



MEMORANDUM

DATE: September 29, 2000

TO: Selected College and System Office Staff

FROM: Steve Ijames, Director of Information Services

SUBJECT: Data Warehouse Project, Phase 2 Planning

Phase 2 of the data warehouse project will begin in May 2001 and last approximately one year. We are beginning the planning for that project. From your input and other information gathering means, we will develop a proposal for Phase 2 and submit it to the data warehouse vendors for bids.

You were selected to provide input since you served as a source of information in the Phase 1 Executive Information sub-system of the data warehouse. Many of the possible projects for future phases are as a result of the input gathered in the EIS interviews conducted in Phase 1.

Phase 1 of the project is proceeding well. It has an expected time of completion of May 2001, some two months later than we had originally projected. The increased time is due in part to timing of State Board approvals for contracts and some unanticipated difficulties in bringing up some of the technologies used to implement the data warehouse environment.

The listing that follows represents the best information we have at this time of potential projects for Phase 2. This listing was compiled based on current data systems that could be converted to the data warehouse environment, or projects that resulted from our analysis of information gathered in Phase I but not included in Phase 1. The projects are listed by type and a description of each type follows.

Your Task: Review the list of projects and indicate in rank order, with rank 1 being the highest, your top five (5) projects. Rank them based on their importance to your business needs. Return the listing to John Taffe or me at the System Office by **October 13, 2000**.

Thanks for your help and call me, Arthur Hohnsbehn, or John Taffe if you need assistance.

Attachments

S00-041
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Data Warehouse Phase II Project Types

Fully Defined: These projects are well defined since the data requirements and reporting requirements are documented. In most cases, these information systems already exist in a non-data warehouse environment. Including this type of project in Phase 2 will mean migrating the reports to the data warehouse environment without any effort made to re-engineer the business requirements of the project.

Partially Defined: These projects are partially defined but will require some additional analysis and design work to develop a full set of requirements. The design work may occupy a few months of the Phase II time lines up to the full year of the time line, depending on the complexity of the project and the current state of definition.

Concept Only: These projects are not well defined. Most of these projects came from input from NCCCS executives in our work to design the Executive Information System (EIS). When any of these projects become part of a data warehouse phase, the first year may be spent in conducting a feasibility study and developing detailed design specifications followed in a subsequent year with implementing into the data warehouse.

Outstanding Data Warehouse Projects Survey

Respondent: _____ College: _____

Instructions: In the Priority column, number the top five items you recommend for inclusion in the Phase 2 data warehouse project. Number your selections 1-5 with 1 representing your first choice. Return your completed survey to Steve Ijames, Arthur Hohnsbehn, or John Taffe by **October 4, 2000**. You may respond electronically by completing the survey in MS Word and emailing it back or by hardcopy. Thank you for your help.

Note: The names associated with the projects may change as we receive input from the user community.

Priority	Project	Analysis of Need	Requirements Definition Analysis	Project Type
	Literacy Education Information System <i>Owners: Randy Whitfield and Terry Shelwood</i>	A required state-level report that is currently collected by other IS staff members. Several additional reports are required to answer new federal requirements.	All of the data elements are currently collected at the state-level. This will require little work by the IIPS Team with the exception being changes in how the data are reported. The requirement for the state-level team is development of report formats.	Well Defined
	GED Graduate Reporting <i>Owner: Delane Boyer</i>	Move of reports from the mainframe to the data warehouse. This will allow matching to literacy data for funding reporting.	The data are available from the mainframe. Report will need to be defined and there may be issues regarding access by the colleges to the GED data that will have to be resolved. One EIS report requested is percentage of students who earned GED and enrolled in the community college system.	Well Defined
	Auditors Class Verification Analysis <i>Owner: Director of Program Audit Services</i>	This is a system to replace the PC-based Auditor System.	Need to determine report requirements and how classes are to be selected for the report.	Well Defined

	<p>Developmental Studies Tracking System <i>Owner: Edith Lang</i></p>	<p>A new report required for performance funding. Phase I is being developed in a summary format. Phase II will require more detailed unit record data. The following are additional EIS report requirements:</p> <ol style="list-style-type: none"> 1. Number of remedial students enrolled in curriculum courses. 2. Determine the number of students moving from developmental classes to curriculum classes. 3. Identify the number of students that quit or transferred individual developmental classes. 4. Number of remedial students enrolled in curriculum courses. 	<p>There is a need to collect the data at a detailed level. This will require a new data collection from the college-level systems as well as the development of reporting formats and record layouts.</p>	<p>Partially Defined</p>
	<p>High School Graduate Performance Report <i>Owner: Larry Gracie</i></p>	<p>A required state-level report that is currently collected by other IS staff members. How the reports are distributed to Local Educational Agencies needs to be changed.</p>	<p>The report formats are set. The data are currently collected in a summary format. Collection of the data at the unit record level will provide more data to the college users and support the Developmental Studies Tracking System. This may include grades.</p>	<p>Partially Defined</p>
	<p>Faculty and Staff Retirement Tracking <i>Owner: Keith Brown</i></p>	<p>The report needs to track faculty/staff retirement dates and turnover rates. This is an EIS request.</p>	<p>First the source of the data must be determined. If this is collected from the colleges, there is a question about the accuracy of the data. The Retirement System is the best source of data but the problem there is access. Once the source is determined, then report formats and collection methodology must be determined. The source will be the major issue in the project.</p>	<p>Partially Defined</p>

	<p>Faculty and Staff Comparative Analysis Part I <i>Owner: Keith Brown?</i></p>	<p>This project is composed of several EIS requests.</p> <ol style="list-style-type: none"> 1. Comparison of students and faculty demographics (gender, race, age). 2. Compare full-time to part-time faculty ratios. 3. Comparative Staff/Faculty Salary based on program, similar size colleges, rural vs. urban colleges and SREB. 4. Average length of faculty contracts. 5. Comparative Staff/Faculty Salary based on experience, public vs. private colleges, etc. 	<p>The data are currently available for most of these requests. Item 5 will require additional sources of data.</p>	<p>Partially Defined</p>
	<p>Tuition and Financial Aid Analysis <i>Owner: Kennon Briggs?/Ken Whitehurst?</i></p>	<p>This project is composed of several EIS requests.</p> <ol style="list-style-type: none"> 1. The types of financial aid and amount of funds available. 2. Identify financial aid needs by demographics. (Needs to be further defined.) 3. Tuition receipts by student type, college and program to determine how tuition policy affects student enrollment. 	<p>This will require new data elements from the colleges. Item 2 will need more refinement during the RAD development.</p>	<p>Partially Defined</p>
	<p>Student Progression and Success in Higher Levels of Education Part II <i>Owners: Chuck Barham?/ Keith Brown?</i></p>	<p>This project is composed of a single EIS request. Identify the number of continuing education students that move into curriculum programs.</p>	<p>Based on report definitions, the data required for this project will be in the data warehouse after Phase I.</p>	<p>Partially Defined</p>
	<p>Apprenticeship Reporting <i>Owner: Mike Pittman</i></p>	<p>The apprenticeship data are needed for additional analysis of the Tech/Prep Students.</p>	<p>Need to determine the availability of these data from the NC Department of Labor. Then determine the input format and required reports.</p>	<p>Concept Only</p>

	<p>Annual Report for Economic Development <i>Owner: Scott Ralls</i></p>	<p>This report is required by the legislature. In addition to this report, there are several EIS requirements.</p> <ol style="list-style-type: none"> 1. Legislature diversity reporting including courses in FIT, NEIT, SBC, HRD and OCC. 2. Continuing Education Program FTE by Peer Institutions, SBC, FIT, NEIT. 	<p>This will require development of reporting requirements and term definitions; i.e., "Legislature diversity reporting." Must determine data requirements. This includes sources of data and the period of collection. Some of the data should be in the NIT information system but other sources may be needed. Finally report formats must be determined. Time required to complete the project may change when RAD is completed.</p>	<p>Concept Only</p>
	<p>Student Success and Performance Analysis <i>Owner: Ken Whitehurst?/Keith Brown?</i></p>	<p>This project is composed of several EIS requests.</p> <ol style="list-style-type: none"> 1. Compare GPA "completer" status, intervention rates and trends between institutions. 2. Determine the success of students by curriculum or continuing education. Compare to other institutions. 3. Compare student GPA by college, program and course. 4. Compare GPA by program. 5. Compare GPA by cohort of students between campuses and across state. 6. Compare distance learner performance with traditional student performance. 7. Cohort tracking on completion rates by program. 	<p>This project will require detailed grade data from the colleges. Also, this project will require a standard definition of GPA that will be used in these comparisons. Once this definition is established, several existing reports may need to be changed to address this definition. Then report formats will have to be developed. This project is related to the Developmental Studies Tracking System and the High School Graduate Performance Report.</p>	<p>Concept Only</p>
	<p>Student Recruitment, Retention, and Marketing <i>Owner: Ken Whitehurst?</i></p>	<p>This project is composed of several EIS requests.</p> <ol style="list-style-type: none"> 1. Track enrollment trends from particular high schools. 2. Of the students recruited how many graduated or completed their program of study. 3. Success of students that were recruited. 4. Compare mentor programs. 5. Compare college to college enrollment standards based on placement tests. 	<p>This project will require new data definitions and additional data elements from the colleges. This project may need to be divided into two subprojects based on the RAD and DSD. This project will have to be tied to the Student Success and Performance Analysis (SSPA) Project for item number 3 or the item will have to be moved to the SSPA project and this project done first. The comparison of placement tests will require several</p>	<p>Concept Only</p>

		<ol style="list-style-type: none"> 6. Compare the placement tests used at one college to placement tests used at other colleges. 7. Analysis of students transferring in or out of the community colleges by program/course. 8. Student migration from one college to another. 9. Compare retention rate of distance learning students vs. traditional students. 10. Identify where students are being drawn from into specific programs. (Zip Code) 11. Headcount enrollment by program for retention data. 12. Percent of adult population served. 13. FTE counts by WIA codes. 	months of definition work by the users.	
	<p>Course Offerings Information System <i>Owner: Associate Vice President for Academic and Student Services?/ Chuck Barham?</i></p>	<p>This project is composed of several EIS requests.</p> <ol style="list-style-type: none"> 1. Identify courses geared toward satisfying industrial certification. 2. Identify popular class trends. 3. Track courses that are geared toward particular specialized groups; i.e., senior citizens. 4. Generate data specifying last time particular courses/programs have been offered. 5. Analysis of the dates and times that specific courses are offered. 6. Trend data by program for course enrollment. 7. Enrollment trends for evening and weekend classes. 	Most of the work in this project will be in the area of data definitions and determination of the sources for this data. Once that is in place, reports formats should be straightforward. This will require new data from the colleges.	Concept Only
	<p>Faculty and Staff Comparative Analysis Part II <i>Owner: Keith Brown?</i></p>	<p>This project is composed of several EIS requests.</p> <ol style="list-style-type: none"> 1. Faculty course load comparisons. 2. Instructor/Student ratios. 3. Faculty course load by semester, college, and program. 	<p>This project will require a solution to the problem of instructor to course relationship. This includes some of the following issues that must be addressed before the RAD is completed.</p> <ol style="list-style-type: none"> 1. How do we prorate classes with two or more 	Concept Only

		<ol style="list-style-type: none"> 4. Amount of FTE generated by each faculty member. 5. Compare student to instructor ratios. 6. Grade data by instructor and institution. 	<ol style="list-style-type: none"> 1. instructors? 2. How do we handle an instructor teaching two or more classes in the same location at the same time? 3. How do we handle distance learning instructors? 	
	<p>Student Progression and Success in Higher Levels of Education Part I <i>Owners: Chuck Barham?/ Ken Whitehurst?/ Keith Brown?</i></p>	<p>This project is composed of several EIS requests.</p> <ol style="list-style-type: none"> 1. Track the number of graduates that went on into the state university system. 2. Track the success of graduates that transferred to a state university. 3. Track and compare transfer student grades in four-year state universities compared to grades at the community colleges. 4. Are students continuing on to four-year college programs? 	<p>This request will require unit record data from the UNC system. Also several data elements must be defined.</p>	<p>Concept Only</p>
	<p>Student Employment Information and Analysis <i>Owner: Keith Brown</i></p>	<p>This project is composed of several EIS requests.</p> <ol style="list-style-type: none"> 1. Track where students are employed after graduating. 2. Average wages earned by graduates by location, industry, degree and program. 3. Number of graduates by industrial skill cluster area. 4. Track student salaries for three years after graduation. 5. Are students being employed in jobs related to their programs of study? 	<p>This project will require additional data from ESC. Once the reports are defined, the types of data needed from ESC must be determined. Some of these requests may not be workable if we can not get the data from ESC.</p>	<p>Concept Only</p>
	<p>Program Cost Information and Analysis <i>Owner: Kennon Briggs</i></p>	<p>This project is composed of several EIS requests.</p> <ol style="list-style-type: none"> 1. Financial data for the cost of operating individual programs. 2. Cost per FTE. 3. Trade program material costs. 4. Costs associated with each program. Facility costs, material costs, equipment costs, etc. 5. Track costs by program or department using cost center codes. 	<p>This will require new data from the colleges as well as development of reporting requirements.</p>	<p>Concept Only</p>

		<ol style="list-style-type: none"> 6. Look at Curriculum courses and Occupational Extension to identify enrollment, lost tuition, tuition waivers and money per FTE associated with programs. 7. Compare college costs associated with high cost programs (i.e., nursing). 		
	<p>College Budgeting, Operations Cost and Analysis <i>Owner: Kennon Briggs</i></p>	<p>This project is composed of several EIS requests.</p> <ol style="list-style-type: none"> 1. Institutional Cost Center Information. 2. Display accounting breakdowns similar to those found in the BD701 Accounting Report. 3. Display budget expenditures by category and total budget by program and purpose. 4. Compare program costs with non-program costs. 5. Financial data (budgets) for spending on academic and student services organizations. 6. Support costs associated with distance learner programs. 7. Monitor 2% cap for faculty/staff transfers. 8. Average amount of retirement benefits by college. 9. Comparative percentages of college administrative budgets spent on salaries. 	<p>This will require new data from the colleges as well as development of reporting requirements. This can be a companion project to Program Cost Information and Analysis.</p>	<p>Concept Only</p>
	<p>College Facilities and Equipment Comparative Analysis <i>Owners: Kennon Briggs</i></p>	<p>This project is composed of two EIS requests.</p> <ol style="list-style-type: none"> 1. Equipment comparisons associated with program; i.e., computers, lab equipment. 2. Space utilization per FTE 	<p>The Space Utilization request could use data from the HEFC. The equipment comparison will need several data elements to be defined as well as determination of collection methodologies.</p>	<p>Concept Only</p>

	<p>Business Utilization and Market Support Analysis <i>Owner: Scott Ralls?</i></p>	<p>This project is composed of two EIS rec</p> <ol style="list-style-type: none"> 1. Businesses in particular locations that utilize the community college for both continuing education and hiring. 2. Capture the unmet employment needs in various market segments. This includes access to information from the ESC. 	<p>This project needs some refinement in requirements and development of data definitions before reports can be defined. Development of data definitions may be difficult.</p>	<p>Concept Only</p>
	<p>Policy Effectiveness Analysis <i>Owner: Clay Hines</i></p>	<p>A tends analysis of violations of educational policy and rules.</p>	<p>This project needs some refinement in requirements and development of data definitions before reports can be defined.</p>	<p>Concept Only</p>

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