

Oregon Pre-engineering & Applied Science Segment Business Plan Biennium from July 1, 2009 to June 30, 2011

Segment:

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Summary of Plan

The vision for the Project Lead The Way for Oregon Partnership is to continue to introduce the new contextualized learning curricula called Project Lead The Way (PLTW) into school districts within Oregon and to engage the local community colleges, skill centers, and industry to leverage resources to develop capacity for the program. In the coming biennium, specific emphasis will beally to fund the training and initial equipment and software start-up costs for 18 middle and high school classroom teachers per year in the PLTW courses called Gateway to Technology and Introduction to Engineering Design.

Goals

The primary goal of the PLTW for Oregon Partnership is to increase the number of young people who are motivated to and prepared for pursuing engineering and applied science in the Oregon University System. The specific objectives necessary to accomplish this goal are to:

- 1) increase the content knowledge and teaching skills of middle and high school classroom teachers by providing a two-week summer training institute and ongoing professional development opportunities {see metric number _____};
- 2) increase the academic performance of students in mathematics, science, and technology {see metric number _____};
- 3) establish the capacity necessary to implement, sustain, and extend the integration of the PLTW program into Oregon schools {see metric number _____}.

Investment Description

The implementation of the current stage of the PLTW for Oregon Partnership will build on the successes of that the program has experienced over the past 4 years. The following expands on the objectives stated above:

Objective 1) -Classroom Teacher Professional Development

The model for professional development in this project is based on the national PLTW Summer Training Institutes. Middle and hHigh school teachers participate in two continuous weeks of training (minimum of 80 hours) to prepare them to teach one of the PLTW courses in their school the following academic year. The training prepares them to

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teach the year-long curriculum given to them at the end of training. A university professor and a “master teacher” are the trainers during the two-week institute. A master teacher is a high school teacher that has taught the curriculum for a minimum of three years.

Objective 2) -Student Learning

Demonstrating the impact of the project on students has been problematic in the past. Oregon state assessment data is not a valid measure of changes in student achievement in a simplistic experimental or quasi-experimental evaluation design. Because the teachers in the project implement the PLTW program in varied ways, a comprehensive evaluation based on classrooms of the project teachers has not been successful. However, the first substantial step for more success in this area will be taken this coming academic year. A pilot program with the Salem-Keizer school district will be undertaken. The school district plans to~~will~~ administer the National Occupational Competency Testing Institute (NOCTI) exam~~will be undertaken. It is anticipated that the exam will be given to students completing the PLTW sequence of courses at North Salem High School (one of the certified PLTW high schools in the state) and possibly South Salem High School (no PLTW courses are taught at that school currently).~~

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Objective 3) -Capacity & Sustainability

Sustainability has been built into the project in terms of the capacity for PLTW to be integrated in Oregon schools. Aspects of sustainability of the project to date is evidenced by the fact that eight OIT faculty have been trained to offer six different PLTW courses during upcoming STIs in Oregon. ~~In year three~~Last summer, in year 4 of the project, OIT offered training for two more courses in addition to the four offered in years 1 and 2, the capstone course called Engineering Design and Development and the middle school course, Gateway to Technology. An increase in teachers participating in the summer trainings have risen each year; 4 in 2005, 11 in 2006, 19 in 2007, and 35 in 2008. An anticipated record turnout for the upcoming 2009 STI is expected. Of the 69 teachers trained, there were multiple teachers who returned to another STI to be trained in another PLTW course. There were 2 teachers who returned for a second and third STI training and 7 teachers who returned for a second STI training. This gives a total of 80 classes that 69 teachers were trained for (69+7+2=80). As success is shown and the PLTW curriculum is integrated into the school districts, this model can be promoted throughout the state.

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The capacity for PLTW to be integrated in Oregon schools is also shown in the level of grants written and received that have been leveraged to enhance the partnership. Funding to help the schools buy necessary equipment and train teachers has been received from two Intel grants, two Engineering Technology Industry Council (ETIC) grants, and two Oregon Department of Education Title IIB grants. This is grant money ~~from outside of the project but~~ dedicated to PLTW specific purposes and provides additional evidence of capacity.

Relevant Collaborations

The continued success of the PLTW program in Oregon hinges on the collaborations that have been established over the past four years. Attachments B and C provide the details of the significant collaborations to date. Attachment B gives the name, role and affiliation of all people that have contributed to advancing the PLTW model within the state as it has evolved over the past four years. Attachment C provides all the partnering school districts, schools and individual teachers at those schools. It also notes the year in which a particular PLTW course was taken.

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Future Plan & Resources

As we encourage school districts to begin the PLTW program with grant money to implement GTT and IED during the 2010-11 biennium, these schools will be ready to roll out additional PLTW courses in succeeding biennia-years after June 2011 to achieve the long-term goal of implementing the complete PLTW model. It is expected that school districts will leverage future ETIC funds with local funds such as those available through the Perkins Program to grow the program at their individual schools.

Schedule

| Quarter Ending | Activity | Major Milestones | Responsibility and Dependency (if any) |
|-----------------------|--|---|--|
| October 2009 | Conduct 2009 STI at OIT Attend annual National PLTW meeting | July 2009 STI | Project Manager Project Coordinator 5 OIT Faculty |
| December 2009 | Conduct Counselor Conference and Information Session(s) | Conduct 3 conferences (smaller but in different parts of state) | Project Manager, Project Coordinator, 2 Oregon Master Teachers |
| March 2010 | Recruit for 2010 STI | | Project Manager, Project Coordinator |
| June 2010 | Attend high school conferences, Conduct Certification visits, Attend National PLTW training at RIT in NY | NSTA, OACTE | 6 OIT Affiliate Professors, 2 Oregon Master Teachers |
| October 2010 | Conduct 2009 STI at OIT Attend annual National PLTW meeting | July 2010 STI | Project Manager, Project Coordinator, 6 OIT Affiliate Professors |
| December 2010 | Conduct Counselor Conference and Information Session(s) | | Project Manager, Project Coordinator, 2 Oregon Master Teachers |
| March 2011 | Recruit for 2011 STI | | Project Manager, Project Coordinator |

| | | | |
|----------------|---|--|--|
| June 2011 | Conduct Certification visits, Attend National PLTW training at RIT in NY | | 6 OIT Affiliate Professors 2 Oregon Master Teachers |
| September 2011 | Final report including evaluation & assessment | July 2011 STI Report Submitted August 15, 2011 | Project Manager, Project Coordinator, 6 OIT Affiliate Professors , any third party evaluators |

Budget Narrative

The budget breakdown shown in Attachment A provides the most comprehensive estimate of the cost of PLTW in Oregon defined to date. Included are salaries, services, activities, supplies, equipment, and software. No indirect costs are taken. All budgeted items support the project activities proposed herein. Leveraging of other funds is used to enhance the ETIC grant monies requested. PLTW provides all curricula free of charge to the teachers. Ground rules are that there will be 9 high school classroom teachers and 9 middle school classroom teachers trained each year over the period of performance, July 1, 2009 through June 30, 2011. They will get trained in the high school fundamental class of Introduction to Engineering Design and the middle school curriculum of Gateway to Technology courses. The courses of POE, DE, CIM and EDD are shown for completeness. It is assumed that we will offer a STI in July of 2009, not utilizing any of the funds requested herein. A STI will be offered in July 2010 and funds will be encumbered by June 30th 2011 prior to the July 2011 **STI**.

Leveraging estimates are given that compliment the program. These are defined by OIT (release time for faculty and facilities), other (miscellaneous entities such as the national PLTW organization, school districts, community colleges), and income (defined as the total of tuition received from Oregon and out-of-state teachers that attend the STI).

Note: The columns shown in the Budget given in Attachment A are defined as follows:

- 1 – Item number.
- 2 – Item description.
- 3 – Cost of each item per year.
- 4 – Number of items needed per year. Because of the fixed costs per year, it is more beneficial to describe the budget on a per year basis. Therefore, if the funding runs for two years the requested per year amount can ~~just~~ be multiplied by two.
- 5 – Total, column 3 times column 4.
- 6 – Leveraging by OIT.
- 7 – Leveraging by others, e.g., **community colleges and** school districts that allow the PLTW program to use their facilities.
- 8 – Leveraging by income received in the program. Each classroom teacher that attends must pay a \$2,000 registration fee. This comes from Oregon teachers as well as out-of-state teachers.

9 – ETIC request per year.

In summary, column 5 must equal the sum of columns 6, 7, 8, and 9. The income column is based on any reserves the project has from previous years and the \$2,000 per participant attending the STI.

As you follow the narrative below, keep in mind that only certain line items are requested for through ~~this grant~~ ETIC. Many are for informational purposes only to give the reader a better idea of the overall business plan for PLTW Partnership for Oregon.

Item #1 Salaries - The salaries are broken down as follows:

- a) Middle and high school teacher's Stipend while attending the 2-week training - A stipend of \$600/wk is given to each of teachers that participate in the STI. Due to budget constraints, teacher stipends are not part of the requested funds.
- b) Project Director (0.25 release time leveraged by OIT plus one month of salary during the summer) – This means that the director's teaching load is reduced by 25% in order to coordinate PLTW activities within the state. The project director is responsible for the overall coordination of the teacher recruitment, teacher support, ODE interaction, STI follow-up visits and all high school, school district, and community college certifications in order to teach PLTW courses. The director acts as the liaison between teachers, school district administrators and PLTW. There is no monetary compensation for this position from PLTW.
- c) Affiliate Professors – Responsible for co-teaching the particular PLTW course during the STI. These professors are required to meet with their Master Teachers each spring at training in NY. They are responsible for ordering all supplies necessary for a successful STI.
- d) Administrative Assistant (0.6 FTE) - Responsible for the day-to-day questions that arise from teachers and administrators interested in the program. Organization of teacher conferences and the general coordination of the STI. All reimbursements are coordinated through the administrative assistant.
- e) PLTW Master Teacher - The stipend given to the 6 master teachers provided by PLTW is for their 2-wk participation in the Oregon STI. It is expected that by the end of the biennium that we will have Oregon's own master teachers.
- f) Misc. Staff – Examples include the technical support for software loading, coordination of the facilities and networking necessary for the STI, students that help in the Inventor review sessions, and tour guide for the Crater Lake trip.
- g, h) Benefits - The percentage used to determine fringe benefits for Oregon University System faculty is approximately 41% for unclassified employees and 6% for classified.

Item #2 Services & Activities –

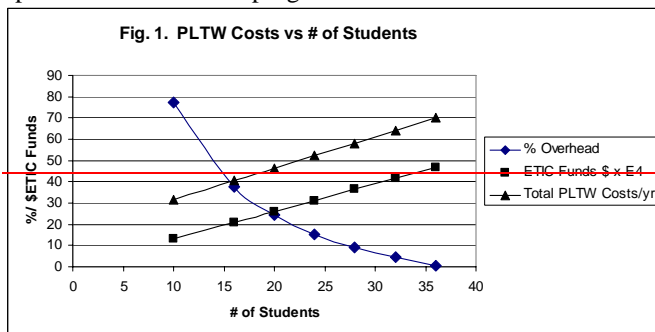
- a) University Faculty - In order to conduct the summer STI, all affiliate faculty are required to attend two days of training in NY during April 2010 and April 2011.
- b, c, d) Classroom Teachers travel, lodging and food while at the 2-week training – The classroom teachers are provided with a room at the Shilo Inn in Klamath Falls which is within walking distance to the campus.
- e, f) Master Teachers - Provides for 6 Master Teachers to attend the STI. Savings will be seen as Oregon teachers are certified as PLTW Master Teachers.

- g) Lunches M-F during the STI are provided for all the participants, affiliate professors, Master Teachers, and support staff.
- h) Weekend activities are scheduled during the middle weekend to break up the course homework. One popular activity is a Crater Lake tour. Others have been day hikes to local mountains.
- i) The affiliate university is required to hold counselor conferences to train the counselors from the various PLTW high schools. A trained counselor is required to receive certification. The national PLTW organization reimburses \$2,000 for a conference.
- j) Administrative costs associated with printing, purchasing T-shirts for participants, etc.
- k) Necessary travel within the state to conduct certification visits, teacher conferences, etc.
- l) Registrations - covers all teaching expenses with offering the 2-week STI including lunches throughout the stay.

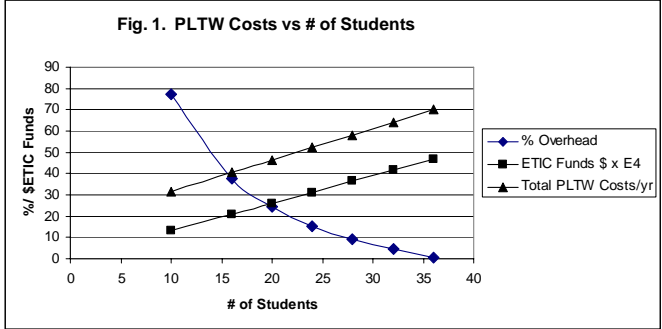
Item #3 Equipment and Supplies – There are costs associated with offering each PLTW course and are labeled herein as supplies, equipment, software, and laptop computers for the teaching faculty. It is assumed that the schools already have student computers capable of running the required software. The school license for the AutoDesk Suite of software is required each year and costs \$2500. This software is used extensively in IED and to a lesser extent in other PLTW courses. Some schools have other negotiated agreements in place for this required software.

Budget Summary: ETIC ask is \$460,500 over biennium. Remember the ground rules for this are to pay for the training, supplies and equipment start-up costs associated with 9 HS teachers in IED and 9 MS teachers in GTT. It is assumed that an equal number of in-state and out-of-state teachers will attend the STI in these and other courses. Costs are assumed equal each year.

A way in which to show the fixed costs of administering the PLTW program in Oregon and the portion of these costs consistent with the ETIC funding as a function of the number of teachers attending the STI is shown in Fig. 1 below. With the ground rules stated, percent overhead is defined as the total number of students necessary to break even. This shows that 36 teachers, that is, 18 for IED and 18 for GTT along with 34 other teachers (72 in all) are necessary to cover all the costs associated with one year of operation of the PLTW program.



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Measuring & Forecasting Results

Measuring and forecasting results are important to the overall success of the PLTW Partnership. However, we have not collected a sufficient amount of this type of data in the past. In order to do a better job in the future, we are implementing a quarterly survey that we will have teachers that teach PLTW courses complete. Survey Monkey is a national online survey creating service <http://www.surveymonkey.com/> and OIT pays for a yearly license to use it. We would need to introduce the form during our STI and request the teachers submit the form at the end of each term. We will put the link on our website <http://www.oit.edu/pltw> for easy access to the teachers. We then are be able to create a database for reporting purposes.

~~{The table at the end of this document provides a place to forecast the measurable outcomes of your program. What measurable goals will be used and how will the impact of the program be assessed? Describe the relevance of the metrics you have chosen and how the improvements you forecast will be achieved. Explain how progress will be monitored to assure opportunities for improvements are identified and seized. Refer to metrics table in table below as appropriate. Add metrics to the table below in line with your plans for program and student assessment.}~~

Evaluation & Assessment Plan

~~Describe how your program and its outcomes will be evaluated including the extent that third party evaluators will be involved. Indicate how the evaluation will consider how well your program achieves its goals and the forecasted metrics given below.~~

~~a) Evaluation resources: On theThe subject of evaluation. It would be highly desirable to ~~correct answer here is to~~ have a 3rd party evaluator, such as the Northwest Regional Education Laboratory, be involved in evaluating the PLTW program in Oregon. However, the costs would be on the order of 10% of the grant. This would limit the number of teachers that could participate. If additional money is allocated to pre-engineering within Oregon, it is suggested that this be considered. So assuming that we do not have extra funds available for a 3rd party evaluation, the following is what we can do.~~

Purposes of the Evaluation

This evaluation that will be utilized is of an objectives-based design that is intended to examine the extent to which the project has reached its ~~goal~~objectives. Data sources include pre and post test of teachers, project-focused pre and post test of students, and NOCTI exam results on a pilot basis. ~~Overall data on all of the teachers in the project include teacher pre and post testing across the different STI course offerings.~~

Evaluation Questions

The evaluation is driven by the three key evaluation questions derived from the project ~~goals~~objectives. The three evaluation questions are as follows:

1. Did teachers' participation in PLTW increase their content knowledge?
2. Do students whose teachers implement PLTW increase their academic performance?
3. To what extent has the infrastructure necessary to implement and sustain the program been established?

Evaluation Design

The evaluation for the OIT PLTW project will be conducted by project staff. The purposes of this evaluation ~~were~~ are formative and summative. The evaluation has employed an ~~mixed method~~, objectives-oriented design that includes both quantitative and qualitative data collection and reporting that is focused on the articulation of measurable objectives based on project goals. Results of which will be reported on a quarterly basis.

| Salary Expenses | | | |
|-------------------------------------|----------|----------|-----------------------|
| [One line per role/title with FTE%] | (Salary) | (Salary) | |
| Other Payroll Expenses for above | | | |
| Subtotal | | | \$ - |
| Services & Activities | | | |
| teacher travel | 5130 | 5130 | 10,260 |
| teacher lodging | 17280 | 17280 | 34,560 |
| teacher misc food | 4500 | 4500 | 9,000 |
| Registrations | 36000 | 36000 | 72,000 |
| Subtotal | | | \$ 125,820 |
| Supplies & Equipment | | | |
| IED consumables | 4050 | 4050 | 8,100 |
| IED equipment | 5256 | 5256 | 10,512 |
| IED software | 22500 | 22500 | 45,000 |
| GTT consumables | 7551 | 7551 | 15,102 |
| GTT equipment | 118683 | 118683 | 237,366 |
| GTT Software | 13356 | 13356 | 26,712 |
| Subtotal | | | \$ 334,692 |
| Grand Total | | | \$ 460,512 |

Attachment A - Budget

Pre-College Proposal Budget

| <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | <u>7</u> | <u>8</u> | <u>9</u> |
|----------|---|----------|----------|------------------|-----------------|---------------------|------------------|------------------|
| # | Item Description | Cost/yr | # | total | OIT | Leveraging other | Income | ETIC Request |
| 1 | Salary Expenses | | | | | | | |
| | a. Classroom teacher stipend | \$1,200 | 0 | \$0 | | | | \$0 |
| | b. Director (0.25 FTE + 1 month summer) | \$26,000 | 1 | \$26,000 | \$18,000 | | \$8,000 | |
| | c. Affiliate Professors | \$5,000 | 6 | \$30,000 | | | \$30,000 | |
| | d. Admin Assist. (0.6 FTE) | \$22,010 | 1 | \$22,010 | | | \$22,010 | |
| | e. Master Teachers | \$4,750 | 6 | \$28,500 | | | \$28,500 | |
| | f. Misc staff | \$1,000 | 1 | \$1,000 | | | \$1,000 | |
| | g. Benefits (41% of 1b&1c) | \$22,960 | 1 | \$22,960 | \$7,380 | | \$15,580 | |
| | h. Benefits (61.2% of 1d) | \$13,470 | 1 | \$13,470 | | | \$13,470 | |
| | Subtotal 1 | | | \$143,941 | \$25,380 | | \$118,561 | \$0 |
| 2 | Services & Activities | | | | | | | |
| | a. 6 University Faculty Travel to NY | \$750 | 6 | \$4,500 | | | \$4,500 | |
| | b. Classroom teachers travel | \$285 | 18 | \$5,130 | | | | \$5,130 |
| | c. Classroom teachers lodging | \$960 | 18 | \$17,280 | | | | \$17,280 |
| | d. Classroom teachers misc. food | \$250 | 18 | \$4,500 | | | | \$4,500 |
| | e. Master Teachers travel | \$750 | 6 | \$4,500 | | | \$4,500 | |
| | f. Master Teacher lodging | \$960 | 6 | \$5,760 | | | \$5,760 | |
| | g. Lunches M-F for 2 weeks | \$90 | 48 | \$4,320 | | | \$4,320 | |
| | h. Weekend activity | \$1,040 | 1 | \$1,040 | | | \$1,040 | |
| | i. Counselor Conferences | \$2,000 | 1 | \$2,000 | | \$2,000 | | |
| | j. Admin (printing, T-shirts, etc) | \$1,332 | 1 | \$1,332 | | | \$1,332 | |
| | k. Misc Travel within Oregon | \$500 | 5 | \$2,500 | | | \$2,500 | |
| | l. Registrations | \$2,000 | 18 | \$36,000 | | | | \$36,000 |
| | Subtotal 2 | | | \$88,862 | \$0 | \$2,000 | \$23,952 | \$62,910 |
| 3 | Equipment & Supplies | | | | | | | |
| | Facilities | | | \$4,500 | \$4,000 | \$500 | | |
| | Supplies | | | | | | | |
| | a. IED course | \$450 | 9 | \$4,050 | | | | \$4,050 |
| | b. DE course | \$1,800 | 0 | \$0 | | | | |
| | c. POE course | \$550 | 0 | \$0 | | | | |
| | d. CIM course | \$1,204 | 0 | \$0 | | | | |
| | e. EDD course | \$0 | 0 | \$0 | | | | |
| | f. GTT course | \$839 | 9 | \$7,551 | | | | \$7,551 |
| | Equipment | | | | | | | |
| | a. IED course | \$584 | 9 | \$5,256 | | | | \$5,256 |
| | b. DE course | \$4,245 | 0 | \$0 | | | | |
| | c. POE course | \$17,804 | 0 | \$0 | | | | |
| | d. CIM course | \$46,693 | 0 | \$0 | | | | |
| | e. EDD course | \$1,250 | 0 | \$0 | | | | |
| | f. GTT course | \$13,187 | 9 | \$118,683 | | | | \$118,683 |
| | Computer Software | | | | | | | |
| | a. general, all HS courses | \$2,500 | 9 | \$22,500 | | | | \$22,500 |
| | b. DE course | \$1,250 | 0 | \$0 | | | | |
| | c. CIM course | \$1,600 | 0 | \$0 | | | | |
| | e. EDD course | \$914 | 0 | \$0 | | | | |
| | f. GTT course | \$1,484 | 9 | \$13,356 | | | | \$13,356 |
| | Computer Hardware (laptops) | \$1,436 | 18 | \$25,848 | | \$25,848 | | |
| | Subtotal 3 | | | \$201,744 | \$4,000 | \$26,348 | \$0 | \$171,396 |
| | Grand Totals | | | \$434,547 | \$29,380 | \$28,348 | \$142,513 | \$234,306 |

Proposed Investment and Private Support Forecast (\$M)

Metrics Forecast

| | Actuals | | Projected | |
|--|---------|------|-----------|------|
| | AY08 | AY09 | AY10 | AY11 |
| Teachers (1) | | | | |
| Teachers participating | | | | |
| Teacher contact hours (4) | | | | |
| Satisfaction of teachers participating (5) | | | | |
| (7) | | | | |
| Counselors (2) | | | | |
| Counselors participating | | | | |
| Counselor contact hours (4) | | | | |
| Satisfaction of counselors participating (5) | | | | |
| (7) | | | | |
| Parents (3) | | | | |
| Parents participating | | | | |
| Parent contact hours (4) | | | | |
| Satisfaction of parents participating (5) | | | | |
| (7) | | | | |
| Students | | | | |
| Students participating | | | | |
| Student contact hours (4) | | | | |
| Satisfaction of students participating (5) | | | | |
| Attitude of students regarding engineer & ap. sci. (6) | | | | |
| Percentage participation by girls and young women | | | | |
| Percentage participation by under represented minorities | | | | |
| (7) | | | | |
| (7) | | | | |

Instructions (replace with your own notes in your proposal)

AYxx is the academic year ending in June of year 20xx

(1) Indicate NA if program is such that teacher participation is not relevant.

(2) Indicate NA if program is such that counselor participation is not relevant.

(3) Indicate NA if program is such that parent participation is not relevant.

(4) For example, 5 people participating for 3 hours would be 15 contact hours.

(5) Based on satisfaction surveys of those participating on a ten-point scale.

(6) Based on surveys of students before and after participating -- percent planning majoring in eng / ap. sci.

Attachment B - Stakeholders in Project Lead The Way for Oregon

A team of invested parties in advancing the PLTW model within the state has evolved over the past four years. It is important to identify all the stakeholders and their roles/affiliations in order to show that this project is viable, extendable and sustainable. The list and roles of these individuals follows. Note that some of the individuals have multiple roles.

High School Certification Team:

Tim Brower, Affiliate Director, Professor of Mechanical Engineering, OIT
Tom Thompson, Industrial and Engineering Sys Specialist, OR Dept. of Ed.
Edith Gummer, Northwest Regional Education Laboratory
Dale Moon, CTE Regional Director, Lane County Schools
Marybeth Stiner, CTE Regional Director, Portland Public Schools

Team that will Train the HS Teachers:

David Culler, Professor of Manufacturing Engineering Tech, OIT
John Anderson, Professor of Manufacturing Engineering Tech, OIT
Irina Demeshko-Prosnik, Professor of Mechanical Engineering Technology, OIT
Claude Kansaku, Professor of Computer Engineering Technology, OIT
Tim Brower, Professor of Mechanical Engineering, OIT
Douglas Lynn, Professor of Computer Engineering Technology, OIT

Team that are current mentors to the MS Teachers:

Claude Kansaku, Professor of Computer Engineering Tech, OIT
Andy Olstad, Instructor of PLTW at Lebanon HS
Ellen Lyon, Instructor of PLTW at Glencoe HS
Juanita Clarno, Instructor of PLTW at Redmond HS
Doug Stuiivenga, Instructor of PLTW at McNary HS

HS Teachers that are Identified as MTs:

Andy Olstad, Instructor of PLTW at Lebanon HS
Juanita Clarno, Instructor of PLTW at Redmond HS

Distr. Administrators that will help with HS & MS Coordination Efforts

Sharleen Grove, Coord of Prof and Tech. Ed, Salem Keizer SD
Kim Masog and Jan Zaratev, Lebanon Community School District
Jeremy Lyon, Superintendent, Hillsboro School District

PLTW State Leadership:

Tim Brower, OIT, Affiliate Director for PLTW-Oregon
Claude Kansaku, Professor of Computer Engineering Technology, OIT
Barbara Metcalf, Administrative Assistant, Coordinator for PLTW in Oregon

State of Oregon Advisors:

ETIC/OPAS Advocacy: http://opas.ous.edu/PLTW_Advocacy/index.html
Jim Schoelkopf, Ed Spec, PTE & Perkins Grant Mgt, OR Dept. of Ed.
Tom Thompson, Industrial and Engineering Sys Specialist, OR Dept. of Ed.
Sharleen Grove, Coord of Prof and Technical Ed., Salem Keizer SD

National PLTW Leadership

Judy DAmico, Western Regional Director, PLTW
Niel Tebbano, Vice President, PLTW
Dick Blais, Vice President, PLTW
Joy Krueger, Director of Assessment, PLTW

Oregon Evaluation Team:

Edith Gummer, Dir, Classroom-Focused Research and Evaluation Program
Center for Classroom Teaching & Learning, Northwest Regional Educational Laboratory
Judith Devine, Senior Program Advisor, Northwest Regional Educational Laboratory
Pamela Yeagley, Program Advisor, Northwest Regional Educational Laboratory

Attachment C

| School Dist | High School | Teacher | Year | Course |
|-----------------------------------|-----------------------------|-------------------|------|--------|
| Clackamas Community College | | Anderson, Craig | 2007 | CIM |
| | | | 2006 | IED |
| | | | 2005 | POE |
| | | Korphage, Julie | 2006 | IED |
| | | Mattson, Mike | 2007 | CIM |
| | | Stager, Jim | 2007 | DE |
| Columbia Gorge CC | | Lieurance, Thomas | 2006 | IED |
| Beaverton School District | Health & Science School | Unknown | 2009 | POE |
| | | Baker, Tom | 2009 | CIM |
| | | | 2008 | IED |
| Canby School District | Canby High School | Chavez, Susan | 2006 | POE |
| | | Colvin, John | 2006 | DE |
| Colton School District | Colton High School | Robbins, Larry | 2005 | IED |
| Douglas County SD | Days Creek Charter | Unknown | 2009 | GTT |
| | | Unknown | 2009 | IED |
| Estacada School District | Estacada High School | Brookhyser, James | 2006 | DE |
| Eugene School District | North Eugene High School | Lytton, Patricia | 2004 | IED |
| | Cal Yong Middle School | Bliss, Rick | 2009 | GTT |
| | Gladstone High School | Fritz, Lara | 2009 | IED |
| Hillsboro School District | Evergreen Middle School | Allen, Angela | 2008 | GTT |
| | Glencoe High School | Wood, Brett | 2008 | IED |
| | | Schmurr, Peter | 2008 | EDD |
| | | | 2007 | POE |
| | | | 2006 | DE |
| | | White, Lindsay | 2007 | IED |
| | | Lyon, Ellen | 2006 | IED |
| | Hillsboro High School | Presidio, Sloan | 2009 | IED |
| | JW Poynter Middle School | Peters, Susan | 2009 | GTT |
| | | Pruss, Nathan | 2009 | GTT |
| | Liberty High School | Crabtree, Kevin | 2009 | DE |
| | | Reyes, Sally | 2008 | POE |
| | | Gaumond, Carol | 2008 | IED |
| | South Meadows Middle School | Unknown | 2009 | GTT |
| Klamath Falls City SD | Ponderosa Middle School | Durham, Lindsay | 2008 | GTT |
| | | Carroll, Mary | 2008 | GTT |
| | | | | |
| Klamath County SD | Brixner Junior High School | Smith Fred | 2009 | GTT |
| | Henley Middle School | Lloyd, Terry | 2008 | GTT |
| Lane County SSD | Crow Middle School | Unknown | 2009 | GTT |
| | Crow High School | Unknown | 2009 | IED |
| Lebanon Community School District | Lebanon High School | Randklev, Bonita | 2008 | EDD |
| | | | | |
| Lebanon Community SD | Lebanon High School | Callison, Tom | 2007 | CIM |
| | | Martens, Mark | 2006 | POE |
| | | Olstad, Andy | 2006 | POE |
| | | Robinson, Steve | 2005 | DE |
| | | Benedict, Mardy | 2005 | IED |

| School Dist | High School | Teacher Year | Year | Course |
|-----------------------------------|---------------------------------|------------------|------|--------|
| Lebanon Community School District | Pioneer Middle School | Gregory, Rose | 2008 | GTT |
| | Seven Oak Middle School | Morse, Tim | 2008 | GTT |
| | Seven Oak Middle School | Pheffer, Jake | 2008 | GTT |
| Lincoln County SD | Newport High School | Hanna, Brian | 2009 | IED |
| Medford SD | Cascade Christian School | Unknown | 2009 | IED |
| North Clackamas School Dist | Sabin-Schellenberg Center | Lynch, Mark | 2006 | IED |
| | | | 2005 | POE |
| | | Mitchell, David | 2008 | EDD |
| | | | 2006 | CIM |
| | | | 2005 | IED |
| North Clackamas School Dist | Sabin-Schellenberg Center | Sellevaag, Wayne | 2006 | DE |
| | | | 2005 | POE |
| North Wasco School District | The Dalles-Wahtonka High School | Anderson, Craig | 2009 | POE |
| | | Helyer, Lynn | 2009 | IED |
| | | Felderman, Stan | 2007 | POE |
| | | Stocking, Bob | 2007 | IED |
| Oregon Building Congress | Ace Academy | Butler, Erin | 2009 | EDD |
| | | Rotting, Marjan | 2008 | IED |
| | | Scott, Randy | 2009 | DE |
| | | | 2008 | POE |
| Oregon Trail SD | Sandy High School | Bleisner, Ben | 2009 | CIM |
| | | Tisch, Bob | 2009 | IED |
| | | Vegary, Ivan | 2009 | IED |
| | | | | |
| Pendleton School District | Sunridge Middle School | Davis, Jim | 2009 | GTT |
| | | Humphries, Gary | 2009 | GTT |
| Portland Public School | Benson High School | Rubio, Eduardo | 2009 | IED |
| | Franklin High School | Moore, Roland | 2009 | IED |
| | Lane Middle School | Fluvog, Joanne | 2009 | GTT |
| | Young Women's Academy | Jackson, Cal | 2008 | IED |
| | | Jenzvold, Liz | 2008 | GTT |
| Redmond School District | Deschutes Edge Charter | Steele, Mike | 2008 | GTT |
| | Elton Gregory MS | Brown, Patrick | 2008 | GTT |
| | Elton Gregory MS | Capps, Troy | 2008 | GTT |
| Redmond School District | Redmond High School | Clarno, Juanita | 2007 | IED |
| | | Irby, Denny | 2007 | CIM |
| | | O'Neill, Cory | 2007 | POE |
| | | | 2008 | EDD |
| | | Winger, Mark | 2007 | CIM |
| Riddle School District | Riddle High School | Martin, Don | 2009 | IED |
| Salem-Keizer Public SD | Claggett Creek MS | Haner, Stephen | 2008 | GTT |
| | McNary High School | Freeman, Jeff | 2007 | POE |
| | | Stuivenga, Doug | 2008 | DE |
| | | | 2007 | IED |
| | | Keith Anderson | 2008 | CIM |
| | | Bond, William | 2008 | DE |
| | Whiteaker Middle School | Earl, Shep | 2008 | GTT |
| | | Denny, Kevin | 2008 | GTT |
| | | | | |
| | | | | |

| School Dist | High School | Teacher | Year | Course |
|--------------------------|-------------------------|----------------------|------|--------|
| Salem-Keizer Public SD | North Salem High School | Anderson, David | 2004 | DE |
| | | Beckwith, Wayne | 2003 | IED |
| | | Bembenek, Jacqueline | 2006 | IED |
| | | Tinnell, Rob | 2008 | POE |
| | | | 2006 | CIM |
| | | | 2003 | POE |
| Sisters School District | Sisters Middle School | Jensen, Rob | 2008 | GTT |
| Sisters School District | Sisters High School | Ray, Craig | 2008 | POE |
| | | Cosby, Tony | 2009 | CIM |
| | | | 2008 | IED |
| | | O'Neill, Dan | 2009 | POE |
| | | Rawls, Kristy | 2009 | EDD |
| | | Unknown | 2009 | CIM |
| | | Unknown | 2009 | DE |
| South Lane SD | Cottage Grove HS | Kaiser, Don | 2009 | IED |
| | Lincoln Middle School | Unknown | 2009 | GTT |
| Woodburn School District | Woodburn Academy | Gilmore, Brian | 2008 | DE |
| | | Gilmore, Brian | 2007 | POE |
| | | Meshelle, Rex | 2007 | IED |
| | | Ellingson, David | 2008 | CIM |

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Attachment D—Teacher and Principal Comments

12/18/08 From Rose Gregory at Pioneer Middle School in Lebanon, OR "I am having the time of my teaching life teaching GTT. My students love it. We are designing Peg Toys right now and all is going well. It's not often I get so many smiles when I tell them what I will be teaching for the day, but if I say we are going to do GTT today the smiles are there! I have split my science time and I am teaching all of our 6th graders GTT. I plan to offer our 8th graders an after school class in the spring to give them an idea of what classes our high school offers. I want to thank you for all you have done for our school. Thanks, Rose Gregory

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Jonathon Bullock, Principal, Redmond High School

The ETIC grant has allowed us to expand our Project Lead the Way program in a variety of ways. We now have more students, a wider diversity of students, and more program capacity than ever before. Our students are engaged in our pre-engineering program with highly trained teachers and state-of-the-art technology, allowing us to make PLTW a key component of our career academy program.

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Steve Day, Principal, Health & Science High School

All is well regarding PLTW. We have a brand new to teaching teacher, Tom Baker, working in what has become our 10th graders' favorite class by far! I've been very impressed with the curriculum that Tom has been given as well as the structure of the work (engineering design was not my background at all). Our passing rate at the end of first trimester is 90% for the IED course. To provide context: this is a course that all of our 10th graders take as a part of their core curriculum here at HS2. With regard to underrepresented groups in engineering, our 10th grade is approx: 48% living in poverty, 35% Latino, 60% female, 20% English language learners. As such, we celebrate the success of our teacher and our students!!!