional Comparisons*. New Directions for Institutional Research (No.53). San Francisco: Jossey-Bass, pp. 59-70.

Data-Exchange Consortia

Information Technology and Consortium Development

The Ground Work for the CSRDE

Organizing the CSRDE

Maximizing Participation

Ensuring Data Quality

Data Confidentiality

Review the Process

Changes at the CSRDE

Summary/Conclusion

The Ground Work for the CSRDE

Background

The Original Survey

A Sustainable Survey Base

Organizing the CSRDE

Membership Recruitment

Consortium Activities and Time line

Maximizing Participation

Deadlines

Survey Instrument

Flexible Data Submission Formats

Ensuring Data Quality

A Sound Survey Instrument

A Vigorous Editing Process

Documenting Survey Data

Data Analysis

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

NOTICE

Reproduction Basis

[X] This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

[ ] This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").