

BEFORE THE BOARD OF COUNTY COMMISSIONERS
FOR MULTNOMAH COUNTY, OREGON

RESOLUTION NO. 04-155

Approving the Continuation of the Career Pathway Technology Project

The Multnomah County Board of Commissioners Finds:

- a. Increasing the educational opportunities for students in East Multnomah County, particularly low-income, underrepresented, and English-language learner students, in areas that are relevant to high-technology fields will help them secure living-wage jobs and reduce poverty in the County.
- b. The Career Pathway Technology Project has successfully increased access to math, science, electronics, and engineering education for students in East County high schools and middle schools, by providing instruction, support, and supplies in east Multnomah County schools, including the Center for Advanced Learning and Marshall High School.
- c. Through the Strategic Investment Program agreement with LSI Logic, annual payments provided to the County from 1996-2001 are dedicated to funding a program "to educate and train persons in skills useful to the high-technology industry." Approximately \$284,000 remains in the SIP Education and Training fund for this purpose.
- d. An advisory committee consisting of representatives from LSI Logic, Microchip Technology Inc., Portland Community College, Mt. Hood Community College, the East County school districts, and Multnomah County has provided input and guidance over the first four years of the Career Pathway Technology Project and will continue to do so.
- e. Extensive efforts are currently underway to explore alternative funding sources for continuing this program after the County's funding commitment concludes.
- f. Based on the success of the Career Pathway Technology Project at expanding opportunities for math, science, electronics, and engineering education in East Multnomah County, raising the math achievement levels of participating students, increasing the awareness among students of high-technology careers, and enhancing their ability to enter these careers, it is prudent to build upon the foundations created over the past four years and continue supporting the program for the 2004-05 school year.

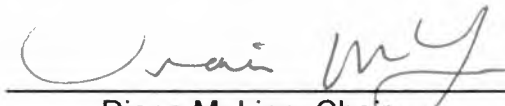
The Multnomah County Board of Commissioners Resolves:

1. The Board approves the continuation of the Career Pathway Technology Project for 2004-05.
2. County staff will conduct a mid-year program review and report to the Board in February 2005; followed by a year-end program evaluation and report to the Board in July 2005.
3. The Board will consider approval of funding for the 2005-06 school year in July 2005.

ADOPTED this 28th day of October, 2004.



BOARD OF COUNTY COMMISSIONERS
FOR MULTNOMAH COUNTY, OREGON



Diane M. Linn, Chair

REVIEWED:

AGNES SOWLE, COUNTY ATTORNEY
FOR MULTNOMAH COUNTY, OREGON

By 

Sandra N. Duffy, Assistant County Attorney

The Career Pathway Technology Project

Year Five Plan School Year 2004-05

A Future Workforce Partnership

With

LSI Logic Corporation
Microchip Technology Inc
Portland Community College
Multnomah County Strategic Investment Program
Mt. Hood Community College and the
Mt. Hood Regional Education Consortium
and thirteen

East Multnomah County Schools

Centennial High School
The Center for Advanced Learning
Corbett High School
David Douglas High School
Gresham High School
Marshall High School
Parkrose High School
Reynolds High School
Sam Barlow High School
Reynolds Middle School
Clear Creek Middle School
Lane Middle School
Binnsmead Middle School

This is a proposal for \$123, 517 and submitted by Mt. Hood Community College (MHCC) for Year Five of the Career Pathway Technology Project (CPTP). When MHCC was awarded the initial contract, two additional years of funding for 2004-05 and 2005-06 was reserved by the County, pending approval by the SIP coordinator of the first four years of performance. An assessment of the outcomes of the first four years' performance of the CPTP was submitted to the coordinator on April 1, 2004.

The SIP agreement with LSI Logic required the company to fund a project that would provide education and training in skills useful to the high technology industry from LSI Logic's annual payments from 1996-2001 to the County's Education and Training Fund totaling \$600,000. The funds are targeted for use in achieving the goal of strengthening the ability of our local school districts (specifically in east Multnomah County and at Marshall High School) to prepare students for careers in high technology.

During the past four years, the CPTP has encouraged students to make informed choices with regard to careers that provide a living wage. Students have profited from the CPTP by being exposed to career selection opportunities that otherwise would not have been available. Over 2,500 elementary, middle and high school students met with engineers and technicians, visited clean rooms and learned of career opportunities that were new to the students and oftentimes to their teacher. The CPTP delivered and supported professional-technical course work in the form of electronics, engineering and microelectronics that otherwise would not have been provided in the schools. The CPTP places a high priority on the inclusion of young women, students from low-income families, students who may be English Language Learners (ELL), and students with disabilities. The project recognizes that students will choose to enter the workforce at varying stages and for that reason the project includes: 1) students seeking employment directly after graduation, 2) students wanting to enroll in a community college degree program, and/or 3) students seeking to enroll in programs leading to four-year degrees in engineering, science, computer science or mathematics.

The CPTP includes the High Tech Talent Project (HTTP), which delivers math tutoring and or science curriculum to targeted population high school and middle school students. Students receive math tutoring or science coursework that better prepares them for the next level of coursework. The goal of HTTP is to provide assistance that will increase the numbers of students at the intermediate algebra level by their junior year. While not every student has attained that goal, HTTP has increased the numbers of students reaching this important goal. Selected students in HTTP also receive tuition scholarships to encourage high school completion and help pay for their college or university education. A sustainability plan is included in this proposal to ensure that the CPTP continues well beyond the duration of the grant.

Project Objectives Year Five

Tables that identify the measurable objectives by class, school, and student follow the objectives.

Objective 1 Deliver Electronics Classes

Deliver electronics classes to high school students in east Multnomah County and Marshall High School that otherwise would not be provided. Exploratory and/or dual-credit classes will be delivered that support the CIM & CAM choice of students.

Objective 2 Support Existing Technical Programs

David Douglas High School has an existing electronics program that is in need of support to upgrade its labs. The CPTP will purchase materials and supplies to support this program.

Objective 3 Deliver Engineering and Microelectronics Curriculum

Engineering and microelectronics curriculum will be delivered to high school students that otherwise would not be provided. Instruction will be available to students from Corbett, Gresham, Barlow, Reynolds, Centennial, and students who are home-schooled. A partnership was developed with the CAL at Gresham Station where the engineering and microelectronics instruction will be offered as part of an advanced engineering and manufacturing program.

Objective 4 Math and Science Supportive Services

Students from low-income families and students for whom English is a second language will have targeted supportive services made available before, during or after regular school hours for math tutoring and/or science related projects. The High Tech Talent Project (HTTP) will deliver this project to primarily freshmen or sophomore students in high school or to middle school students.

Objective 5 Professional Development

Up-to-date understanding of industry and technology is crucial for ensuring that students receive instruction that is relevant. High school teachers and project adjunct faculty will receive a minimum of one technical workshop from NSF/MATEC or other sources each school year.

Objective 6 Sustainability

CPTP staff will research and secure additional sources of funding that will sustain these projects in East County schools.

New Directions In Year Five

- **The new BizTech High at Marshall High School and the Lents Tech Center**
Staff of the Career Pathway Technology Project (CPTP) has been conferring during the past year with teachers and administrators at Marshall High School and others from worksystems inc., and Portland Community College on strategies to increase student achievement and better utilize the Lents Tech Center. Marshall is now the recipient of a William and Melinda Gates Small Schools grant and the CPTP is a part of this new venture. A new school has been created within Marshall High School called BizTech High School. This school will serve students who are interested in careers within business and manufacturing. As part of BizTech, the electronics classes will be changed to Computer Electronics and continue to be delivered in the electronics lab in the Lents Tech Center that was established and funded by the CPTP in Year One.
- **Summer Youth Electronics Workshops**
The Lents Tech Center and Corbett High School will host two-week electronics workshops for youth in July 2004. The workshops will include electronics safety and fundamentals and career exploration. Youth will learn to solder and to fabricate, measure and test circuits and robots. Certificates of completion will be awarded to those students who successfully complete the thirty-hour workshop.
- **Mini Grants for Targeted Population and/or English Language Learner (ELL) students**
Mini grants averaging \$5,000 were awarded in 2003-04 to schools for projects that served English Language Learner (ELL) students. Reynolds High School delivered the Science For All Languages science project that served forty-eight ELL students. Reynolds Middle School implemented the Multicultural Students in Science and Technology project serving ninety-eight ELL students. These two projects will continue in 2004-05.
During Year Five, three more middle schools will participate in mini grants:
 - Clear Creek Middle School in the Gresham-Barlow School District will deliver a video production project for 20 ELL students. Each student will create three minute videos that honor their culture, county of origin, and their lives in east Multnomah County. The purpose of the project is to increase participation and involvement with the school and the families of Hispanic students. This project will partner with the Mt. Hood Community College's TV production technology program.
 - Lane and Binnsmead Middle School students who are in the Portland Public School District will enroll in algebra and geometry classes at Portland State University through PSU's Upward Bound and Talent Search programs. Twelve middle school students will receive high school credit and be better prepared for math classes when they arrive at Marshall High School as freshmen.

- **Parkrose High School Electronics**

Electronics classes for Parkrose High School students have been located at MHCC's Maywood Park campus at NE 102nd and Prescott Ave., one mile from the high school. Beginning in September 2004, the new Computer Electronics class will be located on the campus of Parkrose High School. It is expected that this new location will increase enrollment while eliminating expensive transportation costs incurred by the CPTP and the Parkrose School District.

Technical Course Work and Targeted Services

Year Five School Year 2004-2005

Technical Course Work: Electronics, Engineering and Microelectronics

| High Schools | Fall 2004 | Spring 2005 | Class Location | School year total |
|---------------------------------------|--------------------------------|--------------------------------|----------------|-------------------|
| BizTech High School | Computer Electronics | Computer Electronics | Marshall | 30 |
| Barlow High School | Electronics | Electronics | Barlow | 30 |
| Gresham, Reynolds Centennial | Electronics | Electronics | MHCC | 20 |
| Gresham, Barlow, Reynolds, Centennial | Engineering & Microelectronics | Engineering & Microelectronics | CAL | 60 |
| Parkrose High School | Computer Electronics | Computer Electronics | Parkrose | 20 |
| Reynolds High School | Introductory Electronics | Introductory Electronics | Reynolds | 45 |
| David Douglas HS | Electronics | Electronics | DDHS | 100 |
| Total | | | | 305 |

Targeted Services: High Tech Talent Project (HTTP)

| School | Fall 2004 | Spring 2005 | Location | School Year Total |
|---|--|--|---------------------------|-------------------|
| Lents Tech Center (SE Works Inc.) | Summer Youth Electronics Camp | | Marshall High School | 20 |
| Corbett High School | Summer Youth Electronics Camp | | Corbett High School | 15 |
| David Douglas High | Math tutoring | Math tutoring | DDHS | 20 |
| Parkrose High School | Math tutoring | Math tutoring | Parkrose | 30 |
| Reynolds High School | ELL Science for All Languages | ELL Science for All Languages | Reynolds High School | 48 |
| Marshall High School | Algebra and Geometry classes | Algebra and Geometry classes | TRIO/PSU | 15 |
| Lane Middle School | Algebra and Geometry classes | Algebra and Geometry classes | TRIO/PSU | 6 |
| Binnsmead Middle School | Algebra and Geometry classes | Algebra and Geometry classes | TRIO/PSU | 6 |
| Reynolds Middle School | Multicultural ELL Students in Science and Technology | Multicultural ELL Students in Science and Technology | Reynolds Middle School | 98 |
| Clear Creek Middle School and Sun Schools | ELL Video Production | ELL video Production | Clear Creek Middle School | 20 |
| Total | | | | 278 |

Budget

Year 5 Budget School Year 2004-05

| Account Name | Grant Amount | In Kind | Total |
|---------------------------------------|----------------|---------------|----------------|
| Salary& Fringe, Project Management | 0 | 51,386 | 51,386 |
| Salary & Fringe, Administrator | 0 | 8,682 | 8,682 |
| Salary & Fringe PT Instruc. | 29,284 | 0 | 29,284 |
| Evaluation & Reports | 5,513 | 0 | 5,513 |
| Targeted Salary | 16,000 | 0 | 16,000 |
| Targeted Materials | 7,000 | 0 | 7,000 |
| Targeted Scholarships | 16,000 | 0 | 16,000 |
| Supplies Graphic | 2,050 | 250 | 2,300 |
| Supplies Instruction | 25,290 | 500 | 25,790 |
| Supplies Maintenance | 2,500 | 250 | 2,750 |
| Travel In State | 0 | 250 | 250 |
| Contract Service Personal | 7,500 | 0 | 7,500 |
| Contract Service Phone | 0 | 360 | 360 |
| Repair & Replace | 3,675 | 0 | 3,675 |
| Indirect 8% | 8,705 | 20,674 | 29,379 |
| Total | 123,517 | 82,352 | 205,869 |

Sustainability

CPTP staff is currently investigating additional funding sources to sustain the grant after 2006. Staff traveled to Spokane, WA May 16-19 and identified three possible TRIO US Department of Education Sources: Talent Search, Upward Bound, and Upward Bound Math and Science.

The CPTP has laid the groundwork for all three TRIO grants in east Multnomah County. Proposals are due in 2005 and 2006. Upward Bound projects typically serve up to ninety low-income high school students who are first generation. That is, the students will be the first in their families to attend college. Talent Search serves typically six hundred students. The CPTP is well prepared to submit proposals based on our past experience and performance with targeted populations. Our knowledge within the local schools is strong and the networks we have developed will serve us well.

Assessment

Assessment and evaluation includes the following:

1. Enrollment and completion per term and year
2. Low income enrollment and completion per term and year
3. ESL enrollment and completion per term and year
4. Outreach to English Language Learner students in high schools and middle schools
5. Academic success levels per term and year
6. Graduation rates
7. Participation in internships or other high-tech industry focused experiential learning
8. Pre-and post evaluation related to the effectiveness of targeted services
9. Partnership expansion: The advisory committee will seek to identify sources of additional funding and industry partners for achieving results in the long-term
10. Sustainability of successful practices and outcomes
11. Professional development for instructors
12. Measurable year-to-year improvements in all of the above
13. The project director will compile annual reports to the Advisory Committee that quantitatively summarize progress made toward meeting each objective.
14. School points of contact will be asked to complete a project evaluation at the completion of each program year. Evaluation results will be used to make program adjustments and improve outcomes
15. The project director will complete a final report to the Multnomah County SIP coordinator

Advisory Committee

- **Lisa Goldberg**, SIP Coordinator, Multnomah County
- **Merced Flores**, Dean, Adult and High School Learning Communities, Mt. Hood Community College
- **John Matthews**, Director, GED/Yes Program, Portland Community College
- **Robert Dunton**, Superintendent, Corbett School District representing six school districts in east Multnomah County,
- **Andrea Sutherland**, Manager, Learning and Development, LSI Logic Corporation
- **Lynn Oetting**, Training and Development, Microchip Technology Inc.
- **Steve Walmer**, Teacher, Marshall High School