Community College Reports

AUGUST 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Barton Community College***
AREA ASSESSED: Mathematics and Analytical Reasoning

Assessment Instrument(s):
The Board of Trustees ENDs statements at BARTON relating to Essential Skills requires the assessment our general education outcomes. One of the ways that this is accomplished is by identifying questions within a course final that assess specific competencies of a course, which also tie back to the general education outcomes as a whole, and measuring how well students perform on these questions.

At BARTON College Algebra is the final math course for many of our students, it is taught at all locations/venues and not only does it represent a large sample of our student, but our faculty as well. As such, the College Algebra course assessment which is given at the end of the course either embedded-in or in given in-conjunction-with the Final Exam will be reported.

Regarding the course assessment, faculty have identified specific questions within this assessment which clearly assess a specific competency. That is, it is one thing to see an overall average for an exam, it is quite another to see that everyone missed a specific problem. By itemizing the assessment, faculty can narrow their focus to the specific competencies/topics that students are struggling with in their classes.

For the purposes of this report, those competencies tied to the critical thinking and problem solving skills necessary for both the course and our graduates have been identified by faculty, and stated in this document.

Assessment Results:

Course/competencies (Topics)	2008	2009	2010	2011	2012	2013	2014	
College Algebra								
Finding the Zeros of a Function		57%	55%	59%	66%	63%	73%	77%
ID the Domain of a function	65%	72%	71%	76%	71%	77%	81%	
Linear Application	54%	56%	54%	62%	63%	68%	70%	
Solve an absolute value inequality		59%	67%	65%	73%	75%	73%	79%
Solving exponential equations	79%	81%	81%	84%	82%	89%	89%	
Solving systems of equations	84%	88%	87%	90%	87%	92%	91%	
Translation of a Graph	72%	72%	75%	75%	77%	71%	76%	
Grand Total	67%	70%	70%	75%	74%	77%	80%	
	(n:145)	(n:402)	(n:624)	(n:216)	(n:342)	(n:405)	(n:697)	

Explain how your institution makes use of the assessment results:
Faculty use the itemized results to identify areas of weakness within their courses. Discussions will take place allowing faculty to compare results and best practices for a given topic to learn from each other's experiences. Then adjustments are made with regards to how the competencies is presented in the classroom in order to improve student comprehension of the material. The

assessment is used again in the following section of the course such that the effectiveness of the adjustment can be tracked and improved upon. The cycle then starts over again.
Comments: The data is a pooled set. It does not represent a single faculty member, but all faculty members participating in the use of the course assessement. Additionally, it is worth pointing out that these do not represent pass rates, but again the percentage of students who correctly responded to a given question. Clearly, a student could miss one question and still do well on an exam.

AUGUST 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Butler Community College***
AREA ASSESSED: Mathematics and Analytical Reasoning

Assessment Instrument(s):
College Algebra and below: Common comprehensive final exam - combination of multiple choice and open-ended questions.

Above College Algebra: Comprehensive final exam (instructor written) including open-ended questions that require conceptualization of abstract ideas and accurate performance of mathematical procedures including the use of a graphing calculator.

Statistics: Completion of an individualized written project that requires the collection, organization and interpretation of data.

How they are administered: Face to face classes: Instructor proctored exams during finals week.
On-line classes: Proctored by Instructor, Testing Centers (El Dorado campus & Andover campus
or Instructor approved proctor if students live too far from campus.

For the classes listed, we also sample about 15% of the students and using scantron, see how well they did on the multiple choice questions. This will sometimes indicate topics that need more emphasis, as well as topics that students are successful at.

For classes above College Algebra, instructors review their exams, and will discuss issues with other faculty. As there are not as many students and sections, the department does not gather and analyze the data.

Assessment Results:
2011: Number of students assessed: 535; Aggregate score: 3.58
2012: Number of students assessed: 221; Aggregate score: 3.54
2013: Number of students assessed: 1,037; Aggregate score: 3.64
2014: Number of students assessed: 2,939; Aggregate score: 3.34
2015: Number of students assessed: 2,049; Aggregate score 3. 43

Explain how your institution makes use of the assessment results:
How the data is used: At the departmental level, we generally look for trends over time. Our emphasis recently has been on retention, but we have not seen significant change yet.

In Developmental Math, they are using the data to help determine if mastery learning and using software homework is making a difference for student success.

We have changed College Algebra texts so that online homework is possible, and are adding sections that will be using the software. We will compare the scores and retention rates from the two groups to see if there is a difference.

At the Division and Institutional levels, this and other learning assessment data is used as an element of program review to demonstrate teaching/learning effectiveness.
Comments: This is just one element of our larger scheme of learning assessment across the curriculum in which eight outcomes are annually assessed. Assessment data is available for those outcomes beginning in 2010.

AUGUST 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Cloud County Community College***
AREA ASSESSED: Mathematics and Analytical Reasoning

Assessment Instrument(s):
Preidentified final exam multiple choice questions in all Intermediate Algebra, College Algebra, and Trigonometry course sections were utilized as the assessment instrument.

An aggregate of 66 math course sections (18 Intermediate Algebra sections; 41 College Algebra sections; and 7 Trigonometry sections) equated a total student population of n = 724.

Two common outcomes/goals (A and B) were assessed in all Intermediate Algebra, College Algebra, and Trigonometry course sections with an additional goal (C) exclusively assessed in all College Algebra course sections. Goal A - The student applies mathematics by demonstrating proficiency in one or more of the following ways: 1) Extracting data from mathematical problems;
2) Representing data using one or more of the following methods: graphs, charts, tables and equations; 3) Analyzing data using one or more of the following techniques: estimation, modeling, calculations, extrapolations and interpolations; 4) Interpreting data; 5) Drawing correct conclusions from data; and 6) Communicating data and conclusions. Goal B - The student demonstrates knowledge of applied mathematics in a career setting in one or more of the
following areas: 1) Financial; 2) Scientific; 3) Agricultural; and 4) Other career settings. Goal C - The student should use appropriate technology to solve mathematical problems.

Target goal percentages:
75% of students will correctly answer all final exam questions pertaining to Goal A;
95% of students will correctly answer all final exam questions pertaining to Goal B; and
75% of students will correctly answer all final exam questions pertaining to Goal C.

Assessment Results:
Results were mixed:
Intermediate Algebra - 65.9% of students correctly answered all final exam questions pertaining to Goal A; 83.7% of students correctly answered all final exam questions pertaining to Goal B. Students enrolled in Intermediate Algebra did not meet target percentages for Goal A or Goal B.

College Algebra - 82.8% of students correctly answered all final exam questions pertaining to Goal A; 94.1% of students correctly answered all final exam questions pertaining to Goal B; and 70.6%
of students correctly answered all final exam questions pertaining to Goal C. Students enrolled in
College Algebra met target percentages for Goal A, but did not meet target percentages for Goal B or Goal C.

Trigonometry - 72.1% of students correctly answered all final exam questions pertaining to Goal

A; 96.6% of students correctly answered all final exam questions pertaining to Goal B. Students enrolled in Trigonometry did not meet target percentages for Goal A, but met target percentages for Goal B.

Explain how your institution makes use of the assessment results:
Data results from the Mathematics and Analytical Reasoning assessment of student learning will be presented to fulltime and adjunct faculty members during the initial weeks of the 2015 fall term.
At this point in time, it is believed that additional consideration is needed to determine the viablity
of current target goal percentages and whether the targeted goal percentages are realistic since only two of seven target goal percentages were met (College Algebra, Goal A; Trigonometry, Goal B).
It is also under consideration whether additional presence of fulltime faculty and available adjunct faculty members are warranted as a physical presence in the Student Success Center for purposes
of student tutoring as an additional support (individualized instruction) for math students as well as providing further interventions for student success. It is imperative to drill down deeper into the data to determine the reliability of specific questions that were consistently answered incorrectly by math students. This will allow the math faculty to determine if any of the final exam questions were unreliable and need to be revised or removed from the final exam due to a lack of clarity for the math students. Providing exams that truly assess course outcomes/goals is an
absolute priority of the math department as well as the institution.

Comments:
The math department will be addressing pedagogical methodology utilized in the classroom environment and will be making appropriate changes or additions to enhance current instructional
practices.

AUGUST 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Coffeyville Community College***
AREA ASSESSED: Mathematics and Analytical Reasoning

Assessment Instrument(s):

1. Mathematics/Quantitative/Analytical Reasoning

Assessment Mechanism(s): Classroom assessment results from five mathematics courses. Courses assessed: Intermediate Algebra, College Algebra, Elementary Statistics, Calculus II, and Calculus III.

Student Learning Outcomes (SLO): Coffeyville Community College expects 70 percent of the student body will pass course outcomes at a 70 percent level. This is an appropriate campus-wide benchmark, since students pass classes (obtain grades of C) with a 70 percent average.

2. Written and Oral Communication

Assessment Mechanism(s): Classroom assessment results from four classes in English Composition I, English Composition II, Technical Writing, and Public Speaking courses.

Student Learning Outcomes (SLO): Coffeyville Community College expects 70 percent of the student body will pass course outcomes at a 70 percent level.

3. Critical Thinking/Problem Solving

Assessment Mechanism(s): Online critical thinking compass test results. Data is collected each semester that the College Orientation II Capstone Course is offered.

Student Learning Outcomes (SLO): Coffeyville Community College expects the average student score be 70% or higher on exit.

Assessment Results:

Mathematics/Quantitative/Analytical Reasoning

Year	2014	2015	2016
Students Tested	70	181	
% Students that passed benchmark for Course Outcome	84%	74%	

Written and Oral Communication

Year	2014	2015	2016
Students Tested	188	444	
% Students that passed benchmark for Course Outcome	100%	100%	

Critical Thinking/Problem Solving

Year Students Tested Avg.	2014	2015	2016
Class Score	198	78	
% Meeting SLO	98%	88%	
	100%	100%	

Explain how your institution makes use of the assessment results:

Institutional Level Assessment

- COMPASS, ACT, and ASSET tests are used for student placement in English, math and reading.
- New students take pre-tests (entrance exam) for math, reading, English, science and critical thinking in orientation I class.
- Students take the CAPSTONE course (exit exam) for math, reading, English, science and critical thinking in orientation II class.
- Entrance and Exit exam scores are compared for analysis.
- The Director of Institutional Effectiveness, in conjunction with academic advising personnel, is responsible for the gathering, analysis, interpretation and reporting of data.

Classroom Level Assessment

Instructors collect assessment data using rubrics, portfolios, or pre/post tests. They report this information to the Director of Institutional Effectiveness. Instructors analyze results of the assessment and record the analysis on commentary forms. Outcomes are mapped to the program level and institutional level to determine if outcomes are being met. Evaluation of the mapping is used to access if courses need to modify curriculum, pedagogy, etc. to successfully meet outcomes.

Comments:

AUGUST 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Colby Community College***
AREA ASSESSED: Mathematics and Analytical Reasoning

Assessment Instrument(s): Internal Course Assessment Tools
Assessment Results: 33 of 37 Courses (or 89%) met or exceeded their average class goal.
Explain how your institution makes use of the assessment results: The college has 6 global outcomes which include quantitative reasoning as outcome 4. The outcomes are then delineated within courses as course outcomes for which the instructor assesses students in the course and submits to the overall database for compilation. We then compare our overall learning goals each year to make improvements in our programs.
Comments:

AUGUST 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Cowley County Community College***
AREA ASSESSED: Mathematics and Analytical Reasoning

Assessment Instrument(s): CAAP Mathematics and WorkKeys Applied Mathematics Exams
Assessment Results: CAAP Fall 2013, students mean scale score was 56.5 (n=116), above the national average of 56.0. CAAP Spring 2014, students mean scale score was 57.1 (n=312), above the national average of 56.0. Students completing the WorkKeys exam (n=72) achieved an average level score of 5.15; placing the scale score between 78 and 82 on a 90 point scale.
Explain how your institution makes use of the assessment results: The assessment results are analyzed by department faculty and department chairs. After the analysis of these results is completed, they are utilized in the program review process. Suggestions for improvements to learning and teaching are made through the program review process, based on the data gathered.
Comments: The CAAP reporting is from AY 13/14. AY 14/15 was the cycle out year for the mathematics CAAP exam. The rotation years for CAAP exams will be aligned with the Kansas Board of Regents reporting years going forward.

AUGUST 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Dodge City Community College***
AREA ASSESSED: Mathematics and Analytical Reasoning

Assessment Instrument(s):
ACT CAAP & WorkKeys

Assessment Results:
ACT CAAP

	# Assessed	National Ave	CAAP Goal	CAAP Achievement	Student Effort Goal	Student Effort Achievement
2013	54	56.1	57.0	56.9	65%	61%
2014	74	56.0	57.0	57.3	65%	41%
2015	57	56.0	57.0	57.1	65%	73%

ACT WorkKeys

	# Assessed	Score LT 3	Score of 3	Score of 4	Score of 5	Score of 6	Score of 7
2014	48	2%	13%	25%	33%	17%	10%
2015	13	0%	0%	15%	69%	15%	0%

Explain how your institution makes use of the assessment results:

The CAAP exam is administered each April to graduating Associate Degree students. Each year, the data comparing Dodge City Community College graduates' scores against the National Average as well as the internal goal for the institution is evaluated by the Assessment Committee. Additionally, the process for administering the assessment and resulting number of graduates who are assessed is discussed for effectiveness.

Over the past three years, the goal for DCCC students assessing in math has been 57.0, which is essentially one point above the national average. Although DCCC students scored 0.1 point below the institutional goal in 2013, they have consistently remained above the national average. This consistency is indicative of better-than-average general education in mathematics and math-related courses and implies that DCCC should continue the practices that have contributed to such an accomplishment.

ACT CAAP Goals and Achievements

	# Assessed	National Ave	CAAP Goal	CAAP Achievement	Student Effort Goal	Student Effort Achievement
2013	54	56.1	57.0	56.9	65%	61%
2014	74	56.0	57.0	57.3	65%	41%
2015	57	56.0	57.0	57.1	65%	73%

In addition to reviewing scores, the Assessment Committee considers other factors for improving the assessment process, thus improving the validity of the data for the institution. Following the 2013 academic year, two issues were in critical need of attention. These included

the number of graduates assessing each spring and the amount of effort put forth by the students during the assessment.

The Assessment Committee sets a date early in the spring semester for the assessment and graduating students are informed well in advance. The letter informs them of the date and time at which the assessment will be administered as well as an option for individualized assessment in case of a conflict. Faculty may also allow students taking the assessment to miss class time without penalty. The college, however, has not implemented a penalty for students who fail to take the CAAP.

The Assessment Committee attempted to address this issue for the 2014 CAAP test by offering refreshments to students who participated in the assessment. This initially increased participation by 37% in 2014. However, with the 2015 assessment, participation again declined. As such, the college continues to discuss ways to address the challenge of student participation.

Additionally, for students who completed the assessment, there was an issue with motivation as there was no incentive for the student to do well on the CAAP. The Assessment Committee determined that the college would implement a goal to have at least 65% of students indicate that they either 'tried my best' or 'gave moderate effort' on each of the portions of the exam. This goal was based on data from prior years.

Discussions to address this issue include an incentive to encourage students to put forward their best efforts. Ideas proposed included a small reward for improvement over pretest scores (as measured by the COMPASS) which would have a broad appeal as all students would have a chance to attain this. In addition, consideration was given to rewards for top performing students, including gift cards, certificates and t-shirts. Discussions also include posting scores on transcripts. The Assessment Committee will continue to work with administration and the new president of DCCC to determine the most appropriate course of action to strengthen the assessment data and its analysis for continuous improvement.

Students exiting with a degree or certificate in a technical program are encouraged to complete the WorkReady! Certificate administered through ACT WorkKeys. The WorkReady! certificate is a State of Kansas initiative which uses the ACT WorkKeys assessment in the areas of Applied Mathematics, Reading for Information, and Locating Information to translate into a certificate level: Bronze =3, Silver =4, Gold =5, Platinum =6. The data below represents the total number of students over the last 2 academic years who took the math portion of the WorkKeys assessment.

ACT WorkKeys

	# Assessed	Score LT 3	Score of 3	Score of 4	Score of 5	Score of 6	Score of 7
2014	48	2%	13%	25%	33%	17%	10%
2015	13	0%	0%	15%	69%	15%	0%

Analyzing 3,221 jobs from September 2008 through August 2013, ACT determined that examinees who scored a 5 on the assessment possessed the skills in applied math required for

97% of the jobs profiled. During the 2014 & 2015 years, 66% of DCCC students met or exceeded that score.
The initial year that the WorkKeys assessment was used, a good representation of technical graduates completed it. DCCC intended to collect a minimum of 3 years' of data and begin analyzing the results for improvement. However, in 2015, due to change in personnel, there was little student awareness regarding the assessment and limited faculty buy-in. The technical division has begun working on a plan to further faculty buy-in and work with students to complete the assessment when graduating. Following a minimum of one more year of data, the college will use the results for improvements in the technical programs.

Comments:

AUGUST 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Fort Scott Community College***
AREA ASSESSED: Mathematics and Analytical Reasoning

Assessment Instrument(s): CAAP
Assessment Results: Fall results: Total students assessed 18, 11 students scored at or above the National norm which resulted in 61% of the total assessed students scoring at or above the National norm. Spring results: Total students assessed 102, 59 students scored at or above the National norm which resulted in 57% of the total assessed students scoring at or above the National norm.
Explain how your institution makes use of the assessment results: Fort Scott Community College is utilizing the CAAP test to evaluate degree seeking students at the sophomore level. The CAAP results for Mathematics and Analytical Reasoning are shared with the math faculty as well as institution wide. The Math faculty will evaluate the results of the CAAP test, compare the results to the curriculum to determine strengths and weaknesses. Once a weakness is determined adjustments to the curriculum will be made. In addition to the CAAP test the math department has a course level assessment that helps them determine the areas of weakness in a particular course. This data will also be compared to the CAAP results to determine if there are similarities and course level adjustments will be developed to address the needs.
Comments: This is the first year that FSCC has utilized the CAAP test as an assessment tool. The data is much more valuable to the instructors and the institution than the past method of data collection. As the institution collects more data we will be able to easily assess the trends as they emerge. In addition, FSCC will utilize data comparison of the CAAP test to the students ACT or COMPASS scores. This comparison will allow FSCC to determine the growth of the student during their time at the institution.

AUGUST 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Highland Community College***
AREA ASSESSED: Mathematics and Analytical Reasoning

Assessment Instrument(s): 1. StatViz iPad Application to enhance learning and assess students' progress in College Statistics 2. Multi-level assessment using Bloom's Cognitive Domain in College Biology 3. Use of model kits to assess scientific inquiry skills in organic molecules unit 4. Embedding critical thinking/logical fallacy activity and assessment in each general education core course, beginning Fall 2015 5. Pre- and post- technical mathematics assessment in Heating, Ventilation, Air Conditioning and Plumbing (HVAC) first-year curriculum. 6. Common rubrics across delivery formats (on-ground, online, IDL, hybrid, concurrent) used to assess students' competence in economics calculations and written explanations; summative outcomes-based exam.
Assessment Results: 1. Significant increase in exam scores 2. Students demonstrated improved ability to apply scientific method to course-related research questions 3. Increase of 0.4% average on exam; increase in "A" grades and pass rates over previous term 4. Results to be determined after 3 terms in use 5. Post-test results show significant improvement in applied math skills regardless of entry level 6. Significant increase in exam grades and demonstration of deeper levels of understanding of complex mathematical operations. .
Explain how your institution makes use of the assessment results: Each of these assessments was originally a "pilot" as part of an on-going faculty Plan, Do, Check, Act (PDCA) assessment project. Each successful project is being implemented across the Highland system by other instructors; HCC will continue to track results to measure validity and reliability across all classroom modalities. For example, the assessment tool in #5 is applicable to other programs utilizing technical math, such as auto collision, auto technology, and welding.
Comments: These targeted assessments supplement the use of normed instruments such as Compass, ASSET, TABE, and Work Keys, which are also used at HCC to assess gains in mathematics.

AUGUST 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Hutchinson Community College***
AREA ASSESSED: Mathematics and Analytical Reasoning

Assessment Instrument(s):
To assess the learning outcomes for the courses at Hutchinson Community College, faculty report
the number of completers and achievers for each of the course outcomes. The completers are those students who have completed the assessment (exam, assignment, report, project, etc.) while the achievers are those students who have successfully completed the assessment with a "C" or better. Outcomes from the courses have been mapped to the areas of mathematics/quantitative/analytical reasoning.

Outcomes used from the following courses provided our data to assess this area:
MA098 Basic Algebra, MA105 Intermediate Algebra, MA106 College Algebra, MA107 Plane Trigonometry, MA108 Elements of Statistics, MA111 Analytical Geometry and Calculus I, MA113 Analytical Geometry and Calculus II, and MA206 Differential Equations

In addition to course outcome reporting, HCC also uses success rates for MA106 College Algebra
to assess Mathematics and Analytical Reasoning

Assessment Results:

Fall 2012 –72.7% Successfully Completed the Outcomes (Achievers=612 Completers=841)
Spring 2013 –72.9% Successfully Completed the Outcomes (Achievers=859 Completers=1179)

Fall 2013 –73.3% Successfully Completed the Outcomes (Achievers=776 Completers=1058)
Spring 2014 –70.7% Successfully Completed the Outcomes (Achievers=504 Completers=712)

Fall 2014 –71.7% Successfully Completed the Outcomes (Achievers=868 Completers=1211)
Spring 2015 –77.8% Successfully Completed the Outcomes (Achievers=1349 Completers=1736)

MA106 Success Rates*

Fall 2012 –73.82% Successfully Completed MA106 (344 out of 466 students)
Spring 2013 –77.55% Successfully Completed MA106 (342 out of 441 students)

Fall 2013 –75.75% Successfully Completed MA106 (381 out of 503 students)
Spring 2014 –75.96% Successfully Completed MA106 (297 out of 391 students)

Fall 2014 –74.45% Successfully Completed MA106 (370 out of 497 students)
Spring 2015 –76.44% Successfully Completed MA106 (318 out of 416 students)

*The Success Rates is based upon students who earned an A, B, or C compared to students who earned an D or F or withdrew from the class.

Explain how your institution makes use of the assessment results:
Faculty assess the student learning taking place through the assessment instruments they utilize. They then make adjustments accordingly based upon student achievement in terms of meeting the course outcomes. The assessment results are also used in program reviews to make data-driven decisions about modifications that need to occur.

Comments:
In July 2014, HCC hired an Integration Specialist to work with students in the technical areas who were struggling with mathematics. Then in Spring and Summer of 2015, HCC initiated Math Prep Sessions to help students combat math anxiety and also refresh their mathematics skills before they took their placement tests which guide student enrollment into the appropriate mathematics course for their skill level. HCC is also now offering a combination of Basic and Intermediate Algebra in the same semester (Basic in the first 8 weeks and Intermediate in the second 8 weeks) and a combination of Intermediate and College Algebra (the same format as above).
These courses are being marketed to students and advisors for those students who place very high
to the cutoff score for the next level course but did not quite surpass the required score. The students are likely those who need to go over material covered in Basic Algebra but will be able to progress through the topics at a more accelerated pace, which will allow them to move to Intermediate Algebra sooner and without a long break between the two courses. The same format
is present for the Intermediate and College Algebra combination. The goal for all of three of these
is to help improve the student learning occuring at HCC.

SEPTEMBER 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Independence Community College***
AREA ASSESSED: Mathematics and Analytical Reasoning

Assessment Instrument(s):
Independence Community College assesses mathematics and analytical reasoning at the course, program, and General Education levels. ICC does not use standardized testing, i.e. CAAP, but instead uses common finals, direct measures of student learning from courses and the National Community College Benchmarking Project, and indirect measures collected through the Community College Survey of Student Engagement and in-house student surveys.

PROGRAM LEVEL OUTCOMES ASSESSMENT for AY 2014
ICC does not collect assessment data at the program level at this time; further development of summative measures and appropriate data collection methodologies will occur during AY 2015.

INDIRECT MEASURES for AY 2014
Community College Survey of Student Engagement (CCSSE)
How much has your experience contributed to your knowledge, skills, and personal development in Solving numerical problems.

National Community College Benchmarking Project (NCCBP)
Retention Rate for Developmental Math Enrollees
Completer Success Rate for Developmental Math (ABCP/ABCDF)
Completer Success Rate, First College-level Math after DEV Math (ABCP/ABCDF)
Retention Rate for College Algebra Enrollees
Completer Success Rate for College Algebra (ABC/ABCDF)

Student Ratings of Instruction (The IDEA Center)
ICC piloted its first semester for data collection using The IDEA Center's Student Ratings of Instruction; more complete data will be available during AY 2015.
Summary Evaluation of Teaching Effectiveness; Student Perception of Progress on Relevant Objectives; Overall Course Rating for College Algebra and Beginning Algebra

Assessment Results:
COURSE LEVEL OUTCOMES ASSESSMENT for AY 2014
01ACC 1023 ACCOUNTING II
Fall 2014 Students achieved an overall average score of 87.1%. Spring 2015 Students acheived an overall average score of 69.4%. Findings: Students were able to complete most of the required assessments and showed a good understanding of the concepts. Students had problems with the concept of Large Stock Dividends and how to properly capitalize the transaction. Will devote more time going over the ways large and small stock dividends are capitalized. Fall 2014: Spend more time in clarifying the difference between small and large stock dividends and how to capitalize both so proper recording of the transaction is the result. Spring 2015: Need to give more examples and go over how to figure outstanding stock for a corporation.

01ACC2033 MANAGERIAL ACCOUNTING
Fall 2014: Class only achieved an average 76.4% on the measures used. Results from individual

students showed a consistent scoring from all students so there were no outliers causing a low average score. Spring 2015: Class acheived overall average of 83.3%. Findings: Fall 2014: Students have no problem in identifying the difference between Period and Product costs. Spring 2015: Students have no problem in identifying the difference between Period and Product costs. Fall 2014: Students had significant problems in identifying difference between Direct and In-Direct costs and there relationship with Manufacturing Overhead. Spring 2015: Students had some difficulties in finding the Fixed and Variable components of Mixed Costs. Fall 2014: Because of the significant difference between the identification of costs, the plan is to spend a complete class period first going over the cost definitions, how to identify each type of cost, then quizzing students on there understanding to make sure they have the concept before moving on. Spring 2015: Changes from the Fall semester seemed to work well. No new changes planned for the next class.

01BUS1013 BUSINESS MATHEMATICS
50% of the students averaged 70% or greater on these exams. Planned Course Changes: Utilize the study guide built into the software. This will allow students to spend more time with problems they struggle with; Consider a diagnostic pre and post test to pinpoint student entry level skills.

01BUS 2033 MACROECONOMICS
Fall: 7 of 7 or 100% successfully completed this assessment at 70% or better. Spring: 5 of 5 or 100% successfully completed this assessment at 70% or better.

01BUS2023 MICROECONOMICS
Fall: 20 of 20 or 100% of students achieved 70% or better on this outcome. Spring: 24 of 24 or 100% of students achieved 70% or better on this outcome.

01DDT2023 INTRODUCTION TO COMPUTER AIDED DRAFTING
FALL- 15 Students were enrolled in the course. - Due to lack of attendance at the time of the assessment, only 12 students attempted the assessment item (80%). - At first submission, the students completing the assessment item had an overall average of 92%. - 5 students completed the first submission with 100% accuracy! - No student that completed the assessment item scored below 82%. - When the dust had cleared, all students that had attempted the assessment item had either correctly (100%) completed the item, or resubmitted until attaining 100%, as originally expected. Findings: Admittedly, this was not the first time this assessment item had been used - it was used in three prior semesters, so success was to be somewhat expected, due to prior use of the item. - Whenever an assessment item is this successful, it would seem that no tweaking would be in order. - Sometimes things just work out on some assessment items. Several things made the assessment item a successful one: 1) The students enjoyed the item. 2) The item was timely, as it covered current teaching emphasis. 3) The result was something the students did not expect, as the shape of the finished object was not shown to them before submission. The assessment item is one that works best if all students are in attendance, but in a class of 15, that is not always a reasonable expectation. Stress to the students the importance of attendance for this particular item.

02MAT1023/1025 COLLEGE ALGEBRA

Measure 1: Fall 2014 Semester: 9 of 18 (50%) students achieved mastery. Spring 2015 Semester: 8 of 10 (80%) students who were assessed achieved 70% or higher mastery level. 2014-2015 AY Totals: 17 of 28 (61%) students who were assessed achieved 70% or higher mastery level. Measure 2: Fall 2014 Semester: 11 of 15 (73%) students achieved mastery. Spring 2015 Semester: 9 of 10 (90%) students who were assessed achieved 70% or higher mastery level. 2014-2015 AY Totals: 20 of 25 (80%) students who were assessed achieved 70% or higher mastery level. Measure 3: Fall 2014 Semester: 5 of 13 (38%) students achieved mastery. Spring 2015 Semester: 9 of 10 (90%) students who were assessed achieved 70% or higher mastery level. 2014-2015 AY Totals: 14 of 23 (61%) students who were assessed achieved 70% or higher mastery level. General Findings: Fall 2014: Students have a general grasp on solving quadratic equations by factoring, completing the square, or the quadratic formulas (73%) However, solving rational equations (50%) and exponential equations(38%) students tended not to meet the minimum mastery level of 70%. Spring 2015: Students have a general grasp on solving quadratic equations by factoring, completing the square, or the quadratic formulas (73%), rational equations (80%). and exponential equations(90%) students. Strengths displayed through the Assessment: Students displayed competence with solving quadratic equations using three methods. Weaknesses displayed through the Assessment: Fractions and logarithms tend to intimidate students. Students have trouble finding the LCD and then deciding how to use it. That is, is the problem a solving or simplifying situation. When solving an exponential equation students must decide if it is appropriate to use logarithms. Also, the properties of logarithms can be confusing to some students.

02MAT1055 ANALYTIC GEOMETRY AND CALCULUS I
Outcome 1: Measure 1: 8 of 16 students or 50% of the students met this measure by scoring 70% or higher on this measure. Students need more exposure to working with graphs. Measure 2: 12 of 16 students or 75% of the students met this measure by scoring 70% or higher on this measure. Measure 3: 9 of 14 or 64% of students assessed showed 70% or higher mastery.
Outcome 2: Measure 1: 6 of 16 students or 38% of the students met this measure by scoring 70% or higher on this measure. Students need more exposure to the idea of formal proofs. Measure 2: 6 of 16 students or 38% of the students met this measure by scoring 70% or higher on this measure.
Outcome 3: 3 of 15 assessed achieved 70% mastery. Findings: Students chose to find the derivative using derivative rules as opposed to definition because the definition is long and cumbersome. It is my belief that student choose not to memorize the definition and thus are unable to answer this question. This perhaps may be better assessed on an assignment instead of an exam. Further Action Planned: Since this question only appears on the exam once and is only used in 2 sections in the calculus with any frequency, assessing this on an exam my not be the most appropriate method. Student time management would dictate they should study ideas that would occur on a more routine basis instead rarely used idea. Assess on homework or quiz immediately after this is taught instead of on chapter exam.
Outcome 4: Measure 1: Fall 2104 Semester: 11 of 15 (73%) students who were assessed achieved 70% or higher mastery level. Spring 2015 Semester: 12 of 15 (80%) students who were assessed achieved 70% or higher mastery level. 2014-2015 AY Totals: 23 of 30 (70%) students who were assessed achieved 70% or higher mastery level. Measure 2: Fall 2104 Semester: 6 of 15(40%) students who were assessed achieved 70% or higher mastery level. Spring 2015 Semester: 13 of 15 (87%) students who were assessed achieved 70% or higher mastery level. 2014-2015 AY Totals: 19 of 30 (63%) students who were assessed achieved 70% or higher mastery level.

Measure 3: Fall 2104 Semester: 9 of 15 (60%) students who were assessed achieved 70% or higher mastery level. Spring 2015 Semester: 9 of 15 (60%) students who were assessed achieved 70% or higher mastery level. 2014-2015 AY Totals: 18 of 30 (60%) students who were assessed achieved 70% or higher mastery level. Findings: Fall 2014: Students are able to work simply derivatives, involving one of the following rules: product, quotient, and chain rule. Trigonometric derivatives do not appear to be an issue. Based on this the first measure met this outcome. Measures 2 and 3 required advanced skills in which students must recognize and use the product, quotient, or chain rule one or more times in a single derivative. This increased level of complexity resulted in Measures 2 and 3 only being partially met. Spring 2015: Students are able to work simply derivatives, involving one of the following rules: product, quotient, and chain rule. Trigonometric derivatives do not appear to be an issue. Students were able to recognize products, quotients, and chian rule situations and use them in a single equation. Thus Measure 1 and 2 are considered met. Measure 3 worked with implicit differentiation. This increased level of complexity resulted in Measures 3 only being partially met. Further Action Planned: Students worked well with derivatives of trigonometric functions. The students do not take the time to commit to memory the basic differentiation formulas. If students do not know the basic formulas, differentiations involving one or more uses of the product, quotient, or chain rule become very difficult. Once we begin learning differentiation formulas, I will have quizzes and other activities focusing on memorization of the basic rules. I will spend more with the students working on complex differentiation problems.
Outcome 5: Measure 1: 7 of 14 were assessed achieved 70% or higher mastery level. Measure 2: 3 of 15 were assessed achieved 70% or higher mastery level.
Outcome 6: Measure 1: 12 of 14 students assessed showed 70% or higher mastery. Measure 2: 11 of 14 students assessed showed 70% or higher mastery.

02MAT2025 ANALYTIC GEOMETRY AND CALCULUS II
Measure 1: 8 of 13 (62%) students who were assessed achieved 70% or higher mastery level. Measure 2: 7 of 13 (54%) students who were assessed achieved 70% or higher mastery level. Measure 3: 7 of 13 (54%) students who were assessed achieved 70% or higher mastery level. Findings: Overall the students were unable to show mastery in advanced intergration techniques (intergration by parts, trig substitution, integration using partial fractions, and approximation). Mastery across all three measures ranged from 54% upto 61%. The students who have made the effort to memorize and practice basic differentiation and integration in general met all the measures within this outcome. Students struggle with Calculus I level integration. They do not have basic differentiation and intregration formulas memorized and are not sure when it is appropriate to use them. Planned Action: Students need to practice more integration problems, but they will not practice more than is assigned. They lack motivation to practice extra if it is not for credit. Provide more opportunities in Calculus I and Calculus II to practice basic differentiation and integration. Investigate learning mastery technology.

02MAT1103 ELEMENTARY STATISTICS
Measure 1: 4/7 students achieved 70% or better Findings: Additional repetition may be necessary to achieve desired results. With such a small sample, it is difficult to come to any conclusions.

02MAT1093 PLANE TRIGONOMETRY

Measure 1: 2 of 2 or 100% of students answered correctly. Measure 2: 2 of 2 or 100% of students answered correctly. Measure 3: 2 of 2 or 100% of students answered correctly.

02PHS1005 PHYSICAL SCIENCE
S15: Average of 65% considering frequent absences and 71% with no absences. Findings: The percent expected is 70%. Overall averages of the tests were 52%, 68%, 54%, 55%, 73%, 71%, and 73%. S15: Two - four students were absent more than 7 times. This resulted in their low grades, which in turn affected the total average of the class. Most of the time, the grades of the first test are the lowest. Students seem to miss classes where the absences affect their grades dramatically. This group had repeated absences. Close to the end of the semester, students paid attention to their grades and worked closely with the instructor to improve their grades. I always advised them to go study in the SSS lab as well as to work with other peers to get to understand the material

02PHS1015 GENERAL CHEMISTRY
Outcome 1: Question: What is the molarity of 1000 mL solution of 5.8% (w/v) NaCl 62.5% of the students (20 of 32 students) responded correctly. Fall 2014 61.9% of the students (13 of 21 students) responded correctly. Spring 2015 Findings: The majority of the students were able to solve this question. Although >70% of the students did not answer this question correctly, many of the students that answered incorrectly, did set the problem up correctly. Students set up the problem correctly, conducted the mathematics incorrectly. This is the weakness of a standardized, multiple-choice exam.
Outcome 2: Question: What is the percent yield of CuS for the following reaction given that you start with 15.5 g of Na2S and 12.1 g of CuSO4? The actual amount of CuS produced was 3.05 g. Reaction: Na2S + CuSO4 à Na2SO4 + CuS 78.1% of the students (25 of 32 students) responded correctly. Fall 2014 77.3% of the students (17 of 22 students) responded correctly Spring 2015
Outcome 3: Laboratory Experiment: Synthesis and Analysis of Alum 100% of the students (34 of 34 students) completed the experiment with acceptable results. Fall 2014 100% of the students (22 of 22 students) completed the experiment with acceptable results. Spring 2015 Findings: Students are able to follow multiple-step instructions to complete a complex chemistry experiment.

02PHS1025 COLLEGE CHEMISTRY I
Outcome 1: Question: Butyric acid, found in rancid butter, has a molar mass of 88 g/mol. If butyric acid is 54.5% C, 9.09% H and 36.4% O, what is the molecular formula? 80% of the students (4 of 5 students) responded correctly Follow-up Question: What is the empirical formula for Butyric acid? 80% of the students (4 of 5 students) responded correctly. Findings: Questions indicates students understand the competencies well. Follow-up questions are asked to determining the knowledge used to answer the question. The follow-up questions indicate excellent understanding of the competencies
Outcome 2: Question: How much heat is absorbed/released when 35.00 g of NH3(g) reacts in the presence of excess O2(g) to produce NO(g) and H2O(l) according to the following chemical equation? 4NH3(g) + 5O2(g) à 4NO(g) + 6H2O(l) DHo = 1168 kJ 100% of the students (5 of 5 students) responded correctly. Findings: Questions indicates students understand the competencies well.
Outcome 3: Laboratory Experiment: Beer's Law-Determination Unknown Amount of Iron & Aspirin 100% of the students (5 of 5 students) successfully completed the experiment. Findings:

Students are able to follow multiple-step instructions to complete a complex chemistry experiment.

02PHS1035 COLLEGE CHEMISTRY II
Laboratory Experiment: Crystal Violet Kinetics 3 of 3 students conducted this experiment, Gathering data, evaluating data, and expressing a meaningful conclusion.

04HEA1432 MATH FOR HEALTH SCIENCES
Measure 1: Fall Semester: 88% 80 of 91 of possible parts were correct. 13 students Measure 2: Medicine cups, syringes, IV bags 16 students 81% or 39 of 48 parts correct

07DEV0314 BEGINNING ALGEBRA
Outcome 1: Measure 1: 23 of 23 students were assessed over order of operations received 3.3 of 4 points or averaged 83%. Measure 2: 23 of 23 students were assessed over evaluating algebraic expressions received 3.26 of 4 points or averaged 82%.
Outcome 2: Measure 1: 5 of 15 students assessed showed mastery of 70% or higher. Measure 2: 7 of 15 students assessed showed mastery of 70% or higher. Measure 3: 6 of 15 students assessed showed mastery of 70% or higher. The quadratic was poorly chosen and did not match what the measure was assessing.
Outcome 3: Measure 1: Fall 2104: 60 of 81 (74%) students achieved mastery. Spring 2015 Semester: 38 of 58 (64%) students who were assessed achieved 70% or higher mastery level. 2014-2015 AY Totals: 98 of 139 (71%) students who were assessed achieved 70% or higher mastery level. Measure 2: Fall 2104: 29 of 75 (39%) students assessed achieved mastery. Spring 2015 Semester: 32 of 58 (55%) students who were assessed achieved 70% or higher mastery level. 2014-2015 AY Totals: 61 of 133 (46%) students who were assessed achieved 70% or higher mastery level. Measure 3: Fall 2104:19 of 71 (27%) students assessed achieved mastery. Spring 2015 Semester: 15 of 58 (26%) students who were assessed achieved 70% or higher mastery level. 2014-2015 AY Totals: 34 of 129 (26%) students who were assessed achieved 70% or higher mastery level. Findings: Fall 2014: Students have a general grasp on solving linear equations (74%). However, solving rational equations (27%) and quadratic equations (35%) students tended not to meet the minimum mastery level of 70%. Spring 2015: Students have a general grasp on solving linear equations (65%). However, solving rational equations (55%) and quadratic equations (25%) students tended not to meet the minimum mastery level of 70% AY2014-2105: Students have a general grasp on solving linear equations (71%). However, solving rational equations (46%) and quadratic equations (26%) students tended not to meet the minimum mastery level of 70%. The students displayed a understanding and ability to solve linear equations but had trouble factoring quadratics by the trial method and/or factoring by grouping method. Students have trouble finding the LCD and then deciding how to use it. That is, is the problem a solving or simplifying situation. Students lack the basic knowledge of arithmatic and so it is very hard to understand work with unknown values if you can't do the same work with know values. Encourage students to use out of class resources more. Students should follow up with their individual instructors, make use of the tutoring center, and form learning groups. ICC should restructure its developmental math program to give students greater exposure some of the tougher concepts in algebra. I would recommend discarding our single developmental class (Beginning Algebra) returning to an Elementary Algebra/Intermediate Algebra model. I would suggest we investigate accelerated class (8 wk) and well as standard paced classes (15 wks). *This

will be implemented in AY 2015-2016. Improve standardization of the algebra curriculum across the full-time as well as adjunct faculty. Explore the idea of a division final.

INDIRECT MEASURES for AY 2014
A.A.S. and Certificate Completers' Survey (In-house), 2014 Administration
Your satisfaction with your growth in knowledge and skills in mathematics: 3.33 (Scale of 4)

Community College Survey of Student Engagement (CCSSE), 2015 Administration
How much has your experience contributed to your knowledge, skills, and personal development in Solving numerical problems. Mean Score: ICC=2.48; National Cohort=2.70

National Community College Benchmarking Project, 2014 Administration
Retention Rate for Developmental Math Enrollees: ICC=93%; Median=86% (Fall 2012 data)
Completer Success Rate for Developmental Math (ABCP/ABCDF): ICC=63%; Median=68% (Fall 2012 data)
Completer Success Rate, First College-level Math after DEV Math (ABCP/ABCDF): ICC=89%; Median=78% (Fall 2011 cohort)
Retention Rate for College Algebra Enrollees: ICC=93%; Median=84% (Fall 2012 data)
Completer Success Rate for College Algebra: ICC=70%; Median=76% (Fall 2012 data)

Student Ratings of Instruction (The IDEA Center), 2015 Administration (Scale of 5)
College Algebra (2 sections):
Summary Evaluation of Teaching Effectiveness=4.5
Student Perception of Progress on Relevant Objectives=4.4
Overall Course Rating=4.5
Beginning Algebra (1 sections):
Summary Evaluation of Teaching Effectiveness=3.9
Student Perception of Progress on Relevant Objectives=3.7
Overall Course Rating=4.1

Explain how your institution makes use of the assessment results:
ICC uses this data for accreditation reporting and internal decision-making. Annual data reports prepared by the Institutional Research Office, new for Fall 2015, assist faculty in the selection of measures and outcomes for improvement strategies. For more information about how ICC uses this and other data, please see the "ICC 2014-2016 Assessment Plan," available on the ICC Assessment page, http://www.indycc.edu/assessment/

Collaboration between DEV Math and English faculty, the Academic Advisor, and the Associate Dean for Academic Support Services resulted in a restructuring of the developmental English and Math course progression. Analysis of NCCBP data along with course data from several academic years resulted in an expansion of the developmental math sequence from one, four credit hour course (Beginning Algebra), to two, four credit hour courses (Elementary Algebra, Intermediate Algebra). This change increased ICC's alignment with the Kansas Core Outcomes Project and other developmental math courses at Kansas CCs.

ICC uses information from the NCCBP for its Key Performance Indicator 4, "Improve student success (A, B, or C) in College Algebra following a developmental math course." Baseline data collected for the Fall 2009, Fall 2010, and Fall 2011 cohorts was 78% with the most recent

collection for the Fall 2012 cohort was 61% (71 student successfully completed DEV math; 49 of the 71 students subsequently enrolled in college-level MAT course and received a grade of A, B, C, D, or F; 30 of the 49 students received a grade of A, B, or C in the college-level MAT course.) The College will continue to collect and analyze this data measure for quality improvement initiatives as part of the ICC Assessment Plan.

Comments:
The data contained in this report represents information collected by the faculty for ICC's 2014-2016 Assessment Plan. Faculty select at least one outcome per course to collect data for action research; all information is entered into Tk20, an assessment software management system.

AUGUST 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Johnson County Community College***
AREA ASSESSED: Mathematics and Analytical Reasoning

Assessment Instrument(s):
Course Embedded Assessments

Assessment Results:
The college implemented a new general education assessment plan beginning with the 2014-15 academic year. The results reported below reflect the students abilities in the areas of math and analytical reasoning requested by KBOR. These correlate to the following JCCC student learning outcomes:

1) Process numeric, symbolic, and graphic information.
2) Read, analyze, and synthesize written, visual and aural material.
3) Select and apply appropriate problem-solving techniques.

In the area of analytical reasoning, more than 4700 students were assessed. Of those students assessed, 1,166 performed at the level of "Low Skills", 1,589 performed at the level of "Progressing" and 1,973 students exhibited "Mastery" level skills.

In the area of mathematics, 2816 students were assessed. Of those students assessment 391 performed at the level of "Low Skills", 1175 performed at the level of "Progressing" and 1,250 students exhibited "Mastery" level skills.

In the 2014-15 academic, more than 10,00 students were assessed across the general education curriiculum inmultiple courses and disciplines. The student learning outcome most frequently chosen by faculty to assess students in the general education curriculum was "Process numeric, symbolic, and graphic information.

Explain how your institution makes use of the assessment results:
Results of this first year of data collection for the new general education assessment plan were shared with faculty and deans. In some areas where the mastery level was higher than the expected distribution, faculty were asked to evaluate if the assessment instruments being used are accurately reflecting student learning or appropriate levels of difficulty. Examples of the use of Bloom's taxonomy were shared and give as a tool that would help faculty evaluate if the assessment is taking place at the right cognitive level for students. In areas with low levels of "Progressing" faculty were challenged to examine curriculum for new pedagogy to enhance student learning. A follow-up is being planned during the January, 2016 in-service week at the college.

Comments:

AUGUST 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Kansas City Kansas Community College***
AREA ASSESSED: Mathematics and Analytical Reasoning

Assessment Instrument(s): Collegiate Assessment of Academic Proficiency (CAAP) Mathematics Test
Assessment Results: Average score: 55.5
Explain how your institution makes use of the assessment results: KCKCC uses this score as one of the Strategic Planning Key Performance Indicators. KCKCC has been implementing several strategies trying to increase the score. This indicator has been monitored for several years to see the year-to-year trend as well as the comparison to the national percentile score.
Comments: CAAP test is one of the requirements for all students graduating with an Associate's degree. KCKCC administers CAAP test on five different subjects: Mathematics, Reading, Critical Thinking, Writing Skills, and Writing Essay. All candidates of Associate's degree takes only one subject test randomly assigned out of the five subjects. In Spring 2015, 71 of 344 graduating students took the Mathematics CAAP test.

SEPTEMBER 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Labette Community College***
AREA ASSESSED: Math and Analytical Reasoning

Assessment Instrument(s): We used imbedded assessments within the curriculum.
Assessment Results: Math: .82. n=3,759 Analytical Reasoning: .85 n=10,142
Explain how your institution makes use of the assessment results: In addition to the KBOR report, assessment results are reported to the faculty, included in our annual Report of Student Learning, and on our website available to the public. When areas of weakness are found through low course outcome results at the course level, members of the faculty identify an intervention in an effort to improve learning results.
Comments: The Assessment Results are based on a few assumptions. • All data are taken from the LCC "Knowledge" Student Learning Outcome • Math data are taken from all Math courses • Analytical Reasoning data are taken from Biology, Physics, Physical Science, and Chemistry courses. The Math sample, n=3,759, represented course outcomes assessed in all Math classes. The Analytical Reasoning sample, n= 10,142, represented course outcomes assessed in Biology, Physics, Physical Science, and Chemistry. A student may have been assessed on multiple course outcomes. Math and Analytical Reasoning data reflect a level of student competency based on 70% cut scores. Of the 3,759 Math course outcomes assessed in the Fall of 2014 and Spring 2015, 3,082 or 82% of the students scored at or above the 70% cut score. Similarly, 8,621 or 85% of the students scored at or above the 70% cut score for Science Reasoning course outcomes.

AUGUST 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Neosho County Community College***
AREA ASSESSED: Mathematics and Analytical Reasoning

Assessment Instrument(s): The assessment instrument varies by course outcome. At the course level, the goal per outcome must be standard across the course; however the methodology of assessment is not required to be standardized. So, with academic freedom in mind, instructors can choose to assess a learning outcome using the method that they see fits the best. In some cases, disciplines have met and established standardized assessment methodologies, but in other cases the methodology varies per instructor. At the conclusion of each course offering, each instructor who has taught the course that term completes an assessment report, including scores per outcome and qualitative information that is relevant (i.e., new teaching approaches, revamped projects, results of trying an idea identified in an earlier assessment report, etc.).
Assessment Results: 78% of Individual Assessment goals were met during 2014-2015 within the analytical thinking general education goal at NCCC.
Explain how your institution makes use of the assessment results: Course/Program Level: The NCCC approach provides for instructor engagement in a rating for the assessment outcomes in each course, as well as for qualitative information to: 1-explain situations involving a course section that may have some interesting influence on the assessment evaluation, 2-allows for instructors to describe a technique or idea that was tried and its initial impact, or 3-allows for instructors to suggest techniques and ideas that will be tried in a future course offering and the reason why that change is being examined. This assessment structure provides a strong blend of student performance datawith instructor reflection and analysis. Institutional Level: Since this data is established annually, it is presented at all college inservice meetings each year to and provided to the Board of Trustees in an annual report from the Coordinator of Assessment at the college. This provides an overall awareness of our student learning goals and our achievements. Our general education outcomes are listed on every general education course master syllabus and the institution is has a culture of continuous improvement based on monitoring this data. The data is also used at the institutional level to measure how effective NCCC is at meeting the mission, vision, and purposes of the college. We maintain an institutional effectiveness dashboard that includes an assessment of our general education outcomes.
Comments: The number of students assessed for this resulting score includes a duplicated cohort of 4,874 students and 39 individual course student learning outcomes.

AUGUST 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Pratt Community College***
AREA ASSESSED: Mathematics and Analytical Reasoning

Assessment Instrument(s): CAAP Exam for all transfer graduates (graduate cohort)
Assessment Results: PCC mean score: 57.4; National mean (benchmark) score: 56.0; n = 188 graduates
Explain how your institution makes use of the assessment results: This assessment is used to monitor the mathematical and analytical reasoning level of the graduate cohort with the national mean of all college sophomores serving as the benchmark. As long as the benchmark is met or exceeded no action is taken. If the benchmark is not met the cohort is subdivided into the following subgroups: On-campus; on-line; concurrent. Subscores of each subgroup are examined to determine if student learning is sub-standard within a particular cohort. In all cases of not achieving the benchmark a corrective action is required.
Comments: For the past 10 years PCC graduate cohorts have consistently scored above the benchmark for the Mathematics and Analytical Reasoning learning assessment.

AUGUST 2015
REPORT ON THE ASSESSMENT OF STUDENT LEARNING
INSTITUTION: ***Seward County Community College / Area Technical School***
AREA ASSESSED: Mathematics and Analytical Reasoning

Assessment Instrument(s): 1. CCSSE Question "Solving numerical problems" 2. NCCBP enrollee success in first college course 3. Programs reporting data on meeting or not meeting benchmarks 4. Math Program Pre/Post Test 5. WorkKeys Applied Mathematics Exam 6. CAAP Mathematics
Assessment Results: 1. 2014 results shows average of mean at 2.72; this is above the baseline of 2.65 established in 2009 and 2011. 2. 71% of students enrolled in their first college course were successful. this is higher than the national median/target. 3. 56% of programs met the benchmarks used for the baseline of institutional math outcomes. This exceeds the baseline of 28.57% of programs meeting the baseline benchmarks. (Baseline established from 2011-2013) 4. 93% of students improved their skill mastery from pretest to posttest, well over the 80% benchmark. 5. Students completing the WorkKeys assessment achieved an average level score of 4.76 on the seven point scale, above the baseline score, under the target score. 6.The students mean scale score was 55.81 on the CAAP mathematics exam, just under the natioal mean of 56.34 in 2013.
Explain how your institution makes use of the assessment results: The Assessment Committee has primary responsibility for institutional level analysis of student learning outcomes. Outcomes are reviewed every three years for appropriateness to accomplishing our institutional mission and purposes. Outcome performance targets are reviewed annually. Student performance data are shared with faculty as a whole, and based on their analysis and recommendations, outcomes targeted for improvement are identified. All faculty currently meet on Graduate Assessment Day to analyze student performance data and recommend improvement strategies for the current student learning improvement focus. Student and faculty perception data (CCSSE, Noel-Levitz SSI, course evaluations) are used to triangulate the student performance data. Faculty feedback and participation, student performance, and student perception are the measures of assessment effectiveness. The Assessment Committee combines these measures with the annual recommendations from faculty to develop an annual plan that includes goals, strategies, and a budget for the next academic year.
Comments: The most recent results for assessments are reported. Some rotations may not have fallen within the previous academic year. The assessment committee will explore aligning the cycles with this report.