

CHANGE REQUEST for FY 08-09 BUDGET REQUEST CYCLE

Department:	Labor & Employment, Employment & Training Programs
Priority Number:	2 of 3
Change Request Title:	Funding for the WELLS Center

SELECT ONE (click on box):

- Decision Item FY 08-09
- Base Reduction Item FY 08-09
- Supplemental Request FY 07-08
- Budget Request Amendment FY 08-09

SELECT ONE (click on box):

Supplemental or Budget Request Amendment Criterion:

- Not a Supplemental or Budget Request Amendment
- An emergency
- A technical error which has a substantial effect on the operation of the program
- New data resulting in substantial changes in funding needs
- Unforeseen contingency such as a significant workload change

Short Summary of Request:

This Supplemental requests \$1.4 million in federal funding for operation of the Work, Education, and Lifelong Learning & Simulation (WELLS) Center, a facility used to train faculty and students in the nursing industry. The request is for Reed Act funds (federal) for FY2007-08 with authority to roll forward unspent funds through FY2009-10. The Reed Act funds will refinance \$1.4 million of the current Employment Support Fund (ESF) appropriation and the \$1.4 million in refinanced ESF will then be used to fund the WELLS Center. The refinancing will occur in the Employment and Training Programs, State Operations line item.

Background and Appropriation History:

The Colorado Department of Labor and Employment (CDLE) received a \$1.6 million grant from the U.S. Department of Labor under the President's High Growth Job Training Initiative which ended June 30, 2007. This grant along with in-kind contributions from several partners enabled the development of the Work, Education, and Lifelong Learning & Simulation (WELLS) Center. The goals of the initiative were to increase the number of trained faculty to support the increased demand for training in healthcare education and to train new and incumbent workers in healthcare occupations;

improve the quality of that workforce, and reduce the time it takes to produce a quality workforce in the healthcare industry. The WELLS Center is the only facility in Colorado and in the nation that is able to offer this comprehensive and complete array of state-of-the-art patient simulation tools for building clinical knowledge for new nursing students in critical care and the operating rooms. The high-speed data casting technology supports the deployment of the Center's unique resources to all parts of the State. Students, faculty and practicing nurses and physicians from throughout Colorado can enhance their diagnostic and clinical skills at the WELLS Center either on-site or on-line.

The U.S. Department of Labor (USDOL) promised additional funding of \$1.4 million to the CDLE, to continue development of this national healthcare training model, however, due to Congressional budget cuts, the promised funding is no longer available and additional funds are now necessary to carry this initiative forward.

The WELLS Center is a unique statewide collaboration among industry partners, educators and the Workforce system and has garnered such support that a Governance Board of high-level executives was formed this year. The Center's Research and Development (R&D) value to the State is so critical that a Business Plan for sustainability is currently in process. The Board seeks to have the Center fully supported by fee-for-service by 2011.

The WELLS Center is the result of an investment of roughly \$3 million, primarily federal and state public sector funds, that have been leveraged to create a simulated hospital setting on the Fitzsimons Bio-Sciences Park, hire Center staff, purchase equipment, support Rocky Mountain Public Broadcast System (PBS) data casting and create blended training that marries the Visible Human Dissector anatomy with the Human Patient Mannequins to create multi-dimensional learning modalities. These resources support the development of a "state-of-the-art simulation-based training facility focused on increasing the pipeline of nursing students and specialty nurses, enhancing the skill sets of practicing and graduating nurses through enhancing safe practice thereby reducing risk to patients and liability to institutions, and reducing the clinical rotation requirements in

the field through the use of simulation. Simulated clinical rotation time counting toward graduation helps free up the bottleneck for graduating more nurses.

Building on the initial public sector sponsorship, the core challenge for the WELLS Center will be to transition into a sustainable institution with a diverse revenue base that is not primarily dependent on funding from federal grants and the State of Colorado. As the Center moves forward to develop fee-for-service revenue, there will be a time lag between the development of training scenarios and services provided. First, it will take time for the market to change its view of the Center's services from the "free, provided by government" to the "fee-for-services" perspective. Second, it will take time for the Center to develop a set of products and services that meet market expectations and generate ongoing revenue. It is because of these delays that public sector funding is so essential. It was initially anticipated that the \$1.4 million in funding promised by the USDOL would carry the center into long-term sustainability. However, with the inability of USDOL to fulfill this promise, the Center is in need of another source of funding.

The WELLS Center is currently in the first stage of a three-stage process of development.

1. The first stage is the startup, market and service exploration stage—characterized by a narrow and vulnerable revenue base, initial organizational development, informal organizational structure, an extremely diverse range of product and service activities "testing" market wants and needs, and a significant level of public relations and external marketing activities.

2. The second stage is the focus and product development stage—where the stage one experience enables the organization to narrow its initial set of diverse activities, focus its energies on specific market and product innovation and development, develop a formal organizational structure, strengthen customer relationships and new revenue streams, and begin to build core competencies that differentiate it and fulfill the purpose of its existence.

3. The third stage is the market engagement and sustainability stage—characterized by a deeper set of emerging and mutually beneficial customer-supplier relationships, a formal organizational and decision making structure, continued product focus, maturing development of the core competencies essential for sustainability, and the emergence of a diverse and stable set of revenue streams.

General Description of Request:

CDLE is requesting \$1.4 million to continue with the development of the WELLS Center, an innovative approach to help address Colorado's nurse shortage. The request is for Reed Act funds (federal) for FY2007-08 with authority to roll forward unspent funds through FY2009-10. Currently, there is approximately \$8 million available in Reed Act funds. The Department is further requesting a refinancing of \$1.4 million of Employment Support Fund (ESF) appropriations with Reed Act monies. Reed Act funds can be used for unemployment insurance programs, employment and training programs, and information technology projects. The Department has \$6.4 million of ESF appropriations that are eligible under the federal rules to be refinanced with Reed Act funds. Refinancing \$1.4 million allows ESF funds to be available for the WELLS Center. The refinancing would occur in the Employment and Training Programs, State Operations line item.

This request was necessitated by the loss of funding from the USDOL Employment and Training Administration of \$1.4 million in discretionary funding promised to support innovation in addressing the critical healthcare shortages in nursing nationally and in Colorado. With this funding, this initiative will help increase the number of trained faculty to support the increased demand for training in healthcare education and increase the number of trained nurses in healthcare occupations; improve the quality of that workforce, and reduce the time it takes to produce a quality workforce in the healthcare industry. The WELLS Center is the only facility in Colorado and in the nation that is able to offer a complete array of state-of-the-art patient simulation and anatomy tools for building clinical knowledge, from critical care to the operating room. The high-speed data casting technology makes this unique resource available remotely to all parts of the State. Students, faculty and practicing nurses and physicians from throughout Colorado

can enhance their diagnostic and clinical skills at the WELLS Center either on-site or on-line.

In the next two years, it is anticipated that the WELLS Center will develop course offerings to generate revenue for sustainability in 2011. The need for such course offerings has been vetted with the healthcare industry partners statewide and the educational institutions. Courses will be offered to develop skills in the operating room, critical care, labor and delivery; multi-disciplinary teamwork for doctor's nurses, emergency room technicians (EMTs), and others to enable better communication and practice in hospital and emergency settings; hands-on experience for new or recent graduates from nursing school; and event specific training. In addition, a course targeting nurse educators who need to learn how to design scenarios, integrate simulation-based training into a curriculum, and develop other staff and students that can utilize simulation-based training and other instructor-focused simulation training will be developed. The proposed price for these in-depth courses is \$2,000 per person with a class size of 9 individuals; target customers are hospitals and other healthcare providers. The multi-disciplinary curricula to be developed will have the added advantage of being available online and through various unique technologies employed only at the WELLS Center, e.g., data casting, which supports real time transmission of data dense simulation and the hand-off of the control of the Center mannequins to groups who are remotely located.

In addition to the revenues generated from courses offered at the WELLS Center, partner cash contributions are estimated at \$136,000 during the request period, with an additional \$600,000 of in-kind contributions statewide from educational institutions and healthcare industry partners. These recipient and in-kind contributions are tracked by the State, and are calculated by using the time and salary of the individuals from the partner healthcare facilities and educational institutions who provide subject matter expertise for the development of the courses. Additionally, facilities who add their in-kind support for course development will gain recognition for their contributions through acknowledgements on the materials developed.

Adding to the proposed revenue generating approach, the WELLS Center will hire a grant writer to review and apply for requests for grant solicitations. The WELLS Center already has gained a reputation for research and development of innovative training tools. Given this reputation, the revenue generating capabilities can already be evidenced by a \$225,000 grant awarded the CDLE, who is currently the grant recipient and oversight entity for the WELLS Center, to develop simulated learning scenarios for the Colorado Trust's *5 Million Lives* campaign. These "safe practice learning modules" will be used statewide in 45 hospitals and healthcare facilities. The development of these tools is scheduled to begin in late November. Discussions are currently underway with Health One to develop specialty nurse training for their facility. The CDLE will oversee the Center until the newly created Governance Board, co-chaired by Don Mares, Executive Director for the Colorado Department of Labor and Employment and Joyce Cashman, Executive Vice-President for University of Colorado Hospital, is able to generate revenues that provide for the Center's sustainability and transition to a 501 (3) (c) entity.

Consequences if Not Funded:

Without this supplemental funding in FY2007-08 through FY2009-10, the WELLS Center will not have sufficient funding to keep its doors open or funding will need to be diverted from other workforce development activities. If the WELLS Center is closed, this will create not only a loss of \$3 million in investments but will negatively impact the first of its kind, public/private venture of competitors aligned around the improvement of safe practice and skilled competent nurses and healthcare workers to support Colorado's healthcare needs.

Also, without adequate training and enough nurses to fill the industry needs, lives will potentially be lost, care compromised and costs to hospital and insurance companies will be impacted.

In the last five years, more than 60 percent of Colorado's job growth came from health services (U.S. Bureau of Labor Statistics, quoted in *Business Week*, Sept. 25, 2006). The federal government projects that, by 2010, Colorado will have 17% fewer nurses than

needed, compared to a national shortage of 12% - and the shortfall will worsen to 31% by 2020 (“Projected Supply, Demand, and Shortages of Registered Nurses: 2000-2020,” U.S. Dept. Of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, national Center for Health Workforce Analysis, July 2002).

Data compiled on Registered Nurses by the Colorado Center for Nursing Excellence shows the following:

- Colorado’s increased demand for Registered Nurses (RN) between the years 2002-2012 is anticipated to be the 5th highest in the country.
- Health facilities of all types—hospitals, long-term care facilities, ambulatory care settings—struggle to recruit sufficient staff: In the second quarter of 2005, more than 80 percent of RN openings were advertised for 60+ days and considered difficult to fill.
- In 2005, average hourly wage for Colorado RNs in long-term care facilities was \$25.17; for RNs in hospitals, it was \$27.69.
- Estimated statewide demand for RNs over both the short (2005-2007) and long (2007-2014) terms:
 - **Short-term:** 7% overall growth – *2,220 openings total over two years*
 - **Long-term:** 46% overall growth – *2,000+ openings annually; nearly 15,000 new jobs over 10 years*
- For both the short and long terms, the vast majority of projected job openings are NEW jobs, not simply replacements. This indicates the potential for an ongoing, and growing, gap between demand and supply in the absence of focused strategies to grow supply.
- Colorado’s growing demand for nurses compared to that seen in neighboring states raises questions about competition among states for new graduates and relocating nurses.
- The annual number of graduates from Colorado’s nursing schools has increased markedly from 2003 to 2005, as schools have increased the size of their programs. Yet bottleneck to the production of new nurses remain, most notably an ongoing

shortage of faculty. Our four-year nursing schools have 15% fewer faculty members than they need, and the gap is even more pronounced at two-year institutions, with a 25% shortage (“2004 Colorado Nursing Faculty Supply and Demand Study,” Colorado Health Institute and Colorado Center for Nursing Excellence, Feb. 2005). At all schools, the shortage of clinical instructors is particularly pronounced.

Since the Center opened in July 2005, the WELLS Center has served a total of 6,745 customers through on and off-site simulation events, educational workshops, trainings, collaborative meetings, and educational tours of the high-tech facility. Not only are the numbers high, but the waiting lists are long. Participants represented nursing students, medical students, nursing and medical/paramedic faculty, high school students, and high school educators.

In addition, 294 clinical scholar nurses were enrolled in the Clinical Scholar training at the WELLS Center, of which 243 have completed the training. This highly successful training focuses on the use of simulation technology to enhance skill-based competencies. These scholars report they have completed 593 rotations of nursing students. At approximately six students in a rotation, at least 3,558 student nurses have been taught by scholars. This single training program will help to reduce the backlog of students waiting for their clinical rotations needed to graduate.

The WELLS Center is an R&D initiative which serves the nursing educational institutions as well as the nursing industry by providing a unique simulated experience. No other facility in the country combines simulation and anatomy curriculum and has the capacity to broadcast live training simultaneously to multiple sites statewide.

Calculations for Request:

Summary of Request FY 07-08	Total Funds	General Fund	Cash Funds	Cash Funds Exempt	Federal Funds	FTE
Total Request	\$1,400,000	\$0	\$0	\$0	\$1,400,000	0.0
Employment and Training Programs – State Operations*	\$1,400,000	\$0	\$0	\$0	\$1,400,000	0.0

*Add a new annotation: Of this amount, \$1,400,000 shall be from Reed Act Funds distributed to Colorado on March 13, 2002, Pursuant to Section 903(D) of the Social Security Act. These funds shall be used for employment and training program administration. It is the intent of the General Assembly that any unspent Reed Act funds will be available through FY2009-10.

Assumptions for Calculations:

Table 1 shows projected personal services, benefits and operating expenses from FY2007-2008 through FY2009-2010. Existing staff at the WELLS Center are not part of the Colorado Department of Labor and Employment. The building lease and utilities will be paid by the University of Colorado Hospital.

Estimated revenues are highly dependent on fees generated for training that will be offered at the WELLS Center and other contributions from partners in order for the Center to be self sustainable by 2011.

WELLS Center Projected Expenses			
Estimated Expenses	FY2007-08	FY2008-09	FY2009-10
Project Director	75,000	75,600	79,380
Curriculum Coordinator	50,400	62,000	65,100
Office Mgr/Admin Assistant	31,341	32,908	34,553
Sim Clinical Coordinator/Scenario Development	63,960	67,158	70,516
Sim Technical Coordinator/Scenario Dev	56,375	59,194	62,153
Sim Clinical Coordinator/Training		63,960	67,158
Sim Technical Coordinator/Training			59,194
Sim Clinical Coordinator/Training			70,516
Sim Technical Coordinator/Training			62,153
Sim Clinical Coordinator/Training			74,042
Employee benefits @ 15%	58,874	64,270	94,168
Subtotal WELLS Center Staff Expenses	335,950	425,090	738,933
Wells Board Coordinator	23,750	68,250	
Research Staff		60,000	66,150
Research Fellows/part-time		40,000	44,100
Executive Director			121,275
Employee benefits at 15%		15,750	34,729
Subtotal Other Staff Expenses	23,750	184,000	266,254
Training-related Supplies	35,000	42,000	50,400
Marketing expenses	35,000	30,000	
Travel, Meetings & Fees	64,040	27,646	31,793
Mannequin & Equipment Replacement & Repair	75,000	50,000	150,000
Mannequin Warranty Expense	6,000		45,000
Contractuals	13,000	20,000	21,000
Reserve/Contingency Fund		50,000	100,000
Equipment/Telephone	9,600	10,080	10,584
Building Lease/Utilities (estimate) To be paid by CU Hospital	43,144	45,301	47,566
Subtotal Non-staff Expenses	280,784	275,027	456,343
PBS Datacasting	60,000	30,000	30,000
Visible Human Dissector/Vic Spitzer	175,000	175,000	175,000
Total Expenses	875,484	1,089,117	1,666,530

WELLS Center Projected Revenues			
Estimated Revenues	FY2007-08	FY2008-09	FY2009-10
Colorado Department of Labor & Employment - Reed Act	400,000	600,000	400,000
Federal Funds from CDLE & CWDC (WIA & WP)	432,340	200,000	-
Contribution from Partners, Other Grants, Fees from Services	43,144	289,117	1,266,530
Total Revenues	875,484	1,089,117	1,666,530

Impact on Other Government Agencies:

The Colorado Workforce Development Council (CWDC) in the Department of Local Affairs receives the WIA discretionary federal funds from CDLE. The WELLS Center receives WIA discretionary funds from CWDC for current year personnel and operating costs. Without the requested additional Reed Act funds, the WELLS Center will need a greater combination of WIA Discretionary and Wagner Peysner funds to continue operating the WELLS Center. This will result in potentially fewer funds available for other workforce development initiatives that support economic development at the local, regional, and state levels if this request is not approved.

Cost/ Benefit Analysis:

At the request of the healthcare industry and educational institutions, the CDLE and CWDC created and implemented the WELLS Center. These partners shared a common need, they were unable to find nursing instructors and nurses to fill their large vacancies and/or improve the skill sets of their current workforce. Without adequate training and enough nurses to fill the industry needs, lives will be lost, care compromised and costs to hospital and insurance companies will be impacted. Additionally, business and individuals will not choose to relocate to a State that does not provide adequate healthcare for its workforce and the general population.

In a newly released 2007 report issued by PricewaterhouseCoopers' Health Research Institute, "What works - Healing the healthcare staffing shortage", the following costs were noted:

- **The process of educating and retaining new nurses is broken.** The number of denied applicants for nursing schools is at its highest ever, increasing more than six

fold since 2002. Turnover among newly hired hospital nurses is highest in the first two years.

- **Failure to retain nurses is costly and wasteful.** Every percentage point increase in nurse turnover costs an average hospital about \$300,000 annually. Hospitals that perform poorly in nurse retention spend on average, \$3.6 million more than those with high retention rates.

Research findings from PricewaterhouseCoopers' study note that future forces indicate that a new roadmap for workforce should be based on:

- **Developing public-private partnerships.** Widespread shortages have created an environment in which key healthcare players may no longer operate in silos. Rather, these groups must work collectively to promote nursing and physician programs, forging alliances to provide not only education but also required funding.
- **Encourage technology-driven training.** Improving clinical outcomes requires the seamless coordination of treatment among all clinical professionals. Advances in technology have enabled caregivers to work in concert with one another, allowing the focus to remain on quality patient care. Providers, for their part, must maximize available technology and encourage the adoption of and adherence to technical innovations to increase the productivity of medical staff. New technology, such as patient simulators, allows students to practice with various clinical scenarios and develop their diagnosis and treatment skills. This can result in greater accuracy and increase and exposure to varied clinical encounters, leading to improved outcomes.

The WELLS Center continues to develop public-private partnerships. Investment of roughly \$3 million, primarily federal and state public sector funds, have been leveraged to create a simulated hospital setting on the Fitzsimons Bio-Sciences Park, hire Center staff, purchase equipment, support Rocky Mountain Public Broadcast System (PBS) data casting and create blended training that marries the Visible Human Dissector anatomy with the Human Patient Mannequins to create multi-dimensional learning modalities.

In addition, the WELLS Center is the only facility in Colorado and in the nation that is able to offer a complete array of state-of-the-art patient simulation and anatomy tools for building clinical knowledge, from critical care to the operating room. The high-speed data casting technology makes this unique resource available remotely to all parts of the State. Students, faculty and practicing nurses and physicians from throughout Colorado can enhance their diagnostic and clinical skills at the WELLS Center, on-site or on-line.

Thus, the cost of investing in the WELLS Center will improve the delivery of training and education for nursing and healthcare workers in every region of Colorado and is a good investment with higher returns toward providing quality patient care and improving the economy within the community and state. This solution strives to enable Colorado citizens to be trained to meet the future healthcare needs of the State.

Implementation Schedule:

Task	Month/Year
Startup, Market and Service Exploration (1 st Stage)	Current – December 2008
Focus and Product Development (2 nd Stage)	January 2009 – December 2009
Market Engagement and Sustainability (3 rd Stage)	January 2010 – December 2010

Statutory and Federal Authority:

State:

Colorado Statutes: Colorado Revised Statutes: TITLE 8 LABOR AND INDUSTRY: LABOR III - EMPLOYMENT SECURITY: ARTICLE 71 WORK FORCE DEVELOPMENT: PART 2 WORK FORCE INVESTMENT ACT as amended in 2002:

8-71-223. Colorado Department of Labor and Employment – functions.

(1) The department shall serve as the administrative entity for Title I moneys received pursuant to the federal act. The department shall also be responsible for:

(a) Administering the statewide labor market information and fiscal systems to the extent such systems pertain to activities under the federal act;

(b) Assisting in the establishment and operation of one-stop career centers as requested by a local work force area;

(c) Disseminating lists of eligible training providers;

(d) Contracting and administering Title I moneys appropriated by the general assembly in accordance with the federal act;

(e) With input from the applicable work force investment areas, continuing the centralized computer system that links work force investment programs. Such system shall continue to include training and technical support. A description of the state centralized system and procedures for developing, maintaining, and training shall be included in the state plan required in section 8-71-209.

(f) Providing staff development and training services and technical assistance to local work force investment areas.

(2) The department shall provide ongoing consultation and technical assistance to each work force investment area for the operation of work force investment programs.

(3) The department shall encourage work force investment areas to inform individuals of the career possibilities in the field of nursing and the availability of practical nursing education programs.

Source: L. 2000: Entire part added, p. 1907, § 1, effective July 1. **L. 2002:** (3) added, p. 1302, § 23, effective June 7.

Federal:

Code of Federal Regulations, Title 20 Employment and Training Administration, Department of Labor, part 652 et al., Workforce Investment Act, Wagner Peysner Act. [48 FR 50665, Nov. 2, 1983, as amended at 64 FR 18761, Apr. 15, 1999; 65 FR 49462, Aug. 11, 2000]

Section 209 of the Temporary Extended Unemployment Compensation Act of 2002 (TEUCA), which is Title II of the Job Creation and Worker Assistance Act of 2002, Public Law 107-147, signed by the President on March 9, 2002; Unemployment Insurance Program Letter (UIPL) No. 39-97 (62 Fed. Reg. 63960 (December 3, 1997)); Training and Employment Guidance Letter 18-01 (April 22, 2002); and Training and Employment Guidance Letter 18-01 (May 8, 2002).

Performance Measures:

This High Growth Job Training Initiative is a special grant from USDOL addressing the critical healthcare shortages in Colorado. The performance measures for WDP do not measure the outcome of this request. However, two of the Division's objectives that relate to this request include:

- Workforce Development Programs shall develop strategies to address the needs of high growth industries, to enhance incumbent worker training, to coordinate services in collaboration with the Colorado Community College System and the Adult Education and Family Literacy Programs, and to expand labor exchange opportunities for businesses.

- Workforce Development Programs shall use special projects and discretionary grant funds to support the local workforce system's capacity to be market-driven, responsive to local economic needs, and to contribute to the economic well-being of the local community.