

WARNER PACIFIC COLLEGE

Mid-Cycle Report

3/2/2015

A report prepared for the Northwest Commission on Colleges and Universities

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Part I: Mission Fulfillment

As described in the college's Year One Report 2013 (Exhibit A), Warner Pacific College has been actively engaged in assessment projects for more than fifteen years. The evolution of the accreditation process used by the Northwest Commission on Colleges and Universities has sharpened the focus of such assessment on mission fulfillment, enabling Warner Pacific to clearly articulate each of the components of its educational process. Just as the standards and processes of the NWCCU have become more precise over time, so too have the college's assessment activities and impulses.

One of the most recent steps in that ongoing development started in the summer of 2013 when the Warner Pacific College Board of Trustees mandated a review of all institutional programs and activities as a means of assessing mission fulfillment. All academic and co-curricular programs as well as administrative functions were to be examined. To perform this review, the president formed the Program Review Coordinating Team (PRCT) made up of several faculty, staff and administrators. In addition, the PRCT formed the Administrative Review Task Force (ARTF) to address the administrative infrastructure and processes. The ARTF developed recommendations that were enacted upon over the past year, resulting in a restructuring of the staff and administrative functions, as well as an on-going effort to modify and improve selected support functions/activities.

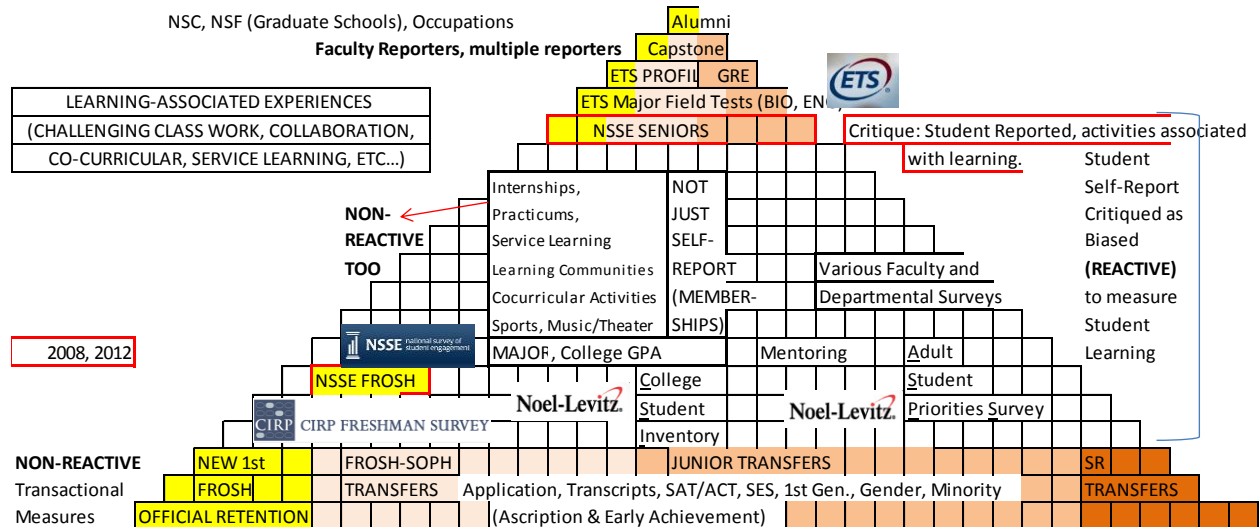
The PRCT used a consultant to assist in the collection and analysis of extensive data and solicited input from all fulltime faculty regarding the implications of the quantitative analysis. After an intensive review lasting over a year, the PRCT recommended 48 actions to increase the effectiveness and sustainability of the institution's programs and activities in light of its mission. Each recommendation carried a rationale that tied the concern to institutional goals and many included specific desired outcomes and a timeline. These recommendations were presented to the Board of Trustees and then forwarded to the Academic Council Two (AC2) Committee for action. The AC2 Committee consists of members of the Academic Council, as well as selected individuals within the institution who have a specific expertise needed by the committee or who occupy key organizational positions. The AC2 Committee is responsible for implementing the PRCT recommendations. The full report is available as Exhibit B: "PRCT Project Priorities."

Leadership within the institution, the Center for Teaching and Learning (CTL), the Institutional Effectiveness Committee, the Core Studies Committee, as well as other members of faculty and staff have taken these recommendations and have aligned several related to academic programs with recognized national standards for student learning outcomes (SLOs).

One of the key assessment tools used to determine and assess the alignment between student experience with institutional mission with mission fulfillment is the Pyramid Longitudinal Assessment illustrated below.

Longitudinal Assessment (Student ID) of the Student Career

(Multi-Measure, Multi-Reporter, Multi-Method, Over Time)
(We Measure Students. We Test Ourselves).



This representation, commonly referenced internally as the Pyramid model, takes seriously student self-report data, but also attempts to embed such data in other contextual data and triangulate it with other methodologies of measurement taken from other reporters over time. Thus, for example, at the base of the Pyramid, there is application data, financial aid data, and registrarial data. These provide measures of both ascribed statuses of gender, age, race and ethnicity, first generation status, socio-economic status, Zip Code, high school/previous colleges transcript information, and other colleges applied together with so-called achievement indicators of SAT/ACT tests, high school g.p.a., merit scholarships and, perhaps, measures of advanced standing. Whatever is learned about the student at midpoints, from survey data, WPC g.p.a., and more can be disaggregated by various groupings upon arrival by cohort. These data points may be predictive of retention/attrition and some of them might be used to explain and intervene with programmatic changes to moderate attrition rates. Though some of this data relies on student self-report, other methods provide more direct and verifiable information. Measures of membership and participation in courses, majors, co-curricular activities, and more are collected. Data from other reporters in these membership or affiliation settings, such as internship supervisors, are also gathered. Finally, at the level of outcomes, there are a variety of measures and reporters: students/alumni self-report assessing their educational experience and skill sets, g.p.a., capstone projects together with more than one faculty reporter, and so-called objective measures, like externally generated and normed tests. Together, this methodology provides opportunity to create a multifaceted set of measures of overall, major, and other group arrival, midpoint, and outcome assessment summative reports. These may be used for program modification, student support, and institutional assessment.

Much assessment of student outcomes attempts to make arguments about graduating

students from an institution, making assumptions about the connections to a common set of experiences through the base and middle of the Pyramid. Many students enter Warner Pacific as transfers, thus in the middle of the Pyramid. The institutional research functions to disaggregate the findings by differential entry points to the institution. For example, the yellow shading up the left side of the Pyramid represents the traditional first-time first-year students who intend to take four years to graduate from Warner Pacific. But, their experience, and perhaps their outcomes will be somewhat different from the much larger group(s) who arrive after college experience elsewhere. These can be assessed for differences in outcomes. Where these differences are reasonable and acceptable, that finding can be reported, and in other cases programmatic changes can be introduced based upon findings.

Of course, this Pyramid describes the data-gathering and analysis within the institution, while also creating opportunities for comparison among peers. Thus, where possible, especially on the most commonly collected economic, financial, enrollment and demographic measures, Warner Pacific College will be compared to both contemporary and aspirational peer schools, which were chosen for commonalities on mission, context, size, and financial considerations. Warner Pacific College has recently created such a grouping of schools and has begun to gather data for the purposes of comparison. This comparison process allows for external validation of performance and a reality-check upon unrealistic timelines for aspirational goals.

In some sense, a student's place in time determines the kinds of methodologies used in data collection and analysis. Initially (base), measures are more contextual or background measures. These are very important and should be continuously considered in presenting the later findings. In the middle, where measures document what is happening to the student, many measures are associational or those measures connected with student success and in some ways predictive of success; but they are not in themselves the outcome. The National Survey of Student Engagement (NSSE) can be faulted for being associational to the best practices for student success. Reporting NSSE findings are not used to congratulate ourselves on successful outcomes, but they point the way. In the same way, students joining various clubs, organizations, and finding memberships throughout the college are not the outcome, but they are associated with the outcome and facilitate it. Finally, certain things need measurement at the end and these are mostly direct, although some are student/alumni self-reported. These include satisfaction with the educational experience, objective measures or tests of skills and knowledge, and assessment of capstone projects. These final measures are expensive and time consuming. Though not all students are measured, it is important that the groups of students measured are representative of other graduates, programs, and the groups at the base of the Pyramid.

As the individual academic departments, the Assessment Committee and the Institutional Effectiveness Committee review and analyze the results of this data collection process, several issues bear upon their work. These include the realizations that

- a. Not all students are measured in all collections, though use of samples of students to be measured is methodologically defensible.
- b. The findings at the top of the Pyramid are to be contextualized / controlled by the measurements at the base and midlevel.
- c. When there is an established track record of finding memberships in various co- curricular activities and learning activities to be associated, not only in the literature and national data-sets (NSSE) with learning outcomes, but also at WPC, these intermediate measures will be given some gravitas.
- d. The Capstone experience (both within majors and in the Core Studies) is potentially a very potent assessment project. Additional considerations here include
 - 1) use of multiple faculty to guard against single rater bias, and
 - 2) the additional impact of the Capstone experience, which could be achieved through a comprehensive student pre-test early in the student's career within a given major or in the Core Studies. If such "pretests" are also considered as the context for the group graduating, the Capstone would constitute a post-test that could be used as another measure of program effectiveness and mission fulfillment. The clear articulation of SLOs (student learning outcomes) currently being implemented across the Core Studies program allows for the possibility of doing such $T_1 \rightarrow T_2 \rightarrow T_3$ analysis on the effects of early courses and SLO achievement on later course SLOs and upon the Capstone.
- e. Practica, field settings and internships yield early, middle and late insights into the student learning experience and therefore provide opportunities for longitudinal study.

The institution's commitment to this extensive attempt to analyze mission fulfillment demonstrates that the Core Themes, as outlined in the Year One Report, are still valid expressions of the college's identity and purpose. There is no formal assessment for being a Christ-centered college, but through Warner Pacific's Core Studies and other course offerings, Core Theme One, "cultivating a Christ-centered learning community," and Core Theme Three, "fostering a liberal arts education," are apparent. Core Theme Two, "collaborating with and for our urban environment," and Core Theme Four, "investing in the formation and success of students from diverse backgrounds," will be discussed at length later in this report. The objectives for the Core Themes are regularly reviewed as data collection and analysis are seen as a continual process of assessment.

Core Theme Two, "collaborating with and for our urban environment" and one of the listed objectives, are of particular note. Objective one, "become distinctive among Christ-centered colleges for cross-cultural urban studies," is being amended in light of the reduction of the Urban Studies major to a minor as well as the departure of the professor charged with

running the Urban Studies major. The first Achievement Indicator, therefore, is no longer valid. The Acceptable Threshold for this indicator, Warner Pacific “being noted among its comparison group for its urban studies program,” is no longer valid either. However, the second Achievement Indicator for this objective, “measure number and percent of graduates taking ‘urban-themed’ courses from predefined list,” is still significant. Courses identified as “urban,” with phrases such as “in the city,” and those courses with civic-related outcomes are being used to determine if students are meeting the acceptable threshold of having “50% of first-time freshmen graduates (TRAD) and 20% of transfer students (TRAD) take at least one urban-themed course.” While Warner Pacific no longer has an Urban Studies major, the college will become distinctive for the diffuseness of urban-themed courses, through the Urban Studies minor, and for the variety and depth of “urban-themed” offerings.

In light of these changes, the institution is satisfied with the four Core Themes. Indicators surrounding the Core Themes of “urban” and “diverse” are going to be inclusive across the departments using a variety of measures related to civic engagement to measure the urban theme and global / cross-cultural measures for the diverse theme.

In an effort to gain greater sophistication in the articulation of its academic expectations, the Executive Director of the Center for Teaching and Learning and the Director of Institutional Effectiveness have carefully matched the college’s program outcomes in categories of “Convictions,” “Knowledge” and “Skills” with the Degree Qualifications Profile (DQP) and the Valid Assessment of Learning in Undergraduate Education (VALUE) rubrics developed by the Association of American Colleges and Universities (see Exhibit C: “WPC Outcomes.DQP.VALUE”). Using this instrument, an analysis of the college’s curriculum for urban and diverse themes demonstrates that there are 217 instances where Warner Pacific College’s Student Learning Outcomes (SLOs) are aligned with DQP and VALUE rubrics when identified by department and course prefix. Additionally, as Damon Williams discussed in his book *Strategic Diversity Leadership*, the Association of American Colleges and Universities’ (AAC&U) Essential Learning Outcomes (ELOs) are significantly linked to diversity education (See Exhibit D: “ELOs Diversity”). Some potential leverage points from this document include campus cultural events, first-year experience courses, internships, service learning, student leadership development programs, and student organizations. Each of these is currently taking place on the campus. Furthermore, two of the ELOs, Global and Civic Learning, are closely aligned with DQP and Value Rubrics.

Another piece of evidence is found in Core Theme Three, objective one found on page 25 of Warner Pacific College’s Year One Self-Evaluation Report (March 2013). Objective one is “to organize the College’s Core Studies curriculum around the acquisition of skills, knowledge, and convictions.” The Core Studies Committee has taken up the task of mapping these SLOs by department. By measuring the results of this mapping project, DQP and VALUE rubrics are intentionally incorporated into the Core Studies curriculum (see Exhibit E: “Core Studies, Initial Framing of Project and Findings”).

In a recent training session for Mid-Cycle evaluators, a participant from the NWCCU distributed a draft rubric designed to help an institution evaluate its performance on assessment planning and progress. Representatives from Warner Pacific subsequently participated in a meeting of the Pacific Northwest Learning Consortium where this draft was discussed and modifications recommended. Warner Pacific has chosen to use this draft rubric, even though it has not been officially adopted by the NWCCU, because of the helpful clarifying language and scaffolding it provides (see Exhibit F, “Rubric for Evaluating Outcomes Assessment Plan and Progress”). Using this instrument, the college assessed the Warner Pacific academic programs as falling in the categories of “emerging” and “developed.” Through the mapping project, Warner Pacific College demonstrates it is approaching the “developed” category for the Alignment Criterion. Additionally, with the Core Studies Committee and the Institutional Effectiveness Committee using the recommendations of the PRCT, Warner Pacific College is approaching the “developed” category for the “Results are Used” Criterion.

Part II: Two Representative Examples of Mission Fulfillment

Introduction to Part II, Context

For Part Two this report identifies two representative examples of assessment of programs which operationalize WPC’s mission and Core Theme most associated with student learning, i.e. Fostering a Liberal Arts Education. Other themes will also be implicated. The two examples are 1) general education as assessed in the senior Core Studies requirement, HUM 410, a senior thesis project required of traditional students and in capstone courses in the Adult Degree Program and 2) the science funnel. Both examples will highlight a central model of research, collecting and analyzing longitudinal data on the same students over their careers at WPC.

Example One: Core Studies

The Senior Humanities Seminar, known colloquially as HUM 410, is the culminating experience of most seniors graduating with majors in the traditional (as opposed to the Adult Degree Program) curriculum. This section of the report introduces the HUM 410 Outcome Assessment program within the context of Core Studies evaluation and revision. Nearly every traditional student must take HUM 410, an undergraduate thesis project focused around a paradox of the student’s choosing and demonstrating some level of mastery in the student’s major area of study and at least two other disciplines. A crucial function of the ongoing analysis and revision of HUM 410’s scoring rubric and rating process is the assessment of writing and data-informed revision of the Core Studies. Thus, this example of rubric use and revision serves to illustrate how addressing a specific set of important student learning outcomes (SLOs) enables the assessment of the teaching and learning of writing, and how this is taking place in a context of progress toward mission fulfillment. The Table below, taken from the college’s Year One

Report, displays the progression from Objective to Achievement Indicator to Acceptable Threshold associated with this example.

As noted earlier, the comprehensive program review conducted in 2013-14 created several recommendations. One of those directed the Core Studies Committee to review the Core Studies curriculum around SLOs and bring recommendations to the faculty and Executive Cabinet. In Spring 2014, faculty began a process of aligning all of student learning outcomes in the Core Studies program with national standards from the Lumina-funded project of the AAC&U, especially the Degree Qualifications Profile (DQP) and VALUE rubrics. All 19 of the

| Core Theme 3: Fostering a Liberal Arts Education | | |
|--|---|--|
| Objective | Achievement Indicator | Acceptable Threshold |
| Objective 1: Organize the College's Core Studies curriculum around the acquisition of Skills, Knowledge, and Convictions | HUM 410 Capstone Paper (traditional students) | Rubric of 25 items measured by faculty readers on 1-4 scale of Core Studies skills, knowledge, convictions demonstrated in HUM 410 paper |
| | | 50% of HUM 410 students 40 pts. or higher |
| | | 80% of identified items have at least 10% student success |
| | | All four Core Themes are touched upon (singly) at least 10% of the time |

Warner Pacific College Core Studies Student Learning Outcomes (SLOs) identified in the catalog were mapped to over 100 specific DQP and VALUE rubric SLOs.

In Fall 2014, the Core Studies Committee did initial mapping of which departments (course prefixes) were planning on taking responsibility for all of the SLOs aligned to DQP and VALUE Rubrics. The purpose of the mapping was initially to look for the degree of completeness of the system of measuring student learning outcomes, and then to see the highs and lows among measures. In both ways, the committee would be able to make adjustments in Core Studies offerings and requirements. The first finding was that there were no Core Studies courses in which student proficiencies in technology were being taught or assessed, even though one of the SLOs clearly calls each student to demonstrate “the ability to translate current technology used in the major field of study, as well as function in modern society.” Currently, the Core Studies Committee is discussing an appropriate Core Studies course requirement where this outcome can be taught and assessed.

A second finding related to the frequency and distribution of SLOs among the academic departments. First of all, about half of all SLOs are included in courses being offered by the Humanities department and about one-fourth by the Religion and Christian Ministries department. Natural Science and Health and Social Science departments accounted for over ten

percent each, and Music did not account for any outcomes. Even on an outcome such as, “Ability to use tools that address social issues,” Humanities counted 2.5 times as many occasions for this SLO as Social Sciences. Religion and Christian Ministries counted this SLO as many times as Social Sciences. This is an example of ways the mapping project may lead to an adjustment in the Core Studies curriculum and where in the curriculum SLOs will be taught and assessed. This initial mapping and some suggestions coming from this analysis has been passed on to the faculty and Executive Cabinet.

The next step on the part of the Core Studies Committee will be to get clarity on which courses will be responsible for specific SLOs and which course assignments will be assessed, and then gather such assessments into a system of evaluation. In that vein, the faculty who teach HUM 410 gathered in Fall 2014 to look at specific alignment of DQP and VALUE rubrics with the current HUM 410 scoring rubric which has been used for several years. The process of alignment seemed fairly straight-forward and was agreed upon. A new rubric was not adopted yet, as that process needs to be done in conjunction with a specific semester and include training of raters. Students will need to be informed of the new DQP and VALUE rubrics language when it is to replace the current rubric. In the meantime, the alignment has been accomplished as a first step. The current rubric has eight scales, each scored at 10 or 20 points. The new rubric will have 15 indicators each scoring from one (1) to four (4), although a score of three (3) or four (4) would be normative for a capstone paper. It is possible that some indicators might be weighted at double value towards the grade in a final rubric. Some of the indicators are used redundantly and may need to just be weighted as two (2) or three (3) times counted.

Recently, the Director of Institutional Research analyzed Fall 2014 scores from the HUM 410 rubric. Unlike the previous rubric analyzed in 2009, this analysis was not done in the context of a strict norming exercise; thus a group of papers was not scored by three raters each. Some norming work could be done in the future when the rubric is switched out for the DQP/VR. (See Exhibit G, “DQP VR Aligned to HUM 410”). Instead, all the papers from the semester were scored by either one or two raters, according to the student’s choice in each case. Inter-item reliability tests were run using SPSS and found to be very satisfactory with a Chronbach’s Alpha of .88. None of the eight subscales could be deleted and result in any improvement. The average difference between the first and second raters on the papers was quite modest. In rare cases where the difference in the scores of any two raters exceeds 12%, the current practice is to ask raters if a compromise score is possible.

Further tests were run to see if earlier course grades in English and Humanities writing courses correlated significantly with scores on the rubric subscales for HUM 410 and if whole course grades also correlated each other or with HUM 410. The main surprise was the fact that grades in HUM 310, the Humanities course that students typically take in the year preceding their enrollment in HUM 410, did not correlate with HUM 410. Faculty consensus was that any evaluation and revision of HUM 310 is a large project, and will not be done immediately. This led the faculty to consider how they are going to work on EN 101 and EN 200 to norm syllabi,

assignments, and assessment in an effort to improve the predictive value of these earlier writing courses on HUM 410. The same exercise will eventually be done for HUM 310. The DQP and VALUE rubrics will be a part of this re-visitation of these courses, syllabi, and assignments. See Exhibit H: “Analytics HUM 410 Raters Fall 2014.”

In summary, recent assessment of the HUM 410 rubric and process has been undertaken within a context of writing assessment and Core Studies assessment and revision. The context includes a Board of Trustees-mandated assessment and re-visitation of the Core Studies around SLOs. That has led to the adoption of the DQP and VALUE rubrics as representing the college’s 19 Core Studies SLOs related to Convictions, Knowledge, and Skills found in the catalog. Alignment of DQP/VR to WPC SLOs has been done and a process of choosing specifically where these outcomes will be demonstrated has begun. This in turn has led to suggestions about how to revise the Core Studies requirements and curriculum. Among the alignments of assessment with DQP/VR has been the revision in the rubric for HUM 410. That assessment process has been shown to be adequate, but will be improved by training, scoring to the new rubric, assessing inter-rater reliability, and aligning earlier English and Humanities classes to the intended HUM 410 outcomes.

Because the curriculum of the Adult Degree Program (ADP) does not include the HUM 410 senior thesis, capstone projects associated with Human Development, Business Administration, and Health Care Administration majors have been identified as the locus of assessment of student learning outcomes related to Core Studies, in keeping with the table taken from the Year One Report. This table will also be used in reference to the biology example later in this report.

| Core Theme 3: Fostering a Liberal Arts Education | | |
|--|--|--|
| Objective | Achievement Indicator | Acceptable Threshold |
| Objective 2: Develop, evaluate, and implement existing majors and new degree opportunities to align with Core convictions, knowledge, and skills and departmental outcomes | Capstone courses in the major support student self-evaluation in reference to departmental outcomes | Surveys of seniors in capstone courses demonstrate personal growth and self-efficacy |
| | Departments assess student performance and departmental performance on knowledge, skills, and convictions and/or departmental outcomes | Most departments do annual assessment projects of student outcomes, which are evaluated by the Institutional Effectiveness Committee and become the basis for changes in curriculum and practices in the major |

Inasmuch as a large majority of ADP students at the baccalaureate level transfer as many as 82 credits into the program, assessment of the direct impact of the Core Studies course taken at Warner Pacific is difficult. Capstone courses, by their nature, are summative assessments of learning within given majors. Therefore, this part of the accreditation report will include feedback from department chairs on how the capstone assignments reflect certain Knowledge, Skills and Convictions, whether the current rubrics reflect these Core Studies outcomes, and if not, how that will be addressed going forward. Guiding this examination is the expectation expressed in Objective 2, Indicators 1 and 3 of the Core Theme “Fostering a Liberal Arts Education.

Department chairs for Business and Social Science, under which the ADP majors are housed, reviewed the Core Studies learning outcomes for Convictions, Knowledge, and Skills in relation to the capstone courses for the Business Administration, Health Care Administration, and Human Development majors in the ADP. Both chairs indicated that the Convictions regarding ethical worldviews, self-knowledge, and valuing diversity were key to success in the capstone courses. Five of the seven Knowledge outcomes were also identified, such as understandings of the nature and value of liberal arts, historical contexts across the curriculum, cultural and global interdependency, ethical, environmental, social, and cross-cultural influences, and the importance of science and technology in contemporary society. Additionally, six of the Skills outcomes were also identified as being important to success in the major capstones, including critical thinking, tools addressing social issues, the generation and execution of a plan, effective and civil verbal discourse, effective written communication, and the acquisition and structure of information.

That being said, the rubrics for grading assignments in the capstone courses explicitly assess few to none of these learning outcomes directly, other than areas of critical thinking and evaluation, and effective written and oral communication (through the papers and presentations required). Both chairs reported that from this review of their course rubrics, they will work with the respective department faculty to revise the rubrics in order to more directly connect the evaluation of assignments to the overall Core Studies learning outcomes. Additionally, this spring, the faculty chairs will undertake discussion, with the Assistant Vice President for the ADP and the Director of General Education for the ADP, on whether the major capstone courses are the appropriate place to evaluate ADP graduates on Core Studies outcomes, and if so, how best to accomplish that assessment.

Example Two: Biology

Assessment of the Biological Science major has been ongoing for many years. In academic year 2013-14 the Department of Natural Sciences and Health and the Office of Institutional Effectiveness began to build a “funnel” or “pyramid” structure with which to

provide context for the annual program assessment data. In the past, the department used data from graduating seniors including Major Field Test exam scores to objectively assess knowledge in the biological sciences; affective data regarding programmatic elements (courses, instructors, etc.); and assignments for assessing science process, literature review and data analysis skills. Although assessment of the major was possible using these data, only anecdotal evidence was available to provide context for the data obtained. Such context includes basic college preparation, as indicated by SAT or ACT scores, and likelihood of college success as indicated by CIRP data. The Office of Institutional Effectiveness has begun to collect and collate data, going back about five years, in order to link incoming student data with student outcomes.

The science funnel (See Exhibit I: “Science Funnel”) project starts by counting 30 to 50 applicants a year who matriculate with a science-related interest noted on their application. It proceeds to follow students who take their first biology sequence classes, before they are counted formally as science or Biological Science majors. About half arrive as first-time freshmen and about half as transfers. A consistently large group of students matriculate with the intention of pursuing a Biological Science major (increasingly, in recent years, intending to pursue pre-med, pre-dental and other health-related fields of study). The department tracks the freshmen students by looking at their career and major interests on the CIRP Freshman Survey, where 18% report interest in a science career and 25% interest in a science major. Thus, a project like the science funnel illustrates the intimate connection between Core Theme mission fulfillment in liberal arts and sustainability. This report illustrates the tie between sustainability and mission fulfillment by analyzing the recruitment, selection, introduction, and solidification and eventual graduation of a set of potential science majors. Early course-taking behavior is then related to retention, academic success, and measurement of outcomes at graduation in the senior class; and yes, students who successfully complete the initial sequence in science retain and graduate at rates higher than those who do not take that sequence.

Using student ID numbers, the department and the Office of Institutional Effectiveness built a database which tracks students in various tiers. The first (lowest) tier is all students who express an interest in science majors during the recruiting process. The second tier is all students who declare a Biological Science major (either explicitly or implicitly, by taking both BIO 101 and BIO 102 their freshman year). The third tier is all students who progress partway through the Biological Science major, as indicated by enrollment in sophomore-level biology courses. The fourth tier is all students who take BIO 490 Senior Seminar in Biology, the course in which program assessment is done. The fifth, highest, tier consists of all Biological Science graduates. Querying the database permits tracking not only of graduation rates, but retention rates between each set of adjacent tiers, and to the grouping of these students in many different ways: using minority/majority status, gender, athlete/non-athlete identity, commuter/residential, well-prepared/under-prepared, for example. Over time, as the database grows, it will be possible to predict more accurately which matriculating students, and even which applicants, are most likely

to persist and graduate in the Biological Science major or from Warner Pacific College in another major.

The data obtained from this assessment project have already been used in two important ways. First, the department submitted a grant proposal to the National Science Foundation last summer for Scholarships in Science, Technology, Engineering and Mathematics. This is a funding mechanism which provides scholarship money for STEM students, and also some smaller funds for enhancements to co-curricular programs, including tutoring and First-Year Learning Communities. Though the proposal was not funded, the research used in preparation of the proposal proved very valuable to the department's sense of the students it serves. The second way these data have been used is to make changes to the Biological Science major. Analysis of the Major Field Test data showed that the students score at approximately the 40th percentile overall, and for each of the subsections (see details below). In the past, anecdotal evidence suggested that this was because Warner Pacific's student population was less prepared for college than other students. What the new "pyramid" analysis method showed was that, although students are underprepared, as defined by the College Board (creators and administrators of the SAT exam), they are only slightly less well prepared than the national average college-bound high school senior. For the WPC student body in the 2013-2014 academic year, the middle 50% of Math + Reading SAT scores were 970-1110; the comparable U.S. national mean score for all students taking these exams is 1010. Average input with less than average output means that the department needs to do a better job educating students. Therefore, the Department of Natural Sciences and Health has recently submitted a proposal to the Curriculum Committee to increase the rigor of the major by increasing the number of upper division credits required, and by requiring students to take courses from three categories. This will increase the breadth and depth of their biology education.

Because of the usefulness of the pyramid approach to data analysis, still in its infancy, the plan is that this model will be used as a prototype on which other programs can base their assessment procedures.

Specific assessment plans and data related to the Biological Science major follow.

Alignment of Biological Science Major with Mission and Core Themes

The Biological Science major primarily fulfills the liberal arts Core Theme (see table above). Sciences have always been one of the key components of the liberal arts. In courses for majors and for those fulfilling Core Studies requirements, science classes help students to gain skills in hypothesizing, gathering data necessary for critical evaluation (analysis) of a hypothesis, and building logical arguments around things relating to the natural world.

The department also takes seriously the other three Core Themes of the college – those of Christ-centeredness, serving a diverse student body, and being devoted to the city of Portland. Students' and faculty members' faiths are explored in ways that fit naturally in a science

curriculum, as opposed to “teaching science through a Christian lens.” Another Core Theme at WPC, “investing in the formation and success of students from diverse backgrounds,” is modeled in the sciences as well. This past year the college’s chemistry professor, who grew up a Mexican citizen, noted as he attended the Murdock science conference that WPC was the only college represented with American minority student presenters. Those who have done mock interviews of Biological Science graduates to prepare them for graduate school interviews, have noted that the class is well represented with minority students intending careers in health and medicine. This kind of longitudinal research, tracking student characteristics from applicant to the outcomes at graduation, is exemplified in the science funnel project. The diversity of the total student body is obvious – approximately 55% of incoming students in 2014-15 identified as having minority status and 40% of all traditional students are minority students. In the Biological Sciences major as a whole, and in the senior class specifically, this diversity is apparent. Of 150 seniors in fall 2014, 34 (23%) are identified as minority students, while in the Natural Science & Health Department 10 of 25 (40%) seniors are minority students! The major clearly serves diverse students well. The department addresses the “collaborating with and for our urban environment” Core Theme through its Urban Ecology course that is taught for non-science majors. It teaches students to appreciate that cities require a much larger natural footprint than can be found inside the urban growth boundary. These lessons trickle into other courses as well, where appropriate

Major Outcomes, as currently listed in the 2014-2015 catalog

Upon successful completion of the major in Biological Science, graduates will be able to:

- 1) Demonstrate a comprehension of the fundamental concepts, theories and models necessary to the understanding of the biological sciences.
- 2) Demonstrate the ability to integrate the disciplines within the sciences and mathematics in order to critically approach and evaluate theories, analyze data, and solve problems.
- 3) Understand and apply scientific methodologies through the formulation of hypotheses, use of current research technologies and statistical applications, and the evaluation and presentation of results.
- 4) Effectively communicate their approach to data analysis and problem solving in both written and oral form.
- 5) Demonstrate a comprehension of the historical context and development of the biological sciences over the years.
- 6) Explore science, faith and their integral relationship with the ethical, moral and spiritual issues of our society.

How each Major Outcome is Assessed, and Recent Data, if available:

The department assesses Outcome 1 using the Major Field Test from Educational Testing Service. The following data are presented as mean \pm SEM percentile ranking (range), and are from the 2010/11 year through the 2013/14 year (n=41):

Overall: 38 ± 16.3 (5-77)

Cell Subsection: 32 ± 16.1 (5-86)

Molecular/Genetics Subsection: 35 ± 17.7 (5-83)

Organismal Subsection: 41 ± 19.1 (2-84)

Population/Evolution Subsection: 41 ± 20.1 (1-91)

Outcome 2 does not yet have a particular assessment project designed for it. Future plans to assess this outcome rely on using semester-long projects already assigned in classes including BIO 420 Mammalian Physiology and BIO 360 Ecology in which students collect, analyze, and report data. For longitudinal analysis, student grades on these assignments could be gleaned from past gradebooks. For example, in 2011, 24/25 students earned a passing grade on the capstone project in BIO 420; in 2013, this proportion was 16/16. Going forward, the department plans to use assessment rubrics similar to those used for Outcome 3 in order to be able to assess various sections and skills individually (especially important for statistical analysis).

Outcome 3 is assessed using a “Science Process” assessment project in the Senior Seminar course each year, and with a Critical Literature Review assignment. For the Science Process project, students form a hypothesis and design an experiment to test their hypothesis, including data analysis methods. Each section (Hypothesis/Rationale, Data Required to Address Hypothesis, and Methods) as well as the overall paper are compared to a rubric to determine whether the work does not meet, meets, exceeds, or far exceeds expectations. The critical literature review assignment assesses how well students are able to extract information from primary research articles. Data for both of these are tracked annually. Assessment work the past two years has fallen off track due to extra projects for other institutional service, but the artifacts have been collected and the department plans to process them in spring semester 2015. Data for previous years show that 92.7% of students meet, exceed or far exceed expectations on the literature review assignment. For the Science Process Project, the three sections are reported separately: 75.6%, 71.1% and 57.8% of students meet, exceed or far exceed expectations for hypothesis, data, and methods sections, respectively. Because this is one of the weaker areas, the department has made changes to incorporate more experimental design and hypothesis evaluation into coursework at all levels. Results of assessment will be informative as to whether these changes have helped students meet expectations.

Outcome 4 is typically assessed only on high-achieving students who do research with faculty or as part of the Murdock Collaborative Undergraduate Research Program. These students present their data during spring semester. Faculty members from outside the department are invited to provide an assessment of the quality of communication. Students evaluated in this manner nearly always rank as “superior” or “excellent,” but this is due to selection bias. The

department needs to begin to assess communication skills in the future for all students; for written communication, this can be done using the same documents already collected during BIO 490 for assessment of other outcomes.

Outcome 5 is not currently assessed; the department plans to remove it as a separate outcome in the future, and include it with Outcome 1 (see below).

Assessment of Outcome 6 asks only whether students are given the opportunity to explore integration of faith and science; the department does not assess students' positions. Each year's senior seminar includes discussion of a bioethical topic and students write an *amicus* brief-style document relating their position on the topic; this position should reflect both their biological training and their worldview or spiritual beliefs. The department also asks senior Biological Science majors two relevant questions in an affective assessment of the major. The first question asks whether current social and ethical issues were integrated into course content. Approximately 92% agree or strongly agree with this statement. A second question asks whether the student felt free to develop his/her own position on issues of biological concern. More than 97% agree or strongly agree with this statement.

Plans to Update Major Outcomes in Next Catalog

The department plans to make two significant changes to its Major Outcomes. The first is that the current Outcome 5 will be folded into the current Outcome 1. Thus, the historical series of events and discoveries, leading to the current paradigm of the Biological Sciences, will be assessed alongside the knowledge of the current paradigm, theories, etc.

The second significant change will be to add a new Outcome 5, designed to assess technical laboratory skills students should have upon graduating with a B.S. in Biological Science. This will be assessed primarily using the lab practical exam at the end of BIO 250 Genetics, which is typically taken either sophomore or junior year (the course is currently offered every other year). The plan is to report the proportion of students who meet expectations regarding basic laboratory skills. In 2012, all 30 out of 30 students demonstrated proficiency in basic laboratory skills including microscopy, pipetting, wet mount slide preparation, etc. In 2014, by the end of the semester, all 20 students could prepare wet mounts and use a compound microscope (including oil immersion) correctly. Pipetting skills were more variable: 5/20 were proficient; 12/20 are mostly proficient; three could not even select the correct pipette for the task at hand. The department plans to incorporate an assessment later in the program to ensure that all students have pipetting proficiency prior to graduation.

PART III - EVALUATIVE OVERVIEW

Assessing the college's progress to this point reveals areas of very positive activity and areas where the institution needs to do more to sustainably fulfill its mission. See Exhibit J "Assessing Readiness for YR 7 from YR1 CORE Themes, Goals, Thresholds."

Areas of progress include living out Core Theme Two, "Collaborating with and for our Urban Environment." Data collection systems are in place to measure many of the established Achievement Indicators for Core Theme Two, and the data around the stated objectives confirms the effectiveness of these activities (see Exhibit K: "Articulation 1 summary URBAN DIVERSE"). Focus on Core Theme Four, "Investing in the Formation and Success of Students from Diverse Backgrounds," is the area of most progress, with some Achievement Indicators moving past an evolving state to a developed state.

The college has had the most success in changing the demographic landscape of its student body. This year with nearly 55% of new students coming from American Minorities, 40% of the traditional campus is comprised of minority students, and with large percentages of both first generation students and PELL-eligible students, Warner Pacific is mirroring larger demographic trends in society. This is directly related to Objective 1: to "Identify, recruit and retain students and employees who reflect the diversity of society." These measures place the college on track to meet its achievement indicators and thresholds. Hiring of minority staff has increased and some progress has been made in hiring minority faculty.

Faculty have also made progress in mapping and assigning student learning outcomes related to diversity to various departments offering courses in the Core Studies. By the Year Seven Report, Objective 2: to "Develop and implement student learning outcomes that foster knowledge, skills and dispositions related to diversity issues" will have substantial report data. In Fall 2014 the college collected for a third consecutive year freshman data from the CIRP Freshman Survey (UCLA). Consistent participation in the National Survey of Student Engagement (NSSE) has enabled the college to monitor some diversity indicators using national comparisons. This Spring, a third round of the NSSE is being administered as a crucial part of the longitudinal data collection system (pyramid). A preliminary database for gathering Student Learning Outcomes has been constructed and used in mapping the Core Studies Program. Having administered the NSSE in 2008, 2012, and again in 2015, the college can now create a longitudinal narrative of progress in this area.

The 2012 data showed some encouraging signs in terms of questions about diversity learning and students' ability to re-examine their viewpoints. On measures of examining or changing one's VIEW, a proxy for diverse learning, WPC students scored significantly higher than Christian Comparison schools on 5/6 items. At both the first-year and senior levels, WPC students scored significantly higher than the comparison group of Christian colleges on including diverse perspectives. Perhaps emblematic of the rapidity of the demographic changes on

campus, first year students in 2012 scored more highly than seniors and significantly higher than Christian college comparisons, on the item, “Had serious conversations with students of a different race or ethnicity than your own.” (See exhibit L: “NSSE12 Mean and Frequency Reports”) The college is also on track to measure part of Objective 3: “to Develop and implement curricular and co-curricular programs that empower students to take on multi-cultural leadership roles in a diverse world.” There has been some success in encouraging students to take minority-themed courses, one of the measures, but the college has yet to articulate the goal of identifying co-curricular service and internship sites and tracking students who participate in service at such sites.

The Program Review Coordinating Team (PRCT), as identified in Part I, has comprehensively reviewed the academic and operational aspects of the institution and has set forward the activities that are now being acted upon to live out the mission and create systems for sustainability. The recommendations of the PRCT align very well with the Strategic Plan of the college. The PRCT work has involved nearly half of the college’s employees in an activity associated with the evaluation or recommendations so far, and the recommendations of the PRCT have been approved. Key activities initiated by the PRCT include the establishment of clear academic standards, which has led to the development of Student Learning Outcomes, and the rebuilding of the Institutional Effectiveness Committee. This committee, charged with implementing best practices for evaluation and monitoring of operations, helps provide the long term mechanisms to ensure sustainability.

Admittedly, the college needs to focus on several areas for improvement to ensure good progress toward year seven goals. Data collection systems are not yet in place for all Achievement Indicators. Achievement Indicators need to be monitored and results fed back to the planning and budgeting process, the Student Learning Outcomes need to be implemented across all programs and routine monitoring of program and department viability and sustainability needs to be implemented.

As already identified, data collection systems are not yet in place for all Achievement Indicators. For example, the Indicator "Graduates identify with being urban citizens," requires a data collection system for graduating seniors. For the Indicator "Capstone courses in the major support student self-evaluation in reference to departmental outcomes" a system for graduating seniors to report this personal growth and self-efficacy needs to be created. The Student Learning Outcomes will continue to strengthen academic departments as the results feed back into course development and modification. Core Themes One and Three Indicators are well supported by the Student Learning Outcome measurements.

At a higher level in the organization, the college needs to create more direct and routine reporting of the outcomes of the Achievement Indicators to the Executive Cabinet and the budgeting process. The Core Themes are well supported at the executive level, but as with collecting more data, the results must be fed back into institutional planning in an established

way to ensure priority and resources are available to continue to learn and improve based upon the data. The Institutional Effectiveness Committee (IEC) has been given the charge by the PRCT to create such a feedback system, to set it up in a way that ensures that Achievement Indicators are reported to the Executive Cabinet, as well as ensuring that decisions going forward about new program creation, existing program continuation, and department efficiencies are data driven. Ensuring the financial viability of programs and departments is part of the evaluation.

In addition, the IEC is now finalizing evaluation criteria for academic and administrative department reviews. The reviews will occur on a regular schedule, created by the IEC. The next task for the IEC is to create a system for reporting review results to the Executive Cabinet, which will advise the cabinet of the mission alignment, quality, efficiency, and viability of the department. The report will include possible actions to take, based upon the results of the review. This information will also be used to advise the budgeting process, which is led by the Executive Cabinet. Along with the results of the departmental reviews, the IEC is tasked with follow up on new programs and departments, measuring the department's performance against the indicators that were used to justify the creation of the new program and department. The IEC will also report on the results of the Achievement Indicators to the Executive Cabinet, to advise where institutional resources need to be added or moved to ensure continued progress toward the acceptable thresholds.

The small size of the institution and lack of a significant endowment or funding stream independent of tuition means the institution must be financially strategic in its investments and ongoing operations to be able to have the resources to fulfill its mission. This is recognized and supported by all levels of the institution.

Working toward Year Seven in the NWCCU cycle, the college's focus will be on implementation of the remaining data collection systems, implementing the PRCT recommendations, putting the Student Learning Outcomes in place, and creating the institutional planning feedback system.

Furthermore, the college understands the need for enrollment growth as a key driver in the sustainability and viability of the institution going forward. While the overall traditional enrollment has plateaued at about 550 students, new strategic efforts and initiatives have been developed and implemented to support the goals outlined in the Strategic Plan. New student enrollment in fall 2014 was a new record for the institution. Also of note is the fact that the entering classes the last two years have enrolled a majority of non-Caucasian students, 52% and 55% respectively and the college serves a population that is roughly 60% PELL eligible and 60% first generation to attend college. Marketing and recruiting efforts continue to focus on these target populations. An investment the college embarked on for fall 2014 was the launch of the "Freedom to Flourish" initiative, a loan repayment assistance program which will provide a financial safety net for students and families who borrow and may need support in making

payments when the student graduates. The college will be tracking data related to matriculation, retention and graduation of this cohort to evaluate the impact of this initiative.

Another significant population for Warner Pacific and a key to the enrollment growth plan is the community college transfer student. With about 40% of new students each year comprised of transfers, Warner Pacific has built good rapport with local community colleges. However, the institution believes there is greater opportunity for enhanced partnerships and increased enrollment from this area, especially with national and statewide conversations related to making community college free for students. Instead of seeing this as a threat, Warner Pacific sees an opportunity to build upon a proven record of success in graduating students who transfer from community colleges. To that end, renewed partnership agreements are being developed related to dual admission and co-enrollment programs with community colleges in the region.

Finally, the college's Adult Degree Program continues to play a substantial role in the mission and vision of the institution. While the enrollment in these programs has declined in recent years, the college continues to work to adapt and respond to a changing marketplace. With the addition of new programs, new delivery formats, new locations and a new recruitment partner, Warner Pacific seeks to regain its competitive position with this student demographic.

Warner Pacific is confident, therefore, that the plan is laid out and several areas are making good progress in assessing achievement of acceptable threshold levels. The work completed by the PRCT, implemented by AC2, is a key part of identifying areas for improvement and creation of systems to make the work of assessment, feedback, and adjustment, a part of the normal way of operating the college. Care must be taken to continue to support the activities of those working on AC2 projects, providing the time and resources necessary to complete those tasks. Additional data collection systems will be created within the next year to ensure sufficient time is available to collect data and provide feedback for assessment. Establishing a formal process for assessment information to flow to the Executive Cabinet for inclusion in the planning and implementation process is an important outcome from the IEC, critical to ensure mission fulfillment as well as a significant tool to use in ensuring long-term institutional sustainability.

Conclusion

With this Mid-Cycle Report, Warner Pacific confirms that it is in compliance with applicable standards, continues to fulfill and pursue its mission, and has implemented multiple assessment procedures and policies in order to assure continuous improvement. We thank the Commission and its evaluators for the opportunity to reflect upon two specific areas that demonstrate the vitality of our assessment processes. We have learned much and look forward to offering more detail in person when Drs. Kellerer and DeLashmutt visit the campus at the end of April.