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## State of New Mexico LEGISLATIVE FINANCE COMMITTEE

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> DAVID ABBEY DIRECTOR



June 18, 2008

# **MEMORANDUM**

Subject:	Status Review of the Innovative Digital Education and Learning Initiative at the Public and Higher Education Departments (#08-12)
From:	Aurora B. Sánchez, IT/Program Evaluations Manager A Peter Dearing, Fiscal Analyst
То:	Senator John Arthur Smith, Chairman Representative Luciano "Lucky" Varela, Vice-Chairman

# **EXECUTIVE SUMMARY**

This status review of the Innovative Digital Education and Learning in New Mexico (IDEAL-NM) initiative was conducted to determine if the statutory program has been established and is operating and delivering courses to students in institutions of higher learning and public schools. IDEAL-NM is the public and higher education's response to the governor's 2005 Performance Accountability Contract "Making Schools Work," and will leverage existing technology initiatives.

The Cyber Academy Act created the statewide cyber academy as a collaborative program among Public Education Department (PED), Higher Education Department (HED), telecommunications networks and representatives of other state agencies engaged in providing distance education.

A cyber academy program within PED is being established, but the required rules have not been published. Technical deficiencies at the public schools are sufficiently addressed that students should not be negatively impacted overall. A contract is in place to procure the learning management system (LMS) for statewide use. Intergovernmental agreements with Regional Education Cooperatives (REC) and New Mexico State University (NMSU) are in place to provide teacher training and fiscal agent services.

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# **BACKGROUND INFORMATION**

Terms often used to define education delivered through non-brick and mortar means are: distance learning, online learning/education, virtual schools, eLearning or cyber learning. All these terms are commonly defined as teaching and learning interactions mediated entirely through the application of state-of-the-art information and communications technologies using instructional systems, the purpose of which is to deliver education to students who are not physically "on site".

The primary communication technology used for cyber learning is the Internet. The delivery of educational courses can be either synchronous or asynchronous. Synchronous course delivery means that an instructor and a student are online at the same time, one teaching and the other being taught. Asynchronous course delivery means that a student and a teacher do not have real-time interaction with each other; a student can access a class, work on his or her own any time, any place. Stated differently, the latter method constitutes self-study using technology with instructor interaction at a different time.

**Virtual Schools.** New Mexico embarked on cyber learning as early as 2000 when the Public Education Department (PED) received \$625 thousand from the legislature for the establishment of a virtual high school. In 2001, PED received another \$800 thousand to continue the earlier project. That endeavor, however, was discontinued two years later. Still, for the past eight years, the state's public and higher education departments have continued to promote cyber learning through distance or computer-based learning initiatives.

In 2000, higher education institutions in the state also engaged in a project to provide online distance learning through the New Mexico virtual college, a collaborative effort among public institutions of higher education whose members supported the clearing house through the collection of dues. New Mexico Junior College and NMSU provided fiscal agent services for funding received directly from the legislature or for special projects.

**Appendix A** is a summary of the various cyber learning-related projects funded over a five year period, including the most recent initiative: Innovative Digital Education and Learning in New Mexico (IDEAL-NM), proposed by Governor Richardson at a press conference in Rio Rancho in October 2006. The five-year total is \$50 million.

In Spring 2006, the New Mexico Learning Network (the successor to the New Mexico virtual college) hired a contractor to assess the possibilities for eLearning in New Mexico. In the resulting document entitled "Future of e-Learning in New Mexico," the contractor wrote that 92 percent of state educational entities responding to a survey reported that they already provided some form of online learning. The contractor recommended a collaborative eLearning model for New Mexico (**Appendix B**).

# INNOVATIVE DIGITAL EDUCATION AND LEARNING INITIATIVE

According to available project documents, IDEAL-NM is a response to the governor's 2005 Performance Accountability Contract "Making Schools Work," and will leverage existing technology initiatives to:

- Reduce the cost of software to schools and state agencies that participate by aligning efforts and pooling resources;
- Facilitate more cooperation between districts, schools, higher education institutions and state agencies; and
- Increase access to technology through classes taught by highly qualified teachers.

IDEAL-NM will create a statewide cyber academy with a vision "to provide equitable access to education opportunities for all New Mexico Students." The course delivery model for the New Mexico Cyber Academy is a blended approach of synchronous and asynchronous courses, as defined previously. The figure below shows the three recognized models for online course instruction. New Mexico will use the "supplemental" model for its instruction.

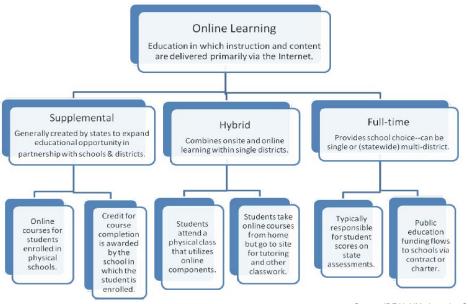


Figure 1. Models of Online Learning

Source: IDEAL-NM eLearning Services Plan

According to New Mexico's Higher Education Department (HED), the IDEAL-NM project will establish an online learning environment that provides eLearning services to New Mexico, P-12 schools, higher education institutions and government agencies. Further, the project will reduce geographic and capacity barriers to educational

opportunities while increasing the digital literacy skills students need to participate in a global economy.

<u>Authorizing Legislation</u>. During the 2007 legislative session, House Bill 201 and Senate Bill 209 were signed into law by the governor and were subsequently codified as the Cyber Academy Act, Sections 22-30-3 through 20-3-8 NMSA 1978 (Appendix C); and created the statewide cyber academy program within PED. The statewide cyber academy is a collaborative program among PED, HED, telecommunications networks and representatives of other state agencies engaged in providing distance education. The statewide cyber academy is required to provide distance learning courses for grades six through twelve, and professional development for teachers, instructional support providers, and school administrators.

The Cyber Academy Act requires that the cyber academy, among other things:

- Establish a distance learning course delivery system;
- Select regional hosts (Regional Educational Cooperatives 3, 8, and 9) based on pre-existing experience and capacity;
- Provide technical and program support;
- Ensure all distance learning courses are taught by highly qualified teachers;
- Provide technical support;
- Give priority to students with the greatest need;
- Ensure the learning management system (LMS) is compatible with school district and department data collection, analysis and reporting systems;
- Ensure deficiencies in infrastructure, hardware, and software are corrected; and
- Comply with rules governing the privacy and confidentiality of student records.

**Funding**. During the 2007 legislative session, HED requested \$10.8 million to implement IDEAL-NM by FY08 and leverage existing technology initiatives. HED anticipated requesting an additional \$28 million over the next five years. HED received general fund appropriations of \$6.4 million in nonrecurring funds and \$1.1 million in recurring funds in the 2007 General Appropriation Act for a total of \$7.5 million. PED received \$750 thousand in the 2008 General Appropriation Act for the New Mexico cyber academy. The table below outlines how HED proposed to use the appropriations.

Phase I eLearning Delivery System	
Equipment, Software, Materials	\$1,008.0
Contractual Services (IV&V)	\$192.0
Total Phase I	\$1,200.0
Phase II eLearning Delivery System	
Equipment, Software, Materials	\$5,200.0
Total Phase II	\$5,200.0
Cyber Academy Start-Up (PED)	
Program Staff	\$243.0
Operating Costs including Lease Agreement	\$57.0
Professional and Curriculum Development	\$250.0
RECs Agreements	\$120.0
Total Cyber Academy	\$670.0
Service Center Start-Up (HED)	
Director	\$60.0
Benefits	\$38.0
Project Manager	\$68.0
IT Services Start-Up	\$334.0
Total Service Center	\$500.0
Grand Total	\$7,570.0

#### Table 1. HED's Proposed Use of the 2007 General Fund Appropriations (in thousands)

Source: IDEAL-NM Project Charter

*Sustainability Funding*. There is no written plan in place or even developed to ensure stable and sustained funding for this initiative, except to continue to ask the Legislature for additional money and limit the courses developed. Although in its request for funding HED claimed it would leverage existing resources, it does not appear that all available existing resources for online learning are being leveraged.

PED received a \$5 million appropriation through the educational technology fund to address technology deficiencies at the state's public schools. The table below shows the purpose for which the \$5 million was allocated. Fifteen percent of the fund remained unallocated. Fifteen percent or \$750 thousand was allocated for distance learning, which is a potential resource that IDEAL-NM can leverage.

Category	Percent Allocated
Professional Development	12%
Personnel	23%
Telecommunications	1%
Hardware/software	28%
Maintenance	5%
Distance Learning	15%
Capitol Outlay	1%
Unallocated	15%
Total	100%

#### Table 2. FY07 Statewide EdTech Allocations Percent Spent By Category (\$5 million appropriation)

Source: PED Ed Tech Bureau

**Cyber Academy Rules**. By January 2008, PED still had not published the cyber academy rules as required by the Cyber Academy Act. Rather than take the opportunity to impose a moratorium on opening up or limiting the number and type of online learning initiatives in the public schools, PED issued an advisory to school district superintendents essentially allowing them to decide whether they would implement online learning in their schools and would enter into contracts for such services under the Distance Learning (Rule), 6.30.8 NMAC. Without having the cyber academy rules available for school districts to implement, all districts legally can implement online learning services and bypass the statewide cyber academy and incur additional costs. By way of example, the Public Schools Finance Authority News Digest, reported in its June 11, 2008, issue, that the Clovis Municipal School Board approved a \$226.4 thousand subscription to the PLATO virtual school program paid for with PL8 and Title I funds. The news digest also reported the Rio Rancho Public Schools Board approval of its cyber academy expansion.

PED expected to give rule notification to the public on June 6, publish the rule on June 16 and hold a public hearing on July 22. As of June 13, 2008 the rules had not been published nor had public hearing been held.

**Organizational Structure**. The Cyber Academy Act makes PED responsible for the statewide cyber academy program, but the General Appropriation Act provides 90 percent of the funds to HED. The eLearning Services Plan dated April 2008 includes an organizational structure that places the IDEAL-NM executive director two and three layers below the PED and HED secretaries (**Appendix D**). Currently, IDEAL-NM has four permanent FTEs with annual salaries totaling \$258 thousand. While interviews for permanent staff were being conducted, temporary FTE were used and paid through IDEAL-NM, HED or PED direct operational funds.

**Learning Management System.** In distance learning, the learning management system (LMS) provides an online environment to house and present course content, deploy lectures, assignments, and other material, and to allow students to post to discussion boards. According to HED, there are currently 22 separate learning management systems throughout higher education institutions and school districts that each entity pays for individually. An inventory presenting the cost per entity was not provided, but is supposed to be updated in the implementation plan. Again, according to HED, there is no commitment from higher education institutions to move to IDEAL-NM.

A contract to provide a statewide LMS was signed by the secretaries of HED, the Department of Information Technology (DoIT) and Blackboard Inc. on May 30, 2008. This contract provides concurrent licensing for up to 200,000 users in a given year and is valid for three years.

The contract with Blackboard, Inc. provides for a non-exclusive, irrevocable, perpetual license to use, modify, and copy the company's software at a fixed price of \$7.8 million. The agreement among the parties requires a 20 percent retainage on deliverables 1, 3, 4, 8, 9, 10 and 12 (these items are highlighted in the table below) or \$164 thousand in addition to a \$1 million performance bond. The contractor is expected to support the implementation of the LMS and establish a common infrastructure. The contract includes plans for migrating hosting services from the vendor to an in-state hosted environment. The table below shows the cost of each deliverable and the amount that will be held back on each deliverable.

Deliverable Description	Cost	Retainage
Project Planning and Solution Design	\$84.0	\$16.8
Hosting Setup	\$20.0	
Community System Design	\$64.0	\$12.8
Content System Design	\$43.0	\$8.6
Training Services	\$45.3	
Training Materials License	\$30.8	
Training Materials License Update	\$14.0	
SIS Integration Services for Higher Ed	\$231.6	\$46.3
SIS Integration Services for K-12	\$36.4	\$7.3
Testing and Production Readiness	\$61.0	\$12.2
Perpetual License (200K FTE)	\$4,199.2	
Integration Customization and Maintenance	\$300.0	\$60.0
Data Hosting and Technical Support	\$2,561.7	
Total	\$7,691.0	\$164.0

Table 3.	LMS Contract Deliverables, Cost and Retainage
	(in thousands)

Source: State Purchasing Division

**District Responsibilities and Intergovernmental Agreements.** The eLearning Services Plan, District and School Handbook, dated Spring 2008, outlines the requirements for school districts and individual schools to access online courses through IDEAL-NM. It informs those entities that asynchronous courses are "typically scheduled into the regular school day," and taught by an online teacher that interacts with students by email, web conferencing tools or telephone. The handbook also describes the role of site coordinators, who can be counselors, library media center directors, computer lab monitors or technology or other teachers, who will be the bridge between the students and IDEAL-NM staff. In the handbook, school counselors are described as gatekeepers who will inform students and parents about online opportunities and facilitate a student's Additionally, district administrators are to facilitate the cyber class schedule. understanding that online learning is a 21<sup>st</sup> century tool, create and implement policies and procedures, and provide resources for online learning. School administrators are to be responsible for ensuring that there are procedures supporting the efficient integration of online programming.

Through inter-governmental agreements (IGA), the RECs 3, 8, and 9 will provide training and technical assistance for districts and schools staffs.

The IGA with REC 3, 8, and 9 are for training, outreach, evaluation, feedback and direct costs. The services are to be provided to their member school districts for implementation of IDEAL-NM online courses. The IGA with REC 10 is for fiscal agent services directly related to IDEAL-NM. REC 10 will provide accounting services that include billing, budgeting, payments, and reporting to PED. REC 10 will also facilitate entering into agreements with independent contractors and school districts, and will directly procure online course content.

The table at **Appendix E** summarizes the deliverables contained in each agreement for which IDEAL-NM has obligated itself to pay \$354 thousand.

**<u>eTeachers</u>**. One of the three companion documents to the eLearning Services plan is the teacher handbook that outlines the learning models available for online learning, shown in Figure 1 on page 3. The attributes of successful online teachers and students include (excellent communicators, task oriented, flexible, innovative and insistent; self-motivated, self-disciplined, task-oriented, and willing to try new learning methods; and inquisitive). IDEAL-NM emphasizes that it is not a brick and mortar school. Blackboard and Aventa, educational course and curriculum vendors, courses are accessible through the IDEAL-NM website maintained by University of New Mexico (UNM) experts. Under the handbook, teachers are given guidance for student contact, grading, discipline, class size, and course design. PED will contract with licensed highly qualified teachers through a memorandum of understanding with a host district. Teachers participating in teaching online courses will be required to participate in 44 hours of professional development using the "train-the-trainer" model before teaching IDEAL-NM courses. Instructional support personnel will be required to have at least a two-year college degree

and receive directed training. Teachers are considered independent contractors who will be paid \$150 per student, and are responsible for paying both federal and state selfemployment taxes. Full-time district employees are encouraged to disclose to their district independent employment with IDEAL-NM.

*eTeachers Trained*. Twenty-one teachers in 13 school districts were trained in the first Spring 2008 training group. The districts represented and the number of teachers trained in each district are shown in the table below. In addition to the 21 teachers currently working for a school district, two retired teachers, and one teacher each from the Florida Virtual School and the New Mexico Junior College were also trained, for a total of 25 trained instructors.

School District	Number of Teachers
Alamogordo	3
Albuquerque	1
Animas	2
Bloomfield	1
Central	2
Chama Valley	1
Farmington	2
Ft Sumner	3
Gadsden	1
Las Vegas City Schools	1
Lovington	1
Mescalero BIA	1
T or C	2
Total	21

#### Table 4. Spring 2008 IDEAL-NM Training Group by School Districts Represented

Note: One teacher each from the Florida Virtual School and New Mexico Junior College and two retired teachers are not included here.

The Cyber Academy Act requires that courses be taught by highly qualified teachers. The federal No Child Left Behind Act allows states the flexibility to adopt criteria establishing highly qualified teachers, including demonstration of subject-matter competency that recognizes, among other things, the experience, expertise, and professional training developed over time in the profession. PED's practice has been to establish various endorsements for teachers specifying authorized content areas in which they may provide academic instruction as highly qualified teachers.

Of the 25 teachers in the first IDEAL-NM Spring 2008 training group, at least one teacher does not have the correct endorsement for the content area in which the teacher is providing instruction. The instructor's specific endorsements are for history, civics and government, economics and geography, but will be teaching algebra. Altogether, teachers in the first Spring 2008 training group include licensure levels 1 through 3. Fourteen of

Source: IDEAL-NM Documents

the total number of teachers trained hold level 3; seven level 2 and three level 1 licensure status.

Not including the Florida Virtual School teacher, all teachers in the first group maintain endorsements in the 19 subject areas shown in the following table.

Economics	Mathematics
Bilingual	Modern/Classical Languages
Business	Physical Education
Civics & Government	Psychology
Economics	Reading
Geography	Science
History	Technical Coordinator
Language Arts	Technology Education
Media Arts	TESOL
Visual Arts	

# Table 5. Endorsements Held by eTeachers TrainedSpring 2008

Source: IDEAL-NM Documents

The second group of teachers trained in Spring of 2008 added seven new school districts to the existing list; however, available data does not include the level of licensure held so it is difficult to determine if the additional 13 individuals are in fact highly qualified teachers as required by the Cyber Academy Act.

**Spring 2008 Pilot Courses**. During Spring 2008, IDEAL-NM offered 53 courses through Aventa, an educational course and curriculum vendor, and two New Mexico-developed courses to 186 students in 13 school districts. The courses offered through Aventa were taken by 49 students to recover lost credits and by 122 students for other reasons. Fifteen students participated in the two New Mexico-developed courses. The tables at **Appendix F** show the districts and the number of students in the Spring 2008 pilot and the courses taken by students for both Aventa and the New Mexico-developed courses. The Cyber Academy Act requires that first priority be given to students with the greatest need (geographic or circumstance) or schools that have difficulty delivering courses because of financial restraints or lack of highly qualified teachers. Three of the districts participating in the Spring 2008 pilot (Table 1 at Appendix F) are districts that also received supplemental emergency funds from 2005 through 2008. Six of the districts are considered rural based on the number of students enrolled.

The total cost to buy the Aventa courses was \$17,500, paid for by the New Mexico Learning Network. The New Mexico history class cost \$15 thousand for a Rio Rancho teacher to develop and the Algebra I class had already been developed by Albuquerque Public Schools and was given to IDEAL-NM. Instructors teaching the two New Mexico-developed courses were paid \$150 per student per class or \$2,250.

Thirty-six of the 45 districts that responded to the LFC survey reported that cost per courses ranged from free through grant funding to \$1,083. Eleven of the thirty-six reported a range from \$120 to \$350 per course.

<u>Course Development</u>. IDEAL-NM representatives note in the April 2008 eLearning Services Plan that FY08 and FY09 funding was not substantial enough to support development of the intended number of courses necessary for successful implementation. Successful statewide deployment and use of Blackboard by districts will require that districts allow contracts and agreements with their current providers to lapse. Those districts that own their software offerings should have a relatively easy time migrating their course content onto the statewide learning management platform. LFC staff raises the issue that some districts may be unwilling to migrate to the IDEAL-NM platform, instead preferring to continue using their own systems or establish new solutions.

LFC surveyed 89 district superintendents, receiving 45 responses or approximately 50 percent. Of those responding, 90 percent are aware of the IDEAL-NM initiative. The summary of responses shows that approximately 75 percent of these districts are broadly offering distance learning solutions. Additionally, wide variations exist in the costs that districts report paying to provide these services.

Of significant concern to LFC staff is the relatively high number of districts, 28 percent, responding with an intention to provide only courses developed within the district, and the relatively low number, 3 percent, planning to rely solely on the IDEAL-NM provision of courses (See **Appendix G**). Specifically, a chief rationale for implementing a statewide system is in cost savings and administrative overhead reductions. Wide participation of districts is necessary to justify the expense of statewide development and deployment.

**<u>Credit Value</u>**. Using the current year unit value and the statewide average number of units per member, IDEAL-NM has developed a \$200 per credit per semester reimbursement rate (from participating districts) for enrolled students. Using the same methodology, LFC calculated this value at \$150, which appears to compensate teachers at a rate that closely approximates their average daily rate. It appears that a range of \$150 to \$200 would be adequate depending on the licensure level of the teacher. (**Appendix H**). The difference in value is primarily due to the assumptions used for (a) average teacher salary; and (b) average number of classes. The IDEAL-NM methodology assumed only teaching time and did not include classroom preparation time, an important component of effective teaching. Similarly, the average teacher salary, with an 18 percent benefit rate, provided to the LFC by the PED budget division was slightly lower than the IDEAL-NM assumption of \$59 thousand annually.

LFC staff is concerned about the hold-back rate of administrative funds from this amount which appears to be high since IDEAL-NM's calculation accounts for the teacher's time

on a student-hour basis and does not pass this amount to teachers. IDEAL-NM states that they will contract with teachers via two models, either through service contracts or by an IGA between IDEAL-NM and a host district. In both cases, a high rate of administrative set-aside would diminish the value of using teacher cost, on an average class credit hour basis, if cyber teaching staff is not compensated on this basis.

<u>Technology</u> <u>Adequacy</u>. According to the American Society for Training and Development, all online courses have a minimum bandwidth requirement, which can be calculated based on the data transfer rate and the size of each page in the course. A course packed with full motion video and audio will require much more bandwidth than a course made up primarily of text and still images. Bandwidth that is shared among numerous users for varying reasons will reduce transfer rates below tolerable levels.

The Cyber Academy Act requires that all deficiencies in the infrastructure, hardware, software be corrected based on education technology standards. IDEAL-NM requires a minimum 56 kilobits bandwidth connection, streaming media and email accounts to connect to the statewide cyber academy, which is too slow for effectively delivering streaming media. A lesson learned by Rio Rancho Cyber Academy is that connectivity below 100 megabit hardwired and 50 megabit wireless will result in degraded response.

Sixteen of the 89 school districts reporting technology status to PED did not provide data on connectivity in FY07. No explanation was given as to why a school district would not respond to a request for information that could potentially provide additional information. Of the districts responding, connectivity ranged from a T1 to a QMOE circuit. Unless there is constant pressure on the existing connections, there should be sufficient bandwidth to support online courses whether they are synchronous or asynchronous. The table below shows the connection speeds at districts' middle and high schools. These results are consistent with the independent survey LFC staff conducted.

Bandwidth Speed	Number of Districts
T1	46
DSL	12
Fiber	12
QMOE	1
No Connection	2
No Report	16

#### Table 6. Telecommunication Bandwidth Middle and High Schools FY07

Source: PED Technology Bureau

**Data Center and Support Center Solutions**. HED's initial proposal was to create five separate data centers to host the learning management solution. Three at higher education institutions: Central New Mexico Community College, NMSU, UNM and two at vendor-hosted sites. The in-state versus the vendor-hosted approaches to technical centers was supposed to be evaluated over the first two years for cost and service effectiveness to guide future decisions. With the delayed purchase of the LMS, HED decided to move to a vendor-hosted solution to keep the August 2008 statewide cyber academy opening date.

HED had also proposed five support centers. Four centers were proposed as regional training and support centers for schools, with a primary training and support center to assist regional training and support centers and provide HelpDesk support. RECs 3, 8 and 9 appear to be serving as regional training and support centers and IDEAL-NM has leased 2,200 square feet of space for five years for \$254 thousand to establish a service center in Albuquerque.

Department of Information Technology Oversight. By law (Section 9-27-6 NMSA 1978) all state executive state agencies are required to request certification from the DoIT for all information technology projects. On September 14, 2007, HED requested certification of the IDEAL-NM project and to have \$2.4 million released for the initiation phase to establish a cyber academy and a physical service center and to prepare for a data center. The cost of each component is not broken out, so it is unclear the expenditures shown in the project budget are associated with the three project components. Risks were not identified, but were left to the project manager to identify at a later date. Security was left to those vendors responding to the RFP. Records retention was addressed in terms of version control for project documents instead of retaining records that will be created and retained after the cyber academy, service center and data center are operational. Responsibility for maintenance of the learning management system license was given to HED. In December 2007, HED requested the remainder of the appropriations (\$5.2 million) to procure and implement the learning management system (LMS) and the web conferencing system. The date to engage IV&V was moved from October 2007 to December 2007. The responsibility for risk identification was changed to the core project team.

Deliverable	Initial Delivery Date	Current Status
Procure Learning Management System (LMS)	9/1/2007	Contract signed 5/30/08
Train Teachers	8/07 – 1/08	Spring 2008
Procure Web Conferencing Software	11/12/2007	Limited Pilot 7/7/2008
Portal Enhancements	11/1/2007	3/31/2008
Complete Portal	11/1/2007	8/2008
LMS Implementation	11/12/2007	Pending
Data Center Preparation and Upgrade	11/12/2007	Unknown
Procure Helpdesk Software	11/1/2007	Limited Solution 6/17/08
Aventa Course Offerings	8/2007	Jan-08
New Mexico-created Course Offering	10/2007	Jan-08
IDEAL-NM Executive Director Hiring	9/2007	1/08
Cyber Academy Rules	6/2008	In review
IV&V Contract	10/2007	Pending

#### Table 7. Status of Project Deliverables

Source: IDEAL-NM Implementation Plan and Project Certification Request

The LMS contract was signed on May 30, 2008 for \$7.8 million. The web conferencing solution was not purchased and a contract for independent validation and verification services (IV&V) has not been signed.

# **APPENDIX A**

# IDEAL-NM/Cyber Academy-Related Funding Fiscal Years 2005 Through 2009 (in thousands)

Project Funded	FY05	FY06	FY07	FY08	FY09	Total
IDEAL-NM				\$6,900.0		\$6,900.0
NM Cyber Academy				\$500.0	\$900.0	\$1,400.0
Rio Rancho Cyber Academy			\$257.0	\$155.0	\$63.5	\$475.5
HED Distance Learning	\$210.0	\$240.0	\$75.0	\$530.5	\$386.5	\$1,442.0
Laptop Initiative	\$4,000.0	\$1,050.0	\$2,095.0	\$1,725.0	\$1,060.0	\$9,930.0
Ed Tech Funding	\$5,000.0	\$5,000.0	\$5,000.0	\$6,000.0	\$6,000.0	\$27,000.0
Juvenile Cyber Academy				\$80.0		\$80.0
Distance Learning Tribal		\$250.0			\$60.0	\$310.0
PED Distance Learning	\$20.0		\$50.0	\$578.0		\$648.0
Computer Club Houses		\$280.0	\$50.0			\$330.0
Computer-based Math	\$200.0					\$200.0
PED Computerized Learning System		\$1,000.0				\$1,000.0
Other PED	\$163.6					\$163.6
RECs				\$120.0		\$120.0
Totals	\$9,593.6	\$7,820.0	\$7,527.0	\$16,588.5	\$8,470.0	\$49,999.1

Note: Appropriation totals shown may not include all technology appropriations received.

**APPENDIX B** 



IDEAL-NM eLearning Model

#### Source: Future of e-Learning in New Mexico

#### 16

**APPENDIX C** 

# ARTICLE 30 Statewide Cyber Academy Act

Section

22-30-1	Short title.
22-30-2	Definitions.
22-30-3	Statewide cyber academy created.
22-30-4	Department rules.
22-30-5	Statewide cyber academy; duties.
22-30-6	Distance learning students.
22-30-7	Distance learning and computer-based courses.
22-30-8	Evaluation of regional education cooperative distance learning networks.

## 22-30-1. Short title.

Sections 1 through 7 [and 11] of this act may be cited as the "Statewide Cyber Academy Act".

History: Laws 2007, ch. 292, § 1 and Laws 2007, ch. 293, § 1.

**Bracketed material.** — The bracketed material was added by the compiler to reflect a recompilation into the Statewide Cyber Academy Act. Laws 2007, ch. 292, § 11 and Laws 2007, ch. 293, § 11, recompile former 22-13-27 NMSA 1978 into the Statewide Cyber Academy Act as 22-30-7 NMSA 1978.

**Duplicate laws.** — Laws 2007, ch. 292, § 1 and Laws 2007, ch. 293, § 1 enacted identical new sections, effective June 15, 2007.

# 22-30-2. Definitions.

As used in the Statewide Cyber Academy Act [22-30-1 NMSA 1978]:

A. "course provider" means a person that supplies educational course content for distance learning courses;

B. "distance learning course" means an educational course that is taught where the student and primary instructor are separated by time or space and linked by technology;

C. "distance learning student" means a qualified student as defined in Section 22-8-2 NMSA 1978 who is enrolled in one or more distance learning courses for credit;

D. "learning management system" means a software application that facilitates online instruction and interaction between teachers and distance learning students;

E. "local distance learning site" means a school district or charter school that offers and grants credit for distance learning courses to distance learning students enrolled in the school district or charter school;

F. "primary enrolling district" means the school district or charter school in

which the distance learning student is enrolled;

G. "regional host" means an educational institution, school district or other entity selected by the statewide cyber academy to coordinate the delivery of distance learning courses within a broad geographic region of the state;

H. "service center" means the single central facility where administrative and management functions of the statewide cyber academy are physically located in New Mexico; and

I. "statewide cyber academy" means the department's collaborative program that offers distance learning courses to all local distance learning sites. History: Laws 2007, ch. 292, § 2 and Laws 2007, ch. 293, § 2.

**Duplicate laws.** — Laws 2007, ch. 292, § 2 and Laws 2007, ch. 293, § 2 enacted identical new sections, effective June 15, 2007.

## 22-30-3. Statewide cyber academy created.

The "statewide cyber academy" program is created in the department. The statewide cyber academy is a collaborative program among the department, the higher education department, telecommunications networks and representatives of other state agencies engaged in providing distance education. The statewide cyber academy shall provide distance learning courses for grades six through twelve and professional development for teachers, instructional support providers and school administrators.

History: Laws 2007, ch. 292, § 3 and Laws 2007, ch. 293, § 3.

**Cross references.** — For the public education department, see 9-24-4 NMSA 1978.

For the higher education department, see 9-25-1 NMSA 1978.

**Duplicate laws.** — Laws 2007, ch. 292, § 3 and Laws 2007, ch. 293, § 3 enacted identical new sections, effective June 15, 2007.

The Statewide Cyber Academy Act was enacted as part of the Public School Code, 22-1-1 NMSA 1978. The department referred to in the Statewide Cyber Academy Act means the public education department, 22-1-2 NMSA 1978.

#### 22-30-4. Department rules.

The department shall promulgate rules to carry out the provisions of the Statewide Cyber Academy Act [22-30-1 NMSA 1978].

History: Laws 2007, ch. 292, § 4 and Laws 2007, ch. 293, § 4.

**Effective dates.** — Laws 2007, ch. 293, contains no effective date provision, but, pursuant to N.M. Const., art. IV, § 23, is effective June 15, 2007, 90 days after the adjournment of the legislature.

**Compiler's notes.** — Laws 2007, ch. 292, § 4 and Laws 2007, ch. 293, § 4 enacted identical new sections, effective June 15, 2007.

# 22-30-5. Statewide cyber academy; duties.

The statewide cyber academy shall:

A. establish a distance learning course delivery system that is efficient and cost-effective and that uses a statewide service center and regional hosts to provide approved distance learning courses;

B. select regional hosts based on pre-existing experience and capacity to facilitate the delivery of distance educational programs, including public post-secondary educational institutions, regional education cooperatives and school districts;

C. provide technical and program support to regional hosts and local distance learning sites;

D. ensure that all distance learning courses offered by course providers are taught by highly qualified teachers or members of the faculty of accredited post-secondary educational institutions and meet state academic content and performance standards;

E. provide for reasonable and equitable means to allocate the costs of distance learning courses among the statewide cyber academy, the course providers and the school districts whose students are enrolled in a distance learning course;

F. give first priority to the delivery of distance learning courses for credit to distance learning students who have the greatest need because of geographic location or circumstances in which a school district may have difficulty delivering essential course instruction due to financial restraints or lack of highly qualified teachers; provided that in fiscal year 2008 the statewide cyber academy shall include, among those distance learning students who are determined to have the greatest need, distance learning students served by school districts that are members of regional education cooperatives three, eight and nine;

G. ensure that the statewide cyber academy's learning management system is compatible with school district and department data collection, analysis and reporting systems;

H. ensure that all deficiencies in the infrastructure, hardware and software in the statewide cyber academy are corrected in accordance with educational technology adequacy standards pursuant to Section 22-15A-11 NMSA 1978;

I. comply with all rules governing privacy and confidentiality of student records for secure record storage;

J. offer distance learning courses to distance learning students;

K. offer professional development via distance learning, using a learning management system;

L. assist the council on technology in education in its development of the statewide plan required by Section 22-15A-7 NMSA 1978, including a statewide cyber academy plan that addresses short- and long-range goals;

M. define and coordinate the roles and responsibilities of the collaborating agencies to establish a distance learning governance and accountability framework; and

N. conduct an annual evaluation and provide an annual report to the department and the legislature that includes a detailed report of expenditures; a description of services provided, including the number and location of local distance learning sites, public schools and distance learning students served; the courses offered; the credits generated by local distance learning sites; and student and teacher accountability reporting data.

History: Laws 2007, ch. 292, § 5 and Laws 2007, ch. 293, § 5.

**Compiler's notes.** — Laws 2007, ch. 292, § 5 and Laws 2007, ch. 293, § 5 enacted identical new sections, effective June 15, 2007.

# 22-30-6. Distance learning students.

A. A student must be enrolled in a public school or a state-supported school and must have the permission of the student's local distance education learning site to enroll in a distance learning course. A distance learning student shall only be counted in the student's primary enrolling district for the purpose of determining the membership used to calculate a school district's state equalization guarantee. A student shall have only one primary enrolling district.

B. A home school student may participate in the statewide cyber academy by enrolling for one-half or more of the minimum course requirements approved by the department for public school students in the school district in which the student resides; or, if the student is enrolled for less than one-half of the minimum course requirements, the student may participate in the statewide cyber academy by paying not more than thirty-five percent of the current unit value per curricular unit.

C. A student enrolled in a nonpublic school may participate in the statewide cyber academy if the school in which the student is enrolled enters into a contract with the school district in which the nonpublic school is located.

D. A student who is detained in or committed to a juvenile detention facility or a facility for the long-term care and rehabilitation of delinquent children may participate in the statewide cyber academy if the facility in which the student is enrolled enters into a contract with the school district in which the facility is located.

History: Laws 2007, ch. 292, § 6 and Laws 2007, ch. 293, § 6.

**Compiler's notes.** — Laws 2007, ch. 292, § 6 and Laws 2007, ch. 293, § 6 enacted identical new sections, effective June 15, 2007.

# 22-30-7. Distance learning and computer-based courses.

Public schools that offer distance learning and computer-based courses of study shall provide accompanying electronic formats that are usable by a person with a disability using assistive technology, and those formats shall be based on the American standard code for information interchange, hypertext markup language and extensible markup language.

History: Laws 2003, ch. 162, § 2; recompiled by Laws 2007, ch. 292, § 11 and Laws 2007, ch. 293, § 11.

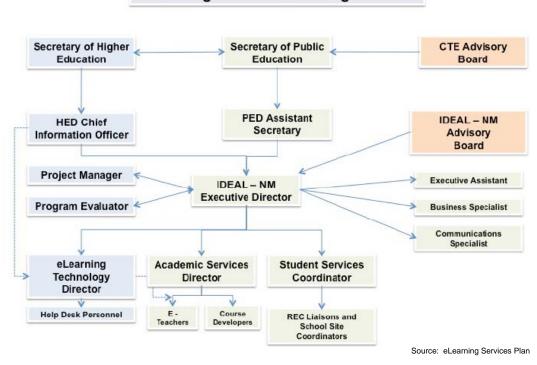
**Recompilations.** — Laws 2007, ch. 292, § 11 and Laws 2007, ch. 293, § 11, effective June 15, 2007, recompile former 22-13-27 NMSA 1978 into the Statewide Cyber Academy Act as 22-30-7 NMSA 1978.

# 22-30-8. Evaluation of regional education cooperative distance learning networks.

A network developed by regional education cooperatives three, eight and nine shall serve as a regional host in fiscal year 2008. The statewide cyber academy shall provide a preliminary report to the governor and the legislature by January 1, 2008 on the quality and cost-effectiveness of the provision of distance learning courses by the regional education cooperatives. At the end of fiscal year 2008, the statewide cyber academy shall prepare a final report on the quality and cost-effectiveness of services provided, including whether the services increased the rigor of school district and charter school curricula, and make recommendations for the expansion to other regional education cooperatives. History: Laws 2007, ch. 292, § 7 and Laws 2007, ch. 293, § 7.

**Duplicate laws.** — Laws 2007, ch. 292, § 7 and Laws 2007, ch. 293, § 7 enacted identical new sections, effective June 15, 2007.

# APPENDIX D



eLearning Service Center Organization

# **APPENDIX E**

	Deliverable Description	Amount
RECs 3,		
8, and 9	Periodic Training Workshops	\$69.0
	Outreach Plan To Promote Online Learning	\$15.0
	Facilitate Evaluation Feedback	\$6.0
	Data On Outcome And Suggestions For Improvement	\$15.0
	Other Expenses And Administration	\$15.0
REC 10	Accounting, Policy And Procedure, Budget And Reimbursement Process	\$3.0
	Billing Services	\$2.5
	Prepare Contractor Agreements	\$4.0
	Contractor Payments	\$4.0
	Facilitate IGAsWith Districts	\$2.5
	Revenue And Expenditure Accounting And Reports To PED	\$4.0
	Online Course Content, Furniture, Equipment, Facility Lease	\$139.0
NMSU	eTeacher Trainers	\$13.0
	Benefits	\$2.2
	Communication	\$0.4
	Training Participant Stipend	\$5.5
	Travel and Per diem	\$8.0
	Supplies and Materials	\$0.2
	Indirect Costs	\$2.3
	Program Director Salary	\$8.0
	Project Coordinator Salary	\$12.0
	Technical Assistant Salary	\$2.6
	Benefits	\$6.6
	eTeacher Course Stipends	\$4.4
	eTeacher Meeting/Evaluation/Professional Development	\$6.6
	Indirect Costs	\$3.2
	Total	\$354.0

# Intergovernmental Agreements for IDEAL-NM-Related Services

Source: Inter-governmental Agreements

# **APPENDIX F**

Aventa Courses <sup>(1)</sup>		NM-Developed Courses	
District	Number of Students	New Mexico History	
Alamogordo	49	District	Number of Students
Bloomfield	3	Aztec	2
Cimarron	3	Bloomfield	5
Corona	4	Las Cruces	1
Gadsden	1	Shiprock	3
Hondo	3	Total	11
Jal	2		
Jemez Mountain	10	4	Algebra I <sup>(2)</sup>
Las Cruces	1	Shiprock	4
Shiprock	57	Total	4
Socorro	34		
Springer	4		
Total	171	Grand Total	15
Total Students Participating in Pilot			186

# Table 1. Participating Districts And Number of Students Spring 2008 Pilot

Total Students Participating in Pilot(1)Aventa courses donated by New Mexico Learning Network(2)Algebra I created and donated by APS

Source: IDEAL NM

# Table 2. Top Twelve Districts Receiving Supplemental Emergency Funding2005 – 2008

District	Actual 2005-2006	Actual 2006-2007	Actual 2007-2008	TOTAL 2005 - 2008
Maxwell	\$620,000	\$500,000	\$413,000	\$1,533,000
Hondo	\$588,985	\$748,664	\$564,000	\$1,901,649
Wagon Mound	\$430,000	\$575,000	\$425,000	\$1,430,000
Roy	\$400,000	\$500,000	\$305,000	\$1,205,000
Mosquero	\$308,433	\$493,000	\$450,000	\$1,251,433
Lake Arthur	\$284,042	\$518,000	\$645,000	\$1,447,042
Corona	\$251,717	\$345,000	\$518,300	\$1,115,017
Vaughn	\$220,881	\$200,000	\$370,000	\$790,881
Springer	\$200,000	\$340,000	\$288,000	\$828,000
Ft. Sumner	\$200,000	\$265,000	\$285,000	\$750,000
Reserve	\$105,000	\$145,000	\$60,000	\$310,000
Des Moines			\$237,000	\$237,000

Source: PED

Elective Courses		Credit Recov	ery
Aventa Course Title	Number of Students	Aventa Course Title	Number of Students
American History		Almahun 10	2
American History	1	Algebra IA	3
Art Appreciation	1	Algebra IIA	1
Computer Fundamentals Block	2	American Government	4
Computer Fundamentals Semester	2	American History A	5
Digital Video Production	1	American History B	3
Driver's Education	1	Biology A	1
English III Semester 2 Section 2	1	Earth Science A	1
English IV Block	3	Earth Science B	1
Fine Arts Semester 1 Section 2	1	Economics	1
French 1 Semester 2	1	English IA	4
French 1 Block	32	English IB	3
French 2 Block	13	English IIA	2
French 3 Block	1	English IIB	5
French 4 Block	1	English IIIA	1
French 1 Semester1	3	English IIIB	1
German I Block	7	Pre-Algebra A	2
German I Semester 2	18	Pre-Algebra B	1
German II Semester 1	9	World History A	5
Health	1	World History B	3
Integrated Math Block	4	Physical Science A CR	2
Integrated Math Semester 1	3	Total	49
Latin I	1		·
NM Art Appreciation	1		
NM Career Planning	2		
NM Health	1		
NM Web Design	3		
Nutrition and Wellness Section	1		
Physical Education Block	1		
Pre Algebra Block	1		
Pre-Calculus	1		
Programming 1 - C++	1		
Psychology	1		
Trigonometry	2		
Total	122		
Total Number of Students Participat		t Courses	171
		0001363	171

# Table 3. Spring 2008 Pilot Courses Offered at 12 School Districts

Source: IDEAL NM

# **APPENDIX G**

Summary of LFC District Survey of Current Distance	Course Offerings
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	Percent of Total Responses	
	Yes	No
Do you know about the Innovative Digital Education and Learning initiative (IDEAL-NM)?	89%	11%
Are you currently offering online courses?	76%	24%
If you are offering online classes, are you tracking student performance?	84%	16%
If you are offering online classes, are they taught by highly qualified teachers?	92%	8%
Number of Students enrolled in online courses	Fall 2007	Spring 2008
FALL 2007 response averaged 53.64 enrollments of the 36 responders	95%	92%
SPRING 2008 response averaged 44.34 enrollments of the 35 responders		
How are online courses offered?		
WebCT	27%	
BlackBoard	9%	
ITV	32%	
Aventa	18%	
Other	59%	
Percent Total equals 144% which may be because some district use multiple delivery methods for offering courses.		
If you are currently offering online courses, how will your offerings be melded into the statewide cyber academy?		
We will offer only our own courses	28%	
Our courses will become part of the statewide cyber academy	3%	
We will use only the statewide cyber academy	3%	
We will offer courses through both	67%	
What is the telecommunication speed at your schools for student-accessible computers?		
56K	0%	
Partial T-1	7%	
Full T-1	52%	
Fiber	39%	
Other	9%	

Source: LFC Survey

# **APPENDIX H**

Student Generated Revenue:		
Student Generated Revenue:		
Current Unit Value X	Average Units per Member	= AVG SEG
\$3,645.37	1.9	\$6,926.96
Generated Revenue:		
SEG	Number of Classes a Student Takes	Revenue Generated per Class from a Student
\$6,926.96	6	\$1,154.49
Total Revenue per Class:		
Student Generated Revenue per Class per Year	Semesters	Student Generated Revenue per Class per Semester
\$6,926.96	2	\$577.25
Teachers Salary Cost:		
Average Teacher Salary	Average Number of Classes	Salary Cost per Class
*\$59,077	5	\$ 11,815
(LFC Calculation*) \$ 53,357	6	\$8,893
Salary Cost per Class	Semesters	Teacher Salary Cost per Semester Class
\$11,815.40	2	\$5,907
(LFC Calculation*)		
\$8,892.87	2	\$ 4,446
Salary per Semester	Number of Students per Class	Salary Cost per Student per Semester
\$5,906.70	30	\$196.91
(LFC Calculation*)		
\$4,446.44	30	\$148.21

#### Comparison of IDEAL-NM Credit Value to LFC Recalculated Value

Source: LFC Analysis Use of both calculations provides a range of \$150-200 value. Provides an amount of \$377 to \$427 for district overhead costs on a per class basis.

\*Average Salary and Number of Classes differ; average Salary from PED budget division; 18% benefit rate, number of classes counted as 6 due to planning period, for calculation of student value.