2010-11 Institutional Effectiveness Reporting In Review

PCC’s Board of Directors updated the college mission statement and corresponding institutional goals in 2010. Thus, the 2010-11 academic year was the first reporting cycle on the revised goals. The following are highlights from each goal report previously presented to the Board.

Access Goal
Record numbers of students accessed the college through dual credit (4,447 students) and distance learning (9,000 students). Financial aid dollars also supported college access for 40% of PCC credit students.

Student Success Goal
The almost 93,000 students enrolled generated a college high full-time equivalency (32,694 FTE). A record number of degrees were also awarded. Retention and graduation rates remained above pre-recessionary levels.

Diversity Goal
The proportion of PCC minority students (26%) was similar to the proportion of area minority residents. The percentage of minority full-time employees (20%) has gradually increased but does not yet reflect the diversity of the community.

Economic, Workforce and Community Development Goal
An increased number of certificates (+71%) and AAS degrees (+10%) were earned compared to the prior year. The CLIMB Center for Advancement provided training and services related to health professions, contract training, individual professional/computer training and small business development.

Quality Goal
PCC prepared students were successful (94% average pass rate) on external certification and licensure exams. Former PCC students who transferred to the Oregon University System were academically competitive (gpa = 3.08) with continuing university students.

Sustainability Goal
PCC’s sustainability initiatives addressed efficiencies in numerous areas such as buildings, energy, transportation, food and waste management. Additionally, an increase in sustainability-infused curricula and green technology are planned.

PCC Office of Institutional Effectiveness, Oct 2011, Summary1020.doc
Access Goal
Access to learning opportunities will be expanded through the cultivation of community and business partnerships.

Key Measures:
- Community Highlight: Dual Credit Partnerships
- Business Highlight: Partnership with Vigor Industrial
- Distance learning enrollment trends (carried forward from prior reporting)
- Students applying/receiving financial aid (carried forward from prior reporting)

Relationship to the Legislature’s Key Performance Measures:
- No corresponding measure exists at this time.

"At the desk where I sit, I have learned one great truth. The answer for all our national problems - the answer for all the problems of the world - come to a single word. That word is education."

Lyndon B. Johnson

Expanding Access through the PCC Dual Credit Program
PCC partnerships with 50 area high schools enabled 4,447 high school students to earn college credits for coursework they completed in high school. A total of 25,490 college-level credits (almost 6 credits per student) were earned at no cost to the high school students.

Opportunities for Dual Credit students expanded as 35 additional high school instructors (for a total of 172 instructors) were approved for teaching dual credit.

Technology is being used to increase registration efficiency by expanding the College’s online registration to now enable Dual Credit students to register from their local high schools.
Expanding Access through Business Partnerships

In 2008, PCC partnered with Vigor Industrial to open the Swan Island Training Center to help meet employer demand for skilled welders and increase access to students wanting to pursue a career in welding. Although operating at full capacity, the Rock Creek Campus Welding Program continued to have long wait lists for classes. The more central location of the center also expanded access to students located in other parts of the community.

Instruction at the Swan Island Training Center is primarily targeted toward the shipping industry. In 2009-10, 42 students (generating 31.7 FTE) received training at the facility.

Supporting Access with Distance Learning

Courses delivered over the Internet, as well as other technology enhanced delivery methods (i.e. campus based class with a web component) continue to supplement and/or provide students access to instruction.

An increasing number of students supplement their campus based course load with distance learning. Approximately 17% of all credit students (Fall 2010) enrolled in both campus and distance learning courses. Most students taking distance learning fall into this category.

However, for 11% of credit students (Fall 2010) distance learning was their only access to the College. In general, these students are older (average 32 years of age), female, and White.

Technology is being used to improve access to tutoring services. On-line tutoring is available to all (both distance and campus) credit students.

Faculty continue to expand distance learning opportunities even in areas with traditional lab experiences. For example, 7 of 12 Chemistry courses are offered fully online with an at-home laboratory component.
Supporting Access with Financial Aid

Financial aid dollars support college access for 40% of PCC credit students.

In 2009-10, a total of $136,528,625 was disbursed in the form of

- Grants ($52,353,983),
- Loans ($82,489,151),
- College Work-Study ($801,223) and
- PCC Foundation Scholarship Awards ($884,269).

With record high numbers of students seeking financial assistance, the efficiency of institutional processes and the College’s capacity to raise and manage scholarship dollars is more critical than ever. The Title III Grant will enable the College to address these critical areas.

US Dept of Education, Title III = $1,988,107 Grant to improve student success by reducing institutional barriers to access. Includes re-engineering student financial services, developing a financial literacy program, and increasing private-sector support capacity in the PCC Foundation.

In addition, aspects of access the PCC Foundation Board is considering in fundraising include:

- guaranteeing all students the financial resources to enroll and succeed in college,
- eliminating barriers to entering and completing college for students from diverse backgrounds,
- ensuring instructional programs meet student and employer demand, and
- reducing barriers to students coming on-campus for classes.

Data Sources

Dual credit information from the “PCC Dual Credit 2009-10 Annual Report.”
Welding Program Review (November 2010)
Chemistry Program Review (November 2010)

Note: Financial Aid data include only aid applicants who also enrolled at PCC and does not include the applications received by non-students.
Diversity Goal

Lifelong learning opportunities will be accessible to all and enriched by the diversity of our students, faculty and staff.

Key Measures:
- Credit and non-credit student racial/ethnic distribution
- PCC employee racial/ethnic distribution
- Recent/new hires racial/ethnic distribution by employee group

Students in Credit Instruction

The record 32,000+ credit students enrolled Fall 2010 reflected increases in students from all ethnic/racial categories.

The percent growth was highest among Hispanics (+12%), followed by African-Americans (+10%) and White, Non-Hispanic (+9%) students.

For the first time, more Hispanic students (2,348 total) enrolled in credit courses than did Asian/Pacific Islanders (2,236 total). This trend is likely to continue as the Hispanic population growth rate exceeds that of all other groups.

Compared to current population estimates, all minority groups enroll in credit instruction at an equal or greater percentage than found in the service area community with the exception of the Hispanic population.

Celebrating Diversity

Each campus hosts at least one annual signature event celebrating the diversity of the community.
- Winter Powwow (Sylvania)
- Cascade Festival of African Films
- Asian New Year (Southeast Center)
- Semana de La Raza – Week of the People (Rock Creek)
Students in Non-Credit Instruction

Non-credit instruction includes English as a Second Language, Adult Basic Education, Continuing Education, Workforce Development, and Community Education. In general, students enrolled in non-credit instruction represent the greatest diversity in the College although the distribution varies considerably depending on the type of instruction.

For example, minority population groups represent the majority of students in Adult Basic Education and English as a Second Language courses. And even when comparing these two instructional areas, the distributions vary considerably.

In contrast, 84% of students taking community education courses are White, followed by 6% Asian/Pacific Islander, 4% Hispanic and <2% African-American.

Full-Time Employed Faculty, Staff and Administrators

PCC employs 1,481 individuals of which 303 (20%) are minority. This ratio has gradually increased over the years but does not yet reflect the diversity of the student or community population. The diversity of employees by job category ranges from 37% (Service Maintenance and Skilled Craft) to 13% (Faculty).
More new employees (186 total) were hired in 2010 than the prior year. Of these employees, 19% are minority.

The PCC Office of Affirmative Action and Equity provides a comprehensive analysis of both full and part-time employees by job category in the annual Workforce Analysis Report. This report also includes labor market availability data which provides a context for understanding the qualified potential workforce for each job category.

Relationship to Legislative Key Performance Measures
PCC’s total student population meets the Legislature’s Key Performance Measure (KPM) target that minority student representation be equal to or greater than the population diversity. The state does not have a corresponding KPM for employees.

<table>
<thead>
<tr>
<th>2010 Full-Time New Hires by Job Category</th>
<th>Total Hired</th>
<th>Minority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrators</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Faculty</td>
<td>58</td>
<td>8</td>
</tr>
<tr>
<td>Professional, Non-Faculty</td>
<td>32</td>
<td>7</td>
</tr>
<tr>
<td>Secretarial/Clerical</td>
<td>48</td>
<td>11</td>
</tr>
<tr>
<td>Service Maintenance/Skilled Craft</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Technical/Paraprofessional</td>
<td>15</td>
<td>3</td>
</tr>
</tbody>
</table>

Notes:
*Service Maintenance also includes 14 "Skilled Craft" employee types of which 2 are minority.

Estimated PCC Service Area: White = 73%, Hispanic = 12%, Asian/Pacific Islander = 7.5%, Black = 4%, American Indian/Alaskan Native = 1%, Other/Multi-Race = 3% (based on Multnomah and Washington Counties) http://quickfacts.census.gov/qfd/states/41/41051.html, http://quickfacts.census.gov/qfd/states/41/41051.html

Census 2010 data will be available in greater geographic detail by next year’s report and the PCC Service Area diversity will reflect that information.

### Full-Time Employee Counts
by Funding Source and Job Category

<table>
<thead>
<tr>
<th>Administrator/Manager</th>
<th>General Fund</th>
<th>Non-General Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2006</td>
<td>2007</td>
</tr>
<tr>
<td>African-American</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Asian (+ Pac Island pre 2009)</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Pac Island/Hawaiian (2009+)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Amer Indian/Alaskan Native</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Two or more races (2009+)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Total Minority</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>Total Employees</td>
<td>132</td>
<td>128</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Faculty*</th>
<th>General Fund</th>
<th>Non-General Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2006</td>
<td>2007</td>
</tr>
<tr>
<td>African-American</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Hispanic</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Asian (+ Pac Island pre 2009)</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td>Pac Island/Hawaiian (2009+)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Amer Indian/Alaskan Native</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Two or more races (2009+)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Total Minority</td>
<td>47</td>
<td>46</td>
</tr>
<tr>
<td>Total Employees</td>
<td>418</td>
<td>420</td>
</tr>
</tbody>
</table>

*also includes Counselors and Librarians, ie. 2007: 18 Counselors, 6 Librarians in GF

<table>
<thead>
<tr>
<th>All Other Groups Combined**</th>
<th>General Fund</th>
<th>Non-General Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2006</td>
<td>2007</td>
</tr>
<tr>
<td>African-American</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td>Hispanic</td>
<td>30</td>
<td>34</td>
</tr>
<tr>
<td>Asian (+ Pac Island pre 2009)</td>
<td>55</td>
<td>60</td>
</tr>
<tr>
<td>Pac Island/Hawaiian (2009+)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Amer Indian/Alaskan Native</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Two or more races (2009+)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Total Minority</td>
<td>125</td>
<td>135</td>
</tr>
<tr>
<td>Total Employees</td>
<td>598</td>
<td>609</td>
</tr>
</tbody>
</table>

*Includes Secretarial/Clerical, Technical/Paraprofessional, Skilled Craft, Service Maintenance and Professional/Non-Technical job categories

Notes:
Federal reporting changes implemented in 2009 resulted in “Asian/Pacific Islander” becoming two categories 1) Asian and 2) Pacific Islander or Native Hawaiian. "Two or more races" is also now reported and indicates two or more races, where the ethnicity is 'not Hispanic or Latino'.

Employee data provided by PCC Office of Human Resources

Full-TimeEmployees2010.docx
Quality Education Goal

Educational excellence will be supported through assessment of learning and practicing continuous improvement and innovation in all that we do.

Key Measures:
- External Assessment of Quality
  - Licensure and certification exam pass rates
  - Student academic performance after transfer

Internal Assessment of Learning and Continuous Improvement
- Presentation: Shirlee Geiger, Learning Assessment Council Faculty Chair

External Assessment of Learning

One indicator that PCC students receive a quality education is their subsequent performance on certification and licensure exams.

PCC students consistently have high pass rates on certification and licensure exams.

This is also one of the Oregon Legislature’s Key Performance Measures for community colleges. National 2008-09 comparison rates were available for occupational areas denoted with an "***" in the table on right. PCC students exceeded national performance averages in all comparisons.

<table>
<thead>
<tr>
<th>Occupational Area</th>
<th>PCC Students Tested</th>
<th>Pass Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Aviation Maint/Technician</td>
<td>19</td>
<td>100%</td>
</tr>
<tr>
<td>*Certified Med Assistants</td>
<td>18</td>
<td>95%</td>
</tr>
<tr>
<td>*Dental Assistants</td>
<td>37</td>
<td>92%</td>
</tr>
<tr>
<td>*Dental Hygiene</td>
<td>21</td>
<td>100%</td>
</tr>
<tr>
<td>*Health Information Mgt</td>
<td>14</td>
<td>100%</td>
</tr>
<tr>
<td>*EMT- All levels (2008-09)</td>
<td>306</td>
<td>93%</td>
</tr>
<tr>
<td>*Med Lab Tech (ASCP &amp; NCA)</td>
<td>42</td>
<td>93%</td>
</tr>
<tr>
<td>*Nursing (2008-09)</td>
<td>107</td>
<td>94%</td>
</tr>
<tr>
<td>Ophthalmic Medical Tech</td>
<td>9</td>
<td>78%</td>
</tr>
<tr>
<td>*Radiography</td>
<td>32</td>
<td>100%</td>
</tr>
<tr>
<td>Welding (2008-09)</td>
<td>27</td>
<td>100%</td>
</tr>
</tbody>
</table>

Student performance after transfer is another indicator PCC students receive a quality education. PCC students who transfer to the Oregon University System have the third highest grade point average (gpa = 3.11) among transfer students from all Oregon community colleges (gpa range for schools = 2.85 - 3.18). Furthermore, PCC transfers are academically competitive with continuing university students (gpa = 3.08).

Internal Assessment of Learning and Continuous Improvement

Special Presentation: Shirlee Geiger, Faculty Chair of PCC’s Learning Assessment Council will provide an overview of the faculty led council’s journey to create a culture of assessment at the college.

Transfer performance data provided by the Oregon University System, Office of Institutional Research. It compares Oregon Community College transfer students at OUS in 2008-09 to other transfer and continuing OUS students.


Office of Institutional Effectiveness, Quality2010Report.doc, June 2011
Student Success Goal

Outstanding teaching, student development programs and support services will provide the foundation for student skill development, degree completion and university transfer.

Key Measures:
- Student enrollment and FTE trends
- Next term retention
- Course success rates
- Degrees/certificates awarded
- Student transfers to 4-year universities – Special Focus Topic

Note: PCC’s Student Success Goal aligns with several of the Oregon Legislature’s Key Performance Measures (KPMs) for community colleges. While updated information was not available at the time of this report, it will be included in the 2011-12 Institutional Effectiveness reports.

Student success defined as skill development, degree completion and/or university transfer begins with enrollment and is supported through retention.

College Enrollment

PCC student enrollment declined slightly (-1.3%) in 2010-11 compared to 2009-10.

The decrease was predominately due to fewer community education students. Similar community education declines occurred at other Oregon community colleges as well.

In contrast, the amount of instruction provided in 2010-11 as measured by full-time equivalence (FTE) increased 4.1% and set a new record high for the college.

A larger than pre-recession percentage of students continue to enroll full-time (i.e. Fall 2010 = 41% vs Fall 2007 = 36%). These enrollments in lower division collegiate and career technical courses generate the majority of FTE.
Fall to Winter Retention

Approximately 73% of fall credit degree-seeking students reenrolled in the winter. Both full and part-time student retention remain higher than pre-recession rates however the same is not true among part-time students.

Credit Student Fall to Winter Retention

A recent study of PCC full and part-time students indicated a relationship between financial aid and retention. Fall full-time students receiving aid had a 90% winter retention rate compared to 77% of students without aid. A significant difference was also found for half-time students where 84% of half-time students receiving aid were retained compared to 66% of students without aid. Part-time students were excluded from comparisons due to the relative small percentage who receive financial aid.

Student Skill Development

The percent of total grades awarded which are passing grades (A,B,C, or P) has consistently ranged from 77.6% to 78.4% over the last five fall terms. Career and Technical Education courses continue to have the highest success rates (82%) followed by Lower Division Transfer courses (79%). Post-secondary remedial instruction is the most challenging for students with an average passing rate of 66%.

Another way to track success is at the student level. Over 88% of Fall 2010 students successfully completed at least one credit. This rate exceeds the four prior fall terms.

Completing one or more credits is also correlated to retention. Fall 2010 students earning one or more credits had a 76% winter retention rate compared to 28% for students completing zero credits.
Degrees and Certificates Awarded

Based on *preliminary counts, the total number of degrees and certificates awarded exceeded the prior year’s number by 18%.

College practices such as the removal of the degree evaluation fee (effective 2009-10), “up front” transcript evaluation, and awarding of multiple degrees/certificates when earned to individual students support increased completions. More full-time students and higher retention rates also contribute to increased awards.

Transfers to Public and Private Institutions - Special Focus Topic

Prior reports targeted transfer to the Oregon University System. This report tracks students to any National Clearinghouse institution which includes 93% of all higher education in the country.

Almost 9,000 PCC 2008-09 students transferred to another institution of higher education sometime during 2009-10.

Public Institutions (7,297 student transfers)

- Students transferred to 414 different public colleges and universities located in 48 states; however 85% remained in Oregon
- Portland State University (49% of public transfer total) followed by Oregon State University (7%) were top enrolling universities for PCC public transfers
- Most transfer students (86%) did not first complete a PCC degree or certificate

Private Institutions (1,599 student transfers)

- Students transferred to 220 different private colleges and universities located in 40 states; however 67% remained in Oregon
- Marylhurst University (10% of private transfer total), University of Portland (9%) and Pacific University (9%) were top enrolling universities for PCC private transfers
- Most transfer students (86%) did not first complete a PCC degree or certificate

In conclusion, the Quality Education Goal report detailed the academic success of PCC transfer students at OUS. Comparable data is not available for private institutions.

PCC Office of Institutional Effectiveness, August 2011, lm:Success2010Report.doc
APPENDIX

National and state completion related discussions frequently address the need for community colleges to produce more graduates. The following provides an overview of a common graduation rate measurement and the significance of student transfer before community college degree completion.

PCC Graduation Rate Talking Point: **PCC students are less likely to graduate but more likely to transfer** compared to students at peer colleges.

**Background:** A common measurement of “graduation rate” is the Federal Student Right to Know (SRTK) calculation. A cohort of “first-time” college students, enrolled full-time their first term who indicated they are degree-seeking are tracked for three years.

This approach is sometimes criticized since it excludes the majority of community college students who do not enroll full-time. Additionally, many students transfer before completing a degree and even those students who transfer and graduate from another institution are not counted in the SRTK graduation rate for either school.

In spite of the above limitations, the SRTK graduation rate is reported by all institutions receiving Federal Financial Aid and therefore, a frequently cited graduation rate.

**Findings:** **PCC Graduation Rate:** 13% of the PCC’s 2006 SRTK cohort completed a degree and/or certificate within 150% of time expected for completion. This compares to a 21% average graduation rate based on a national group of 29 peer institutions.

When student transfer is also addressed, it becomes evident that more PCC students transfer within this time period than graduate. **An additional 26% of PCC’s SRTK cohort transferred** compared to 17% average transfer of the peer institution group.

While a less frequently used measure, the **combined graduation transfer rate for PCC is 39%** compared to 38% for the peer group.

Peer Group = Twenty-nine large public 2-year colleges in the western states with similar size enrollment.

Economic, Workforce, and Community Development Goal

Training provided to individuals, community and business partners will be aligned and coordinated with local economic, educational and workforce needs.

Key Measures:
- Career and Technical Education (CTE) degree and certificate trends
- CTE Employment and wage follow-up
- Special CTE Focus: Occupational Skills Training program
- Continuous Learning for Individuals, Management & Business (CLIMB) Center for Advancement - training and service update

Through Career and Technical Education programs and the CLIMB Center for Advancement’s numerous educational offerings and services, Portland Community College plays a key role in creating, sustaining and retaining the region’s viable workforce. As a result, demand for programs and services is influenced by the financial climate of the local economy.

Career and Technical Education (CTE)
The college offers 140+ CTE major and degree combinations ranging from short-term certificates to the 2-year Associate of Applied Science (AAS) degree. Through each, students can prepare for a career, occupation or to advance within their current field.

With more than 30,000 students enrolled in at least one CTE course, the one-year enrollment growth in CTE (+22.5% FTE 2008-09 to 2009-10) exceeded that of most instructional areas in the college. Enrollments in CTE courses generate 27% of the total college FTE.

The number of AAS degrees awarded increased (+10%) as did certificates (+71%) over the prior year. Short-term certificates, those less than one year in length, accounted for the majority of the growth.

Health occupations (i.e. nursing, dental hygiene, radiography, etc.), Computer Information Systems, Criminal Justice, Paralegal, and Fire Protection are among the career areas in which the largest number of degrees and certificates are completed.
OST Students may train in areas including those typically not offered at PCC such as:
- Bicycle Mechanic,
- Barber/Hair Stylist,
- Plumbing Inspector,
- Job Coach,
- Waste Water Treatment,
- Loan Processor,
- Prosthetics Assistant, and many others.

PCC’s CLIMB Center for Advancement
The training and services provided by the CLIMB Center are focused in four areas:
- Health Professionals,
- Contract Training
- Individual Professional/Computer Training and the
- Small Business Development Center.

CLIMB clients range from individuals seeking skills for entry into the job market to employers who contract for the delivery of customized training to their existing employees. The economy influences the demand for CLIMB’s services in different ways. Climb-Health Professionals continues to serve the highest numbers of students and generate the most FTE as employment in these areas is strong even during the recession. In contrast, Climb-Contract Training is most challenged...
**during difficult economic times** as employer spending on customized training and development tends to be reduced or even eliminated.

**Relationship of PCC Goal to Legislative Key Performance Measures**
The total number of awarded CTE degrees and certificates is a state performance measure. The most recent report to the Legislature showed that PCC awarded 25% of these credentials earned in the state which corresponds to the college’s percentage of the state FTE.

Notes:
*All Others Combined includes Associate of Arts-Oregon Transfer, Associate of Science-Oregon Transfer, Associate of Science and Associate of General Studies degrees.*

**Wage matching data reflects the employment status of 2006-07 CTE graduates for one year after completing their PCC credential. Graduates who did not provide a social security number on their PCC application, those in the military, and those employed out of state or self-employed are excluded. Data by program area are detailed at [http://www.pcc.edu/ir/studentoutcomes/employment/WageMatchDefinitions06-07.pdf](http://www.pcc.edu/ir/studentoutcomes/employment/WageMatchDefinitions06-07.pdf)*

Office of Institutional Effectiveness, Development2010Report.doc, April 2011
Buildings & Energy

2030 Objective 1: Utilize state of the art control systems district wide to maximize energy efficiency

Actions to be taken before 2012:

1. Retrofit controls in existing buildings on the Sylvania campus by the end of calendar year 2010.
   \(\Rightarrow\) Completed June 2011.

2. Bring in an outside energy consultant to complete an energy audit for all campuses by the end of calendar year 2010.
   \(\Rightarrow\) Completed for Sylvania campus Sept 2011. Other campuses to start this year. Rock Creek next, then Cascade, then Southeast Center. Anticipate completion of audits district-wide by mid 2012.

3. Monitor energy consumption of Sylvania campus via web-based, real-time data collection system close to point of use.

4. As new energy audit completed, with help from outside energy consultant, begin to compile list of all retrofits needed district-wide.
   Complete plan for control retrofitting in existing college buildings district-wide by 2012.
   \(\Rightarrow\) After energy audits are complete per item 2 above, list of energy retrofits will be available first at Sylvania. From list of potential projects developed, remainder of E-6 funds will be allocated.

2030 Objective 2: Reduce our energy consumption per square foot 50% below 2006 levels

Actions to be taken before 2012:

1. Complete control retrofitting & sub-metering in all existing buildings district-wide no later than 2016.
   \(\Rightarrow\) Control retrofits & sub metering including retro-commissioning funded in 10 year capital plan.

2. Through increased awareness and outreach of energy use, PCC staff and faculty will decrease consumption by 2012 and beyond.
   \(\Rightarrow\) Of all strategies, building occupant engagement has the potential to realize the greatest energy reductions and will require faculty & staff to adopt new behaviors. Strategies need to be developed. Some input on this topic provided from Green Building Services. Ideas need to be considered and championed by campus leadership for successful implementation.

3. With new bond construction, LEED standards and energy efficiencies will be a planning requirement.
   \(\Rightarrow\) In practice today and new buildings, like Newberg (on track to be LEED Platinum & net zero energy building), will perform 30% better than energy code. Other new buildings designed to minimum LEED silver standard.

4. Implement energy retrofit recommendations which, combined with retrofitted building controls, will result in increased energy efficiency by 2016 and beyond.
   \(\Rightarrow\) New condensing boilers were installed at Sylvania with 93% efficiency, replacing an older boiler that was only 60% efficient. We have also installed a dehumidification unit at Sylvania’s HT building to reclaim
waste heat and reduces the amount of energy needed to heat the HT pool and building. We have also installed 2-way valves on the Sylvania hot water loop allowing us to deliver only the heat needed to a specific building and thereby reduce energy consumption. As we have equipment to replace thru FMS funding and if other funding is identified, additional energy retrofits as identified in energy audits will be implemented.

5. Research & invest in software to manage powering down of most college computer energy equipment. This energy efficiency strategy will be explored as energy audits are completed. Strategy feasibility will be assessed based on projected energy reductions, return on investment and up-front cost.

2030 Objective 3: produce 20% of our own energy onsite using renewable energy technology

**Actions to be taken before 2012:**

1. At Sylvania Campus, invest in cogeneration plant by end of calendar year 2012 and investigate feasibility & financing on other campuses of technologies for generating power in ways that reduce GHG emissions. Two fuel cells installed Oct. 2011 will supply hot water and electricity to HT building. Fuel cells will be a pilot for assessing the viability for implementation in other locations within the PCC District. Bond solar feasibility study identifies solar PV opportunities across district. Bond team will be implementing some solar as a result of funding requirement associated with bond projects (1.5% for solar). Still in planning. Estimated completion of solar PV installs Dec. 2016.

2. Scope of 2008 bond consultant teams shall include decision making opportunities concerning implementation of incorporating renewable energy technologies into new building & remodeling designs. In process via Bond team.

3. Research feasibility & financing of renewable energy technologies on existing buildings district-wide and implement where appropriate by 2012 and beyond. In process.

4. Research feasibility & financing of fuel cell and other emerging technologies placement as well as availability of fuel at other campuses. In process.

**Transportation**

On-going efforts are underway to address and further develop Climate Action Plan priorities related to the College’s transportation activities. The Transportation Demand Management (TDM) effort currently underway will contribute to establishing a basis for future action. The Parking & Transportation Department and the College Fleet Program administered by PCC’s Central Distribution Services are involved in on-going efforts to reduce GHG emissions associated with the college fleet and with student, faculty and staff commuting.

**2030 Objective 1: Reduce number of students traveling to PCC campuses in Single Occupancy Vehicles (SOVs)**

- KPI 1A: Increase Student Shuttle Ridership
- KPI 1B: Increase Student Public Transportation Ridership
- KPI 1C: Increase Student Bike Commuters
- KPI 1D: Increase Student Carpool/ Car-sharing/Motorcycle Riding
- KPI 1E: Increase technology for student services

**2030 Objective 2: Reduce number of employees traveling to PCC campuses in SOVs**

- KPI 2A: Increase Employee Shuttle Ridership
- KPI 2B: Increase Employee Public Transportation Ridership
- KPI 2C: Increase Employee Bike Commuters
- KPI 2D: Increase Employee Carpool/ Car-sharing
2030 Objective 3: Reduce district fleet & shuttle emissions
   KPI 3A: Increase percentage of alternative fuel vehicles in fleet (currently none)
   KPI 3B: Reduce emissions produced by shuttles

2030 Objective 4: Reduce number of people traveling between campuses in SOVs
   KPI 4A: Increase use of telecommuting, wikis & video for meetings
   KPI 4B: Increase shuttle ridership of people between campuses

Consumption & Solid Waste

2030 Objective 6: Develop a water conservation plan for all campuses.
   - Draft KPIs have been developed:
     - Draft KPI 1: Water Conservation
     - Draft KPI 2: Water Reuse
     - Draft KPI 3: Wastewater Management
     - Draft KPI 4: Stormwater Management

Substantial resources, funding, and personnel time is required in order to develop a district-wide, integrated district water conservation & management plan.

Actions to be taken before 2012:
Resource Conservation Manager to assess current water consumption, compile baseline report, set water consumption reduction goals and develop conservation plan. Report to be updated biennially.
- Initial funding of $5,000 from Sustainability Budget created initial framework for developing a plan (we estimate add’tl. $45k needed)

Develop conservation plan that explores storm-water capturing.
- No plan yet developed.
Sylvania bond projects to include storm-water infrastructure in parking lots and fallout areas → Sylvania Bond Site Committee
Sylvania learning garden (Josh L.) received $20,000 grant from Sylvania GIF to install storm-water capture system in Sylvania learning garden.
New Bond construction: LEED standards and water efficiencies planning requirement. Min. LEED silver certification.

2030 Objective 7: Reduce solid waste generated by 50 % by improving recycling, reusing & composting

KPI 1: PCC District Diversion Rate: total weight of material collected and serviced by our commercial haulers and service contractors (collected monthly and reported by District Recycling Coordinator)
KPI 2: PCC District Material Generation: total material collected and serviced by haulers and service contractors (data collected monthly)

High speed hand dryers have been installed District-wide to reduce the amount of paper waste generated by the use of paper towels used for hand drying.

- We have not engaged the heat element in the units to avoid Green House Gas (GHG) emissions across the District by approximately 0.026 tons of CO2E per day or 6.98 tons of CO2E per year (based on a 265 day year). Approximately $1,856 in savings is realized from electricity avoidance (with the heat element off) along with battery avoidance (power supply for paper towel dispensers).

- Other benefits include: avoiding costs of $312 per day district-wide in supplying paper hand towels (not including labor) or $82,774 per year, based on 265 working days a year; approximately 50 tons of paper towels being diverted from landfills at an average savings of $97 per ton or $4,850 per year based on paper towels being dry or $9,700 per year based on paper towels being wet and weighing approximately twice as much; cleaner restrooms; fewer plastic garbage bag liners being used; and allowing Facilities Management Services custodians to focus on higher priority service needs of the college.

2030 Objective 8: Reduce demand for waste hauling and reduce college resource utilization by adopting a sustainable purchasing policy

Action to be taken before 2012:
Craft sustainable purchasing policy in compliance with Oregon Admin. Rules & PCC Board policy by July 1 2010

Sustainable Purchasing Policy adopted by the PCC Board on July 14, 2011 as a part of updated Oregon Community College Rules of Procurement:
"In accordance with the Oregon Community College Rules of Procurement member colleges are committed to the use and purchase of environmentally and socially responsible materials and products which are fiscally responsible, reduce resource consumption and waste, perform adequately and promote human health and well-being. Recognizing their regional economic role Colleges shall seek opportunities to educate, encourage, and influence their respective markets by utilizing, where feasible, products and services including new environmentally preferable products, reusable products, recycled content and recycled products."

Rutgers University will serve as a good model for creating PCC specific sustainable purchasing procedures and guidelines

- It is recommended that a specific PCC Board Policy be developed to increase the visibility of PCC’s newly adopted sustainable purchasing policy.

Food

After initially being combined with Agriculture in the 2009 CAP, the PSC Food Subcommittee now focuses its efforts on food service. The agricultural components of the CAP have been transferred to a new focal area: Agriculture & Natural Resources. These two areas operate with synergies and opportunities for collaboration in mind. The PSC Food Subcommittee works closely with the PSC Consumption & Solid Waste Subcommittee on reducing food waste & other food service waste streams, including on-site and off-site composting.

2030 Objective 1: Incorporate more sustainable food options in Dining Services

- KPI 1A: Increase Local Food Served
- KPI 1B: Increase Organic Food/Bev Served
- KPI 1C: Serve fair trade, free range or hormone free
- KPI 1D: Increase Vegan & Vegetarian Food Options

2030 Objective 2: Reduce Dining Services Waste Contribution

- KPI 2A: Reduce garbage produced back of house in Dining Services
- KPI 2B: Reduce garbage produced front-of-house in dining services
2010-11 Institutional Effectiveness Reporting to the PCC Board of Directors Sustainability Goal Report

2030 Objective 3: Reduce Dining Services Resource Consumption
   KPI 3A: Reduce amount of electricity used by Dining Services
   KPI 3B: Reduce amount of water used by Dining Services

Community Outreach

After struggling to take on the initial goals developed under the CAP targeted at reaching out to stakeholders external to PCC, the PSC Community Outreach Subcommittee has redefined its focus to facilitating outreach targeting internal PCC stakeholders, thereby allowing it to provide more targeted support to PCC’s on-going sustainability efforts. This will provide mechanisms via which PCC’s progress and calls to action around climate action and sustainability can be effectively communicated both within and outside of the College.

2030 Objective 12: Increase sustainability awareness throughout the PCC community
   Goal 12a: Develop a new sustainability website and launch it by October 1, 2011.
      \(\rightarrow\) In progress

   Goal 12b: Work with the Marketing office to develop a communications plan for promoting sustainability by October 1, 2011.
      \(\rightarrow\) In progress

   Goal 12c: Create and start to use a set of key messages to support the communications needs of the other sustainability committees by December 30, 2011.

   Goal 12d: Enhance PCC’s participation in the 2012 City Repair Earth Day event.

   Goal 12e: Develop a process for encouraging sustainable practices in planning and implementing college events and activities by June 2012.

   Goal 12f: Establish an ongoing series of sustainability-themed discussions and seminars.

   Goal 12g: Plan and host sustainability-focused networking events starting fall 2012.

Agriculture & Natural Resources

Recognizing that food initiatives and agricultural initiatives include a very wide range of topics which can often lead to difficulty in developing, focusing on and achieving success towards desired goals, the PSC Agriculture & Natural Resources Subcommittee is being formed to provide a more focused venue for addressing critical sustainability needs and opportunities of our College grounds (including forested areas).

“The PSC Agriculture & Natural Resources Subcommittee will be formed as a focal point for PCC sustainability initiatives related to agriculture, horticulture, grounds & landscape management, forest management, and overall sustainable natural resources conservation & management. This will include coordinating with the PSC Consumption & Solid Waste Subcommittee on water and composting related issues and with the PSC Food Subcommittee on agricultural issues (including learning garden related issues).”

\(\rightarrow\) Formation of subcommittee in progress.
Sustainability in Education – Sustainable Practices for Academics and Resources Council (SPARC)

2030 Objective 11: Increase sustainability-infused curricula and green technology options at PCC
1. Convene Sustainable Practices for Academics and Resources Council (SPARC)
2. Explore development of grad requirement or outcomes in sustainability
3. Begin Environmental Studies sustainability course at PCC
4. Implement 5 new sustainability degree options
5. Explore Energy Efficiency Technician Degree/Certificate
6. Explore Sustainable Agriculture program
7. Explore LEED certification education and accreditation course.
8. Work towards infusing sustainability throughout curricula in all disciplines.
9. In revising the college’s strategic plan, review measurable outcomes that will comply with Board Policy B707.

Tracking Progress & Financing
The PSC Tracking Progress & Financing Subcommittee has developed a reporting framework via which PSC subcommittees can effectively track and report on their progress towards CAP goals and objectives. This subcommittee serves in a support role to other PSC subcommittees in order to assist them in developing tracking indicators and measurements, as well as in assessing funding needs and financing options.
Background on PCC Sustainability

→ Sustainable Use of Resources Policy B-707 adopted Dec. 7, 2006 states: “Portland Community College is committed to becoming a leader in academic programs and operational practices that model the sustainable use of resources, so that the needs of current generations are met without impairing the ability of future generations to meet their own needs.”

→ American College and University Presidents’ Climate Commitment (ACUPCC) signed on June 7, 2007. Over 660 presidents of postsecondary institutions across the nation have joined in signing this commitment.

→ District President Preston Pulliams launches Climate & Energy Leadership Taskforce (CELT) in ’07 charged with:
  – ensuring goals and timelines of the ACUPCC are met;
  – researching and recommending carbon emission reduction goals for the college; and
  – developing a climate action plan for achieving these goals.

Sources of CO\textsubscript{2} in 2006

<table>
<thead>
<tr>
<th>Source</th>
<th>Tons of CO\textsubscript{2}E</th>
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</thead>
<tbody>
<tr>
<td>Solid Waste</td>
<td>191</td>
</tr>
<tr>
<td>Fleet</td>
<td>716</td>
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<tr>
<td>Air Travel</td>
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<td>Commuting</td>
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<tr>
<td>Natural Gas</td>
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<tr>
<td>Total</td>
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</table>

On September 15, 2009, President Pulliams signed PCC’s Climate Action Plan (CAP):

PCC committed to reduce greenhouse gas emissions:
  – Reduce GHG emission levels 10% below 2006 levels by 2012;
  – Reduce GHG emission levels 40% below 2006 levels by 2030; and
  – Reduce GHG emission levels 80% below 2006 levels by 2050.
CAP initially focuses on 7 core areas:

- Buildings & Energy
- Transportation
- Consumption & Solid Waste
- Food & Agriculture
- Sustainability in Education
- Community Outreach
- Tracking Progress & Financing

PCC Sustainability Council (PSC) is officially created to replace the CELT in March 2011

PSC Mission Statement
In support of PCC Board Policy B707-Sustainable Use of Resources, the PCC Sustainability Council spearheads the implementation, ongoing monitoring and updating of the College’s sustainability commitments, including the Climate Action Plan.

PSC Vision Statement
The PCC Sustainability Council will lead the College to become a model of sustainability best practices in education, operations and community leadership. It will approach its work in a manner that is responsive, inclusive and action-oriented.

PSC Definition of Sustainability
Sustainability means using, developing and protecting resources in a manner that enables inhabitants of our planet to meet current needs and provides that future generations can also meet future needs, from the joint perspective of environmental, economic and community objectives. (ORS 184.421)
Updated Green House Gas (GHG) Inventory is currently underway at PCC. It will cover Scopes 1, 2 and 3 for FY03-FY10.

Scope 1:
- Natural gas
- Fleet vehicles: gas, diesel, biodiesel, ethanol, CNG, propane
- Diesel, fuel oil and other stationary fuels
- Refrigerants

Scope 2:
- Electricity

Scope 3:
- Solid waste
- Employee/student commute
- Business travel: air, bus, rail, non-fleet vehicles (rented and reimbursed)
- Embodied emissions in purchases (supply chain)
Background on Green House Gas (GHG) Emissions

The Sun ultimately drives Earth’s climate by emitting energy in the form of sunlight. Sunlight is solar radiation mostly in the form of visible and a smaller portion as ultraviolet (UV) energy. This is also called shortwave radiation. Clouds and the Earth’s surface reflect some of this incoming solar radiation back out to space (approximately 30%), some (mostly UV) is absorbed by the atmosphere (about 20%), and the remaining half is absorbed at the Earth’s surface. Sunlight absorbed by Earth’s surface acts to warm the surface.

The CO₂ molecule is involved in a complex series of processes called the carbon cycle, where the carbon atom within the molecule moves between many different natural reservoirs. As carbon is transferred between reservoirs, processes which release CO₂ into the atmosphere are called sources, and processes which remove CO₂ from the atmosphere are called sinks.

Carbon is continuously exchanged and recycled among the reservoirs through natural processes. These processes occur at various rates ranging from short-term fluctuations which occur daily and seasonally to very long-term cycles which occur over hundreds of millions of years.

Today, there is unequivocal scientific evidence that the abundance of these gases is increasing in the atmosphere. Evidence includes decades of carefully calibrated, global measurements of these trace gases, combined with measurements of "old" air preserved in bubbles embedded in ice cores and measurements of carbon isotopes, in tree rings (from which past atmospheric CO₂ can be reconstructed). This increase in atmospheric GHGs has a significant impact on Earth’s climate because Earth’s incoming and outgoing radiation is out of balance –which forces the climate to change.

As the concentrations of GHGs increase within the atmosphere, more infrared radiation is absorbed and less escapes directly to space, resulting in amplified warming. This is called the Enhanced Greenhouse Effect.

Currently, atmospheric CO₂ levels continue to rise at an accelerating rate as humans burn fossil fuels at increasing rates. In human terms, the CO₂ emitted by the combustion of fossil fuels (along with cement manufacturing and other human activities) remains "forever" due to the stability and longevity of CO₂ within the atmosphere and oceans. This will have significant implications on the Earth System, as the resulting radiation imbalance from the Enhanced Greenhouse Effect will noticeably alter the global climate for centuries to millennia.

For more information:
http://www.esrl.noaa.gov/gmd/education/carbon_toolkit/basics.html

FAQs on Global Warming and Global Climate Change

- Are human activities responsible for the warming?
Separating out the impact of human activity from natural climate variation is extremely difficult. Nonetheless, the IPCC concluded there is a 'discernible human influence' on climate. This means the observed global warming is unlikely to be the result of natural variability alone and that human activities are at least partially responsible.

- What are the most important greenhouse gases? Where are they coming from?
Many greenhouse gases occur naturally, but human activities are adding gases to the natural mix at an unprecedented rate. Water vapor is the most abundant greenhouse gas; it occurs naturally and makes up about two thirds of the natural greenhouse effect. Fuel burning and other human activities, however, are adding large amounts of greenhouse gases to the atmosphere - the most important ones being carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF₆). Since pre-industrial times atmospheric concentrations of CO₂, CH₄ and N₂O have climbed by over 30%, 145% and 15%, respectively. Scientists have confirmed this is primarily due to human activity. Burning coal, oil and gas, and cutting down forests are largely responsible.

- What will happen to Earth’s climate if emissions of these greenhouse gases continue to rise?
Because human emissions of CO₂ and other greenhouse gases continue to climb, and because they remain in the atmosphere for decades to centuries (depending on the gas), we're committing ourselves to a warmer climate in the future. The IPCC projects an average global temperature increase of 2-6°F by 2100, and greater warming thereafter. Temperatures in some parts of the globe (e.g., the polar regions) are expected to rise even faster. Even the low end of the IPCC's projected range represents a rate of climate change unprecedented in the past 10,000 years.
What are the potential impacts of global warming and a changing climate?

Our health, agriculture, water resources, forests, wildlife and coastal areas are vulnerable to global warming and the climatic changes it will bring. The IPCC concluded that 'climate change is likely to have wide-ranging and mostly adverse impacts on human health, with significant loss of life.' A few degrees of warming increases the chances of more frequent and severe heat waves, which can cause more heat-related death and illness. Greater heat can also mean worsened air pollution, as well as damaged crops and depleted water resources. Warming is likely to allow tropical diseases, such as malaria, to spread northward in some areas of the world. It will also intensify the Earth's hydrological cycle. This means that both evaporation and precipitation will increase. Some areas will receive more rain, while other areas will be drier. At the same time, extreme events like floods and droughts are likely to become more frequent. Warming will cause glaciers to melt and oceans to expand. The IPCC projects that sea level will rise one half foot to three feet over the next century. This threatens low-lying coastal areas. Scientists are also concerned that warming could lead to more intense storms.

How might global warming affect my health and well-being?

Exactly how global warming will impact individual locations, let alone individuals, is uncertain. But because global temperatures, rainfall, sea levels and the frequency of extreme weather are expected to increase, you could be affected in many ways. Your health and comfort could be affected if your region experiences more frequent heat waves and worse air pollution. These health concerns are especially serious if you are or care for the very young, very old, or if you have heart and respiratory problems. In the winter time you may feel milder temperatures. You may pay higher energy bills for air conditioning in summer, and lower bills for heating in winter. If you live in the country's interior, particularly in dry areas, water shortages may be more frequent, leading to more restrictions on your water usage. If you live along the coast, your home may be threatened by sea level rise and an increase in storm intensity. The cost of food may change as farmers and the food industry adapt to new climate patterns. And the outdoor activities that you and your family enjoy could be affected by increased beach erosion, decreased snow fall and retreating glaciers, and loss of forests and wildlife, where species are unable to adapt to the changing climate.

How might global warming affect my business?

As a business owner, your costs, competition, and planning decisions may be affected. Your health care costs could increase if the public health sector is burdened by increases in heat and climate related mortality and illness. Like homeowners, your business's energy costs will reflect the need for greater cooling in the summer and less heating in the winter. Your property insurance premiums could go up due to more droughts and floods and possibly more intense storms. If your business is located along the coast, sea level rise may also affect property insurance, not to mention how rising seas may directly impact your business. If your business depends on waterways for transportation, those shipping costs could increase in some areas due to reduced river flow and lower lake levels, though in northern areas shipping could be eased by a longer ice-free season. If you’re in the agricultural or food industry, changing climatic and growing season conditions will require adaptations. Your competitors in this sector may experience either more or less favorable climatic changes than you. The same is true if you’re in a forestry related business. Some of global warming’s impacts may be most severe in other nations less capable of adapting. This may create social and economic disruptions that ripple across the globe to affect your business. For all of these reasons, long-term business planning will increasingly have to consider the changing nature of our planet’s climate.

For more information:
http://www.esrl.noaa.gov/gmd/education/faq_cat-1.html