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September 12, 2006

MEMORANDUM

TO: Legislative Education Study Committee

FR: Kathleen Forrer

RE: STAFF BRIEF: COLLEGE/WORKPLACE READINESS AND HIGH SCHOOL REDESIGN: HIGH SCHOOL CAREER CLUSTERS

The 2006 Interim Workplan of the Legislative Education Study Committee (LESC) includes a presentation on the high school reform model called "Career Clusters."

Issues:

- In 1999, the US Department of Education's (USDE) Office of Vocational and Adult Education (OVAE) adopted 16 career clusters, designed to be the framework for an integrated curriculum that would provide students with the academic and technical skills that they would need when they entered the workforce. (See "Background.")

- Initially, the USDE provided seed money under the federal *Carl D. Perkins Vocational and Technical Education Act of 1998* (Perkins Act) to develop curriculum frameworks and instructional resources related to five career clusters. In 2001, the National Association of State Directors of Career and Technical Education Consortium received Perkins funds to assume oversight of the initiative, develop materials for 11 remaining clusters, and disseminate the model, now named the States' Career Clusters Initiative.

- In 2002, the OVAE sponsored the College and Career Transitions Initiative (CCTI), the primary goal of which is "to help community colleges, working with high schools and business partners, to create career pathways that lead from high school to 2- and 4-year degrees and technical careers." Administered by the League for Innovation in the Community College, CCTI has five specific "outcome" goals:

- decreased need for remediation at the postsecondary level;
- increased enrollment persistence in postsecondary education;
- increased academic and skill achievement at the secondary and postsecondary levels;
- increased attainment of postsecondary degrees, certificates, or other recognized credentials; and
- increased entry into employment or further education.

- During the 2004 interim, in connection with the high school reform effort being implemented in New Mexico, the LESC heard presentations from Rio Rancho and Gadsden high schools regarding their progress in implementing the career pathways model.

- In 2005, the Legislature considered SB 996, *Career Pathways Student Pilot Project*, to appropriate $500,000 to the Career Pathways Pilot Project Fund for five existing and seven additional high school career pathways projects. However, the bill did not pass.

- The Perkins Act provides federal funds to states to support Career and Technical Education (CTE) programs, and it awards a majority of available funds as grants to state education agencies. The federal budget proposed by the President in February 2005 would have eliminated separate funding for the Perkins Act and rolled the approximately $1.3 billion Perkins Act appropriation into the funding for the federal *No Child Left Behind Act of 2001* for high school reform. However, bipartisan support in both the US House of Representatives and the US Senate led to reauthorization of the legislation, and, on August 12, 2006, the *Carl D. Perkins Career and Technical Education Improvement Act of 2006* (Perkins 2006) was signed into law.

- According to Federal Funds Information for States (FFIS), a joint subscription service of the National Governors Association and the National Conference of State Legislatures, this most recent reauthorization of the Perkins legislation:

  … calls for some changes to vocational education programs. The accountability requirements for these programs are now aligned with other federal education and training programs. A new emphasis is placed on developing stronger ties between high schools, colleges and businesses to better meet the needs of the workforce. New requirements are placed on states to develop a logical sequence of courses, both high school and college, that will lead to an industry-recognized credential (certificate or post-secondary degree) upon completion. Lastly, a stronger academic focus is encouraged that promotes an emphasis on academic instruction for career and technical education programs consistent with federal education programs like *No Child Left Behind*.

- Although the Perkins Act had not yet been reauthorized, the US Congress had continued funding for federal fiscal year 2006 (school year 2006-2007). In order to receive Perkins funding, states must have an approved state plan that specifies the state's strategy for improving students' academic and technical skills. PED has selected career pathways to address this requirement, and applications from schools to PED for Perkins funds for school year 2006-2007 were required to include a career pathways implementation plan.

- According to PED, 59 public high schools plus two Bureau of Indian Affairs secondary schools in New Mexico will receive a total of approximately $3.5 million in Perkins basic grant funds in school year 2006-2007 for career and technical education (see Attachment 1). Each of these schools participated in staff professional development regarding career pathways in school year 2005-2006. Each school will use its school year 2006-2007 Perkins grants for career pathways implementation.

  - Several schools, including Chaparral High School in Gadsden, Rio Rancho High School, Pecos High School, and Loving High School have fully implemented a school-wide career pathways framework.

  - Thirteen schools will implement career pathways school-wide as a framework for restructuring based on the "High Schools That Work" (HSTW) school improvement model:

    - HSTW integrates academic and career and technical studies using research-based practices to raise standards and bring greater rigor to academic and career and technical education.
    - According to PED, longitudinal research data show that, when correctly implemented, HSTW results in improved student achievement.
    - The schools implementing the HSTW framework and career pathways are Bernalillo, Cibola (Grants-Cibola County Schools), Farmington, Laguna-Acoma, Loving, Lovington, Pecos, Piedra Vista (Farmington Municipal Schools), Robertson (Las Vegas City Public Schools), Career Preparatory Alternative (Central Consolidated Schools), Lake Arthur, Los Lunas, and Dexter high schools. (See Attachment 1.)

- On August 29, 2006, Governor Richardson held a press conference at Eclipse Aviation in Albuquerque to announce the issuance of the *Work in New Mexico: New Mexico Career Clusters Guidebook*, which was created by the Governor's Workforce Coordination and Oversight Committee (see Attachment 2). According to the Governor's press release, the guidebook "outlines where the jobs are and what skills are needed to get these jobs" and is designed for use by anyone "who wants to work in New Mexico."

- The new guidebook is structured around seven New Mexico specific career clusters identified by the Governor's Workforce Coordination and Oversight Committee through a process that included:

  - review of the 16 nationwide career clusters established by the USDE (see "Background");
  - coordination with the existing PED career clusters initiative; and
  - consultation in focus groups with industry leaders to identify the workforce competencies and academic and technical skills necessary to serve the seven career clusters.

- The seven clusters, which according to the guidebook "incorporate the [16] national career clusters," are:

  - Arts and Entertainment;
  - Business Services;
  - Communications and Information;
  - Energy and Environmental Technologies;
  - Engineering, Construction and Manufacturing;
  - Health and Biosciences; and
  - Hospitality and Tourism.

Background:

- The terms "career cluster," "career pathway," and "career academy" are sometimes used interchangeably, according to the National Association of State Directors of Career and Technical Education Consortium, but may be distinguished as follows:

  - "cluster" denotes one of the 16 federal umbrella career categories and serves as an organizer for instruction;
  - "pathway" indicates the professional and occupational opportunities within each cluster; and
  - "academies" means career-focused schools within schools.

- The College and Career Transitions Initiative defines a career pathway as "a coherent, articulated sequence of rigorous academic and career courses, commencing in the ninth grade and leading to an associate degree, an industry-recognized certificate or licensure, or a baccalaureate degree and beyond." In its report entitled *Career Clusters: A Plan of Education for a Global Economy*, the Consortium also stresses rigor: "All high school graduates must have the knowledge and skills to enter employment and postsecondary education. This requires an educational system that is seamless with numerous exit and re-entry points and a curriculum that emphasizes employability and technical skills integrated with rigorous academic content."

- According to the Consortium, almost all states are implementing career clusters in some form. The following are the 16 clusters adopted by the Office of Vocational and Adult Education in 1999:

  - Agriculture, Food, and Natural Resources;
  - Architecture and Construction;
  - Arts, A/V Technology, and Communications;
  - Business, Management, and Administration;
  - Education and Training;
  - Finance;
  - Government and Public Administration;
  - Health Science;
  - Hospitality and Tourism;
  - Human Services;
  - Information Technology;
  - Law, Public Safety, and Security;

- Manufacturing;
- Marketing, Sales, and Service;
- Science, Technology, Engineering, and Mathematics; and
- Transportation, Distribution, and Logistics.

- Each cluster includes two to seven pathways requiring a common set of knowledge and skills. For example, the Government and Public Administration cluster consists of seven pathways: governance, national security, foreign service, planning, revenue and taxation, regulation, and public management and administration. There are 81 pathways in the 16 clusters, each including dozens of specific occupations.

- In a January 2006 report entitled *Through Diversity Comes Strength*, the Consortium observes the following:

  While the 16 Career Clusters are the starting point, many states have customized the career clusters to fit their state's economic and labor market needs. The top two Career Clusters that states are focusing on are Health Science and Manufacturing, followed by Agriculture Food and Natural Resources; Architecture and Construction; and Arts/AV Technology and Communications. To date, the Government and Public Administration Cluster is being implemented in the least number of states. (See Attachment 3.)

Presenters:

Dr. Veronica C. García, Secretary of Public Education, will provide background information regarding the implementation of career clusters in New Mexico and discuss the PED's role in implementing the Governor's career cluster initiative; Ms. Terri Cole, President of the Greater Albuquerque Chamber of Commerce and Chair of the Governor's Workforce Coordination and Oversight Committee (COC), will discuss the work of the COC in developing the seven New Mexico Career Clusters and the accompanying resource book entitled *Work in New Mexico: New Mexico Career Clusters Guidebook*; and Ms. Sheila Raihl, Director of Instructional Support for the Gadsden Independent Schools, will provide an update on the implementation of career pathways at Chaparral High School.

Questions the committee may wish to consider:

1. If career pathways improve academic achievement for all students, how is this accomplished and what data exists to substantiate this achievement?

2. What does research or past experience indicate regarding which students benefit most from a career pathways approach?

3. What criteria will be used to evaluate career pathways programs funded through PED, and who is responsible for evaluation?

4. What are the circumstances necessary in order to successfully implement and sustain career pathways, and what lessons have schools in New Mexico and the nation learned in this process?

5. What are the costs of implementing and sustaining career pathways, and what have been the funding sources from state, federal or private sources used to support this approach?

6. What curriculum changes will districts that have already implemented one or more of the 16 federal career clusters be required to make to accommodate the seven new state specific clusters?

7. How will the changes in the reauthorized version of the Perkins Act affect New Mexico's implementation of career clusters/career pathways?

ATTACHMENT 1

CARL D. PERKINS VOCATIONAL AND TECHNICAL EDUCATION ACT
2006-2007 Tentative Grant Awards

2006-2007 Total Grant Available	$3,543,320	
Entity	**Tentative Allocation**	
Secondary		
1) Albuquerque Public Schools	$1,069,132	(10 high schools - Albuquerque HS, Cibola HS, Del Norte HS, Eldorado HS, Highland HS, Manzano HS, Rio Grande HS, Sierra Alternative, Valley HS, West Mesa HS)
2) Belen Consolidated Schools (consortia)	$97,525	(Belen HS, Estancia HS, Magdalena HS, Mountainair HS)
3) Bernalillo Public Schools	$69,494	
4) Carlsbad Municipal Schools	$75,055	
5) Central Consolidated Schools	$136,160	(Central HS, Newcomb HS, Shiprock HS, Career Prep HS)
6) Clovis Municipal Schools	$118,561	
7) Deming Public Schools	$93,083	
8) Farmington Municipal Schools	$125,152	(Farmington HS, Piedra Vista HS)
9) Gadsden Independent Schools	$235,811	(Gadsden HS, Santa Teresa HS, Chaparral HS)
10) Gallup/McKinley County Schools	$289,301	(Crownpoint HS, Gallup HS, Navajo Pine HS, Ramah HS, Thoreau HS, Tohatchi HS, Gallup Central Alternative HS)
11) Grants-Cibola County Schools	$75,374	(Grants HS, Laguna-Acoma HS)
12) Hatch Municipal Schools	$31,099	
13) Hobbs Municipal Schools	$90,161	
14) Las Cruces Public Schools	$307,404	(Las Cruces HS, Mayfield HS, Onate HS, San Andres HS)
15) Los Lunas Public Schools	$104,835	(Los Lunas HS, Valencia HS)
16) Lovington Public Schools	$32,194	
17) Portales Municipal Schools	$43,470	
18) Rio Rancho Public Schools	$67,209	
19) Santa Fe Public Schools	$167,205	(Capital HS, Santa Fe HS)
20) Silver Consolidated Schools	$44,852	(Cliff HS, Silver HS)
21) Socorro Consolidated Schools	$32,442	
22) Taos Municipal Schools	$50,932	
23) Truth or Consequences Municipal Schools	$29,116	
24) Tucumcari Public Schools	$19,317	
Regional Education Cooperatives: (consortia)		
25) Region IX Education Cooperative	$49,651	(Ruidoso HS, Carrizozo HS, Cloudcroft HS, Mescalero HS)
Secondary BIA Schools:		
26) Alamo Navajo	$25,667	
27) Santa Fe Indian School	$63,118	
SUBTOTAL	**$3,543,320**	

2006-2007 Grant Amount	$540,000
Entity	**Tentative Allocation**
High Schools That Work	
1) Albuquerque Public Schools ~ Cibola HS	$40,000
2) Bernalillo Public Schools ~ Bernalillo HS	$40,000
3) Farmington Municipal Schools ~ Farmington HS	$40,000
4) Farmington Municipal Schools ~ Piedra Vista HS	$40,000
5) Grants Cibola County Schools ~ Laguna-Acoma HS	$40,000
6) Las Vegas City Schools ~ Robertson HS	$40,000
7) Loving Municipal Schools ~ Loving HS	$40,000
8) Lovington Public Schools ~ Lovington HS	$40,000
9) Pecos Indpendent Schools ~ Pecos HS	$40,000
10) Dexter Consolidated Schools ~ Dexter HS	$45,000
11) Lake Arthur Municipal Schools ~ Lake Arthur HS	$45,000
12) Central Consolidated Schools ~ Career Prep HS	$45,000
13) Los Lunas Public Schools ~ Los Lunas High School	$45,000
SUBTOTAL	**$540,000**

ATTACHMENT 2

GOVERNOR'S WORKFORCE COORDINATION AND OVERSIGHT COMMITTEE

Chair Terri L. Cole, president and CEO, Greater Albuquerque Chamber of Commerce
Len Malry, acting executive director, Office of Workforce Training and Development
Rick Homans, cabinet secretary, Department of Economic Development
Beverlee McClure, cabinet secretary, Higher Education Department
Conroy Chino, cabinet secretary, Department of Labor
Veronica García, cabinet secretary, Public Education Department
Katie Falls, deputy cabinet secretary, Human Services Department
Danny Sandoval, deputy cabinet secretary, Department of Children, Youth and Families
Tom Battin, chairman of the Board of State National Bank, Ruidoso
Norman Becker, a consultant and former president and CEO of Lovelace Sandia Health System
Debbie Johnson, CEO of Rick Johnson Company
Joseph Semprevivo, CEO of Joseph's Lite Cookies, Deming
Rebecca Rowley, Clovis Community College Interim President
Sue Cleveland, Rio Rancho Schools Superintendent
Chris Romero, President of International Union of Painters and Allied Trades (IUPAT)
State Representative Brian Moore
State Senator Phil Griego
State Senator Ben D. Altamirano, President Pro-Tempore

Source: "Governor Bill Richardson Announces the Work in New Mexico Career Clusters Guidebook," press release, Office of the Governor, August 29, 2006.

ATTACHMENT 3

Career Cluster Implementation

	Yes	No	We plan to in the future
Agriculture, Food and Natural Resources	**36**	4	6
Architecture and Construction	**36**	4	6
Arts, A/V Technology and Communications	**35**	3	8
Business, Management and Administration	**36**	4	6
Education and Training	**23**	13	10
Finance	**29**	10	7
Government and Public Administration	17	**20**	9
Health Science	**37**	2	7
Hospitality and Tourism	**34**	4	8
Human Services	**31**	8	7)
Information Technology	**34**	4	8
Law, Public Safety, Corrections, and Security	**29**	12	5
Manufacturing	**37**	4	5
Marketing, Sales, and Service	**34**	5	7
Science, Technology, Engineering and Mathematics	**34**	5	7
Transportation, Distribution and Logistics	**32**	6	8

Note: The data in this table were derived from survey responses submitted by 45 states plus the District of Columbia. The following five states did not participate: Alaska, Connecticut, Georgia, New Mexico, and North Carolina.

Source: National Association of State Directors of Career and Technical Education Consortium, *Through Diversity Comes Strength: A State Profile/Survey Synthesis of CTE*, January 2006