INFORMATION TECHNOLOGY COMMITTEE

North Dakota Century Code (NDCC) Section 54-35-15.1 requires the Legislative Council, during each biennium, to appoint an Information Technology Committee in the same manner as the Council appoints other interim committees. The committee is to consist of six members of the House of Representatives and five members of the Senate. The Chief Information Officer of the state serves as an ex officio member of the committee.

North Dakota Century Code Section 54-35-15.2 requires the committee to:

- Meet at least once each calendar quarter.
- 2. Receive a report from the Chief Information Officer of the state at each meeting.
- 3. Review the business plan of the Information Technology Department.
- 4. Address macro-level questions relating to the Information Technology Department.
- 5. Review the activities of the Information Technology Department.
- Review statewide information technology standards.
- 7. Review the statewide information technology plan.
- 8. Conduct studies of information technology efficiency and security.
- Make recommendations regarding established or proposed information technology programs and information technology acquisitions by the executive and judicial branches.
- Review the cost-benefit analysis of any major information technology project of an executive or judicial branch agency. A major project is a project with a cost of \$250,000 or more in one biennium or a total cost of \$500,000 or more.
- 11. Review the cost-benefit analysis of any major information technology project of the State Board of Higher Education or any institution under the control of the State Board of Higher Education if the project significantly impacts the statewide wide area network, impacts the statewide library system, or is an administrative project.
- 12. Perform periodic reviews to ensure that a major information technology project is on its projected schedule and within its cost projections.

North Dakota Century Code Section 54-35-15.3 provides that:

- The Information Technology Committee may review any information technology project or information technology plan.
- If the committee determines that a project or plan is at risk of failing to achieve its intended results, the committee may recommend to the Office of Management and Budget the suspension of the expenditure of money appropriated for a project or plan.
- The Office of Management and Budget may suspend the expenditure authority if the office

agrees with the recommendation of the committee.

North Dakota Century Code Section 54-35-15.4 authorizes the committee to request the State Auditor to conduct an information technology compliance review. The review may consist of an audit of an agency's information technology management, information technology planning, compliance with information technology plans, and compliance with information technology standards and policies or an audit of compliance with statewide specific information technology standards and policies.

The committee was also assigned the responsibility for receiving:

- A report from the Chief Information Officer regarding the recommendations of the Information Technology Department's advisory committee regarding major software projects for consideration, pursuant to NDCC Section 54-59-02.1.
- A report from the Chief Information Officer regarding the coordination of services with political subdivisions and a report from the Chief Information Officer and the commissioner of the State Board of Higher Education regarding coordination of information technology between the Information Technology Department and higher education, pursuant to NDCC Section 54-59-12.
- A report from the Information Technology Department regarding any executive branch agency or institution that does not agree to conform to its information technology plan or comply with statewide policies and standards, pursuant to NDCC Section 54-59-13.
- An annual report from the Information Technology Department regarding information technology projects, services, plans, and benefits, pursuant to NDCC Section 54-59-19.

Committee members were Senators Larry J. Robinson (Chairman), Randel Christmann, Randy A. Schobinger, Tom Seymour, and Rich Wardner; Representatives Eliot Glassheim, Bette B. Grande, Keith Kempenich, David Monson, Bob Skarphol, and Robin Weisz; and Chief Information Officer Lisa Feldner. Mr. Curtis L. Wolfe, former Chief Information Officer, was also a member of the committee until his resignation on December 30, 2005.

The committee submitted this report to the Legislative Council at the biennial meeting of the Council in November 2006. The Council accepted the report for submission to the 60th Legislative Assembly.

PRIORITIZATION OF PROPOSED MAJOR COMPUTER SOFTWARE PROJECTS

North Dakota Century Code Section 54-59-02.1 requires the Information Technology Department to appoint an advisory committee for the purpose of prioritizing major computer software projects. The Chief

Information Officer is to submit recommendations of the advisory committee regarding major computer software projects to the Information Technology Committee for consideration by the committee.

The committee received information from the Information Technology Department regarding prioritization of proposed major computer software projects and learned the department assigned the prioritization responsibility to the State Information Technology Advisory Committee, a committee created by NDCC Section 54-59-07 consisting of the Chief Information Officer, chancellor of the North Dakota University System, Attorney General, Secretary of State, Tax Commissioner, Chief Justice of the Supreme Court, two members of the Legislative Assembly, eight members representing state agencies, and two members representing private industry. The State Information Technology Advisory Committee addressed the prioritizing of major projects through information technology portfolio management. Executive branch agencies identified and internally prioritized information technology projects, submitted their information technology budgets into the budget analysis and reporting system, and flagged projects to be ranked by

the State Information Technology Advisory Committee. The Information Technology Department sorted the information technology projects into three categories-projects over \$250,000 requesting funds from the general fund for the investment or the ongoing maintenance costs, projects over \$250,000 requesting funds from non-general fund sources for the investment or the ongoing maintenance costs, and projects under \$250,000 requesting funds from the general fund for the investment or the ongoing maintenance costs. State agencies self-scored projects over \$250,000 requesting funds from the general fund for the investment or the ongoing maintenance costs based on return on investment, customer service benefits, internal efficiency benefits, operational necessity, and project risk. Information Technology Department presented a preliminary ranking of these projects to the State Information Technology Advisory Committee for the committee's prioritization.

The State Information Technology Advisory Committee met on September 20, 2006, and prioritized major executive branch computer software projects for the 2007-09 biennium as follows:

			2007-09 Esti	mated Cost
			General	All
	Project	Agency	Fund	Funds
1	Medicaid management information system rewrite -	Department of Human Services	\$3,643,133	\$52,529,371
	Phase 2			
2	Client information sharing system	Department of Human Services	423,800	1,000,000
3	Tax distribution system rewrite	State Treasurer	768,228	768,228
4	Computer-aided dispatch	Department of Emergency Services	980,000	980,000
5	Knowledge base - Phase 2	Secretary of State	824,153	824,153
6	Additional radio towers	Department of Emergency Services	4,500,000	4,500,000
7	Inmate medical system	Department of Corrections and Rehabilitation	1,000,000	1,000,000
8	EAS satellite notification	Department of Emergency Services	500,000	500,000
9	Child welfare information system	Department of Human Services	196,000	400,000
10	Foundation aid system rewrite	Department of Public Instruction	300,000	300,000
	Business intelligence implementation and support	Information Technology Department	350,872	1,634,387
12	Education Standards and Practices Board coming off the mainframe	Department of Public Instruction	1,000,000	1,000,000
13	Grants management software	Department of Emergency Services	350,000	350,000
14	Integrate field service operations into offender management system (ITAG)	Department of Corrections and Rehabilitation	3,750,000	3,750,000
Tota	ıl		\$18,586,186	\$69,536,139

The Information Technology Department will revise the prioritization to reflect those projects that are funded Governor's 2007-09 biennium the budget recommendation and will present the prioritization to the Appropriations Committees of the 2007 Legislative Assembly. For projects over \$250,000 requesting funds from non-general fund sources for the investment or the ongoing maintenance costs and projects under \$250,000 requesting funds from the general fund for the investment or the ongoing maintenance costs, the department will prepare a listing by agency and priority within the agency and provide the list to the State Information Technology Advisory Committee, the Office of Management and Budget, and the Appropriations Committees of the 2007 Legislative Assembly.

INFORMATION TECHNOLOGY DEPARTMENT BUSINESS PLAN

North Dakota Century Code Section 54-59-06 requires the Information Technology Department to develop and maintain a business plan. Pursuant to that directive, the department prepared a strategic business plan for the 2005-07 biennium. The plan includes seven goals the department must accomplish to effectively achieve its mission to provide leadership and knowledge to assist customers in achieving their mission through the innovative use of information technology. The following is a summary of the goals and objectives included in the plan:

Goals	Objectives		
Be the preferred provider of strategic information technology services for government and education	Define and pursue opportunities for creating, expanding, or eliminating services		
	Make it easy for customers to conduct business with the department		
	Meet or exceed customer expectations for service		
Manage revenue sources to recover costs and to ensure competitive and stable rates	Charge competitive rates for comparable services while maintaining the appropriate operating reserve		
	Develop budget rates for each biennium and not exceed those rates for the biennium		
Cost-effectively invest in technology	Reduce information technology operating cost where desirable		
	Deploy statewide contracts to maximize state purchasing power with assistance from enterprise architecture, the State Procurement Office, and others		
	Provide enterprise solutions to reduce duplication of systems		
	Provide current information in a variety of formats		
Information Technology Department services to stakeholders	Communicate rate components and related value		
	Communicate the results of the department's strategic initiatives		
Continually improve effectiveness and efficiency	Consistently deliver services to meet customers' business needs		
	Refine and improve the department's administrative processes		
	Refine and improve the department's leadership practices		
Provide vision and direction for information technology investments in North Dakota government	Develop, maintain, and follow short- and long-term technology plans with assistance from enterprise architecture and other agencies		
Employ individuals with the knowledge, skills, and abilities to meet the department's current and future business needs	Provide a work environment that results in a high level of employee satisfaction		
	Continue to support employee growth and development to support the department's business needs		
	Attract and hire quality people		

INFORMATION TECHNOLOGY DEPARTMENT ANNUAL REPORT

North Dakota Century Code Section 54-59-19 requires the Information Technology Department to prepare an annual report on information technology projects, services, plans, and benefits. Pursuant to that directive, the department prepared a report that includes an executive summary, information on the department's performance, and rate comparisons.

The committee learned the department tracks and monitors the cost and revenue for each service to

ensure that a service is not subsidizing another service. The federal government does not allow the department to charge rates that generate revenues in excess of costs; therefore, the department monitors its cash balances and adjusts rates accordingly. The department also monitors what other entities are charging for similar services in an effort to maintain quality services at a fair price. The following is a summary of rate comparisons for the services that generate a majority of the department's total revenue and an update on the department's performance measures:

Coming	North Dakota Information Technology	South Dakota Bureau of Information	Montana Information Technology Services Division Rates	Wisconsin Division of Enterprise
Service	Department Rates Batch CPU -	Technology Rates Batch CPU -	Batch CPU -	Technology Rates Batch CPU -
Central computer central processing unit (CPU rates)	\$.93 per second	\$.95 per second	\$1.90 per second	\$.93 per second
	CICS CPU -	CICS CPU -	CICS CPU -	CICS CPU -
	\$.93 per second	\$.95 per second	\$.55 per second	\$1.23 per second
	ADABAS CPU -	ADABAS CPU -	ADABAS CPU -	ADABAS CPU -
	\$.98 per second	\$.95 per second	\$1.08 per second	\$1.23 per second
	TSO CPU -	TSO CPU -	TSO CPU -	TSO CPU -
	\$.93 per second	\$.95 per second	\$2.32 per second	\$1.23 per second

Service	North Dakota Information Technology Department Rates	South Dakota Bureau of Information Technology Rates	Montana Information Technology Services Division Rates	Wisconsin Division of Enterprise Technology Rates
Network fees	Device fee - \$29 per device per month	Device fee - \$39 per device per month	Device fee - \$72.60 per device per month	Device fee - \$55 per device per month
	DSL service - Actual cost (ranges from \$40 to \$120)	DSL service - N/A	DSL service - \$250 per month	DSL service - \$665 per month
	ATM T-1 service - \$840 per month	ATM T-1 service - N/A	ATM T-1 service - \$650 per month	ATM T-1 service - \$1,067 per month
		Access fee - \$62 per device per month		

Tele	ephone Fees
North Dakota Information Technology Department rates	Telephone line - \$21 per device per month Speaker function - \$2 per month Display function - \$3 per month Voice mail (unlimited) - \$3 per month
South Dakota Bureau of Information Technology rates	Telephone line - \$10 per device per month Speaker function - Actual cost Display function - Actual cost Voice mail (unlimited) - \$6 per month
Montana Information Technology Services Division rates	Telephone line - \$20 per mile/per drop Speaker function - \$7-\$11 per month Display function - \$10-\$18 per month Voice mail (three-minute limit) - \$5 per month Voice mail (six-minute limit) - \$8 per month Voice mail (eight-minute limit) - \$10 per month
Wisconsin Division of Enterprise Technology rates	Telephone line - N/A Speaker function - Actual cost Display function - Actual cost Voice mail (unlimited) - \$6 per month

Long Distance					
North Dakota Information Technology Department rates	In state - \$.05 per minute Out of state - \$.05 per minute 800 service - \$.07 per minute				
South Dakota Bureau of Information Technology rates	In state - \$.10 per minute Out of state - \$.11 per minute 800 service - \$.11 per minute				
Montana Information Technology Services Division rates	In state - \$.105 per minute Out of state - \$.105 per minute 800 service - \$.10 per minute				
Wisconsin Division of Enterprise Technology rates	In state - \$.03 per minute Out of state - \$.03 per minute 800 service - \$.047 per minute				
Minnesota Department of Administration rates	In state - \$.059 per minute Out of state - \$.047 per minute 800 service - \$.047 per minute				
Nebraska Division of Communications rates	In state - \$.07 per minute Out of state - \$.07 per minute 800 service - \$.07 per minute				
Oklahoma Office of State Finance rates	In state - \$.09 per minute Out of state - \$.09 per minute 800 service - \$.11 per minute				

Software Development					
	Location	Billing Rate Per Hour of Service			
Information Technology Department	Bismarck, North Dakota	\$54 - \$58			
Applied Engineering	Bismarck, North Dakota	\$75 - \$100			
Eide Bailly	Bismarck, North Dakota	\$65 - \$140			
Enterprise Solutions	Bismarck, North Dakota	\$75 - \$140			
Internet Design & Consulting	Bismarck, North Dakota	\$70 - \$75			
Nexus Innovations	Bismarck, North Dakota	\$65 - \$130			
Vision Technology	Bismarck, North Dakota	\$70 - \$75			
Stratacom	Fargo, North Dakota	\$75 - \$125			
Strategic Business Engineering	Fargo, North Dakota	\$75 - \$95			
BPro, Inc.	Pierre, South Dakota	\$55 - \$85			
CIBER	Vancouver, Washington	\$40 - \$100			
Compuware	Plymouth, Minnesota	\$55 - \$110			
Maximus	Rancho Cordova, California	\$145 - \$185			

	Baseline (Previous	Current Status	
Performance Measures	`Years)	(June 2006)	Target
Acceptable level of total net assets	2004 - 1.4 2005 - 2.0	1.4	< or = 2.0
Percentage of Information Technology Department rates reported in annual report that are competitive	2005 - 100%	100%	100%
Total number of customer projects and service requests completed:	2005		
Service requests	22,114	29,456	Monitor
Incidents	30,694	41,423	Monitor
Customer satisfaction indexes (percentages satisfied or very satisfied) related to:	2004 - 2005		
• Value	88.1% - 91.4%	91.7%	92%
Timeliness	91.6% - 90.9%	92.5%	97%
Quality	92.3% - 95.3%	93.7%	97%
Knowledge	97.3% - 93.7%	93.1%	98%
Professionalism and courtesy	98.1% - 96.4%	96.5%	100%
Employee satisfaction index	2004 - 1.96 2005 - 1.96	2.13	2.0
Controllable employee turnover	2004 - 3.2% 2005 - 4.5%	7.0%	Below 6.0%
Percentage of service levels met	100%	100%	100%
Percentage of strategic business plan objectives completed or on schedule	2004 - 72% 2005 - 73%	85%	75%

POLICIES, STANDARDS, AND GUIDELINES

North Dakota Century Code Section 54-59-09 requires the Information Technology Department to develop statewide information technology policies, standards, and guidelines based upon information received from state agencies and institutions. Except with respect to academic and research uses of information technology at the institutions under the control of the State Board of Higher Education, each executive branch agency and institution is required to comply with the policies and standards developed by the department. Information technology policies, standards, and guidelines must be reviewed by the State Information Technology Advisory Committee.

The department has adopted policies, standards, and guidelines in a variety of areas and continues to update and adopt new policies, standards, and guidelines as necessary. Policies, standards, and guidelines adopted include standards for information technology information project procurement, technology management, development, antivirus, videoconferencing.

INFORMATION TECHNOLOGY PLANS

North Dakota Century Code Section 54-59-11 requires every executive branch agency to prepare an information technology plan, subject to approval by the Information Technology Department. The plan must be submitted to the department by July 15 of each evennumbered year. The plan must be prepared based on guidelines developed by the department; must emphasize the long-term strategic information technology goals, objectives, and activities for the current biennium and next two bienniums; and must include a list of information technology assets owned, leased, or employed by the entity. The department is required to review each entity's plan for compliance with statewide information technology policies and standards, and the department may require an entity to change its plan to comply with statewide policies and standards or to resolve conflicting directions among plans. Agencies of the judicial and legislative branches are required to file their information technology plans with the department by July 15 of each even-numbered year. Based on the information technology plans, the department must prepare a statewide information technology plan.

The committee received information from the department regarding information technology plans and learned 69 of the 72 state agencies, including higher education institutions, submitted their information technology plans on or before July 15, and the remaining five were received by July 31. The department will present to the 2007 Legislative Assembly a statewide

information technology plan that will communicate a shared vision between state government, higher education, and kindergarten through grade 12; outline strategic initiatives; and establish goals and strategies that will serve as a basis for more detailed planning efforts. The following is a summary of the goals and objectives to be included in the plan:

Goals	Objectives		
Build and support automated services to meet increasing customer expectations	Improve navigation and usability of the state portal and agency web sites		
	Continue to incorporate e-government services into agency standard business processes		
	Use automation to improve the efficiency of state government		
Maintain business applications to minimize disruptions to service and incorporate new functionality	Plan and manage major system replacement projects to ensure system viability		
	Incorporate disaster recovery and business continuity assessment and mitigation processes as standard practices		
	Perform required updates to accommodate changing business needs and legislative mandates		
	Establish and expand the use of "hub and spoke" architectures where appropriate for sharing data across organizational boundaries		
	Build staff competencies and deploy business intelligence tools to provide timely access to accurate information		
	Identify, plan, and implement measures necessary to ensure privacy, confidentiality, and security of information and other assets		
Build an affordable shared infrastructure to deliver core services to North Dakota citizens	Manage network services to state government, education, and political subdivisions to ensure availability at a reasonable cost		
	Identify opportunities and implement shared solutions to reduce the total cost of ownership for state agencies and political subdivisions		
	Improve the management of technology by sharing knowledge and training opportunities		
	Leverage the state's investment in PeopleSoft financial and human resource software by upgrading to new functionality and expanding its usage		

MAJOR INFORMATION TECHNOLOGY PROJECTS

The committee is authorized to review any information technology project or information technology plan. If the committee determines that a project or plan is at risk of failing to achieve its intended results, the committee may recommend to the Office of Management and Budget the suspension of the expenditure of money appropriated for the project or plan. In addition, the committee is directed to review the cost-benefit analysis of any major information technology project, which is defined in statute to be an executive or judicial branch project with a cost of \$250,000 or more in one biennium or a total cost of \$500,000 or more or a

higher education project that impacts the statewide wide area network, impacts the statewide library system, or is an administrative project.

Project Management Lifecycle Processes

The committee learned the project management lifecycle for major information technology projects consists of five processes--project origination, project initiation, project planning, project execution and control, and project closeout. The following is a summary of the project management lifecycle processes and executive and legislative branch activities relating to planning and executing major information technology projects:

Project Management		
Lifecycle Processes		Executive and Legislative Branch Activities
Project origination - Evaluate projects proposed	1.	Agencies identify projects to create a product or develop a service that can solve a problem or address a need within the agency.
for the next planning cycle and reach a consensus on the projects to be selected	2.	Agencies develop a project proposal, including a business case and proposed solution, for each proposed project. The business case should include information on project description, project objectives, business need or problem, proposed solution, consistency and fit with the organization's mission, cost-benefit analysis, and project risks.
	3.	Agencies prioritize information technology projects and submit their information technology budgets into the budget analysis and reporting system (BARS). In most cases, the budget for a project is the initial cost estimate. The most accurate project budget is not available until the completion of the project planning process.
	4.	The State Information Technology Advisory Committee, a committee created by NDCC Section 54-59-07, reviews information regarding proposed major information technology projects for executive branch agencies, excluding institutions under the control of the State Board of Higher Education and the judicial and legislative branches, and ranks those projects that receive the committee's affirmative recommendation. The following is a summary of the steps involved in the prioritization:
		 The Information Technology Department sorts proposed information technology projects into the following three categories:
		(1) Projects over \$250,000 requesting funds from the general fund for the investment or the ongoing maintenance costs.
		(2) Projects over \$250,000 requesting funds from non-general fund sources for the investment or the ongoing maintenance costs.
		(3) Projects under \$250,000 requesting funds from the general fund for the investment or the ongoing maintenance costs.
		b. State agencies self-score projects over \$250,000 requesting funds from the general fund for the investment or the ongoing maintenance costs based on return on investment, customer service benefits, internal efficiency benefits, operational necessity, and project risk.
		c. The Information Technology Department presents a preliminary report, including information regarding agencies' self-scoring, on projects over \$250,000 requesting funds from the general fund for the investment or the ongoing maintenance costs to the State Information Technology Advisory Committee. The department also presents listings of projects over \$250,000 requesting funds from non-general fund sources for the investment or the ongoing maintenance costs and projects under \$250,000 requesting funds from the general fund for the investment or the ongoing maintenance costs to the committee.
		 d. The State Information Technology Advisory Committee prioritizes projects over \$250,000 requesting funds from the general fund for the investment or the ongoing maintenance costs.
		 The Information Technology Department forwards the prioritization to the Information Technology Committee and to the Office of Management and Budget for consideration in the development of the Governor's budget recommendation.
	5.	The Governor selects projects to be funded in the executive budget recommendation.
	6.	The Information Technology Department revises the prioritization to reflect those projects that are funded in the Governor's budget recommendation and presents the prioritization to the Appropriations Committees of the Legislative Assembly. The department also presents the listings of projects over \$250,000 requesting funds from non-general fund sources for the investment or the ongoing maintenance costs and projects under \$250,000 requesting funds from the general fund for the investment or the ongoing maintenance costs to the Appropriations Committees of the Legislative Assembly.
	7.	The Legislative Assembly selects projects to be funded in the legislatively approved budget.
	8.	Agencies refine the business cases as appropriate for those projects funded in the legislatively approved budget.
	9.	Agencies submit a copy of the final business case for a project to the Information Technology Department. Upon acceptance of the business case by the Information Technology Department, the department submits a copy of the business case to the Legislative Council office.
Project initiation - Define the overall parameters of a project and establish the appropriate project man- agement and quality environment required to complete the project		Agencies initiate the project by identifying the project sponsor, project manager, and project team; developing a project charter; and conducting a project kickoff meeting. A project charter is developed and executed to initiate a project and to secure commitment for the resources, including human, financial, and equipment, necessary for the project. A project charter should include information on project background, project scope, measurable project objectives, required resources, constraints, assumptions, and project authority.
complete the project	11.	Agencies submit a copy of the project charter to the Information Technology Department prior to any project expenditures or signing of vendor contracts.

Project Management Lifecycle Processes		Executive and Legislative Branch Activities
Project planning - Define the exact parameters of a project and ensure that all the prerequisites for the		Agencies complete planning for a project by completing and approving a project plan. A project plan should identify specific milestones throughout the project and their associated cost, schedule, and deliverables. At this time, agencies complete the budget for the project. This project budget is considered to be the baseline budget for all cost comparisons.
project execution and control are in place	13.	Agencies submit a copy of the project plan to the Information Technology Department after the plan has been approved by the project sponsor.
Project execution and	14.	Agencies present a project startup report to the Information Technology Committee. A project startup report summarizes information from the business case, project charter, and project plan, including project description, project objectives, business need or problem, cost-benefit analysis, and project risks. Agencies launch the project. The assigned project manager is to manage every aspect of the project to
control - Develop the		ensure that all the work is being performed correctly and on time.
project or service that the project was commissioned to deliver	16.	Agencies submit a project status report to the Information Technology Department on a quarterly basis or when a project milestone exceeds 20 percent of planned cost or schedule. The status report includes an executive summary and information on budget, schedule, issues, risks, project accomplishments, and upcoming activities.
	17.	Each calendar quarter, the Information Technology Department prepares a large project summary report that summarizes the performance of large information technology projects and submits the report to the Information Technology Committee.
	18.	Agencies formally acknowledge that all deliverables produced during project execution and control have been completed, tested, accepted, and approved by the project sponsor.
Project closeout - Assess the project and derive any lessons learned and best practices to be applied to		Agencies complete a postimplementation review for the project in order to assess the success of the project and to capture historical information. The postimplementation review should include information on the measurement and attainment of project objectives, project budget and schedule variances, and lessons learned.
future projects	20.	Agencies notify the State Information Technology Advisory Committee if the actual cost for the project exceeded the original budget by 20 percent or more or if the final project completion date extended beyond the original project scheduled completion date by 20 percent or more.
	21.	Agencies submit a copy of the postimplementation review to the Information Technology Department. Upon acceptance of the review by the Information Technology Department, the department submits a copy of the review to the Legislative Council office.
	22.	Agencies present a project closeout report to the Information Technology Committee. A project closeout report summarizes information from the postimplementation review, including the project objectives achieved, project budget and schedule variances, and lessons learned.

Information Technology Project Budgeting

The committee received information from the Information Technology Department regarding information technology project budgeting. committee learned there are distinct differences between the appropriation process and the project reporting process that prevent information technology project budgets from being considered the same in the two processes. During the appropriation process, agencies request spending authority for costs associated with the implementation of a project, and the past practice has been to also report the requested appropriation as the entire project budget. However, a fully developed project budget may encompass much more.

The committee learned the Enterprise Project Management Advisory Group provided the following recommendations relating to information technology project budgeting:

1. Between October 15, 2006, and December 31, 2006, the Enterprise Project Management Advisory Group develop guidelines that will allow agencies to establish percentage-based estimates of reallocated direct costs associated with information technology projects. Agencies be prepared to testify on these estimates as a portion of the total cost of information technology projects during the legislative session.

- For projects approved by the 2007 Legislative Assembly include reallocated direct costs in the planning phase and in the final budget submission for the projects. Specific direct costs to be included will be provided in guidance to be published by July 1, 2007.
- 3. During the 2007-08 interim, the Enterprise Project Management Advisory Group establish guidance, provide training, and implement potential toolsets to enable information technology projects requested for the 2009-11 biennium to include all costs associated with the projects from the budget request process through the project tracking and reporting process.

Review of Major Information Technology Projects

The committee received and reviewed quarterly reports of major information technology projects compiled by the Information Technology Department, project startup and project closeout reports relating to major information technology projects, and other information regarding specific information technology projects. The following is a summary of the project startup and project closeout reports received by the committee:

		Project Startup Reports		
Agency	Project Name	Project Description	Estimated Cost	Estimated Completion Date
	Project Herakles Procurement planning phase of the agency's unemployment insurance system modernization proje		\$813,366	June 2007
Information Technology Department	Second data center	Establishment of a second data center in Mandan to be used as a "hotsite" computer center for disaster recovery	\$1,100,303	February 2006
Information Technology Department	Network traffic analysis system project	Implementation of the Compuware suite of tools to allow the department to have the ability to provide a detailed view of who, what, when, and how much traffic is consuming a particular network resource and to allow the department to troubleshoot network issues in a proactive manner	\$400,000	August 2005
Information Technology Department	Criminal justice information sharing hub project - Phase 2	Transfer of the criminal justice information sharing hub proof of concept to production	\$500,000	April 2005
Department of Corrections and Rehabilitation	Offender manage- ment system upgrade	Replacement of obsolete system hardware and software and migration of existing production data to the updated system hardware and software	\$411,650	March 2006
Information Technology Department	Criminal justice information sharing state's attorney records management system	Deployment of a statewide case management system to support and automate state's attorney operations	\$500,000	August 2006
Secretary of State	Election administration system	Completion of the agency's election improvement program by tying together the uniform election system and the election management system under the umbrella of the PowerProfile EE	\$1,523,574	August 2007
Department of Public Instruction	State automated reporting system	Conversion of the current online reporting system to implement new technology	\$300,300	June 2007
Department of Transportation	Priority system rewrite project	Integration of the planning improvement program and the statewide transportation program processes into one system	\$255,525	June 2007
Secretary of State	Knowledge base project	Acquisition and implementation of a new software application to replace existing technology systems for the agency's central indexing system functions	\$532,844	October 2007
Department of Human Services	National provider identifier project	Modification of the Medicaid management information system and other systems to accept and process claims with national provider identifier numbers	\$446,576	September 2007
Department of Human Services	Temporary assistance for needy families diversion project	Integration of the diversion assistance program into the existing temporary assistance for needy families program in the vision system	\$246,988	October 2006
Public Employees Retirement System	Legacy application system replacement project	Replacement of the agency's legacy application system	\$9,563,000	July 2010
·	Case management system project	Replacement of the agency's existing customized case management system with a commercial off-the-shelf case management system	\$675,000	December 2006
Workforce Safety and Insurance	Learning manage- ment system project	Implementation of a comprehensive learning management system to deliver training to North Dakota employers and employees	\$400,000	January 2007
Workforce Safety and Insurance	Information technology transfor- mation program system replacement project - Phase 1	Planning phase for the replacement of the agency's existing core business applications with a commercial off-the-shelf, seamless, integrated software solution	\$341,000	June 2007

Project Closeout Reports				
Agency	Project Name	Project Description	Actual Cost	Actual Completion Date
Information Technology Department	Network traffic analysis system project	Implementation of the Compuware suite of tools to allow the department to have the ability to provide a detailed view of who, what, when, and how much traffic is consuming a particular network resource and to allow the department to troubleshoot network issues in a proactive manner	Actual expenditures of \$400,788, compared to the budget of \$400,000	Completed in September 2005, approximately two weeks later than the scheduled completion date of August 2005
Information Technology Department	Criminal justice information sharing hub project - Phase 2	Transfer of the criminal justice information sharing hub proof of concept to production	Actual expenditures of \$320,962, compared to the budget of \$500,000	Completed within the scheduled completion date of April 2005
Office of Management and Budget	Continuity of operations planning system	Implementation of an integrated software application to enable state agencies to develop comprehensive continuity of operations plans	Actual expenditures of approximately \$470,675, compared to the budget of \$470,688	Completed in June 2005, approximately nine months later than the scheduled completion date of September 2004
Workforce Safety and Insurance	Enterprise application development and training project	Implementation of Compuware products for enterprise application development	Actual expenditures of \$538,195, compared to the budget of \$508,885	Completed within the scheduled completion date of July 2005
Job Service North Dakota	Unemployment insurance Internet applications	Development of self-service applications for unemployment insurance claimant and employer customers	Actual expenditures of \$969,526, compared to the budget of \$1,065,881	Completed in May 2005, approximately four months later than the scheduled completion date of January 2005
Department of Transportation	Construction automated records system - Phase 2	Creation of a solution for providing the department's construction users with handheld technology for the maintenance of construction data	Actual expenditures of \$66,430, compared to the budget of \$72,000	Completed within the scheduled completion date of April 2005
Department of Transportation	Electronic document management system - Phase 2	Establishment of an electronic document management system that allows files to be electronically stored, indexed, and retrieved	Actual expenditures of \$923,972, compared to the budget of \$1,079,000	Completed within the scheduled completion date of June 2005
North Dakota University System	Facilities management system	Replacement of old ancillary system with an updated system with additional functionality	Actual expenditures of \$1,466,521, compared to the budget of \$1,274,531	Completed within the scheduled completion date of July 2005
North Dakota University System	Housing management system	Replacement of old ancillary system with an updated system with additional functionality	Actual expenditures of \$558,560, compared to the budget of \$696,296	Completed within the scheduled completion date of June 2005
North Dakota University System	Parking management system	Replacement of old ancillary system with an updated system with additional functionality	Actual expenditures of \$322,094, compared to the budget of \$420,886	Completed within the scheduled completion date of June 2005
Department of Corrections and Rehabilitation	Offender management system upgrade	Replacement of obsolete system hardware and software and migration of existing production data to the updated system hardware and software	Actual expenditures of \$369,134, compared to the budget of \$411,650	Completed in January 2006, approximately three months earlier than the scheduled completion date of March 2006

Agency	Project Name	Project Description	Actual Cost	Actual Completion Date
Retirement and Investment Office	Teachers' Fund for Retirement pension system replacement	Replacement of the mainframe-based pension system administration system	Actual expenditures of \$1,932,362, compared to the budget of \$2,000,000	Completed in January 2006, approximately four months later than the scheduled completion date of September 2005
Department of Transportation	Commercial vehicle information systems and networks	A number of systems and interfaces to allow motor carriers to electronically file information, such as international fuel tax and international registration plan renewals and quarterly reports	Actual expenditures of \$1,249,834, compared to the budget of \$1,367,249	Completed in February 2006, approximately three months later than the scheduled completion date of November 2005
Job Service North Dakota	Project Herakles	Procurement planning phase of the agency's unemployment insurance system modernization project	Actual expenditures of \$347,311, compared to the budget of \$813,366	Completed in June 2006, approximately one year earlier than the scheduled completion date of June 2007
Bank of North Dakota	Core banking	Conversion of the existing core banking and related systems to a new integrated solution	Actual expenditures of \$3,173,751, compared to the budget of \$3,500,000	Completed in November 2005, approximately two months later than anticipated

Enterprise Resource Planning System Initiative - ConnectND System

The committee received periodic reports from the Office of Management and Budget and the North Dakota University System regarding the status of the implementation of the enterprise resource planning system initiative, known as the ConnectND system. The committee learned the 2001 Legislative Assembly appropriated funding of \$7.5 million from the general fund for the first phase of the implementation of the ConnectND system. The 2003 Legislative Assembly appropriated \$20 million of bond proceeds for the remainder of the implementation costs for the ConnectND system. As a result, the Office of Management and Budget issued bonds totaling \$20 million for the ConnectND system at an interest rate of 3.9 percent for a period of 10 years with annual debt services of approximately \$2.7 million. The estimated debt service amounts are:

Biennium	State Portion	Higher Education Portion	Total
2005-07	\$1,563,727	\$3,828,436	\$5,392,163
2007-09	\$1,565,152	\$3,831,923	\$5,397,075
2009-11	\$1,564,822	\$3,831,116	\$5,395,938
2011-13	\$1,565,033	\$3,831,633	\$5,396,666
2013-15	\$778,257	\$1,905,387	\$2,683,644

The committee learned the state portion of the debt service is recovered through monthly charges to state agencies based on full-time equivalent (FTE) positions and per \$1 million appropriated. The higher education portion of the debt service is recovered through various funding sources, including student fees, internal reallocation, and reallocation of technology fees. The following is a summary of the student fee for the ConnectND system as approved by the State Board of Higher Education:

School Year	Student Fee
2002-03	\$42
2003-04	\$36
2004-05	\$63
2005-06	\$81
2006-07	\$81

The committee learned the ConnectND system was considered to be implemented on June 30, 2005. The following is a summary of the budgeted and actual costs associated with the implementation of the system through June 2005:

	State Government	Higher Education	Total
Direct costs ¹ - Budgeted	\$14,575,010	\$20,531,648	\$35,106,658
Direct costs ¹ - Actual	14,861,947	24,702,015	39,563,962
Direct costs ¹ - Over (under) budget	\$286,937	\$4,170,367	\$4,457,304
Reallocated costs ² - Actual	\$2,748,116	\$6,908,378	\$9,656,494
Total costs - Budgeted	\$14,575,010	\$20,531,648	\$35,106,658
Total costs - Actual	17,610,063	31,610,393	49,220,456
Total costs - Over (under) budget	\$3,035,053	\$11,078,745	\$14,113,798

¹Direct costs are costs that are directly attributed to the project and paid from the project funds.

²Reallocated costs are expenses that are directly attributed to the project and paid from other sources. For state government, the reallocated costs were expenses associated with software developers from the Information Technology Department. For higher education, the reallocated costs were salaries and wages for staff members of the Higher Education Computer Network who were supporting both the legacy system and implementing the new system. Those staff members' salaries have been historically appropriated as part of the North Dakota University System common information services pool.

State government - The committee learned the difference between the budgeted and actual costs for implementing the ConnectND system for state government was:

PeopleSoft software	\$2,364
Contract amendments	948,706
Equipment and hosting	(140,511)
Staffing and training - Direct costs	(523,622)
Staffing - Reallocated costs	2,748,116
Total	\$3,035,053

The committee learned the increase in contract amendments of \$948,706 was due primarily to the following three amendments to the contract with Maximus for the implementation of the system:

Description	Cost
Amendment 1 - Hosting services for the system while in the development phase and assistance in creating a hosting environment. The cost of the amendment was paid for from the \$7.5 million general fund appropriation provided by the 2001 Legislative Assembly for the ConnectND system initiative.	\$325,628
Amendment 3 - Customizations relating to a monthly payroll with no lag. The software had a semimonthly payroll with a timelag. The cost of the amendment was paid for by the Office of Management and Budget.	450,000
Amendment 8 - Extension of the go-live date by one month from September 2004 to October 2004. The cost of the amendment was paid for by the Office of Management and Budget.	90,000
Total	\$865,628

Higher education - The committee learned the difference between the budgeted and actual costs for implementing the ConnectND system for higher education was:

PeopleSoft software	\$1,299
Contract amendments	2,888,927
Equipment and hosting	166,004
Bond costs	(1,483)
Ancillary software systems	460,934
Staffing and training - Direct costs	654,686
Staffing - Reallocated costs	6,908,378
Total	\$11,078,745

The committee learned the increase in the area of contract amendments of \$2,888,927 was due primarily to the following five amendments to the contract with Maximus for the implementation of the system:

Description	Cost
Amendment 5 - Postproduction support for higher education institutions that were "live" with the financials and human resource components of the system	\$382,800
Amendment 6 - Additional assistance with the student administration component of the system	644,800
Amendment 7 - Extension of assistance for all components of the system due to the delay of the go-live date at four higher education institutions	655,850
Amendment 12 - Postproduction functional services for various aspects of the system	767,520
Amendment 13 - Additional postproduction support	290,700
Total	\$2,741,670

The committee learned the North Dakota University System hired Ms. Bonnie Neas as the interim deputy chief information officer and executive director for ConnectND and Mr. Randall Thursby as the interim chief information officer. The two of them are working to address several critical business function issues associated with the ConnectND system.

The committee learned the North Dakota University System is requesting \$4,120,000 of additional funding from the general fund and 11.5 new FTE positions for support of the ConnectND system for the 2007-09 biennium. Of the 11.5 new FTE positions, 4 are functional business analyst FTE positions, 3.5 are technical support FTE positions for the student administration data center, and 4 are programmer/analyst FTE positions. The following is a summary of the additional funding requested:

Permanent base funding to sustain the one-time funds allocated by the State Board of Higher Education during the 2005-07 biennium from the State Board of Higher Education initiative fund	
Base funding to eliminate the need to transfer \$920,000 per biennium from student technology fee revenues that were previously committed to repayment of networking bonds	
Funding to stabilize critical business functions, assist with costs associated with future upgrades and enhancements, and provide a contingency for unforeseen needs	1,700,000
Total	\$4,120,000

Information Technology Department - Mainframe Migration Project

The committee learned the 2005 Legislative Assembly provided the Information Technology Department a \$6 million special funds appropriation for software acquisition costs and consulting services for the mainframe migration project. The department signed a contract with Software AG, Inc., to complete the migration of information technology systems from the mainframe environment to a Linux platform. The department borrowed \$6 million from the Bank of America at the interest rate of 3.57 percent for the project. The estimated total cost of the project is approximately \$8,270,000.

The committee learned all systems currently operating on the mainframe will be migrated, except for three systems--Department of Human Services Medicaid management information system, Bank of North Dakota student loan system, and Legislative Assembly LAWS system--for which migration is not feasible, and the migration will provide no changes to the functionality of the systems. The project originally was to be completed by June 30, 2007; however, because of staffing resources being overcommitted, the project completion date has been revised to July 2008. The loan from the Bank of America for the project originally was to be paid off in December 2010, but due to the delay in the project the loan will not be paid off until December 2011. The following is a summary of the revised project approach:

Phase 1 Attorney General November 2005-Bank of North Dakota September 2006 Insurance Department Office of Management and Budget State Department of Health Information Technology Department (part 1) Workforce Safety and Insurance Game and Fish Department Phase 2 August 2006-State Treasurer's office June 2007 Public Employees Retirement System Job Service North Dakota Information Technology Department (part 2) Department of Human Services (stand-alone applications) Department of Transportation Phase 3 March 2007-Highway Patrol January 2008 Department of Emergency Services - Division of State Radio North Dakota University System Department of Public Instruction Phase 4 Department of Human Services December 2007-Secretary of State May 2008

Department of Human Services - Medicaid Management Information System Rewrite Project

The committee learned the 2005 Legislative Assembly provided the Department of Human Services a \$29.2 million appropriation to design, develop, and implement a new Medicaid management information system, pharmacy point-of-sale system, and decision support system. Of the \$29.2 million, \$3.7 million was state matching funds from the permanent oil tax trust fund. The department released a request for proposal for the project on June 1, 2005, and proposals were due September 1, 2005. The department received one proposal for the Medicaid management information system from Affiliated Computer Services, Inc., (ACS) Government Healthcare Solutions, three proposals for the pharmacy point-of-sale system, and two proposals for the decision support system.

The committee learned the department completed contract negotiations with ACS Government Healthcare Solutions for the Medicaid management information system and the pharmacy point-of-sale system and with Thomson Medstat for the decision support system and the total estimated cost for the project is \$56.8 million, of which \$5.7 million would be state matching funds. Affiliated Computer Services, Inc., and Thomson Medstat have agreed to hold their prices firm until the 2007 Legislative Assembly considers legislation that addresses the costs for the remainder of the project as long as the department moves forward with the initial design phase of the project. The department signed a contract with ACS identifying two phases. The first phase includes a detailed system design that is estimated to cost no more than \$8 million and is reusable, and the second phase includes the balance of the design, development, and implementation.

The committee learned the department, pursuant to a request by the Budget Section, will provide information to the 2007 Legislative Assembly on the cost-benefit analysis of options for completing the project, including acceptance of the current ACS bid, rebidding of the project, joint development with another state, use of a

fiscal agent, and outsourcing the billing and payment components.

Elementary and Secondary Education - Data Warehouse Project

The committee learned the Department of Public Instruction entered into a contract with TetraData Corporation in October 2002 to develop and implement a statewide data analysis clearinghouse for all public schools and school districts within the state. Thirteen data warehouses were established to accommodate the state's largest school districts and their unique data needs, a single warehouse was established for the larger number of smaller school districts and their more uniform needs, and a single warehouse was established for the state in the aggregate.

The committee learned the department spent approximately \$2.4 million of federal Elementary and Secondary Education Act Title VI funding on the TetraData system and was in the process of negotiating a three-vear contract extension with the TetraData Corporation at a cost of approximately \$1.6 million. The overall usage of the TetraData system was low, and Minot, Bismarck, Grand Forks, and Fargo School Districts informed the committee they needed a product that meets their needs better than the TetraData system. Therefore, the committee recommended to the Office of Management and Budget the suspension of the expenditure of money for the Department of Public Instruction TetraData system in December 2005 unless the department provided the committee a plan for proceeding with the system with cooperation from school districts.

As a result of the committee's recommendation and the discussions of the Minot, Bismarck, Grand Forks, and Fargo School Districts, the Department of Public Instruction decided to discontinue any further implementation of the statewide data warehouse and to terminate its contract with TetraData Corporation effective December 31, 2005.

Pursuant to NDCC Section 54-35-15.4, the committee requested the State Auditor conduct an information technology compliance review of the Department of Public Instruction TetraData system, including review of the participation of students, school districts, and the department in selection of the vendor, utilization of the system, and allowable use of the remaining federal funds intended for the project.

To complete the review, the State Auditor met with the Department of Public Instruction, requested school districts complete a survey, and reviewed project documentation maintained by the Information Technology Department. The State Auditor determined the Department of Public Instruction did not perform the necessary project management for the TetraData system, and the State Auditor identified the following lessons learned relating to the project:

- The project manager should have formal project management training.
- Potential vendors should not help develop the request for proposal.

- The business case should be developed before the request for proposal is issued.
- End users should be involved in project planning.
- The Information Technology Department should be more proactive in bringing potential problems with projects to the attention of the Information Technology Committee.

In response to the State Auditor's information technology compliance review, the Department of Public Instruction indicated that the business case and the request for proposal for the TetraData system were developed with assistance from the Information Technology Department and met all the requirements of the procurement process that existed at that time. The request for proposal was released with the concurrence of the Attorney General's office and the Information Technology Department. The department followed the evaluation specifications for the process documented the proceedings. The department was always in control of the project's management, and the Information Technology Department never approached the department with concerns about the department's active management of the project.

The committee learned the Fargo, Bismarck, Grand Forks, and Minot School Districts began a process in early September 2005 to identify data warehousing systems that would meet their needs. The four school districts asked the Educational Technology Council to take the lead on a request for proposal process to identify a single data warehousing system that could be purchased by all the state's school districts. The request for proposal was issued on February 3, 2006, and four finalists were selected. The four finalists provided product demonstrations in May 2006, and Sagebrush was selected as the top-rated product. A notice of intent to award was issued, and contract negotiations with Sagebrush were completed. The estimated costs for implementing the Sagebrush data warehousing system include:

- \$75,000 of one-time startup costs to set up the North Dakota data model, purchase licenses for software, and fund project management and initial training.
- \$5.50 per student year one costs to set up warehouse and support school implementation.
- \$1 per student per year costs for hosting fees.

The committee learned the Educational Technology Council is seeking funding options for the first-year startup costs so the cost would not have to be borne solely by the schools that choose to implement the system that year. The status of the school districts involved in the initiative is:

Implementation in the	Bismarck
summer of 2006 for the	Grand Forks
2006-07 school year	North Central Education Cooperative (pilot in three to four schools) Jamestown West Fargo Minot (tentative)
Implementation in 2006-07 for the 2007-08 school year	Fargo Devils Lake (tentative)
Other schools that have expressed interest	Williston Missouri River Education Cooperative

Tax Department - Integrated Tax System

The committee learned the 2005 Legislative Assembly authorized the Tax Commissioner to purchase, finance the purchase, or lease equipment, software, and services to establish an integrated tax processing system. The principal amount of any financing agreement entered into by the Tax Commissioner may not exceed \$14 million. The repayment of any financing agreement entered into by the Tax Commissioner is to begin during the 2007-09 biennium and repayment amounts, including principal and interest, are to be incorporated in the Tax Commissioner's biennial budget requests to the Legislative Assembly.

The committee learned the Tax Department decided to implement a commercial off-the-shelf integrated tax system named GenTax developed by FAST Enterprises and arranged for financing for the project through Bank The interest rate for the financing of America. arrangement is 3.17 percent and total interest to be paid under the arrangement is \$2.070.104. implementation of the integrated tax system, which has been named Tax Revenue Excellence of North Dakota (TREND) was on schedule and was approximately \$919,000 under budget as of July 31, 2006. The Tax Department completed the first phase of the project, including the processing of sales and use tax, city sales tax, gross receipts tax, city lodging tax, city restaurant and lodging tax, and North Dakota hotel and motel tax, in January 2006 and completed the second phase of the project, including the processing of estate taxes, motor fuel taxes, and withholding taxes, in June 2006. The remaining phases of the project include:

Phase 3 - January 8, 2007	Individual income tax Fiduciary income tax Partnerships Small business
Phase 4 - June 4, 2007	Corporate income tax Airlines tax Telecommunications tax

Workforce Safety and Insurance - Information Technology Transformation Program System Replacement Project

The committee learned Workforce Safety and Insurance hired The Gartner Group in April 2005 to evaluate the agency's information technology platforms due to operational issues with the agency's core computer systems. The Gartner Group concluded that the agency's core technology systems are degrading and the agency should replace the core business applications as soon as possible. As a result, the agency has initiated an information technology transformation program system replacement project that includes the replacement of existing core business applications with a commercial off-the-shelf software solution.

The committee learned the agency is in the process of completing Phase 1 of the project, which includes surveying potential commercial off-the-shelf solutions, gathering system requirements, executing a request for proposal, cleaning data, establishing new in-house technology-related procedures, and reorganizing the agency Information Technology Division. Funding for Phase 2 of the project, which is the implementation of the new software solution, must be approved by the 2007 Legislative Assembly. The estimated cost for Phase 2 is \$8 million to \$14 million.

Legislative Assembly - Legislative Applications Replacement System Project

The committee learned there is a need to replace the computer applications used by the legislative branch. Although no funds were appropriated for the replacement of legislative applications for the 2005-07 biennium, Senate Bill No. 2001 provided that any unexpended funds from legislative branch appropriations for the 2003-05 biennium could be used to assist in the cost of the legislative applications replacement project. As a result, approximately \$1.5 million is available for this purpose. The Legislative Management Committee approved a proposal by Arbortext, which is now owned by PTC Global Services, for Phase 1 of the project, to provide a budget, a cost-benefit analysis, and an implementation plan for consideration by the 2007 Legislative Assembly. The Legislative Management Committee met on October 3, 2006, and the PTC consultants provided a budget of \$4,648,224 for Phase 2 of the project, with an initial amount of \$737,397 to begin Phase 2 of the project during the last nine months of the 2005-07 biennium. The net amount of \$3.9 million will be required in the 2007-09 biennium for project completion.

INFORMATION TECHNOLOGY DEPARTMENT COORDINATION OF SERVICES

North Dakota Century Code Section 54-59-12 provides for the review and coordination of information technology between the Information Technology Department, higher education, and political subdivisions. Pursuant to that directive, the committee received information from representatives of elementary and secondary education, higher education, and political subdivisions regarding information technology activities.

Elementary and Secondary Education Information Technology Initiatives

The committee learned the Educational Technology Council is a council created by NDCC Section 54-59-17 for coordinating education technology initiatives for elementary and secondary education. The council provides governance for EduTech and the Division of Independent Study. The council's initiatives include:

- Video grants Video grants were made available to 5 to 10 public high schools without video classrooms. The grants required a 60 percent local match and were awarded in January 2006.
- Classroom transformation grants Classroom transformation grants were made available to schools as startup grants for new and expanded uses of technology in the classroom. The grants

- required a 50 percent local match and were awarded competitively in June 2006.
- Atomic learning The council is implementing an atomic learning project which will enable students, educators, and parents to complete online professional development. For the first year of the project, 50 percent of the state's students, educators, and parents will have access to the project with a goal of 2,500 views per week. For the second year of the project, all of the state's students, educators, and parents will have access to the project.
- Statewide e-rate reimbursement application The council submitted its 2006-07 statewide e-rate reimbursement application to the Universal Service Administrative Company and the Schools and Libraries Division.
- State educational technology plan The council revised the state educational technology plan for the 2006-09 time period.

The committee learned the Educational Technology Council base budget and optional budget requests for the 2007-09 biennium are:

Base budget request	
Salaries and wages	\$269,718
Operating expenses	267,879
Grants to schools	349,000
Total base budget request	\$886,597
Optional budget request - United streaming video statewide licenses	\$610,000

The committee learned EduTech provides information technology services and education technology professional development to North Dakota educators and students. EduTech's initiatives include:

- Technology solutions that work EduTech purchased a one-year license to access a data base of research analysis on reading and mathematics technology applications and interventions for school districts.
- INSTEP EduTech completed a pilot phase of an instructional technology partnership program to prepare teachers to integrate technology in the curriculum.
- Internet filtering EduTech requested an evaluation of enterprise reporter, a hardware device that works with Internet filtering servers, to produce reports on Internet usage by school computers.

The committee learned the Division of Independent Study was established in 1935 by the Legislative Assembly to provide distance education courses for students in kindergarten through grade 12 and adults. Mr. Jon Skaare has been named the director of the Division of Independent Study. The division's 2005-06 enrollments and budget were consistent with projections and with the division's 2010 self-sufficiency plan. The division recently completed a North Dakota studies project and a North Dakota civics education project.

Higher Education Information Technology Initiatives

The committee learned the North Dakota University System completed several major information technology projects during the past three years, including a facilities management system, a parking management system, a housing management system, and an On-line Dakota Information Network software project. The North Dakota University System looks to:

- Leverage knowledge of project management by working on new smaller projects.
- Continue involvement with the Information Technology Department in the enterprise architecture process by casting a new future for collaboration of services, including the videoconferencing and audioconferencing solutions provided by the Interactive Video Network.
- Work with the chief information officers at higher education institutions to review and improve other areas of information technology infrastructure.
- Pursue the next generation of networking for the Northern Tier states.
- Expand work on multistate software licensing arrangements through the Midwestern Higher Education Compact.

The committee learned the North Dakota University System has included additional funding of \$3,557,200 from the general fund in its budget request for the 2007-09 biennium relating to higher education information technology initiatives, excluding funding for the ConnectND system. The following is a summary of the information technology initiative funding:

Common information services pool - Parity costs	\$2,096,200
Wide area network growth	250,000
Standards-based interface to the ConnectND system	161,000
Northern Tier Network annual maintenance	900,000
On-line Dakota Information Network web programmer	150,000
Total	\$3,557,200

The committee learned the State Board of Higher Education also identified the following requests for one-time information technology funding for the North Dakota University System for the 2007-09 biennium:

Common collaborative suite - Phase 1 Campuses network upgrade	\$1,000,000 2,000,000
Northern Tier Network	2,000,000
Total	\$5,000,000

Political Subdivisions

The committee learned the North Dakota League of Cities has been working with the Information Technology Department in the development of records retention schedules for all departments of city government, and the North Dakota League of Cities has had discussions with the Information Technology Department to explore the possibilities that may exist for joint projects in the area of geographic information systems.

STATUS OF THE RECOMMENDATIONS FROM PREVIOUS INFORMATION TECHNOLOGY STUDIES

Background

The Information Technology Committee during the 2003-04 interim was assigned the information technology organizational and information technology management studies as provided for in Section 13 of House Bill No. 1505 (2003).

The information technology organizational study was to include a review and identification of:

- 1. The cost and benefits of a centralized and decentralized information technology structure.
- 2. cost of providing electronic mail administration, and file print server administration, seat management and desktop personal computer support, mainframe and computing hosting distributed services. consolidated storage management and disaster recovery, and software development.
- The roles and responsibilities of agency personnel providing information technology services under a centralized and decentralized information technology structure.
- 4. The employee positions and competencies needed by the Information Technology Department to provide the information technology services on a centralized basis, including the organizational changes required within the department to provide the centralized services.
- The human resource management issues, including change management, training, and employee compensation, to be addressed for a successful centralization.
- The adequacy and quality of the services as currently provided and proper performance measures.
- 7. The comparison of current costs to industry and other states' data.
- 8. Information technology services appropriate to be performed by individual agencies.
- A plan to either centralize or decentralize the services identified, including the reorganization tasks, personnel transfers, and the changes required for information technology budgeting and cost allocation processes.

The information technology management study was to include a review of:

- The technology management processes of other states and private industry with respect to prioritizing state agency information technology budget requests, establishing information technology standards and policies, and overseeing information technology expenditures.
- The role of other states in providing information technology services to nonstate government entities.
- 3. The level of information technology outsourcing in other state governments and the private

- sector and the applicability to the state of North Dakota.
- 4. The trends that will impact technology deployment and spending in the next 5 to 10 years.
- The level of coordination in the management of enterprise initiatives, such as the statewide information technology network, the enterprise resource planning system initiative, geographic information system initiative, and the criminal justice information sharing initiative, compared to other states, including a recommendation regarding the appropriate
- governance structure to provide the maximum benefits to the state.
- The potential changes to the organizational of the Information Technology structure Department and other state government entities as related to information technology.

The committee selected and contracted with Pacific Technologies, Inc., a consulting company based in Bellevue, Washington, to conduct the information technology studies. Pacific Technologies, Inc., made the following major recommendations and corresponding primary benefits:

Major Recommendations

Workstation support and help desk services consolidation Consolidate all workstation support and help desk services within the Information Technology Department, including:

- Initial problem reporting and resolution
- Workstation environment maintenance and support
- Adds, moves, and changes
- Hardware replacement management
- Associated performance measurement and management

Workstation standardization - Move to a highly standardized workstation environment on a statewide basis with the Information Technology Department managing a workstation replacement program

Server consolidation - Continue to consolidate all agencymanaged servers into the Information Technology Department

Information technology governance - Improve the existing information technology governance processes by:

- Improving the processes and tools for information technology project evaluation
- Improving mechanisms to support cost-containment
- Developing meaningful statewide management and reporting views of information technology initiatives
- Implementing information technology performance measures
- Establishing an information technology innovation fund

Primary Benefits

Positions the state's information technology environment for the long term

Allows state agencies to focus on core business needs rather than technical infrastructure

Leads to long-term labor cost-savings

license Improves the state's purchasing power and management

Enhances information sharing and staff productivity through common and current workstation tools

Promotes the provisioning of basic information technology services as a "utility"

Allows state agencies to focus on core business needs rather than technical infrastructure

Promotes the provisioning of basic information technology services as a "utility"

Leads to long-term labor and hardware cost-savings

Leads to better-informed decisionmaking

Provides a more equitable, business-based, and consistent evaluation of information technology initiatives

Provides the best opportunity to manage application portfolio costs

Workstation support and help desk services consolidation Pacific Technologies, recommended the Information Technology Department target a future staffing ratio of 200 workstations per support FTE position, an increase from the current ratio of 149 workstations per support FTE position. Maintaining service quality at the elevated support ratio depends on gaining efficiencies through the use of specialized staff and successful implementation of a standardized workstation environment and associated support tools. If fully implemented, the consolidation of workstation support and help desk services offers potential labor savings of approximately \$519,000 per year in total funds; however, the capturing of all the savings would require the elimination of partial FTE positions at the agency level. Pacific Technologies, Inc., recognized the elimination of partial FTE positions would be difficult due in part to other responsibilities of these employees. A portion of the savings would be

offset by annual maintenance costs ranging from \$60,000 to \$260,000 of total funds and one-time costs for software, hardware, and telephone system upgrades ranging from \$160,000 to \$1,010,000 of total funds.

Workstation standardization - Pacific Technologies, Inc., recommended the state limit workstations to two or three models (low-end, mid-level, and high-end), tightly control the associated configurations, and allow agencies the option of selecting between a three- to four-year replacement cycle. The Information Technology Department would manage the replacement cycle, including collecting necessary funds from agencies through workstation charges, procuring, configuring, and installing the workstations. implementation of the standardized workstation environment is critical for the success of the consolidation of workstation support and help desk services. The resulting annual workstation costs would be approximately \$2.9 million to \$3.7 million in total funds or \$30 to \$36 per month per workstation, depending on the mix of workstations and the replacement cycles.

Server consolidation - Pacific Technologies, Inc., recommended the Information Technology Department assume the administration of existing agency-managed servers as the servers are replaced and reduce over 150 servers from the state's inventory. As the number of servers are reduced, the Information Technology Department should maintain a 29-to-1 server to support FTE position ratio. The continued server consolidation has the potential annual labor savings of approximately \$162,000 in total funds in addition to significant longterm savings in hardware costs.

Information technology governance - Pacific Technologies, Inc., recommended an information technology project investment review process relating to evaluation and prioritization of information technology initiatives and an evaluation criteria development process relating to the development of evaluation criteria. The state should develop a set of supporting tools, including business case templates, business plan templates, and an information technology report card, and the state should significantly increase its

performance measurement efforts to improve insight into information technology operations and expenditures by implementing performance measurements in the areas of customer satisfaction, financial and management performance, project performance, and consolidation transition performance. Pacific Technologies, Inc., noted the prioritization of proposed major computer software projects by the State Information Technology Advisory Committee is a positive step toward implementing the information technology governance recommendation.

Status of the Recommendations

The committee received information from Technology representatives of the Information Department regarding the status of the recommendations from 2003-04 information the technology organizational and information technology management studies. The committee learned the department supports the recommendations and is in the process of implementing the recommendations. following is a summary of the status of the recommendations included in the Pacific Technologies, Inc., final report:

Major Recommendations

Workstation support and help desk services consolidation -Consolidate all workstation support and help desk services within the Information Technology Department, including:

- Initial problem reporting and resolution
- Workstation environment maintenance and support
- Adds, moves, and changes
- Hardware replacement management
- Associated performance measurement and management

Workstation standardization - Move to a highly standardized Standard configurations for a single brand of workstations for workstation environment on a statewide basis with the Information all state agencies were developed through the enterprise Technology Department managing a workstation replacement architecture process and the Information Technology program

Server consolidation - Continue to consolidate all agency-managed The Information Technology Department completed the servers into the Information Technology Department

Information technology governance - Improve the existing The Information Technology Department has implemented information technology governance processes by:

- Improving the processes and tools for information technology project evaluation
- Improving mechanisms to support cost-containment
- Developing meaningful statewide management and reporting views of information technology initiatives
- Implementing information technology performance measures
- Establishing an information technology innovation fund

The Information Technology Department is requesting funding for the 2007-09 biennium for workstation support to agencies as requested.

Status

Department awarded a contract for desktop and laptop acquisition to Hewlett Packard.

functional consolidation process during the 2003-04 interim and eliminated a number of servers. The department continues to reduce the number of servers as outdated applications and servers are replaced.

an information technology project prioritization process. The department's enterprise architecture process is maturing and procurement and asset management have strengthened.

In regard to the standardization of workstations, the department has awarded a contract for desktop and laptop acquisition to Hewlett Packard. Under the contract, state agencies, higher education institutions, school districts, and political subdivisions are allowed to purchase a mainstream or power user desktop or a mainstream or power user laptop. From inception of the contract in December 2004 through June 2006, state agencies have spent \$2,202,104 under the contract resulting in savings of \$843,452 from Western States

Contracting Alliance (WSCA) prices. The total amount spent by all entities under the contract for the same period is \$6,555,202, a savings of \$2,793,413 from WSCA prices. The following is a summary of computer purchases through the contract from December 2004 through June 2006:

	State	Higher Education Institutions	School Districts	Political Subdivisions	Total
Desktop - Mainstream (per unit price \$550)	Agencies 1,358	229	2,712	597	Total 4,896
Desktop - Power user (per unit price \$795)	482	77	1,095	67	1,721
Laptop - Mainstream (per unit price \$1,334)	481	301	340	82	1,204
Laptop - Power user (per unit price \$1,478)	158	57	283	49	547
Total	2,479	664	4,430	795	8,368

OTHER INFORMATION Statewide Information Technology Network

information committee received representatives of the Information Technology Department regarding the statewide information technology network. The committee learned NDCC Section 54-59-08 requires each state agency and institution that desires access to wide area network services and each county, city, and school district to obtain those services from the Information Technology Department. As a result, the department deployed the statewide information technology network--StageNet--in 2000.

The committee learned the state's contract with Dakota Carrier Network for the statewide information technology network expired in June 2006. As a result, the department completed a procurement process for a new statewide information technology network to meet the state's needs for the next 7 to 10 years. The department released three separate requests for proposal relating to equipment, transport, and wireless aspects of the new network and awarded contracts as follows:

Requests for Proposal	Awards	
Equipment	AVI, Corporate Technologies, and Qwest	
	and Qwest	
Transport - Internet component	Sprint	
Transport - Backbone and local	al Dakota Carrier Network	
access components		
Wireless	None	

In regard to the transport backbone and local access components, the committee learned the new statewide information technology network will distribute processing over four main modes instead of two, resulting in less risk of network congestion and higher network availability. The transport backbone and local access components have a two-tier pricing structure because the department had received many complaints from state agencies about the high cost of ATM T-1 access in urban areas and service providers did not support a single postalized rate for the entire state. The current rate for ATM T-1 access is \$499 per month. The new

rates are \$349 per month for urban areas, including Fargo, West Fargo, Grand Forks, Jamestown, Devils Lake, Bismarck, Minot, Dickinson, and Williston and \$609 per month for rural areas.

The committee learned the responses to the wireless request for proposal included higher prices and limited additional features; therefore, the department decided to extend the current cellular voice contract through March 2007.

Information Technology Department 2007-09 Budget Request

received The committee information representatives of the Information Technology Department regarding the department's budget request for the 2007-09 biennium. The committee learned the department's base budget request for the 2007-09 biennium totals \$100,287,812, of which \$9,880,510 is from the general fund. The general fund base request of \$9,880,510 is \$92,327 less than the department's 2005-07 general fund appropriation of \$9,972,837. The following is a summary of the department's base budget request for the 2007-09 biennium:

	General	Special	Federal	
	Fund	Funds	Funds	Total
Department operations	\$791,362	\$84,242,681		\$85,034,043
Wide area network	3,395,550	408,000		3,803,550
Geographic information system	686,980			686,980
Criminal justice information sharing	683,923	180,000	\$300,000	1,163,923
Division of Independent Study	783,750	5,276,621		6,060,371
EduTech	2,652,348			2,652,348
Educational Technology Council	886,597			886,597
Total	\$9,880,510	\$90,107,302	\$300,000	\$100,287,812

The committee learned the department's budget request for the 2007-09 biennium includes several optional package adjustments, including adjustments relating to the Department of Human Services' Medicaid management information system replacement project, implementation of business intelligence tools, technical support for the ConnectND system and the PowerSchool application, Voice over Internet Protocol implementation, kindergarten through grade 12 data warehousing hosting, kindergarten through grade 12 video service, and support of the Northern Tier Network. The following is a partial listing of the general fund optional package adjustments:

EduTech	\$70,000
Criminal justice information sharing	1,236,212
Geographic information sharing	251,020
Educational Technology Council	610,000
Total	\$2,167,232

Information Technology Department Information System Audit Report

The committee received information from the State Auditor regarding the information system audit of the Information Technology Department for the year ended December 31, 2005. The committee learned the audit report is intended to provide interested parties with information sufficient to understand the general controls of the Information Technology Department. The State Auditor's office received a 2005-07 general fund appropriation of \$100,000 to test information technology system security in the Information Technology Department and, as a result, the State Auditor's office contracted with ManTech Security and Mission Assurance, a unit of ManTech International Corporation, to conduct a security study of the state's wide area network. The work of ManTech Security and Mission Assurance was incorporated into the audit. The audit report contained the following eight recommendations:

- Develop a security plan that provides centralized direction and control over information security.
- Limit the information available externally regarding the state's wide area network.
- Extend vulnerability scanning to all state systems that provide services on the Internet.
- Establish a policy for remote management of Windows systems mandating encryption of userids and passwords and all session data.
- Implement a formal incident response program.
- Review all firewall configurations to ensure the rules are necessary and applicable.
- Implement IP-based access controls for state Internet systems.
- Develop a systematic risk assessment framework.

Internet2

The committee received information representatives of the North Dakota University System regarding Internet2. The committee learned Internet2 is a research and development consortium led by higher education institutions working in partnership with industry and government to develop and deploy advanced network applications and technologies. North Dakota State University and the University of North Dakota are members of Internet2 and the other North Dakota University System higher education institutions, kindergarten through grade 12, and the Flatlands Disability Network are sponsored education group Internet2 facilitates high-performance participants. applications not possible on the Internet, supports development of revolutionary applications, allows the transfer of large data sets quickly, and allows testing of new technologies.

Northern Tier Network

The committee received information from representatives of the North Dakota University System regarding the development of the Northern Tier Network. The committee learned the Northern Tier Network Consortium seeks to develop and sustain advanced networking capabilities in order to support the education,

research, and economic vitality of the Northern Tier region. The lack of a high-speed fiber optic network in North Dakota:

- Puts businesses at a competitive disadvantage.
- Diminishes the state's ability to grow and attract new industry.
- Jeopardizes the colleges and universities in recruiting superior faculty, students, and researchers.
- Pushes the state even further behind other states in the race to recruit and retain the best and the brightest.

The committee learned in 2005 the Northern Tier Network Consortium received a National Science Foundation planning grant to develop a network engineering plan with a proposed budget for the states of North Dakota, South Dakota, Montana, and Idaho. The total estimated one-time installation costs for North Dakota's share of the proposed high-speed network across the Northern Tier region is approximately \$5 million. The total estimated annual recurring cost for North Dakota's share of the proposed network is \$450,000. The North Dakota University System has secured funding of \$3.25 million from the Department of Defense to assist with the one-time installation cost of the proposed network. The North Dakota University System is requesting one-time funding of \$2 million from the general fund for installation costs and funding of \$900,000 from the general fund for recurring maintenance costs for the network for the 2007-09 biennium.

Schools and Libraries Universal Services Program

received The committee information representatives the Information Technology Department regarding the Schools and Libraries Universal Services program. The committee learned the Schools and Libraries Universal Services program, or e-rate program, was created as a provision of the Telecommunications Act of 1996 to ensure that all eligible schools and libraries in the United States have affordable access to modern telecommunications and information services. An eligible school or library that completes an application for the program may receive a discount on telecommunications services, internal connections, and Internet access. The state's current e-rate reimbursement funds approximately 64 percent of related statewide information technology costs for schools and libraries.

The committee learned the Information Technology Department has been notified that the state will be able to receive a portion of e-rate reimbursement funding for costs incurred during fiscal year 2002. The department was originally denied e-rate reimbursement funding for fiscal year 2002 due to a technicality in the filing of forms for the e-rate program. As of October 2006, the department was in the process of determining the amount of e-rate reimbursement funding to be received for expenses incurred during fiscal year 2002.

Information Technology Council of North Dakota

The committee received information from representatives of the Information Technology Council of North Dakota regarding benefits resulting from the implementation of the statewide information technology network and future information technology needs. The committee learned the Information Technology Council of North Dakota represents more than 100 information technology-related software developers, telecommunications companies, Internet providers and content developers, systems integrators, educational institutions, and manufacturers across North Dakota. The council's vision is to build a stronger North Dakota through information technology excellence by pursuing initiatives focused on achieving its mission of actively encouraging the use, growth, and development of information technology in North Dakota.

The committee learned that to attract new business and industry the state needs to improve metro network redundancy, interstate network redundancy and bandwidth, and proximity to a major fiber backbone. The state could assist new high-tech companies by providing non-loan investments and expert consulting services. The state should consider taking additional steps to offer statutory provisions that better safeguard the creation of intellectual property in North Dakota by strengthening regulations that better protect trade secrets and allow the use of noncompetitive contract protections with program designers involved in creating intellectual property, such as software development.

COMMITTEE RECOMMENDATIONS

The committee considered, but does not recommend, a bill draft relating to higher education information technology planning, services, and major projects. The bill draft would have:

- Provided that the State Board of Higher Education is responsible for managing and regulating information technology planning and services for institutions under its control; collaborating with the Information Technology Department to coordinate higher education information technology planning with statewide information technology planning; providing advice to the Information Technology Department regarding the development of policies, standards, and guidelines relating to access to or use of wide area network services; and presenting information regarding information technology planning, services, and major projects to the Information Technology Committee.
- Revised the powers and duties of the Information Technology Committee to remove administrative projects from the definition of higher education major information technology projects and to provide that the Information Technology Committee is to receive information regarding higher education information technology planning, services, and major projects.
- Revised the powers and duties of the Information Technology Department to provide that the department shall collaborate with the State Board

- of Higher Education on guidelines for reports to be provided by institutions under control of the State Board of Higher Education on information technology.
- Excluded institutions under the control of the State Board of Higher Education from having to comply with the policies, standards, and guidelines developed by the Information Technology Department.
- Provided that institutions under the control of the State Board of Higher Education are not required to prepare information technology plans.

The committee considered, but does not recommend, a bill draft relating to the exclusion of certain policies, standards, and guidelines of the Information Technology Department from compliance with the Administrative Agencies Practice Act. The bill draft would have provided that any product and services standard and best practice standards, primarily intended to affect state agencies and with respect to access to or use of wide area network services, institutions under the control of the State Board of Higher Education, counties, cities, and school districts if the policy, standard, or guideline has been reviewed by the State Information Technology Advisory Committee, is not considered a rule under the Administrative Agencies Practice Act.

The committee recommends Senate Bill No. 2037 to:

- Provide that the Chief Information Officer may require as a condition of contracting with the Information Technology Department or other state agencies or department with respect to an information technology project that any individual employed by the contractor or subcontractor to perform the work under the contract submit to a criminal history record check.
- Revise the powers and duties of the Information Technology Committee and the Information Technology Department, including requiring the committee to receive and review project startup reports and project closeout reports for any major information technology project of an executive, legislative, or judicial branch agency, the State Board of Higher Education, or any institution under the control of the State Board of Higher Education.
- Provide that information technology plans are subject to acceptance by the Information Technology Department.
- Revise the contents of the statewide information technology plan and the Information Technology Department annual report.
- Provide that only entities approved by the Criminal Justice Information Sharing Board may access the criminal justice system.

The committee also recommends Senate Bill No. 2038 to provide that the Information Technology Department is to develop policies, standards, and guidelines using a process involving advice from state agencies and institutions and the State Information Technology Advisory Committee is to review policies, standards, and guidelines developed by the Information Technology Department and prioritize proposed major

information technology projects for executive branch state agencies, departments, and institutions, excluding institutions under the control of the State Board of Higher Education and agencies of the judicial and legislative branches.