

Marshall University Using Assessment Data for Continuous Improvement

Assessment Day

April 6, 2011

- This report begins by presenting results of several campus-wide assessment measures. These include the *Collegiate Learning Assessment (CLA)*, the *National Survey of Student Engagement (NSSE)*, and the 2010 satisfaction survey taken by graduating seniors.
- The report continues with examples of how data have been used to make improvements at Marshall University.
- Next, the report discusses what still needs to be done.
- The presentation concludes with examples of changes made in Student Services' Offices and Academic Departments as a result of student feedback received on past Assessment Days.

Nationally Benchmarked Data Sources

- *The Data Sources*

- In addition to assessments of student learning at the course and program levels, Marshall regularly assesses student learning and satisfaction at the institutional level. Two nationally benchmarked assessments we have used for the past few years are the *Collegiate Learning Assessment (CLA)* and the *National Survey of Student Engagement (NSSE)*.

Overview of *CLA*

- We use the *CLA* (a direct measure of student learning) to assess samples of entering (freshman) students each fall and exiting (senior) students each spring. Students complete either a performance or an analytic writing task. The performance task presents a real-world problem. Before developing a plan to solve the problem, students must read a series of documents that contain information that may or may not help them formulate a solution. It is up to the student to analyze the information in each document, determine whether or not the information/evidence presented is credible, compare the strength of evidence in the various documents presented, and then synthesize the material in formulating a plan to solve the problem. The analytic writing task asks students to answer two prompts. The first presents an issue or argument and asks students to state their position in a well-reasoned essay. The second prompt gives someone else's argument and asks students to critique that argument. Students' answers are evaluated on the following traits:

- **Analytic Reasoning and Evaluation:** This trait analyses students' ability to interpret, analyze, and evaluate the quality of information in the document library (performance task) or in the argument given (second prompt of the analytic writing task). They must be able to identify information that is relevant to the problem at hand, highlight connected and conflicting information, detect flaws in logic and questionable assumptions, and explain why information is credible, unreliable, or limited. For the first prompt of the analytic writing task, students must be able to state a position and valid reasons to support the position, and demonstrate an understanding of the complexity of the issue by considering and possibly refuting alternative viewpoints.
- **Writing Effectiveness:** This trait assesses students' ability to construct organized and logically cohesive arguments. In the performance task, evaluators look for evidence that the student has explained how evidence bears on the problem, provides examples, and emphasizes especially convincing evidence. For the first prompt of the analytic writing task evaluators look for evidence that students have provided evidence, examples, and logical reasoning to support their positions.
- **Writing Mechanics:** This trait assesses students' facility with the conventions of standard written English (agreement, tense, punctuation, capitalization, and spelling) and control of the English language, including syntax (sentence structure) and diction (word choice and usage).
- **Problem Solving:** This trait analyzes students' ability to consider and weigh information from discrete sources to make decisions that logically follow from valid arguments, evidence, and examples. It further evaluates their ability to consider the implications of decisions and suggest additional research where appropriate. This is assessed only through the performance task.

CLA Results

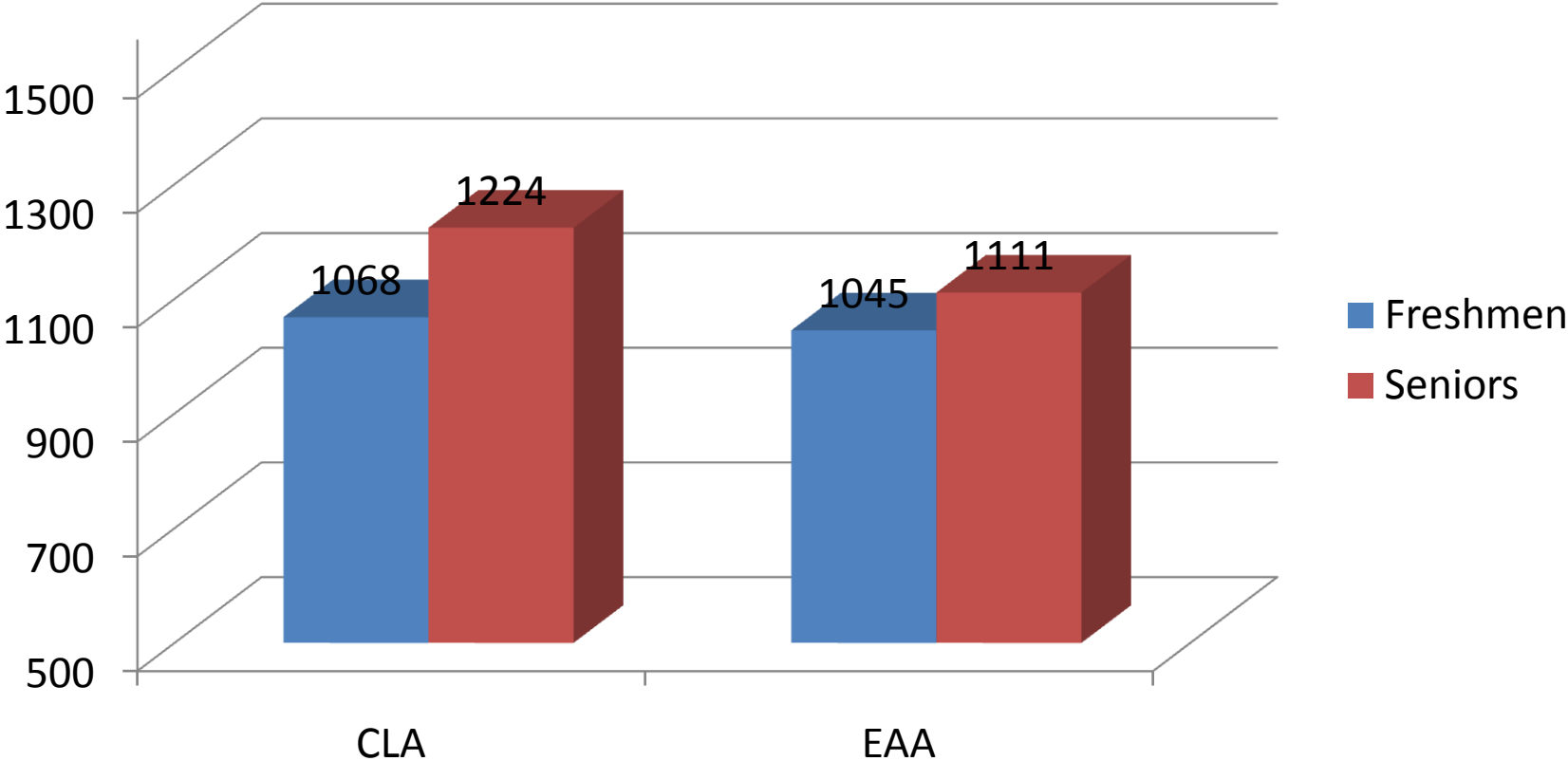
- After adjusting for entering academic ability, as measured by ACT or SAT scores, an analysis of results from a sample of Marshall students who completed the *CLA* between Fall 2006 and Spring 2010 (370 freshmen and 356 seniors) showed that the mean *CLA* score of seniors (1223.61, $SD = 165.2$) was significantly higher than the mean score for freshmen (1068.21, $SD = 167.4$), but that the effect size, or practical difference, was small. When analyzed in terms of expected levels of performance, results showed that 66% of the senior cohort scored at or above their expected level of performance. Although these results suggest that mean performance of Marshall's students in the area of critical thinking, problem solving, and writing is improving across four years at the level that would be expected, we feel that there continues to be room for us to improve, especially given that 34% of seniors in our testing sample scored below their expected levels.

Collegiate Learning Assessment (CLA) Results:
In-Depth Analysis

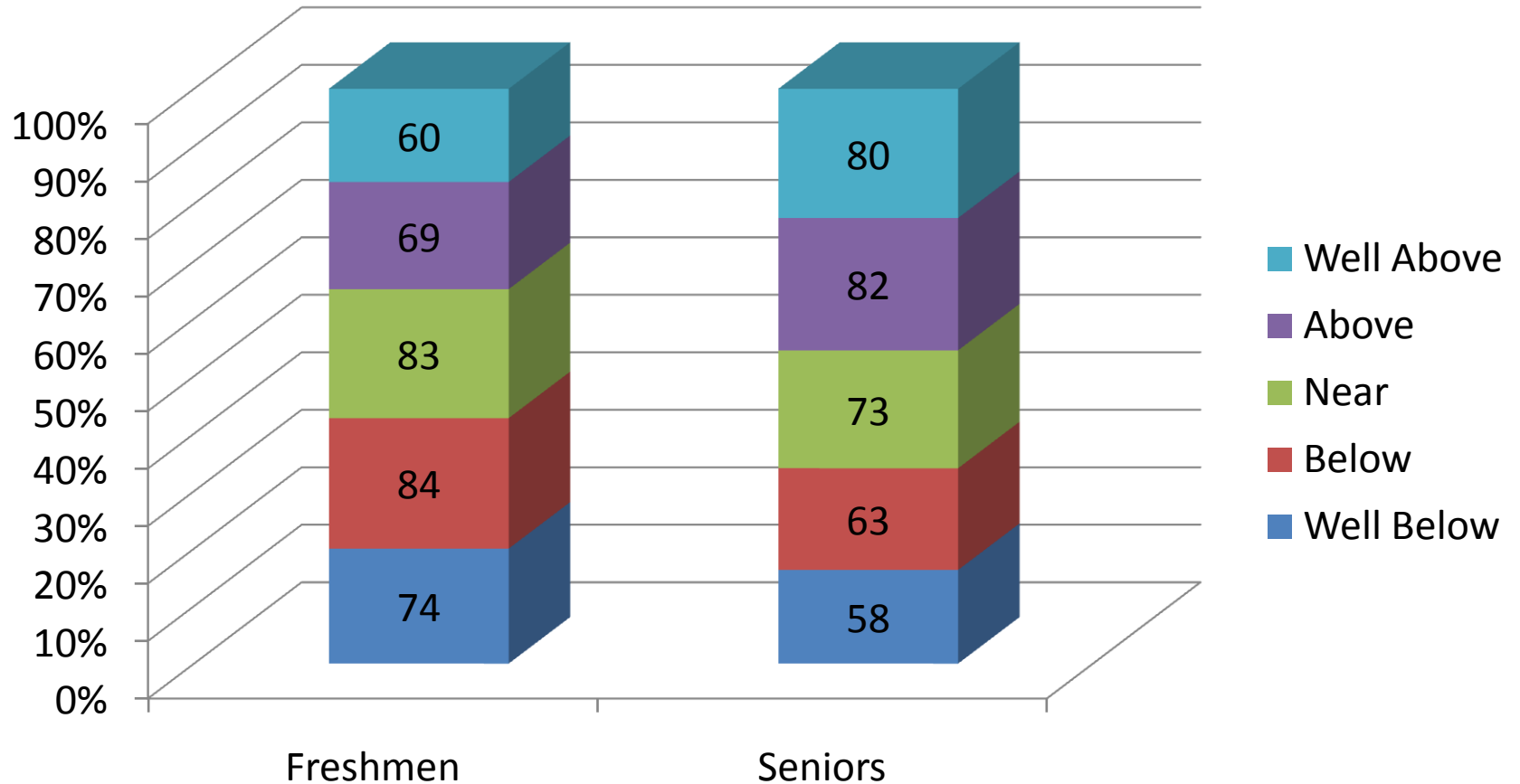
Fall 2006 – Spring 2010

Results for 370 Freshmen and 356 Seniors

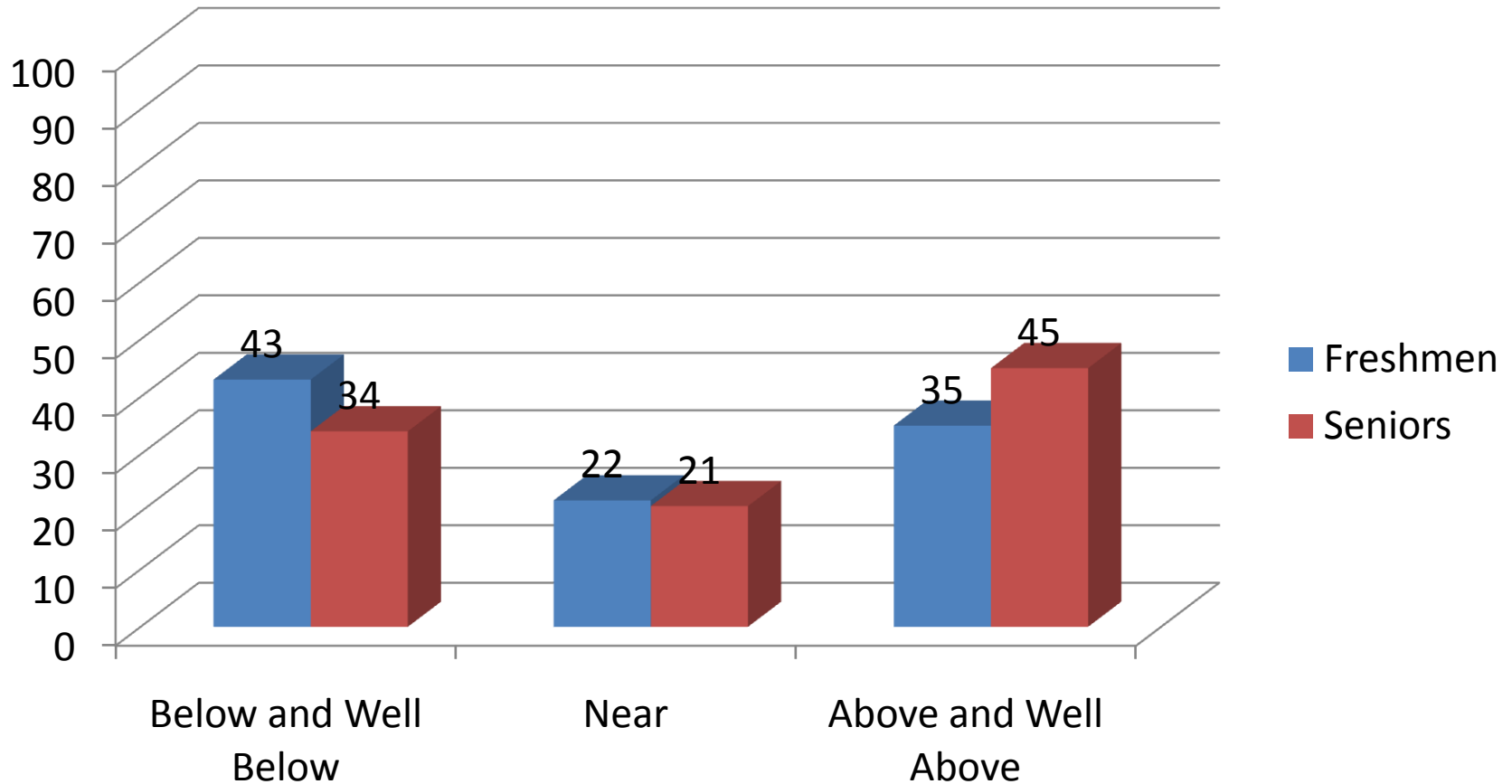
Comparison of CLA Performance: Freshman/Seniors; difference significant even when controlling for Entering Academic Ability (EAA); standard deviations similar across groups



Comparison of CLA Performance in Relation to Expected Level of Performance: Freshmen/Seniors; difference not significant.



Percentages of Freshmen ($n = 370$) and Seniors ($n = 356$) at each level of expected performance: Difference between groups not significant.



National Survey of Student Engagement (NSSE)

- *CLA* results are supplemented by *NSSE*, an indirect measure of student learning and engagement which Marshall has administered since 2008. *NSSE* is divided into five benchmark areas. These are:
 - Level of Academic Challenge (LAC)
 - Active and Collaborative Learning (ACL)
 - Faculty/Student Interaction (SFI)
 - Enriching Educational Experiences (EEE)
 - Supportive Campus Environment (SCE)

NSSE Benchmark Results

- From 2008 – 2010 Marshall consistently scored at levels commensurate with its Carnegie Peers in LAC and SCE. Marshall's seniors consistently scored higher than Carnegie Peers in SFI and in EEE. However, Marshall's freshmen and seniors scored lower than Carnegie Peers in ACL in two out of the three years and Marshall's freshmen scored lower than Carnegie Peers in EEE in 2010.
- *NSSE* Response Rates:
 - 2008: 18% (Freshmen); 23% (Seniors); 21% Overall
 - 2009: 37% (Freshmen); 34% (Seniors); 36% Overall
 - 2010: 21% (Freshmen); 32% (Seniors); 27% Overall

NSSE Writing Consortium Results

- The next slide lists Writing Consortium questions on which Marshall students had significantly higher means than students at Consortium peer institutions for both 2009 and 2010 administrations (Marshall did not participate in the *NSSE* Writing Consortium in 2008). All effect sizes were small.

Marshall students scored significantly higher than Writing Consortium Peers

- Talked with a classmate, friend, or family member to develop ideas before starting a draft (Freshmen and Seniors).
- Received feedback from instructor about a draft before turning in final assignment (Seniors).
- Received feedback from classmate, friend, or family member about a draft before turning in final assignment (Freshmen and Seniors).
- Proofread final draft for errors before turning it in (Freshmen).
- Included drawings, tables, photos, screen shots, or other visual content into written assignments (Freshmen).
- Instructor provided a sample of a completed assignment (Freshmen).
- Instructor asked students to do ungraded short pieces of writing (Seniors).
- Instructor asked you to give feedback to a classmate about a draft (Freshmen and Seniors).

NSSE Writing Consortium Results Continued:

- The next slide lists the single Writing Consortium question on which Marshall freshmen (only) had a significantly lower mean than students at Consortium peer institutions for both 2009 and 2010 administrations. The effect size was small.

Marshall Freshmen scored significantly lower than Writing Consortium Peers

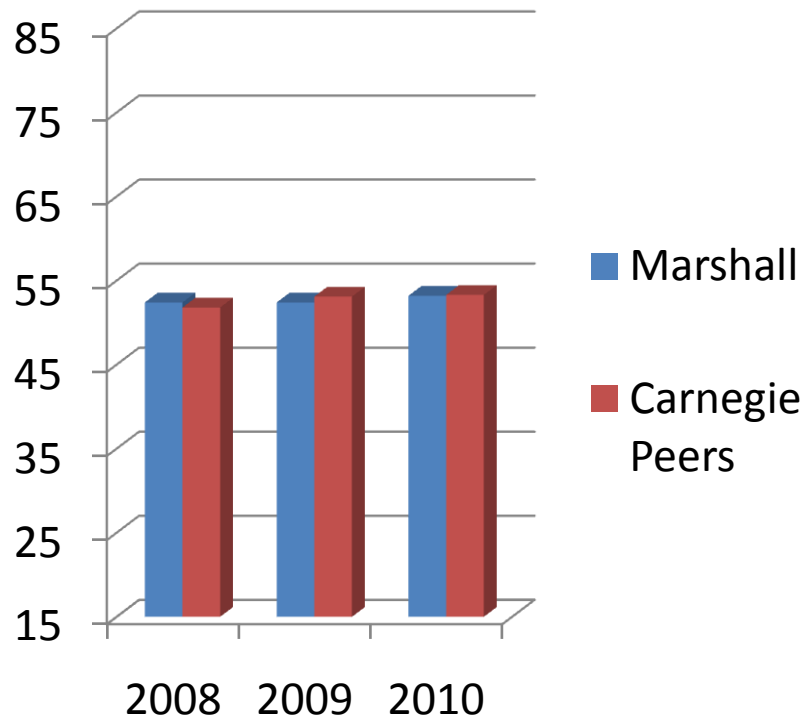
- Argue a position using evidence and reasoning (Freshmen).

- Taken together, these measures suggest that:
 - At the senior level, **EEE is an area of strength**. An item analysis suggested that this was largely due to our students engaging in practicum, internship, and other field experiences, conducting capstone projects, and completing foreign language coursework. A further item analysis, however, suggested that this area could be strengthened for seniors by encouraging larger numbers of students to study abroad.
 - At the freshman level, **EEE is a relative area of weakness**. An item analysis suggested that one area that could be improved for freshman was to increase their involvement in learning communities.
 - Overall, **ACL is an area of weakness**. Among other things, students reported making class presentations at lower levels than students at peer institutions.
 - Writing Consortium results show that Marshall freshmen and seniors are receiving **valuable instruction in writing**.
 - However, Writing Consortium results two year running **reinforce the need to infuse critical thinking, i.e. “argue a position using evidence and reasoning” earlier into the curriculum**.

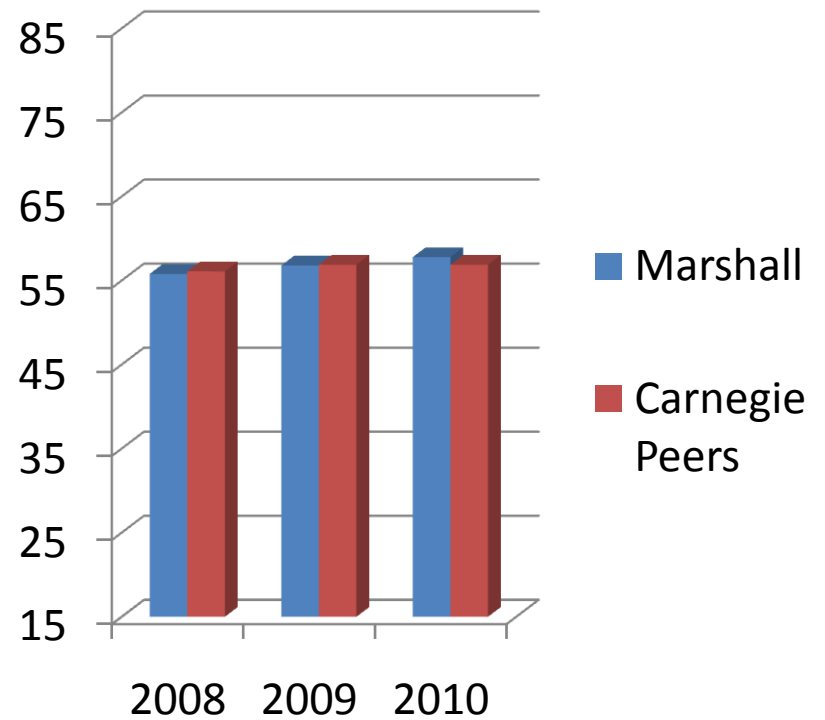
*National Survey of Student
Engagement Benchmark
Results: 2008 – 2010*

Level of Academic Challenge, Difference not significant

Freshman



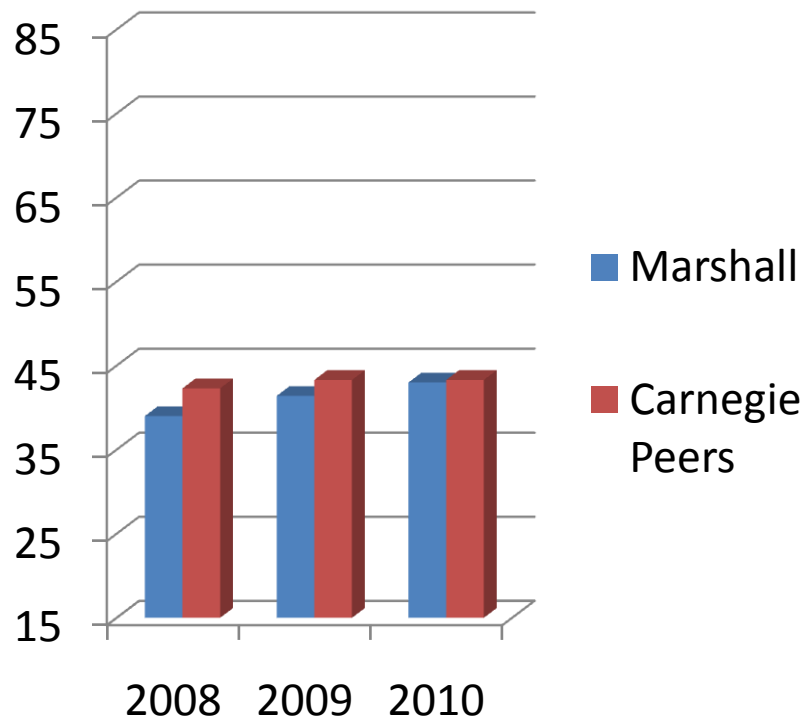
Seniors



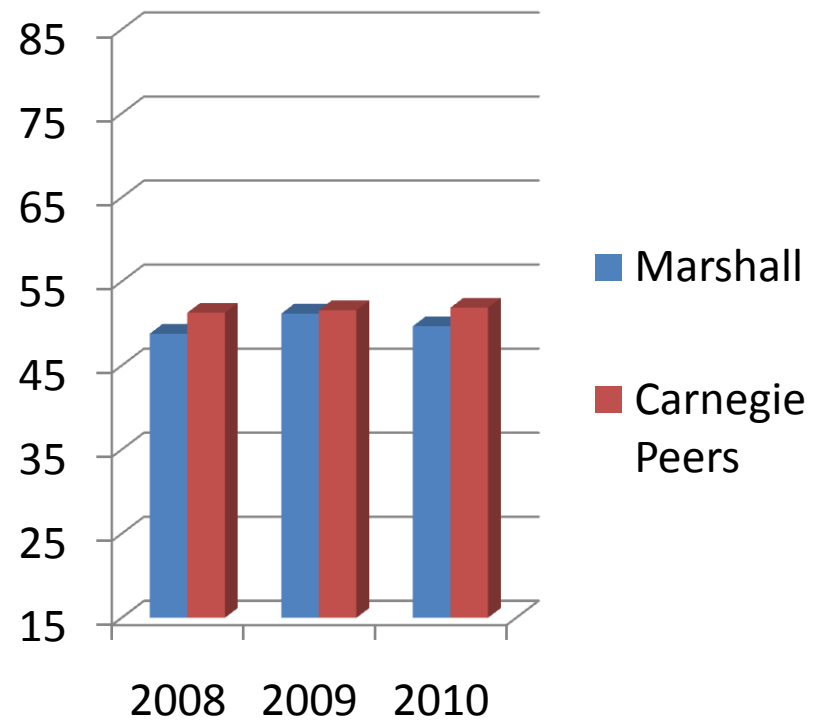
Active and Collaborative Learning

Marshall freshmen significantly lower than peers in 2008, 2009; Marshall seniors significantly lower than peers in 2008 and 2010; effect sizes small: Targeted area for improvement

Freshman



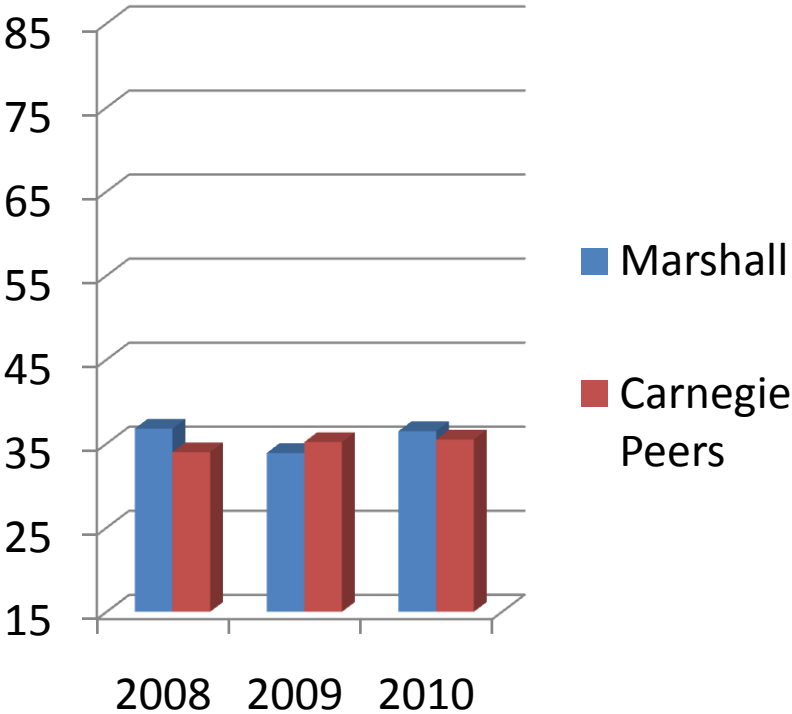
Seniors



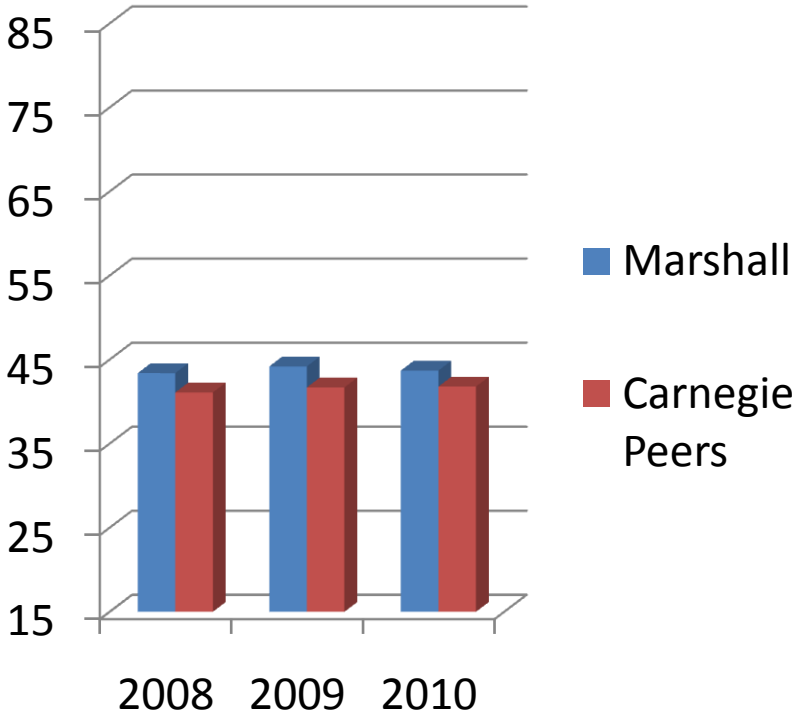
Student/Faculty Interaction

Marshall seniors consistently significantly higher than Carnegie peers; Marshall freshmen higher only in 2008; effect sizes small

Freshman



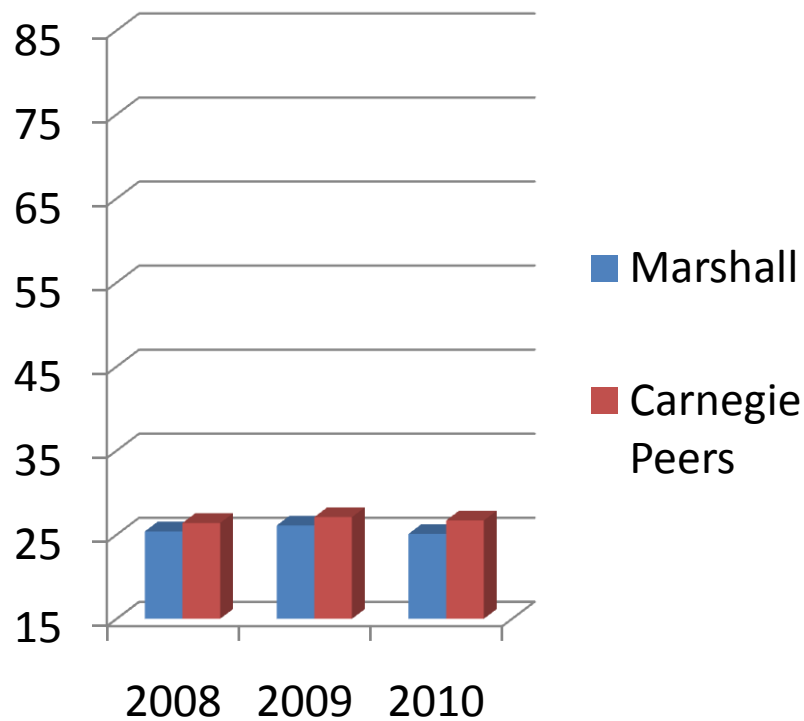
Seniors



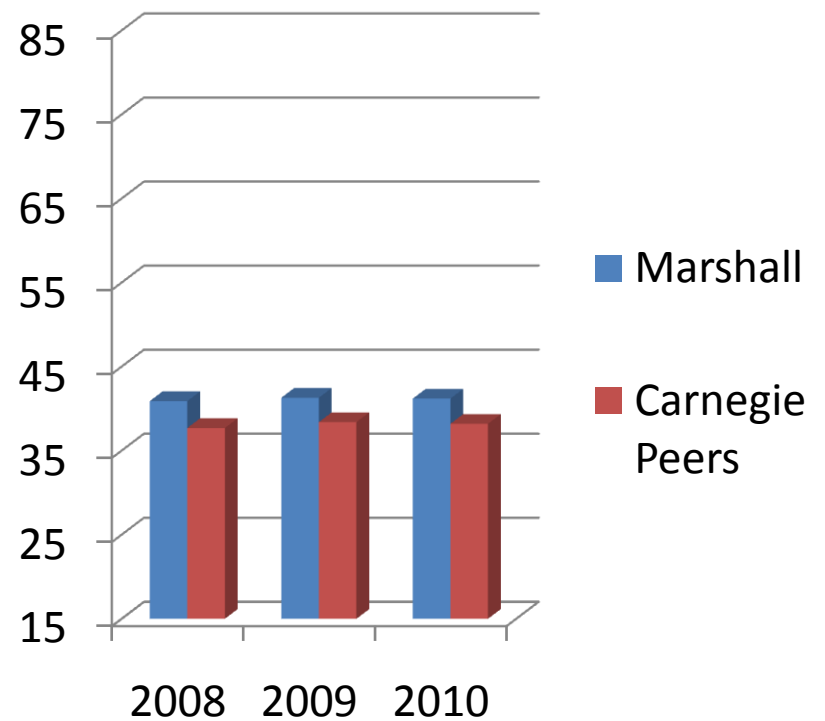
Enriching Educational Experiences

Marshall seniors consistently significantly higher than Carnegie peers; Marshall freshmen lower in 2010; effect sizes small
Opportunity to build on strength by infusing enriching educational experiences earlier in the curriculum

Freshman

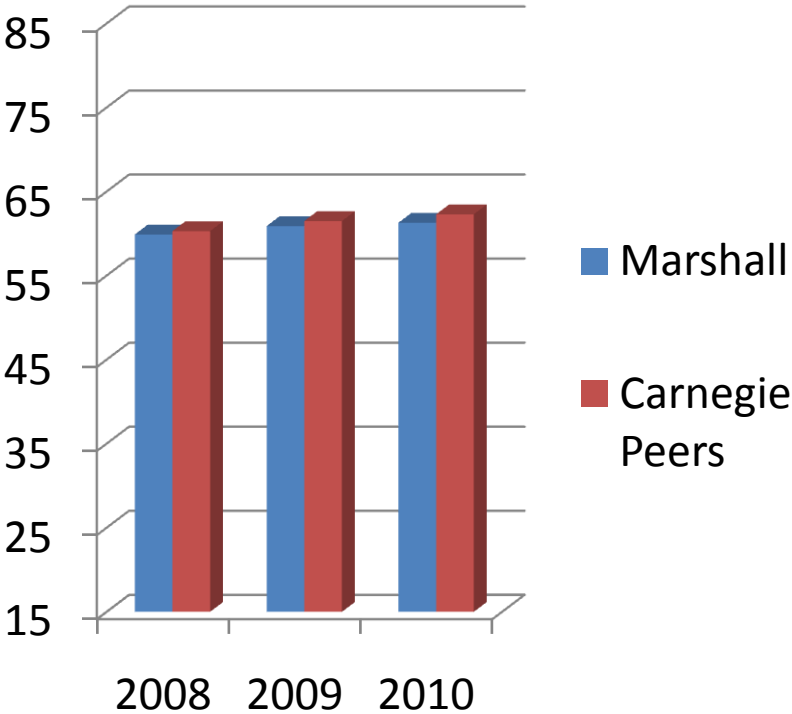


Seniors

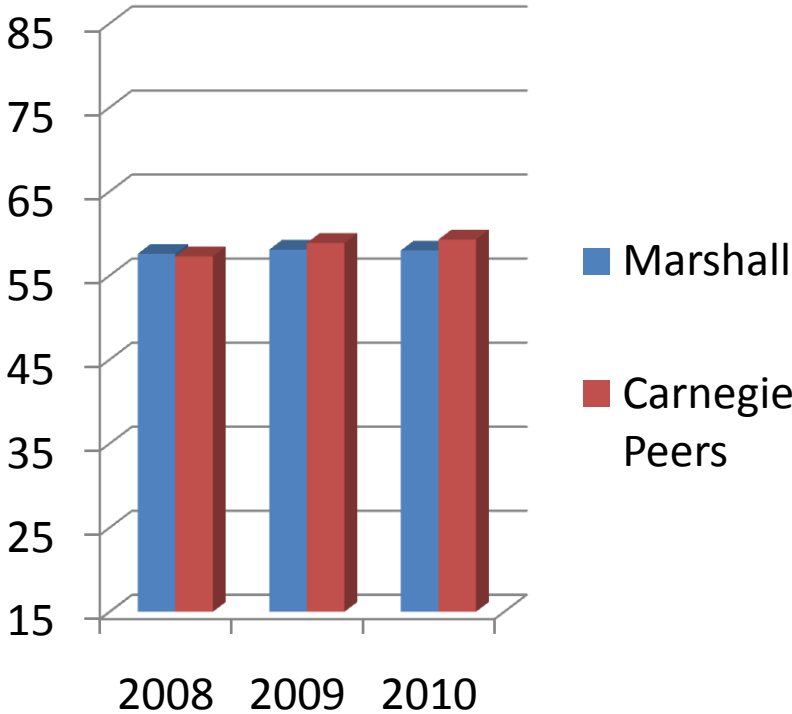


Supportive Campus Environment; Difference not significant

Freshman



Seniors



2010 Graduation Survey Results: Executive Summary

- Females were more likely than males to respond to the survey and response rates differed significantly across colleges. Students who completed Bachelor's Degrees were more likely to respond than were students who completed Associate's Degrees and Certificates. The GPA of respondents (3.25) was significantly higher than that of all graduates (3.11). Respondents did not differ from the cohort in terms of race and age.

2010 Graduation Survey Results: Executive Summary Continued:

- Most respondents were single with no children, were WV residents, and completed their entire education at Marshall. Thirty-eight percent reported no educational debt, while 28% reported debt greater than \$20,000. Most respondents stated that their educational objective was to begin their first career. Fifty-nine percent of respondents said they had participated in an internship or practicum, with 53% believing this experience had helped them find employment. Sixty-six percent of respondents indicated that they intend to pursue graduate studies, while only 6% indicated that they intend to work for a Volunteer Organization such as the Peace Corps or AmeriCorps. Most students reported that they intend to remain in WV to complete graduate studies and most chose Marshall University for this purpose.

2010 Graduation Survey Results: Executive Summary Continued:

- Students reported positive feelings about all aspects of their MU education. On a scale of 1 – 5, with 1 being “strongly agree,” 2 being “agree,” 3 being “neither agree nor disagree,” 4 being “disagree” and 5 being “strongly disagree,” means exceeded 2 for only five items. These included “believing that writing intensive courses were effective (2.37), developing the ability to use mathematics effectively (2.25), believing science courses increased understanding of the scientific process (2.24), increasing appreciation of the arts (2.18), and receiving adequate training in computers and technology appropriate to major field (2.14).”
- **More detailed results will be posted following the redesign of the Assessment Office’s website.**

2010 Graduation Survey Response Rate by Semester by College

College	Spring 2010	Summer 2010	Fall 2010	Total RR for 2010
CITE	14/22 = 64%	4/12 = 33%	2/7 = 29%	20/41 = 49%
COEHS	46/110 = 42%	4/18 = 22%	26/63 = 41%	76/191 = 40%
COFA	6/20 = 30%	1/3 = 33%	3/13 = 23%	10/36 = 28%
COHP	46/126 = 37%	2/6 = 33%	16/76 = 21%	64/208 = 31%
COLA	65/190 = 34%	8/27 = 30%	22/87 = 25%	95/304 = 31%
COS	59/121 = 49%	6/22 = 27%	10/39 = 26%	75/182 = 41%
LCOB	49/138 = 36%	6/26 = 23%	33/83 = 40%	88/247 = 36%
RBA	26/92 = 28%	6/53 = 11%	21/74 = 28%	53/219 = 24%
SOJMC	23/36 = 64%	3/4 = 75%	6/13 = 46%	32/53 = 60%
Total	334/855 = 39%	40/171 = 23%	139/455 = 31%	513/1481 = 35%

Using Data to Inform Improvements at Marshall University

- Among other data, we have used the *CLA*, *NSSE*, and Graduation Survey results to inform these initiatives:
 - **First Year Seminar (FYS) and Critical Thinking (CT) courses** have been introduced into the curriculum beginning freshman year. These courses emphasize critical thinking, problem-based learning, and effective written communication skills, all of which are accomplished through a process of active learning.
 - The Core Curriculum also includes a **course in the fine arts** for all students.
 - **Residence Services** has continued to increase the number and variety of learning communities for freshmen and upper class students. Learning communities now available include Cultural Connections, Green, Greek, Health Professions, Honors, Science, Fine Arts, Health and Wellness, Business, and Education.
 - **The Internationalization Committee** at Marshall actively works with the Center for International Programs and academic departments to promote student exchange and other creative opportunities for Marshall students to study in other countries and for international students to study at Marshall.
 - In addition to data from *CLA* and *NSSE*, data from graduation surveys, Retention Committee surveys and focus groups, and other sources of data suggested that students needed more comprehensive advising and easier access to information. The **Student Resource Center**, located on the second floor of the Student Center, was established in response to this need.

Ongoing General Education Assessment and Work to be Done

- Additional Assessment Processes in Place:
 - **Graduation surveys** have been in place for a number of years. They are now sent electronically, which has results in more timely data generation and analysis.
 - **Faculty in Communication Studies and the College of Fine Arts** continue to assess student learning in those general education domains and make changes to the curricula based on assessment results.
- Future Assessment Plans:
 - A cohort of faculty experts in the core domains of thinking soon will begin to assess a sample of student work from FYS courses using rubrics developed by Marshall faculty for this purpose. This initial analysis will allow us to gauge the effectiveness of student learning in FYS and further refine our assessment rubrics.
 - Following the initial assessment of FYS artifacts, this assessment will expand to artifacts from CT courses, writing intensive courses, multicultural and international courses, and course from the general education disciplines. This direct assessment of student work from Marshall courses will provide us with a necessary complement to the data from national measures such as *CLA* and *NSSE* and will provide direct assessment of student learning in writing intensive and multicultural/international courses.

Past Assessment Day Results

- The following are examples of how Student Service Offices and Academic Programs have used information students have shared during Assessment Day activities to improve their services/programs.

Uses of Assessment Day Data: Student Services' Offices

- **The Office of Student Health Education** has used results of the All Campus and Tobacco Surveys to support grant writing, to market healthy messages, and used in the BASICS alcohol program.
- **The Office of Admissions:** After analyzing survey results, the Office of Admissions has implemented a customer service training that has been very well received by all populations served and has redesigned its website.
- **The Office of Residence Life:** As a result of data received, this office has begun the faculty in residence program, revamped the Greek LLC, is taking a more focused look at RHA/IGA program and programming, is creating more purposeful student learning objectives and experiences, is providing training sessions for resident directors, is reevaluating expectations for resident directors, will address noise issues, and is redesigning its website.
- **The Tutoring Center:** As a result of feedback, the Tutoring Center is working to enhance publicity for tutoring services.

Uses of Assessment Day Data: Student Services' Offices continued:

- **The Bursar's Office** uses the Assessment Day Surveys to review existing administrative processes for effectiveness and target specific areas of staff training that may be beneficial to both the employees and the students.
- **Food Services at Marshall** uses the data from surveys to inform additions/deletions to menu items and for customer service training.
- **The Office of Recruitment** uses data to help improve its marketing messages.
- **The Registrar's Office** has used past survey results to initiate customer-service training. Additionally, past results led the Office to revise its Web site to make it easier to navigate.
- **The Student Activities Programming Board** uses survey data to inform its programming for the upcoming year.

Uses of Assessment Day Data: Student Services' Offices continued:

- **The Student Center Staff** uses data from Assessment Day surveys to assist with types of services and reallocation of space due to student demand.
- **Student Government** uses the results of Assessment Day surveys in an effort to be responsive to student concerns.
- **The Women's Center** uses survey data to evaluate their services.

Uses of Assessment Day Data: Academic Units

- College of Education and Human Services
 - **Family and Consumer Sciences** used data to investigate more varied internship placements for students.
- College of Fine Arts
 - **Art and Design** reported that survey results were favorable, but will continue to aggregate data in future Assessment Days to evaluate trends.
 - **Music** upgraded practice room pianos and installed music stands in designated rooms.
 - **Theatre** instituted a 10-minute play festival and student directed cabaret during 2010-11 academic year.

Uses of Assessment Day Data: Academic Units

- College of Health Professions
 - **Clinical Laboratory Science** used data to inform a decision to add automation components to courses to better prepare students for clinical experiences.
 - **Communication Disorders** reviewed and revised its undergraduate advising process to make it more user-friendly, efficient, and accessible to all students. In its graduate program, it now maintains clinical modules for two semesters to allow consistency with clients and supervisors.
 - **Nursing** decided to put surveys online and to use Future Assessment Days for Focus Groups and to include sophomores and juniors as well as seniors in Assessment Day activities.
 - **Respiratory Care** used survey data to add content to specific courses and expand clinical experiences.
 - **Dietetics** used data from focus groups to improve their students' experiences through engaging outside speakers and adding more laboratory and other hands-on experiences into program coursework. Students also now receive more experience reading and critiquing research throughout the program.

Uses of Assessment Day Data: Academic Units

- College of Liberal Arts
 - **Criminal Justice** used data to adjust the undergraduate curriculum and to revise a graduate course.
 - **Classics/Latin** used data from Town Hall meetings and surveys to respond to student requests and questions concerning the curriculum.
 - **Political Science** improved the undergraduate course rotation schedule to make courses in subfields more available to students. It also started student/faculty gatherings at the beginning of each semester to help majors become more familiar with departmental faculty.
 - **Psychology** worked on its Assessment Plan, but made the decision that future Assessment Days would focus on student career plans.
 - **Sociology/Anthropology** added two more courses in Socio-Cultural Anthropology.
 - **The Graduate Humanities Program** developed a graduate seminar.

Uses of Assessment Day Data: Academic Units

- College of Science
 - **Integrated Science and Technology** used Assessment Day to continue to refine its Assessment Plan.
- Lewis College of Business
 - All programs within the college used Assessment Day to develop and refine assessment rubrics, analyze data, plan curricular changes based on data regarding student learning.
- School of Journalism and Mass Communication
 - The School used data from Focus Groups to discuss and evaluate their students' experiences within the program.
- Mid-Ohio Valley Center (MOVC)
 - Based on survey data, MOVC is currently working with departments and colleges to add additional courses and degree programs and will continue to work with Academic Affairs to increase its budget for instruction.

Concluding Thoughts

- The primary purpose of assessment is “continuous improvement.” It is through this process of critical analysis and self-reflection that all of us will continue to grow.