

Metro Denver Regional Partnership Quarterly Narrative Progress Report Submitted April 30, 2007

SECTION I: GENERAL GRANT INFORMATION

A. Grant Identification

Grantee: Colorado Department of Labor and Employment on behalf of the Metro Denver Region

Name of Project: *Growing our Own: A Model for Reducing Dependence on Imported Skills*

Grant Agreement Number: WR-15401-06-60; CFDA #: 17.261

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B. Summary of General Grant Activities



Higher Ed Panel Quarterly Report March 31, 2007

Higher Ed Panel The Higher Ed Panel held three meetings this quarter.

Meeting 1, January 17, 2007

The panel held its first meeting in January 2007. Panel members thought that WIRED could be transformative for the Denver region within a P-16 context, especially around the following topics:

- connections (*e.g.*, forming new, enlarging, and/or re-enforce existing connections between Higher Ed, industry, and K12; extending and aligning programs and curricula across institutions and sectors and vertically within institutions);

- engagement (*e.g.*, creating ways for students of all ages, including displaced and adult workers who need/want retraining, to engage with a Higher Ed system that crosses from community colleges to 4 year institutions);
- targeting appropriate audiences (*e.g.*, students of all ages because the increase in retirement rates means that demand is increasing and the pipeline is widening at the same time that its “fill material” is lessening, and the need for employable people across the spectrum of degrees—from entry level (2 year to BA or BA) to advanced degrees, and specific specialties at all levels);
- system needs; and
- improving data (*e.g.*, defining meaningful data, how to collect it, and how to share it in impactful ways; identifying “pockets of excellence” in existing programs that created multi-taskers, *e.g.*, engineers who can write, scientists who can draw.)

Panel convener, The Center for Education Policy Analysis, made presentations about the Higher Ed assessment mapping (which will include descriptive data about all of the Higher Ed institutions in the Denver WIRED metro region and the size and quality of their programs to produce STEM graduates); a flow analysis (description of students in Colorado public institutions and places where they are entering, taking, and completing STEM programs and a proposed network analysis); and a network analysis of industry and education partnerships, pre- and post-WIRED. In addition to assisting CEPA with the research tasks, panel members’ initial goals include articulating messages to their own institutions, K12, and industry clarifying the roles and responsibilities of Higher Ed re WIRED goals, and fostering a sense of urgency within institution and students about WIRED goals. Many panel members also attended a presentation and working lunch devoted to discussion of Tough Choices or Tough Times by the National Center on Education and the Economy's (NCEE) New Commission on the Skills of the American Workforce.

Meeting 2, February 20, 2007

Robert Reichardt and Andre Almeida (CEPA) presented an update on the Asset Mapping Assignment. (The purpose of the asset map is to help WIRED panels identify areas of disconnect between workforce supply [Higher Education] and demand [industry] and barriers to connections between K12, Higher Education, and industry. At this point, the Higher Ed Asset Map’s components are institution size/quality and program barriers/supports. Size includes type of institution (*e.g.*, K12-Higher Education bridge organization, community college, 4 year college/university, continuing and professional education providers, technical schools, publicly funded research labs, related nonprofits), and information from a flow analysis (*e.g.*, number of degrees or certificates awarded, number awarded in STEM areas, high school GPAs of students entering STEM and non-STEM majors, etc. At this point CEPA is looking at data representing undergraduates who entered Higher Ed in 2000 and graduate students from 2000 to 2005. CEPA is working on “quality” factors, *e.g.*, federal funding (NSF and other), patents and technology transfer, rankings. CEPA is also pursuing suggestions provided by panel members on barriers and supports. (Handouts attached) CEPA plans to email an updated version of the asset map to panel members before the next meeting.

There was a discussion on what other data the asset map should capture and what data from other panel maps would be helpful to Higher Ed? Panel members raised the following data issues:

- More articulation when referring to STEM academic fields. *E.g.*, CEPA’s current flow analysis refers to physical sciences. CSU has majors in atmospheric science. Where

would flow analysis place this? Similarly, does geology fall under physical science or natural resources?

- Distinction between certificates (offered by community colleges) and degrees and ability to track students STEM interests who transfer from community colleges to 4-year institutions, because the certificates do not have degree areas.
- The importance of being able to track STEM graduates who are going into teacher education
- Bridging the Higher Ed flow analysis with the asset maps from K12, workforce development, and industry (see *infra*)
- Capturing data held by institutions that was not easily accessible to public (*e.g.*, not on internet or in publicly collected datasets)
- Timeliness of data
- Articulation of differences between data from 2 year and 4 year institutions
- Desirability of knowing who makes it in STEM and does not make it in STEM, maybe do some surveys of students—why did they stay/succeed in STEM? Why not? Demographics of these students, etc.

CEPA's final data collection and analysis effort will be a network analysis, pre- and post-WIRED, to Identify channels of communication between institutions and between individuals in K-12 & Higher Ed, Higher Ed & Industry, Industry & K-12, which communication enables Workforce development and Technology Transfer. CEPA foresees challenges in systematically capturing WIRED relevant activity. CEPA plans to take a two-prong approach by 1) surveying all WIRED participants (about 200) and 2) surveying 150 leaders among K-12 Principals, Higher Ed: Department chairs, and Industry HR offices. (Note: industry includes workforce development). The email survey will ask three types of questions: What do you do *e.g.*, Skilled worker pipeline, Technology transfer); What institutions do you work with directly (the survey will have a check-off list)? Who are the ten people you replacement must know? CEPA hopes to develop final sample by the mid March and field the survey by end the end of March. In order to help develop questions Reichardt asked panel members to brainstorm and identify links from K12 to industry, Higher Ed to K-12, Higher Ed to industry.

Meeting 3 March 15, 2007

After hearing presentation from the Energy, Aerospace, K12 and Workforce panels, Higher Ed panels discussed what it needed from these panels to complete its asset map and vice versa. For example, Industry panels, when asked what they need from Higher Ed, said partnerships on internships and tech transfer. Many times industry does not know where to go for help with research/internships and rely on networks and contacts. Industry needs regional/wider networks that include a "visible 'shop window'" on to Higher Education. For example, industry often needs to know who is working on/researching things/has graduate students to do basic research, etc. Higher Ed may have available lab space, graduate students, etc but industry panel members did not perceive Higher Ed www pages as being especially useful or informative. Most of the Higher Ed panel members were eager to get involved.

The panel members agreed that the lack of readily accessible, uniform data across Higher Education was the major barrier. Members were most concurred about having data that "moved the needle in the right direction," so that programs could become better at what they are doing. The ultimate goal should be to develop 10-20 measures that could be regularly updated. The measures should cover

- Pipeline: (recruitment, persistence, graduation, placement)

- Internal process data (do students have good information on pathways, how are programs),
- Recruitment
- Persistence
- Graduation
- Placement

These measures include pipeline data and from customers (recruiters from outside the state, industry panels, people who want to attend our schools).

CEPA Efforts

During the past quarter, CEPA staff have:

- attended WIRED Policy Academies, Metro Denver WIRED Core Group meetings and WIRED “webinars” as requested by the Contractor;
- continued to identify and recruit Higher Education panelists, including academics and other experts from community and four-year colleges and universities;
- provided staff support for Panel meetings including arranging meetings, taking meeting minutes, and providing minutes to Panel members and WIRED staff;
- developed template for Higher Ed asset map and begun process of completing matrix with publicly available data, comments provided by Higher Ed panel, and independent research;
- developed template for network analysis of WIRED panels;
- assisted with WIRED outreach efforts, *e.g.*, participating in NSF/ATE discussions, telephone conferences with the High School Alliance; working to leverage WIRED in other proposals;
- worked with the K-12 panel to assure seamless education system input;
- provided technical assistance to Contractor as requested;
- shared templates for asset maps with other panels as requested; and,
- provided all administrative documents as requested by Contractor.

Outcomes Reporting

We will be able to answer the questions below, but so far, without better access to SURDS the answer is not yet.

- Number of students from Metro Denver area entering technical post-secondary training
- Number of Metro Denver high school students who enter post-secondary school, with a special emphasis on students who qualify for college but choose not to go
- “Three year outcome: Increase the number of low-income students in participating districts who go directly from high school to college by 20%”

C. Status Update on Strategic Partnership Activities

D. Status Update on Leveraged Resources

SECTION II: REGIONAL METRICS

A. WIRED Performance Measures and Results

Following are the performance measures, as stated in the Implementation Plan. We will be gathering benchmark data on the measures this quarter.

SECTION III: CHALLENGES TO PROJECT PROGRESS

SECTION IV: PROMISING INNOVATION PROCESSES AND SUCCESS STORIES

A. Promising Approaches, Processes and Lessons Learned

B. Sharing “Success Stories”

C. Research