STUDENT OUTCOMES COMMITTEE OF THE
BOARD OF TRUSTEES

MINUTES
Thursday, April 3, 2014
1:30 p.m. – M2-34

Presiding: Ms. Stacy Holland

Present: Mr. Mark Edwards, Dr. Judith Gay, Dr. Samuel Hirsch, Ms. Mary Horstmann,
Mr. Chad Lassiter, Dr. Sharon Thompson, Dr. Judith Renyi, Rep. James Roebuck.

Guests: Mr. Daniel Melamed, Mr. John Moore, Mr. Richard Saxton, Dr. Wayne Wormley

(1)   <u>**Executive Session**</u>

The committee discussed candidates for promotion; the Middles States Reaccreditation
Team Visit. Dr. Hirsch updated the committee on student tuition payment procedures.

(2)   <u>**Public Session**</u>

(a) Approval of Minutes of February 6, 2014

The minutes were accepted unanimously.

(b) Accounting Program Academic Audit

Mr. Moore presented the Audit. He suggested that the audit raises timely issues since
there are a number of emerging issues in the field. Transfer institutions such as Temple
and Drexel will no longer accept our upper level accounting courses. In such cases it is
better for students to pursue our degree in Business Administration to prepare them for
transfer. The degree is an A.A.S. degree but students who want to be accountants must
pursue a bachelor's degree and pass a certification examination. Both accounting and
bookkeeping are high priority occupations. The strategic question for the program is
whether to pursue an A.A.S. in bookkeeping and/or keep a transfer focus. It was pointed
out that Peirce College and Strayer University accept our courses. Mr. Saxton expressed
concerns on the part of the faculty that eliminating accounting will limit the options for
our students and that good advising is necessary. Ms. Holland asked when advising
occurred and suggested that this needs to happen sooner so students are making informed
choices. Several suggestions were offered for ways the faculty could engage with their
students earlier to include open houses, meet and greet, information sheets with curricular
pathways. Costs for the program are low. If the program is revised to an A.A. degree,
alignment with TAOC would be required. The Committee agreed that this issue needs to
be addressed but asked for a shorter time line to reach the decision. Dr. Renyi pointed out
that bookkeeping prepares students for excellent job opportunities. It was mentioned that
the program recently developed a paraprofessional certificate.

Action: The Student Outcomes Committee recommends that the Board of Trustees accept the Accounting Academic Audit with the following revisions:
1. **The deadline for decisions about the future of the program will be completed by the end of Fall 2014. Changes will be implemented by Spring 2015.**
2. **The program must, by Fall 2014, demonstrate that they are communicating to Accounting students upon entry into the College about their options for transfer and workforce entry and advise them about the best programmatic options for them at that time.**

(c) Computer Science 2010-11 Academic Audit Update

The Committee noted that this audit update was due in December 2012 and asked for a reason for the extended delay. Mr. Melamed indicated that the delay was due to faculty sabbaticals, retirements and other issues. The committee asked why this curriculum was still low enrolled. Mr. Melamed responded that it was because of the high level of math required. The potential to work with high school populations was discussed. Ms. Holland suggested high school partnerships that might be fruitful than the one listed in the enrollment planning document provided. It was reinforced that this was a transfer program not intended to lead directly to employment. The committee reiterated that this follow up was long overdue and advised the Dean and department head to meet all future deadlines.

(d) Completion Data to Include Proficiency Certificate Students

Dr. Hirsch explained that proficiency certificates range from 9 to 29 credits. Currently Academic Certificates (30 credits and above) are including in College data, e.g. graduation numbers. We have not included proficiency certificates. It was recommended to the cabinet that beginning this year, we include students who earned the proficiency certificate in our graduation ceremony and in our data. This is common practice in other institutions. Had we included these graduates in our numbers, we would have increased by almost 100. This item is brought to the Committee for informational purposes. The change will be footnoted for informational purposes in our research documents.

The meeting was adjourned at 2:51 p.m.

(3) <u>**Next Meeting**</u>

The next meeting of the Student Outcomes Committee of the Board is scheduled for May 1, 2014 at 1:30 p.m. in conference room M2-34.

<u>**Attachments:**</u>
> Minutes of February 6, 2014
> Accounting Program Academic Audit
> Computer Science 2010-11 Academic Audit Update

Summary of Accounting Audit
The Accounting AAS degree at CCP was founded in 1965. The goal then, was to develop a set of skills for entry level employment in positions such as accounting assistants, bookkeepers, and auditing clerks. More recently, the program faculty have additionally focused on transfer opportunities for students. The program has also attended to issues raised by their advisory board (adding more computer and legal skills to the curriculum). However, the Accounting program at CCP is currently at a crucial point in its development. There are broad external changes such as changes to the accreditation standards at some transfer institutions and internal concerns such as declines in retention and graduation that the program must address. While the program has recently adopted a program management plan to address these issues, a more fundamental change to the program may be needed in the long term to keep the program viable and serving the needs of both students and the region.

Pertinent data include:
- There has been 3% growth in enrollment over the past 5 years (12 students).
- There has been a 40% decrease in graduates between 2008 and 2012.
- Fall to Spring (66%) and Fall to Fall (37%) retention have declined over the past few years, but are still equal to the College's averages.
- Graduation rates (7%) are lower than to the College (10%) and the Division (14%) over the past five years.
- The cost per FTE is lower than both the College and Division medians.
- Both Bookkeeping (an associate's level position) and Accounting (a bachelor's level position) are designated HPOs for the Philadelphia region.
- There are 9 local institutions as potential transfer institutions, but two of the largest (Drexel and Temple) no longer accept upper level accounting courses from associate programs.

Recommendations for the program included:
1. Clarification of the program's future directions given the current challenges: should the program continue to offer an AAS or is some other combination of degree and certificates more appropriate.
2. Sustain and update the program management plan with participation of all faculty.
3. The program needs to continue to follow its plan for assessing student learning outcomes.
4. The program should further promote its proficiency certificate program.
5. In support of recommendation 1, above, the program needs to collect data appropriate for the decisions to be made including from alumni, practitioners, current students, and advisory board members.

Action: The Student Outcomes Committee of the Board recommends that the Board of Trustees accept the audit of the Accounting program with the following revisions:
1. The deadline for decisions about the future of the program will be completed by the end of Fall 2014. Changes will be implemented by Spring 2015.
2. The program must, by Fall 2014, demonstrate that they are communicating to Accounting students upon entry into the College about their options for transfer and workforce entry and advise them about the best programmatic options for them at that time.

STUDENT OUTCOMES COMMITTEE OF THE
BOARD OF TRUSTEES

MINUTES
Thursday, February 6, 2014
1:30 p.m. – M2-34

Presiding: Ms. Stacy Holland

Present: Dr. Judith Gay, Dr. Samuel Hirsch, Dr. Sharon Thompson, Mr. Chad Lassiter, Ms. Mary Horstmann (by phone), Dr. Judith Renyi, Rep. James Roebuck.

Guests: Dr. Mary Anne Celenza, Mr. John Moore, Ms. Margaret Niven, Mr. Jon Spielberg

(1)   Executive Session

The committee discussed honorary degrees.

(2)   Public Session

(a) Approval of Minutes of November 7, 2013

The minutes were accepted.

(b) Student Outcomes Dashboard

Ms. Holland presented the conceptual framework for the proposed dashboard. It presents a snapshot in time and can provide information to guide more in depth discussions on specific elements of the dashboard. It will also serve to help track the College's overall progress. The Committee discussed whether the proposed format meets those needs. It was agreed that the dashboard is a high level document that can be shared with external constituencies as well. Dr. Renyi noted that she liked the "at a glance" concept and was impressed with how evidence based the College is. It was noted that too much data can be overwhelming. It was agreed that the dashboard has areas that will continue to be used in the future as it addresses student outcomes and the completion agenda. It can also serve as a baseline from which to derive aspirational goals.

The committee discussed whether the dashboard addresses the "value added" nature of the community college experience. It does address workforce preparation, transfer and completion. It does not capture student satisfaction data that is collected through the Noel Levitz and CCSSE surveys. It was agreed that "value added" is difficult to measure, particularly for students who have not graduated. We do get at some of these areas through our assessment of general

education and the core competencies. It was agreed that the staff will think about the concept of "value added" and how we might capture it in a metric which could be added in the future.

The Committee agreed that they were comfortable moving forward with the dashboard as presented. It was suggested that meetings during the year could be dedicated to a particular section of the dashboard for more in depth analysis and review. Dr. Gay pointed out that there is one measure that is open to debate. Do we want to increase both transfer and graduation? Are these contradictory? It was suggested that we might look at what the goals of the users are. Finally, it was agreed that we add the opportunity to include a footnote to provide context for a particular indicator or to explain a score, e.g. if there are external factors influencing the outcome.

(c) Photographic Imaging Academic Audit

Mr. Moore, Ms. Niven and Mr. Spielberg joined the meeting. Mr. Moore presented an overview of the recommendations. The faculty have already begun to work on enrollment planning. They also have conducted surveys of current students. A sample survey was distributed. The faculty are now focusing on encouraging students who leave before completing the degree to complete the proficiency certificate. This is an excellent alternative for students and provides a guided pathway for their course taking. The audit has provoked conversation among the faculty and with the advisory committee about the issues raised by the audit and the direction the program should take. The essential question is whether to maintain the degree program and if so how that should best be structured. Mr. Spielberg said that the College is the only public institution in the area that has a photographic imaging program that serves low income, minority students. It was pointed out that programs do exist at Moore College, the University of the Arts, Temple and Drexel. Mr. Spielberg explained that when our students do transfer to these schools, they have excellent preparation and advanced technical skills. Students also pursue the degree to begin a new career. Many already have work experience. The Committee discussed the value of the degree versus our just offering courses. It was speculated that if we do not offer the degree, students may not come to the program at all. The high costs are associated with the program courses themselves. In any case, the faculty need to address the low number of graduates. They have already begun to inform students about the proficiency certificate and have 20 students ready to graduate. Dr. Hirsch reminded the group that Student Affairs can assist to identify students who qualify for the certificate.

Action: The Student Outcomes Committee recommends that the Board of Trustees accept the Photographic Imaging Academic Audit and require a follow-up report by Spring 2015 with a decision on whether the program will be discontinued.

(d) Recommendation to Close the A.A.S. Degree in Patient Service Representative

Dr. Celenza presented the recommendation. The decision to close the program was based on looking at the issue in four ways: maintaining the quality and integrity of all Allied Health programs, ensuring the currency of our program offerings, having clear and direct pathways for our students and responding to changes in the employment in health care. A review of the current job market and qualifications for positions indicated that most employers only required a high school diploma for the position. If additional coursework is required, the department has developed a proficiency certificate in this area. The certificate has been recently revised to add courses needed for employability. Students who wish to earn an associate's degree can continue on in the Health Services Management curriculum. In addition the faculty and Dean reviewed enrollments and the low number of students graduating before making the recommendation to discontinue the degree program.

Action: The Student Outcomes Committee recommends that the Board of Trustees accept the recommendation to discontinue the A.A.S. degree in Patient Service Representative.

The meeting was adjourned at 3 p.m.

(3) **Next Meeting**

The next meeting of the Student Outcomes Committee of the Board is scheduled for Friday, March 21, at 1:00 p.m. in conference room M2-34.

Attachments:

Minutes of November 7, 2013
Draft - Student Outcomes Dashboard
Academic Program Audit: Photographic Imaging
Recommendation to Close the A.A.S. Degree in Patient Service Representative

Community College of Philadelphia

Academic Program Audit:

Accounting

Authors:
John V Moore
III Richard
Saxton Wayne
Williams

Date: February 2014

I. Executive Summary

The Accounting program at CCP is at a crucial point in its development. There are broad external pressures such as changes to accreditation standards at transfer (Bachelor's level) institutions. While the program is an AAS degree, it has traditionally focused on transfer—however, Pennsylvania has indicated that both Accountants (Bachelor's level) and Bookkeepers (Associate's level) are currently High Priority Occupations for the region. The program has had some recent declines in retention and graduation as noted in QVI reports and has responded by developing a management plan.

II. Program

The Accounting curriculum leads to an Associate in Applied Science (A.A.S.) degree. Students receive training in accounting theory and generally accepted accounting techniques, as well as in basic management and related fields. Students are prepared for a variety of careers in both industry and government, including positions such as junior accountant, accounting trainee, accounts receivable or accounts payable technician, bookkeeper, or tax examiner.

A. Brief History of the Program

The Accounting Program was started in 1965. The goal of the program was, as it is now, to develop a set of skills for entry level employment in accounting positions. In 2001, the year the last audit was conducted, the program was considering strategies to grow student enrollment, including offering more courses through distance education and exploring a CPA Candidate Certificate Program. As a result of the 2001 Audit, there was a curriculum revision (in 2003) to add more computer and law competencies into the curriculum. An additional revision in 2009 brought the program into compliance with the new General Education requirements. This change also served to reduce the program requirements from 64 to 62 credits.

B. Curriculum Sequence

ACCOUNTING COURSE SEQUENCE

Course Num / Name	Prerequisites and Corequisites	Credits	Gen Ed Req.
FIRST SEMESTER			
ACCT 101 - Financial Accounting		4 credits	
ECON 181 - Principles of Economics (Macro-econ)		3 credits	
ENGL 101 - English Composition I		3 credits	ENGL 101
Mathematics Course*	Appropriate Placement Level or Pre-req class	3 credits	Mathematics
MNGT 121 - Introduction to Business		3 credits	
SECOND SEMESTER			
ACCT 102 - Managerial Accounting	ACCT 101 with a "C" or better	3 credits	
ENGL 102 - The Research Paper	ENGL 101 with a "C" or better	3 credits	ENGL 102, Info Lit
ECON 182 - Principles of Economics (Micro-econ)		3 credits	
ACCT 103 - Microcomputers in Accounting	ACCT 101 with a "C" or better	3 credits	
MNGT 141 - Principles of Management	Pre- or Corequisite: MNGT 121	3 credits	
THIRD SEMESTER			
ACCT 201 - Intermediate Accounting I	ACCT 101	3 credits	
Humanities Elective		3 credits	Humanities
ECON 112 - Statistics I	MATH 118 or higher than	4 credits	
Social Science Elective		3 credits	Social Sciences
CIS 103 - Applied Computer Technology		3 credits	Tech Comp
FOURTH SEMESTER			
ACCT 202 - Intermediate Accounting II	ACCT 201	3 credits	
Accounting Elective**		3 credits	
ECON 114 - Statistics II	ECON 112	3 credits	
Science Elective		3 / 4 credits	Natural Science
MNGT 262 - Business Law		3 credits	
		62/63 Credits Total	

*MATH 151 *Linear Mathmematics*, Math 161 *Precalculus I*, Math 162 *Precalculus II*, or Math 171 *Calculus*

**ACCT 203 *Cost Accounting*, ACCT 208 *Tax Acounting*, ACCT 215 *Nonprofit Accounting*, ACCT 206 *Auditing*, or ACCT 250 *Advanced Accounting*

C. Curriculum Map

COURSES	PROGRAM STUDENT LEARNING OUTCOMES			
	Demonstrate an understanding of financial statements prepared according to Generally Accepted Accounting Principles (GAAP), prepare journal entries and complete the accounting cycle using computerized general ledger software.	Demonstrate an understanding of managerial and cost accounting concepts.	Analyze and interpret financial statements for economic decision-making.	Effectively communicate with users of financial information orally and in writing.
ACCT 101 - Financial Accounting	I & R		I	I
ECON 181 - Principles of Economics (Macroeconomics)		I		I
ENGL 101 - English Composition I			I	I
MATH 151 - Linear Mathematics or MATH 161 - Precalculus I or MATH 162 - Precalculus II or MATH 171 - Calculus I			I	
MNGT 121 -Introduction to Business	I	I	I	I
ACCT 102 - Managerial Accounting	R	I & R	R	R
ENGL 102 - The Research Paper				M
ECON 182 - Principles of Economics (Microeconomics)		R	R	R
ACCT 103 - Microcomputers in Accounting	R	R	R	
MNGT 141 - Principles of Management		R		
ACCT 201 - Intermediate Accounting I	R / M			
Humanities Elective				R
ECON 112 - Statistics I			R	
Social Science Elective				M
CIS 103 - Applied Computer Technology	I / R		R	
ACCT 202 - Intermediate Accounting II	M			
Accounting Elective	ACCT 206: R ACCT 215: R ACCT 250: R	ACCT 203: M	ACCT 203: M ACCT 215: M ACCT 250: M	ACCT 206: R ACCT 208: R
ECON 114 - Statistics II			M	
Science Elective				R
MNGT 262 - Business Law				R

Key: I = Introduced; R = Reinforced ; M = Mastered

D. Future directions in the field/program

Temple and Drexel Universities—both of which are Association to Advance Collegiate Schools of Business (AACSB) accredited programs—have ceased accepting the transfer of upper-level accounting courses from community colleges (although other regional colleges still do). This presents an important challenge to the program and its future.

In response, the faculty are contemplating several ideas which include additional certificates or directed course packages to assist individuals interested in supplementing their education or preparing for the accounting certification exams. Additionally, the faculty have started infusing existing courses with information about International Financial Reporting Standards (IFRS). Both of these stem from recommendations from the Advisory Committee.

III. Profile of Faculty

Faculty in the Accounting program reside, as the program itself does, within the Business Administration department.

Full time faculty in addition to their teaching responsibilities have accounting practices that enable them to keep up with current trends in the profession and to bring real life examples into their classrooms. The adjunct faculty consists of licensed and practicing CPAs, non-profit and governmental accountants and auditors, IRS, state, and city employees and retirees, and private industry accountants. Several of the faculty, both full-time and adjunct, also teach or have taught, at other area schools, including Holy Family, St. Joseph's, Strayer, and Temple Universities; and Gwynedd-Mercy, Ursinus, and Bucks County Community Colleges.

Those who are licensed - CPA, JD, or CFP, are required by their licensing authorities to earn continuing education credits to keep their licenses active. The continuing education they complete keeps them up to date with industry trends and practices, enables them to tailor their classroom presentations, and encourages them to share changes in the profession with their peers.

The last full-time member was hired (from the part-time ranks) two years ago. Prior to that, the last hiring of a full-time member was 7 years before. There has not been a need to hire a new adjunct in the last 5 years. The Accounting faculty has 3 minority and 1 female member. While striving to hire the most qualified candidates, the members of the hiring committee are consciously aware of the need to increase the diversity of the faculty. One full-time faculty position in the program has remained unfilled for the past two years; efforts continue to identify and hire a qualified applicant.

A.   Program Faculty

Faculty Member	Position	Courses Taught
Alan E. Davis MBA, Accounting, Information Management Systems; CPA	Associate Professor, Business Administration	Financial Accounting; Managerial Accounting; Microcomputers in Accounting; Intermediate Accounting I and II; Cost Accounting; Auditing; Tax Accounting; Advanced Taxation
James "Barry" Johnson MBA, Management; CPA	Assistant Professor, Business Administration	Financial Accounting; Managerial Accounting; Intermediate Accounting I and II
Dennis Gentekos MA, Economics	Assistant Professor, Business Administration	Financial Accounting; Managerial Accounting
Cory Ng MS, Accounting; CPA, CGMA	Assistant Professor, Business Administration	Financial Accounting; Managerial Accounting; Microcomputers in Accounting; Nonprofit Accounting
David Berman BS, Accounting; CPA	Adjunct Instructor	Financial Accounting; Managerial Accounting; Microcomputers in Accounting; Intermediate Accounting I and II; Tax Accounting; Advanced Taxation
Thomas Burke PhD, Economics	Adjunct Instructor	Financial Accounting; Managerial Accounting
Tamra Chase MBA, Finance	Adjunct Instructor	Managerial Accounting
John Donovan MBA, Accounting; CPA	Adjunct Instructor	Financial Accounting; Managerial Accounting; Microcomputers in Accounting; Intermediate Accounting I and II
Otis Hightower MA, Administration	Adjunct Instructor	Financial Accounting; Managerial Accounting; Microcomputers in Accounting; Intermediate Accounting I; Nonprofit Accounting
Shirin Jahanian MBA Finance; CPA	Adjunct Instructor	Financial Accounting; Managerial Accounting; Intermediate Accounting I and II; Cost Accounting; Auditing

B.   Level of Engagement of Program Faculty
The program faculty participates in many college wide initiatives, including various hiring committees, curriculum development committees, and an enrollment management team. They also engage with organizations such as Alpha Beta Gamma (International Business Honor Society of Community, Junior, and Technical Colleges), the American Association of Women in Community

Colleges, the Presidents Minority Council, the Faculty Council on Education, the National Association of Black Accountants, the Campaign for Working Families, and Student Government Association. The program faculty also attend various professional development activities that include continuing education for Certified Public Accountants and participate in grant funded programs such as the Goldman Sachs 10,000 Small Businesses.

Accounting faculty have participated in Open House events at the Main and regional campuses as well as in the Majors Fairs on Main Campus. Annually, accounting faculty and students have attended the Pennsylvania Institute of CPAs (PICPA) Networking & Casino Night to expose students to the accounting profession and meet with potential employers. Faculty made arrangements for accounting students to visit the corporate headquarters of the PICPA in Center City Philadelphia and Kensey Nash, a biomedical manufacturing firm in Exton, PA. Accounting faculty currently serve on the Editorial Board of the PA CPA Journal and have published articles on a variety of topics including accounting education assessment, doing business in China and current trends in online accounting education. Accounting faculty, both full and part-time, attend the annual Teachers of Accounting at Two Year Colleges conference to learn the latest pedagogy. Guest speakers from the accounting profession and the PICPA have served as guest lecturers in accounting classes on campus.

Although there are benefits to faculty maintaining outside business interests—it helps faculty stay in touch with changes in the field and provides them with real world examples for their students—there is some administrative concern about faculty ability to balance their responsibilities at the College with full time positions outside of campus, particularly those related to program management issues.

IV. Program Characteristics

A. Student Profile
The headcount of students has remained stable over the past five years; it currently is about 5% down from its 5 year average (Table 1). From 2009 to 2011 there was a bump in enrollments, followed by a decline in 2012. The overall pattern of percent growth follows both that of the Division and the College, with slightly larger swings (Figure 1).

The program enrolls twice the percent of Asian students than the College (14.7% vs. 7.2%) and a slightly smaller percentage of African American students (43.2% vs. 48.2%). (Table 2)

Course enrollments are slightly lower than the average for the Division or the College. Spring enrollments tend to have a slightly lower fill percentage across all areas; this is often due to an attempt to facilitate graduation by offering upper level courses at slightly lower enrollments so that students who need a specific course to graduate are able to enroll in it. (Table 3)

Table 1. Headcounts

		Fall 2008	Fall 2009	Fall 2010	Fall 2011	Fall 2012	5 Year Average	5 Year Change
Accounting	Headcount	313	348	363	367	325	343.2	3.8%
	FTE Headcount	221	245	263	259	232	242.1	5.0%
Business & Technology	Headcount	2,778	3,072	3,166	3,251	3,162	3,089.40	13.8%
	FTE Headcount	2,036	2,289	2,357	2,371	2,323	2,261	14.1%
College	Headcount	17,327	19,047	19,502	19,752	18,956	19,046.50	9.4%
	FTE Headcount	11,883	13,362	13,696	13,682	13,111	13,098.20	10.3%

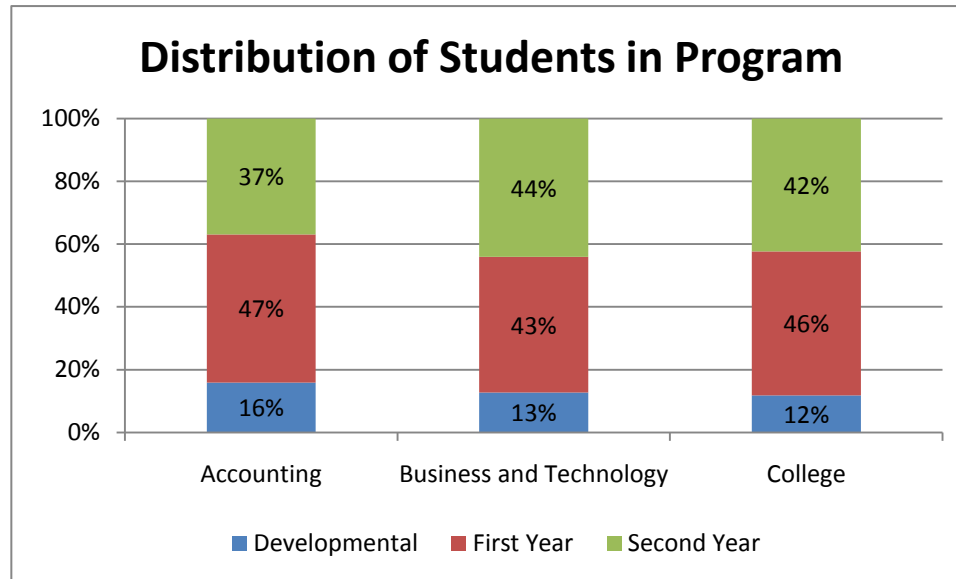Figure 1. Year to Year Percent Change in FTE Headcounts

Percent Change in Headcount
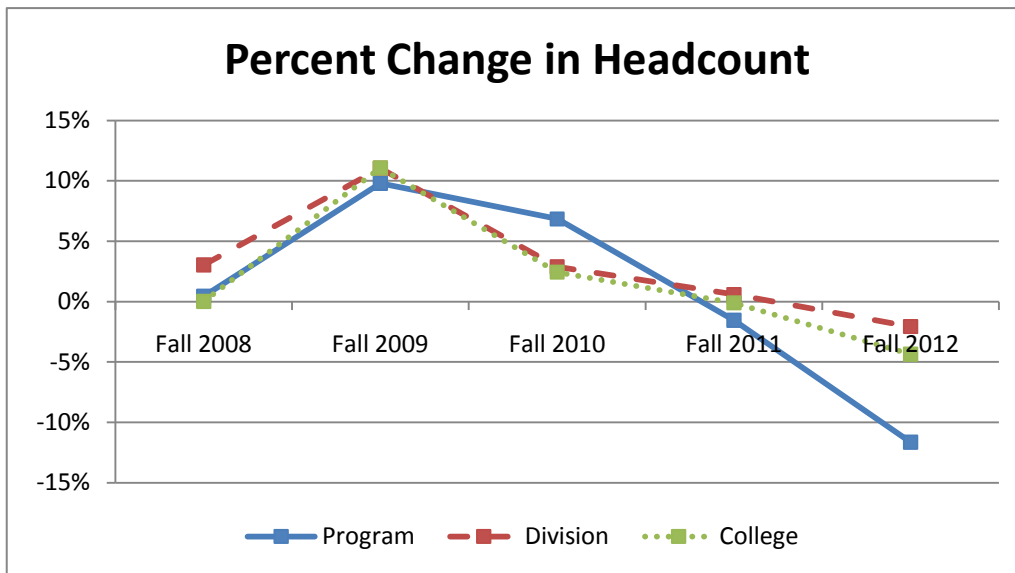
Table 2. Demographics

Demographics: Running 5 Year Average

	Accounting	Business and Technology	College
Female	57.9%	47.1%	65.0%
Male	41.7%	52.4%	34.4%
Unknown	0.7%	0.5%	0.6%
Native American	0.6%	0.5%	0.5%
Asian	14.7%	10.3%	7.2%
African American	43.2%	48.6%	48.2%
Latino/a	5.1%	6.2%	6.1%
White	23.9%	21.0%	25.2%
Other	3.7%	4.2%	3.8%
Unknown	8.9%	9.3%	9.1%
16 – 21	30.6%	35.7%	32.6%
22 – 29	35.7%	37.1%	35.4%
30 – 39	18.7%	14.3%	16.9%
40 +	13.9%	11.6%	13.6%
Unknown	1.2%	1.3%	1.5%
Full Time	33.2%	38.2%	31.4%
Part Time	66.8%	61.8%	68.6%
College Ready[1]	17.7%	18.6%	27.2%
Some Developmental	50.4%	54.6%	47.3%
All Developmental	31.9%	26.9%	25.5%

[1] Status upon entering the College.

Table 3. Course Enrollments

		Fall 2008	Spring 2009	Fall 2009	Spring 2010	Fall 2010	Spring 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Fall Average	Spring Average
Accounting	Courses	38	50	39	49	41	51	42	51	37	44	39.4	49.0
	Avg Enrollment	29.0	25.0	30.5	28.1	30.3	26.8	29.0	26.3	28.3	29.0	29.4	27.1
	Percent Filled	80%	70%	85%	78%	84%	75%	81%	74%	79%	82%	81.8%	75.7%
Business and Technology	Courses	267	302	281	328	289	452	281	160	270	266	277.6	301.6
	Avg Enrollment	25.7	25.3	27.7	27.1	27.8	23.7	22.2	27.0	27.8	28.5	26.2	26.3
	Percent Filled	79%	77%	86%	84%	83%	82%	85%	81%	84%	86%	83.7%	82.2%
College	Courses	2689	2822	2870	3090	2915	2987	2996	2918	2719	2716	2837.8	2906.6
	Avg Enrollment	21.2	21.2	22.3	22.0	21.9	21.6	21.9	22.2	22.3	22.1	21.9	21.8
	Percent Filled	83%	83%	87%	86%	84%	83%	85%	85%	86%	84%	85.0%	84.4%

Figure 2: Student Distribution Pattern

Distribution of Students in Program

Accounting: Developmental 16%, First Year 47%, Second Year 37%
Business and Technology: Developmental 13%, First Year 43%, Second Year 44%
College: Developmental 12%, First Year 46%, Second Year 42%

Developmental ■ First Year ■ Second Year

B. Student Outcomes

Most of the student outcomes were, on average, similar to both the division and the College as a whole. The most notable differences were in success at departure. Students in Accounting were less likely to leave due to graduation or with long term success and more likely to depart unsuccessfully. Transfer patterns are similar to the Division and College with two exceptions: students who graduate are slightly less likely to transfer; students who leave after 24 credits are slightly more likely to transfer. This, however, is to be expected in an AAS program.

Table 4. Outcomes Data: 5 Year Averages

		Program	Division	College
Standing	Good Standing	83.3%	81.3%	84.1%
	Probation	13.9%	15.4%	13.2%
	Dropped	2.9%	3.3%	2.7%
Fall-Spring Retention	Returned/Same	65.6%	63.9%	65.6%
	Returned/Different	8.0%	5.9%	5.2%
	Graduated	1.4%	3.3%	2.0%
	Did Not Return	25.0%	26.9%	27.2%
Fall-Fall Retention	Returned/Same	37.3%	36.5%	36.5%
	Returned/Different	11.4%	8.3%	8.5%
	Graduated	6.3%	9.8%	8.2%
	Did Not Return	45.0%	45.4%	46.8%
Success at Departure[2]	Graduated	7.2%	14.4%	9.9%
	Long Term Success	30.7%	33.7%	35.8%
	Short Term Success	18.1%	13.2%	17.7%
	Unsuccessful	44.1%	38.6%	36.6%
Course Outcomes	Course Completion	86.4%	86.8%	88.4%
	GPA	2.60	2.57	2.65

---

[2] "Graduated" are students who earned certificates or associates degrees at the College. "Long term success" is defined as departure with a GPA of 2.0 or greater and 12 or more cumulative credit hours earned. "Short term success" is defined as departure with a GPA of 2.0 or greater and 11 or fewer cumulative credit hours earned. The "unsuccessful" departure group includes all departing students not otherwise classified including students who never complete a college-level course.
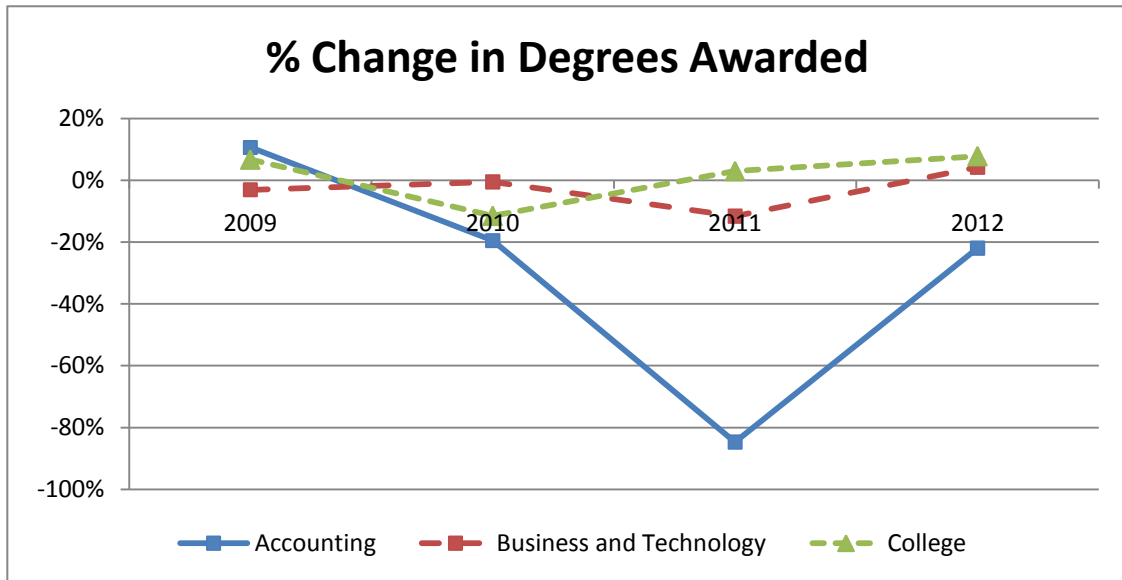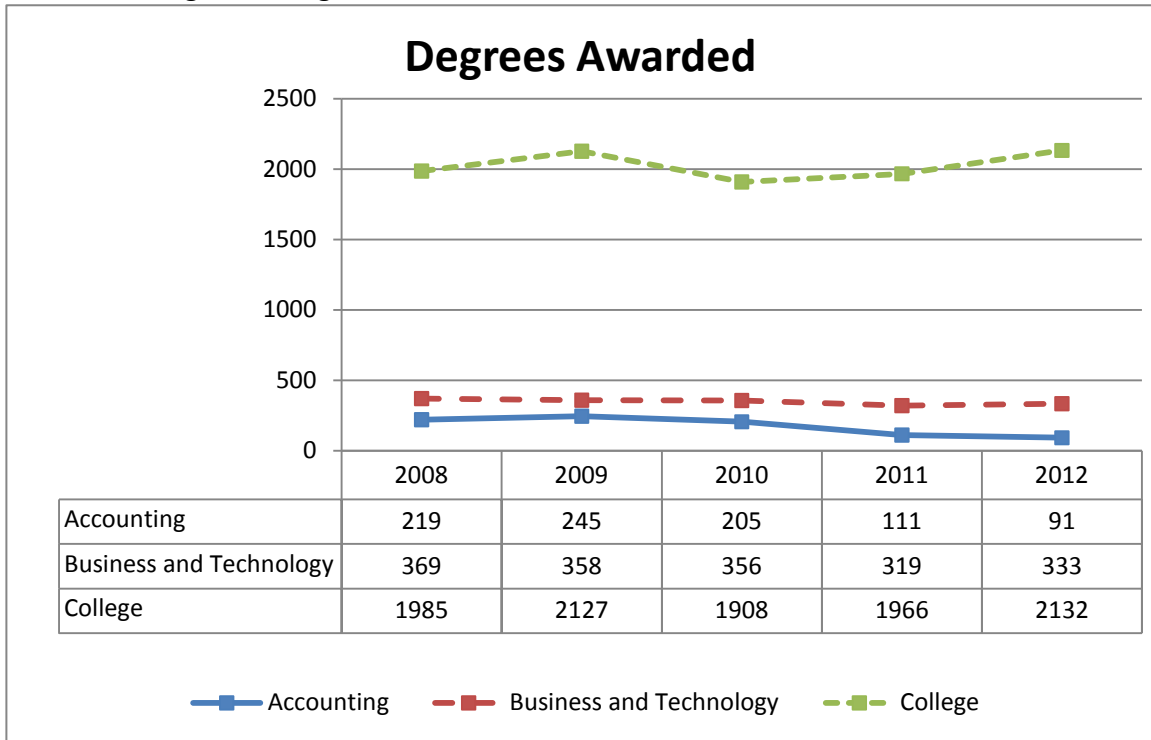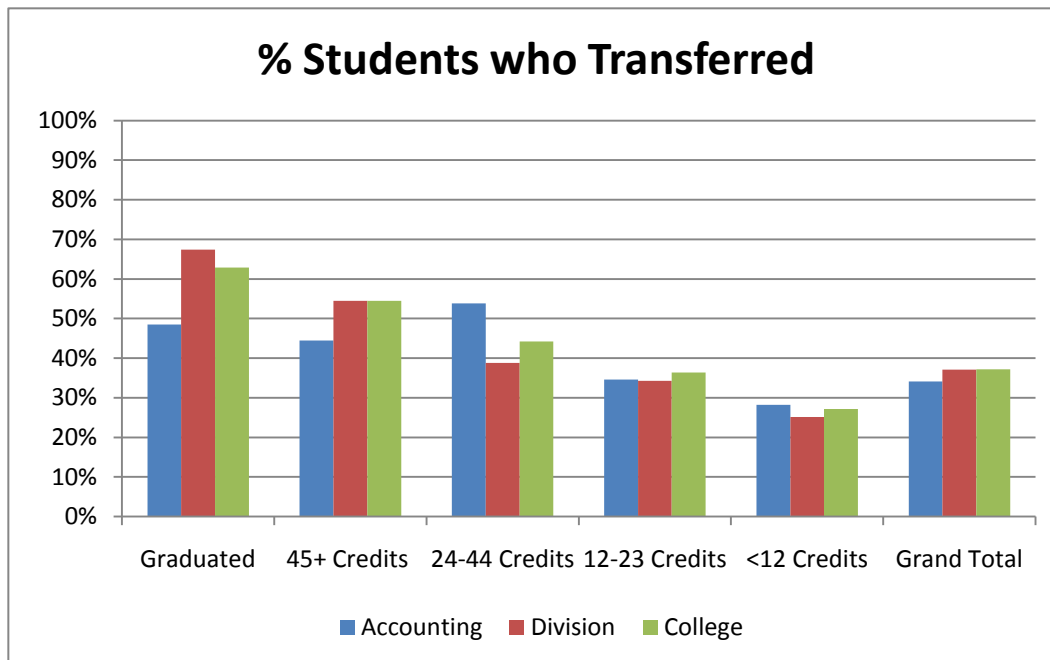
Table 5 and Figure 2. Degrees Awarded

Degrees Awarded

	2008	2009	2010	2011	2012
Accounting	219	245	205	111	91
Business and Technology	369	358	356	319	333
College	1985	2127	1908	1966	2132

Accounting — ■— Business and Technology — ■— College

% Change in Degrees Awarded

Accounting — ■— Business and Technology — ▲— College

Figure 3. Transfer by Departure Status[3]

% Students who Transferred

C. Student Surveys

Surveys were sent out to current students via SurveyMonkey®. Eighteen current students responded to the survey. Responses around the issue of best parts of the program and areas for improvement were the most telling: students earlier in their program appreciated the flexibility of program offerings, specifically, online courses (5 of 11 responses). Students later in their program indicated a need for more online courses (6 of 14 responses).

Each year the office of Institutional Research conducts a graduation survey; in the past 5 years, 16 students from the Accounting program have completed the survey. Because the numbers are small, there are few significant differences between responses from these students and those of the Division or College (Table 6), the lowest level of significance was set at .1 to compensate slightly for the small number.

Accounting students were lower than their peers in a few areas related to their development while at CCP. They had lower levels of growth in preparation for community participation (at the Division and College levels), and in artistic expression and continued intellectual growth (at the College level). While artistic

expression is understandable as a less prioritized outcome for Accounting, community involvement and lifelong learning would be important for graduates in any field. Understanding how these skills are infused in the discipline and reinforced would be a worthwhile pursuit for program faculty.

Table 6: Student Alumni Survey

Please indicate the level of progress you made at CCP in the following areas of knowledge, skills, and personal development	Program		Division		College	
	Mean	N	Mean	Sig.	Mean	Sig.
Enhanced Ability to Express Myself Artistically	1.75	16	2.14		2.18	*
Developed Meaningful Career Goals	2.38	16	2.40		2.51	
Developed into a more Informed Citizen	2.25	16	2.43		2.51	
Improved Preparation for Active Participation in Community Activities	1.56	16	2.06	**	2.20	***
Using Computing and Internet Technology	2.63	16	2.49		2.44	
Enhanced Self-Confidence	2.19	16	2.40		2.47	
Enhanced Understanding of My Own and Different Cultures	2.31	16	2.33		2.45	
Improved Self-Discipline	2.38	16	2.41		2.51	
Acquiring a Broad General Education	2.63	16	2.47		2.55	
Developed Interpersonal Skills and the Ability to Relate to Others	2.44	16	2.38		2.50	
Improved Leadership Abilities	2.00	16	2.26		2.39	
Solving Numerical Problems	2.50	16	2.46		2.30	
Working Effectively with Others	2.44	16	2.38		2.49	
Preparation for Continued Personal and Intellectual Growth after College	2.27	16	2.44		2.58	*
Understanding People of Other Racial and Ethnic Heritage	2.31	16	2.37		2.48	
Improved Self-Reliance	2.44	16	2.42		2.50	
Speaking Clearly and Effectively	2.38	16	2.45		2.46	
Thinking Critically and Analytically	2.50	16	2.55		2.57	
Contributing to the Welfare of my Community	1.88	16	1.99		2.18	
Writing Clearly and Effectively	2.50	16	2.54		2.55	

* $p < .1$, ** $p < .05$, *** $p < .01$

V. Learning Outcomes and Assessment

A. Program Student Learning Outcomes

Upon completion of the Accounting curriculum, the student will be able to:
- Demonstrate an understanding of financial statements prepared according to Generally Accepted Accounting Principles (GAAP), prepare journal entries and complete the accounting cycle using computerized general ledger software.
- Demonstrate an understanding of managerial and cost accounting concepts.
- Analyze and interpret financial statements for economic decision-making.
- Effectively communicate with users of financial information orally and in writing.

B. Outcomes Assessment
Student Learning Outcomes (SLOs) have been developed for all courses. Accounting 101 has been completed (see Appendix B), and recommendations for improvement are currently being implemented with plans to assess again in the next cycle. Assessments have also been completed for Accounting courses 102, 103 and 208. Additionally one faculty member has published an article on assessment of accounting courses.[4]

C. Advisory Committee
The Accounting program has an active Advisory Committee (AC), comprised of faculty from local institutions, individuals from a variety of industries, as well as current and former students. Recent discussions have focused on the possibilities for additional program certificates (e.g clerking or bookkeeping) and/or tracks (i.e. transfer vs. employment), local employment needs, transfer possibilities, skill sets needed for employment and transfer, internationalization of the curriculum, advising, and the general focus of the program.

D. Quality/Viability Indicators
Over the past two QVIs, issues have been noted with retention, graduation, and enrollments (the same trends mentioned above). The program management plan the faculty were asked to develop by the Division was one of the responses to these concerns.

---

[4] http://onlinedigeditions.com/publication/?i=124717&p=24

VI. Resources

The Accounting program faculty has reviewed technological needs for Accounting courses. Several courses utilize course related program software that students need for course work including Pearson's MyAccounting Lab and Wiley Plus; these courses need access to computer classrooms. Instructors also like to use the computer classrooms for course lab projects and testing. Accounting resources are limited to these items which have been handled by appropriate scheduling for the program courses and minimal software requirements for both the classrooms and the students. The College has used Perkins funding in the past to support Accounting, specifically, to buy updates to their QuickBooks Accounting software, and will be purchasing another upgrade this year.

VII. Demand and Program Management

Many of the jobs associated with this field have growth potential higher than the average for all jobs (Table 7). However, the local picture is more complicated. Regionally, jobs for individuals with degrees in accounting have decreased by 2.5% in the past year. Further, the number of individuals graduating with degrees (at all level) has been lower than the number of job openings in the local marketplace for many of the past 5 years (Figure 3). Despite that, accounting (requiring at least a BA and passing of the CPA examine) and bookkeeping (requiring an AAS) are both listed at High Priority Occupations by the state of Pennsylvania.

Locally, 9 schools offer associate degree in accounting or a related field. Seventeen schools in the region offer Bachelor's level degrees in Accounting (at all levels) meaning there are a number of possibilities for transfer for CCP students. However, as mentioned earlier, there are issues with new transfer policies (where 200 level courses in accounting are not transferrable) for CCP students to some programs at four year schools, of particular note is that two of our largest transfer partners, Temple and Drexel are included in this list. These changes will certainly have an impact upon demand for the program. Accounting does have transfer agreements with 10 institutions (6 of them local, 4 that focus primarily on distance education).

The program also has developed a 3 year program management plan to address the decrease in both enrollment and the number of graduates (Appendix A).

Table 7: National Jobs Outlook

Job Title	Growth 2010-2020	Mean Annual Salary
Accountants and Auditors	16%	$61,690
Bookkeeping, Accounting, and Auditing Clerks	14%	$34,030
Budget Analysts	10%	$68,200
Cost Estimators	36%	$57,860
Financial Analysts	23%	$74,350
Financial Examiners	27%	$74,940
Tax Examiners and Collectors, and Revenue Agents	7%	$49,360
All Jobs	14%	---

Figures 4a and b: Regional Degree Completions and Job Openings[5]

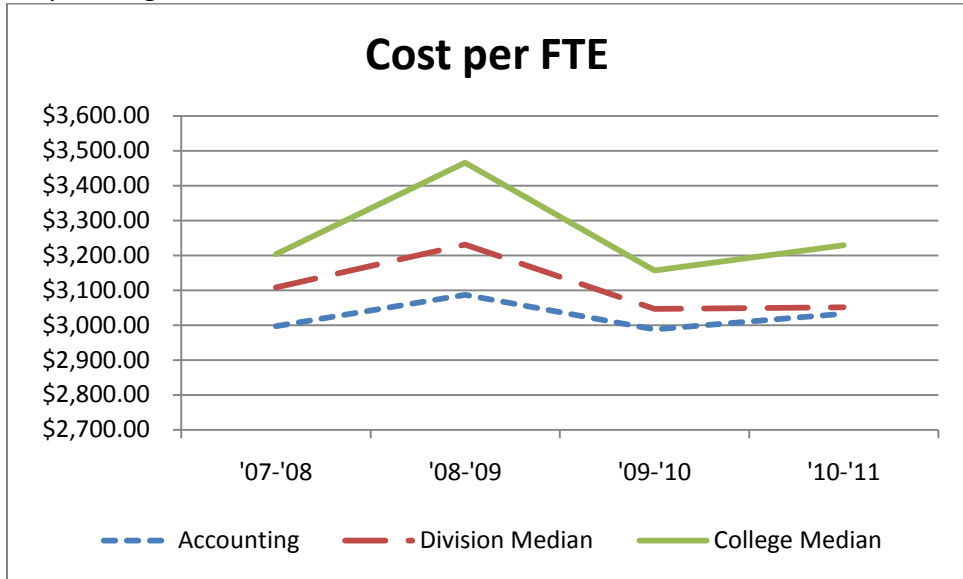**Bookkeepers, Accounting Technicians**

---
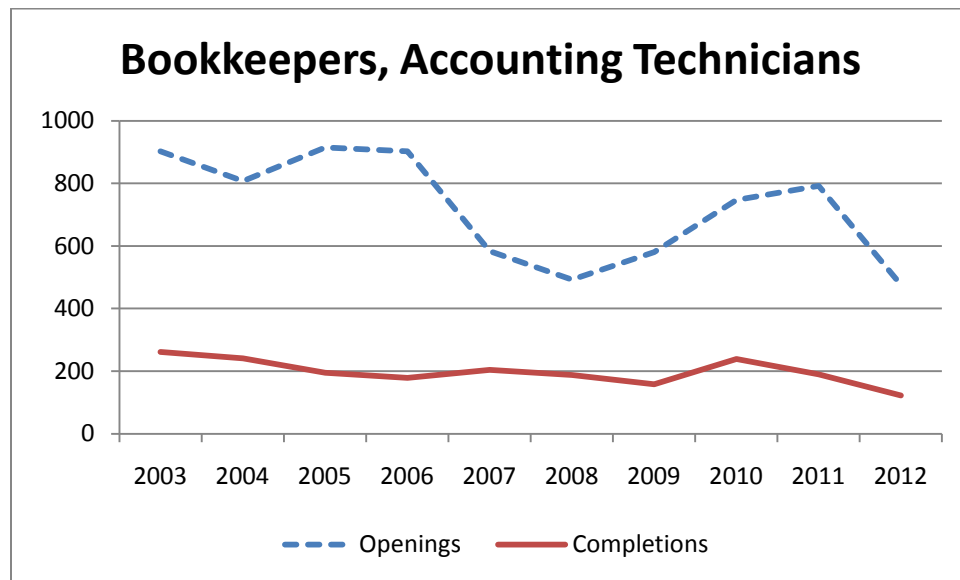
[5] Includes degrees and job openings at all education levels.

Accountants
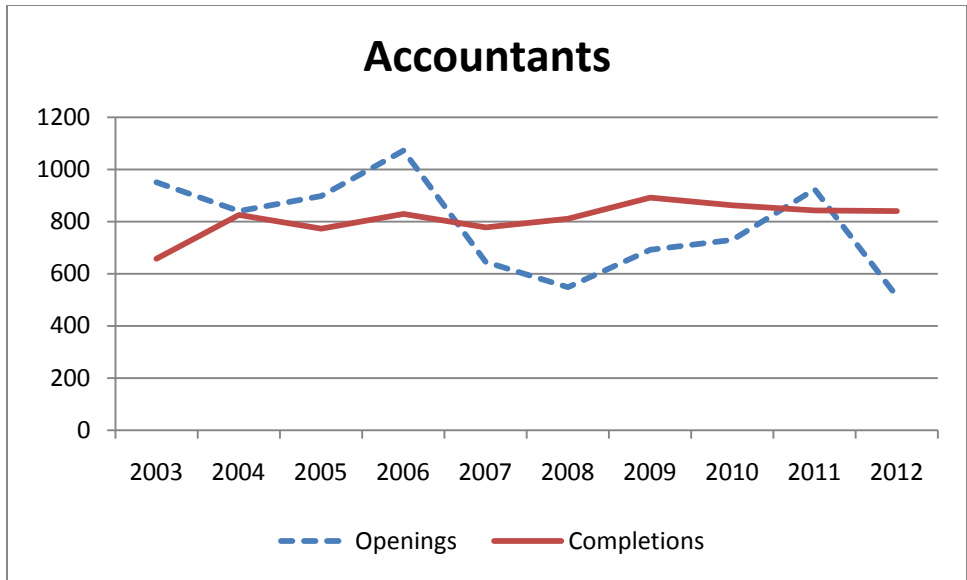
VIII. Operating Costs

Accounting's cost per FTE is lower than the median for both the College and the Division and has increased slightly over the past few years.

Figure 5: Operating Costs / FTE

Cost per FTE

IX. Findings and Recommendations

1. Clarification of the program's future direction(s) in the College and its objectives given the challenges the program currently faces.

    The following issues need to be addressed within the program:

    a) The accounting degree, currently, is an AAS; as such, it is not designed for transfer. However, transferring, earning a Bachelor's degree, and eventually becoming an Accountant is something some students want pursue, faculty want to provide, and the Advisory Committee and is identified by the State as an HPO (at both the Associate's and Bachelor's level).

    b) Because of national changes, the Business Administration degree currently is more suited to transfer into Bachelor's level Accounting programs than the Accounting AAS degree. This has the potential to create confusion for students and may impact them at their time of transfer (in courses that do not transfer).

    c) There is an HPO in Bookkeeping, an area potentially unserved by the current program, but one that may be more appropriate, given the nature of the degree. The Advisory Board supports this as one direction the program could pursue.

    The group tasked with this project should determine the most appropriate degree (or degrees/certificates) for students, given their reasons for attending (transfer, employment), the changing educational landscape, and the workforce needs of the area.

    Persons responsible: Program Faculty, Advisory Board, Department Head, Dean
    Timeline: Completed Spring 2015.

2. Sustain and update the program management plan with participation of all faculty.

    The program has recently embarked on a program management plan (2013-2016). Enrollments and, more importantly, graduates are declining; this will pose problems for the program's viability if this trend continues. To ensure the program's success, participation of all faculty will be important. In addition to recruitment activities, the program will need to perform regular assessment of student needs and future plans (including flexibility in course offerings and/or online courses); examine reasons for student departure prior to degree completion (Table 4); post-degree

alumni successes (transfer, jobs, promotions); and local employer needs.

Persons responsible: Program Faculty, Department Head, Dean
Timeline: Ongoing (annual reporting)

3. The program needs to continue to follow its plan for assessing student learning outcomes (SLOs). The assessment activities presented has demonstrated the capacity for the program to collect, analyze, and make changes based on data. The program has SLOs for several more courses to assess as well as program learning outcomes. The program should also consider outcomes such as those found on Table 6, and if they are satisfied with how students are performing on these general skill sets. Results of these assessments should also be used to examine the course map; the outcome related to effective communication is mastered through courses external to the program – this makes it difficult to control the outcomes appropriately.

Timeline: Ongoing (All SLOs completed by 2016)
Persons Responsible: Program Faculty, Department Head

Community College *of* Philadelphia

Business *and* Technology Division
Program Management Plan

Starting Semester: Fall 2013   Ending Semester: Fall 2016

Department: Business Administration   Program: Accounting

Date Submitted:10/28/2013   Prepared By: Full-time Accounting Faculty

---

Recruitment

Key Performance Indicator (KPI): Increase New Students Entering the Program

Metric (What is the specific activity/initiative?)	Strategy	Timeline	Faculty Responsible	Resources Required	Expected Outcome/Data Tracking	Indicator (What will success look like? How will you know the outcome was achieved?)
Majors Fair	Provide prospective students with an opportunity to learn about the accounting program and meet faculty.	October 8, 2013 and Spring 2014	Cory Ng represented the accounting program at the Majors Fair.	Printed materials describing accounting program	A sign-up sheet will be available for Spring 2014 events to track student interest in the accounting program.	Increased enrollment in the accounting program by 5% in year 1; 10% in year 2; 15% in year 3.
Open House	Provide prospective students with an opportunity to learn about the accounting program and meet faculty.	October 23 – 23, 2013 and Spring 2014	Alan Davis represented the accounting program on 10/22 at NERC. Barry Johnson represented the accounting program at WERC on 10/26. Tamra Chase represented the accounting program at Main on 10/24/13.	Printed materials describing accounting program	A sign-up sheet will be available for Spring 2014 events to track student interest in the accounting program.	Increased enrollment in the accounting program by 5% in year 1; 10% in year 2; 15% in year 3
Open house follow-up with phone call to answer questions	Contact students who expressed an interest in the Accounting program during open houses		Department representatives at houses.	None	Number of contacts made.	Increased enrollment in the accounting program by 5% in year 1; 10% in year 2; 15% in year 3

Community College *of* Philadelphia

Business *and* Technology Division
Program Management Plan

Starting Semester: <u>Fall 2013</u>   Ending Semester: <u>Fall 2016</u>

Department: <u>Business Administration</u>   Program: Accounting

Date Submitted:<u>10/28/2013</u>   Prepared By: <u>Full-time Accounting Faculty</u>

Invite High School students to attend an accounting class	Work with College Admissions and outside organizations such as Philadelphia Academies to invite high school students to attend an accounting class and tour the campus. President or Advisor of Alpha Beta Gamma could give a presentation on the business honor society. Similar campus tours could be provided at NERC for high schools in the Northeast.	Spring 2014	Various accounting faculty	Classroom space large enough to accommodate 70 or more students, such as C2-28.	Number of high school students that attend.	Increased enrollment in the accounting program by 5% in year 1; 10% in year 2; 15% in year 3

Community College *of* Philadelphia

Business *and* Technology Division
Program Management Plan

Starting Semester: Fall 2013   Ending Semester: Fall 2016
Department: Business Administration   Program: Accounting
Date Submitted:10/28/2013   Prepared By: Full-time Accounting Faculty

Retention

Key Performance Indicator (KPI): Increase Student Retention

Metric (What is the specific activity/initiative?)	Strategy	Timeline	Faculty Responsible	Resources Required	Expected Outcome/Data Tracking	Indicator (What will success look like? How will you know the outcome was achieved?)
Advising	Accounting faculty should utilize MyDegreePath to advise students on required courses to complete ACCT degree program. Meeting with students one semester prior to graduation to review progress would be helpful.	Fall 2013 – Spring 2014	Alan Davis, Dennis Gentekos, Barry Johnson and Cory Ng	Computer with Internet Access	Log should be maintained of student advising	Increased enrollment in the accounting program by 5% in year 1; 10% in year 2; 15% in year 3.
Tutoring	Recommend prospective accounting tutors to Learning Lab	End of each semester forward names of students earning an "A" grade in ACCT 101 and 102, after discussing tutoring with student to determine their interest in helping others, to Learning Lab.	All accounting faculty	None	Learning Lab will select from names submitted to recruit and hire accounting tutors for main campus, NERC, NWC	Number of accounting tutors available each semester.

Community College *of* Philadelphia

Business *and* Technology Division
Program Management Plan

Starting Semester: <u>Fall 2013</u>   Ending Semester: <u>Fall 2016</u>

Department: <u>Business Administration</u>   Program: Accounting

Date Submitted:10/28/2013   Prepared By: <u>Full-time Accounting Faculty</u>

Tutoring	Faculty should inform all students of the tutoring resources available through the College's Learning Lab as well as resources available online such as WileyPlus, MyAccounting Lab.)	Fall 2013 – Fall 2016	All full-time and part-time accounting faculty	Accounting tutors must be available at the College's Learning Lab	Reports of the number of students receiving accounting tutoring should be made available to accounting program faculty.	Improved test scores and increased enrollment in the accounting program by 5% in year 1; 10% in year 2; 15% in year 3.
Greater transferability of AAS Accounting degree	Work with 4-year institutions to have AAS Accounting degree accepted	On going	FT Accounting faculty	None	Increased acceptance of AAS Accounting degree at 4-year colleges.	Colleges accepting the AAS Accounting degree.
New accelerated online course offerings	Offer new accounting courses in an online and accelerated format	Spring 2014	Cory Ng will facilitate ACC 206 (auditing) and ACC 215 (nonprofit accounting) in an online, accelerated format, providing flexible options for students to complete courses needed for the accounting degree program.	Canvas	Sufficient enrollment in new online/accelerated courses	Students completing these courses with grades of C or better. Increased enrollment in the accounting program by 5% in year 1; 10% in year 2; 15% in year 3
Being various retention projects such as: 1) analyzing course outcomes in sequential courses to determine student	Data driven retention projects will provide useful information for faculty to make informed decisions	Fall 2013 – Fall 2016	FT Accounting faculty	Institutional Research Surveys and bantasks data; Program Director for Accounting Program with a minimum of 3 credits course release time to manage	Various	Increased enrollment in the accounting program by 5% in year 1; 10% in year 2; 15% in year 3

Starting Semester: Fall 2013   Ending Semester: Fall 2016

Department: Business Administration   Program: Accounting

Date Submitted:10/28/2013   Prepared By: Full-time Accounting Faculty

success in 200-level ACCT courses; 2) Does the placement levels of students impact their success in 100-level ACCT courses?; 3)Are majors able to pass the ACCT 101 and/or 102 prerequisite courses to continue in program?; 4) Review of assessment of SLOs to improve retention; 5) Who are the students who are succeeding in the program now? Why are they succeeding? ; 6) Each semester, the Division receives Bantasks student data indicating how many students did not return, the GPA & # of credits accumulated by students in every program.	regarding ways to improve the ACCT program.			projects.		

Graduates

Community College *of* Philadelphia
Business *and* Technology Division
Program Management Plan

Starting Semester: Fall 2013   Ending Semester: Fall 2016

Department: Business Administration   Program: Accounting

Date Submitted: 10/28/2013   Prepared By: Full-time Accounting Faculty

Key Performance Indicator (KPI): Increase the Number of Program Graduates

Metric (What is the specific activity/initiative?)	Strategy	Timeline	Faculty Responsible	Resources Required	Expected Outcome/Data Tracking	Indicator (What will success look like? How will you know the outcome was achieved?)
Jobs	Track students obtaining jobs in accounting after completing AAS degree.	Fall 2013 – Fall 2016	N/A	Institutional Research Surveys and bantasks data; Program Director for Accounting Program with a minimum of 3 credits course release time to manage projects.	Reports should be provided to full-time accounting faculty documenting number of students obtaining jobs after completing degree	At least 30% of accounting graduates, or approximately 5 students (using 2011 data during which 16 students graduated) obtain entry-level positions in accounting related jobs.
Transfers to 4 year institution	Track students transferring to four-year institutions after completing AAS degree.	Fall 2013 – Fall 2016	N/A	Institutional Research Surveys and bantasks data; Program Director for Accounting Program with a minimum of 3 credits course release time to manage projects.	Reports should be provided to full-time accounting faculty documenting the number of students transferring to four-year institutions after completing degree.	At least 30% of accounting graduates, or approximately 5 students (using 2011 data during which 16 students graduated) transfer to four-year institutions to complete accounting education.

ACCT 101 FALL 2012

Student Learning Outcomes:

Upon completion of the course, the student will be able to:

1. Analyze, record, and report the results of business transactions through the accounting cycle for service and merchandising companies.
2. Discuss the components of, and prepare, the financial statements for service and merchandising companies.
3. Discuss and apply the different valuation techniques used for assets, liabilities, and the components of equity.

Section		SLOs 1 and 2					SLO 3					
		P1-2A	**P2-5A**	**P3-2A**	**P4-1A**	**P5-8A**	**P6-2A 6-9A**	**E7-11**	**E8-3 E8-10**	**E9-7 E9-9**	**P10-2A**	**P11-4A P11-9A**
101-xxx	Average	84%	76%	78%	91%	81%	65%	79%	90%	87%	83%	83%
	Count	36	33	31	29	26	26	26	20	20	13	18
101-xxx	Average	89%	83%	81%	89%	84%	60%	97%	87%	86%	97%	78%
	Count	29	33	30	30	32	31	28	27	27	18	20
101-xxx	Average	87%	83%	96%	92%	90%	63%	95%	85%	80%	91%	78%
	Count	29	30	20	27	27	27	24	22	20	19	13
101-xxx	Average	86%	78%	73%	89%	92%	76%	90%	84%	88%	83%	82%
	Count	27	29	28	27	24	22	20	19	18	13	18
101-xxx	Average	70%	72%	87%	33%	85%	81%	88%	76%	94%	88%	75%
	Count	17	29	23	17	23	23	21	21	22	19	19
Overall	Average	**83%**	**79%**	**83%**	**79%**	**86%**	**69%**	**90%**	**84%**	**87%**	**88%**	**79%**
	Count	**138**	**154**	**132**	**130**	**132**	**129**	**119**	**109**	**107**	**82**	**88**

Outcomes:

Two faculty members collaborated to develop multiple, shorter, more focused, exercises in WileyPlus to illustrate discussion points as a method of increasing students understanding instead of longer, more complex and comprehensive, problems. They identified common problems and grading policies (e.g., allowing two attempts for all homework problems with 100% point potential, providing students an opportunity to learn from their mistakes without being penalized). Faculty will review success of changes implemented during next assessment cycle.

This document is a follow up report to the 2010-2011 Academic Audit of the Associate in Science in Computer Science degree program.

The Computer Science program was audited during the 2010-2011 Academic Year and was presented to the Student Outcomes Committee of the College's Board of Trustees in January, 2012. The audit summarized the state of the program and included eight recommendations. In addition to the eight (8) recommendations in the Academic Audit, the Student Outcomes Committee asked that faculty establish and implement an enrollment management plan, meet enrollment goals to improve the graduation rate, and enhance the program by adding innovative ideas.   This follow-up was due December 2012.

Enrollment Update

Since the audit, the program has experienced growth:

- The number of **Computer Science majors** has grown from 40 in the Fall of 2010 to 56 in the Fall of 2013.

- The number of **Computer Science graduates** has grown from 7 in 2010 to 15 in 2013.

- The **number of sections of CSCI 111**, the introductory course in the curriculum, has increased from 2 in Fall 2011 to 4 in Fall 2013, and all sections of the course were filled at the beginning of the Fall 2013 semester, as well as in Spring 2014. The Department is in the process of hiring additional faculty in order to be able to expand the number of sections of Computer Science courses offered. Students who major in Computer Science (CSCI), Mathematics (MATH), Engineering Science (ENGS), Computer Information Systems (CIST), and Culture, Science, and Technology (CSTP) take the course and the number of those majors is illustrated in the following table.

FALL 2013	CSCI	CSTP	CIST	ENGS	MATH	OTHER	TOTAL
40289 CSCI 111-001	7	9	6	2	2	9	35
40295 CSCI 111-002	9	5	3	6	0	12	35
47937 CSCI 111-900	2	11	4	5	1	8	31
48284 CSCI 111-901	4	14	2	4	1	8	33
SPRING 2014	CSCI	CSTP	CIST	ENGS	MATH	OTHER	TOTAL
10746 CSCI 111-004	6	10	8	3	0	9	36
17702 CSCI 111-900	1	13	7	3	1	9	36

Audit Recommendations

Recommendation 1:

Align the program with the Pennsylvania Department of Education's curriculum guidelines for Computer Science established in 2011 by the Transfer and Articulation Oversight Committee (TAOC). Update the program's curriculum following the guidelines and standards associated with the Computer Science Advisory Board (CSAB).

This process has been completed. Course content and degree requirements were revised in 2012. The program is in alignment with current TAOC guidelines and CSAB standards.

Recommendation 2:

Explore program accreditation as an option to keep the program up-to-date with the latest industry standards and to ensure the program consistently mirrors the first two years of a baccalaureate program.

The Computer Science Accreditation Board (CSAB) is no longer offering accreditation for associate degree programs in Computer Science or Software Engineering. However, the program revisions that took effect at the beginning of the Fall 2013 semester placed the program in full curricular alignment with CSAB (industry) standards. In addition, the Computer Technologies Advisory Committee, which meets in the fall and spring semesters, includes working professionals, industry representatives, academics, graduate students and consultants in the IT sector, selected to provide relevant insights and perspectives based on their extensive knowledge, experience and expertise. This committee will help insure that the CSCI Program incorporates current best practices and reflects future trends, consistent with the first two years of a baccalaureate program.

Recommendation 3:

Create a sub-committee of the over-arching Computer Technologies Advisory Committee to address the curricular, resources, and other program concerns of the Computer Science program.

At the time of the audit, only Drexel and Temple Universities were represented on the Computer Technologies Advisory Committee. Representatives of Peirce College and a student from the University of Pennsylvania were added to the Advisory Committee in 2012-13. In Spring 2014, representatives from LaSalle, St Joseph's University, and West Chester University have agreed to join the larger CT Advisory Committee, and will serve on a sub-committee to provide advice on curricular content and the transfer process for CSCI graduates.

Recommendation 4:

Designate a specific faculty member to be responsible for supervision of the program. That person should be responsible for implementing the goals of the program.

Designation of a specific curriculum coordinator or program supervisor was required for accreditation. However, with accreditation for associate degree programs no longer an option, this is no longer a requirement. The programs in Computer Technologies operate with a designated faculty member serving as Program Supervisor to support the work of the Department Head.

Recommendation 5:

Develop and implement a comprehensive enrollment management plan that includes an assessment of current and past efforts, effectiveness, and new recruitment strategies.

The faculty have been engaged in recruitment activities since the audit, as evidenced in part by the increase in majors and graduates in the program. Faculty developed an Enrollment Management Plan for the 2013-2014 academic year, which is attached. They are in the process of developing a more comprehensive, multi-year plan to facilitate the growth of CSCI even further, in light of projected trends in job growth in the industry.

Recommendation 6:

Increase emphasis on securing computer science specific articulation agreements with area schools and universities that have 4-year computer science degree programs.

Students have always been able to transfer with ease from the Computer Science program to four-year computer science degree programs. The TAOC agreement discussed in Recommendation 1, with which the CSCI Curriculum fully complies, eliminates the need to negotiate agreements with PASSHE institutions and other colleges or universities which recognize it. Since the audit, the faculty concluded a new articulation agreement with Temple University and Drexel has indicated they will recognize the TAOC agreement.

Recommendation 7:

Using authentic assessment, continue to refine and implement the outcomes assessment plan at the program and course levels, to ensure excellence in student learning and academic success. The goal is to complete assessment of all student learning outcomes within five years, with 20% of the course student learning outcomes completed each year.

Faculty conducted assessments of Student Learning Outcome (SLOs) each semester up to and including the Fall 2011 semester and met with the college's new Director of Academic Assessment & Evaluation early in 2012 and again in August 2013, to review the progress made in assessing student learning outcomes in all courses.

Currently, the program is using new curriculum materials with built-in assessment mechanisms developed by faculty, for all sections of Computer Science courses. All sections of Computer Science courses are using the Canvas learning management system to gather quantitative and qualitative assessment data, in the form of specific test items and student participation in weekly discussion forums, directly related to SLOs. An outcomes assessment report based on this work will be available at the end of the current semester, for all sections of Computer Science courses. The faculty expect to achieve the goal of assessing 60% of course student learning outcomes by the end of 2013-14 and 100% by 2015-16.

Recommendation 8:

Develop a detailed Technology Plan with Academic Computing to monitor and assess the hardware and software needs of the program to ensure that the technology used for courses is current. The plan should consider acquisition of hand-held devices and gaming consoles for use in class for computer science students to have practical experiences with developing applications for these devices.

Complete. The program's Technology Plan is incorporated in the Computer Technologies Department's overall Technology Plan, which is available for review. The plan was developed in conjunction with the College's Director of Academic Computing and the IT staff.

All of the hardware and software used in Computer Science courses is up-to-date. The College has always been very supportive in supplying necessary hardware and software for the program. For example, in Fall 2013, the department acquired 37 Microsoft Surface RT tablets for use in CSCI courses, as platforms for demonstrating and exploring applications and software development on mobile devices.

Enrollment Management Plan

Starting Semester: Spring 2013   Ending Semester: Spring 2015

Department: Computer Technologies   Program: Computer Science

Date Submitted: September 2013   Faculty Responsible: C. Herbert & C. Nelson

**A.S. in Computer Science
Enrollment Management Plan**

I. Recent Activities and Enrollment Trends

All sections of Computer Science 111 – the introductory course – offered during the past two years have been full.   For the 2013-2014 semesters we doubled the number of sections from four per year to eight. (4 Fall, 2 Spring, 2 Summer).
Since January 2012, our recruitment activities have included:

- three game programming workshops for interested College and high school students approximately 75 students attended;
- visits to high schools, (Martin Luther King, Roxborough, and George Washington High Schools);
- participation in College fairs and other events sponsored by Admissions Office;
- participation in meetings with high school faculty;
- participation on the Advisory Committee for the Philadelphia Scholl District's programs in computer technology.

Currently, students accepted into the Computer Science program are waiting for seats to open in Computer Science 111. In response to this demand, we will increase the number of sections in next available semester – Summer 2014. We are in the process of hiring new part-time and full-time faculty so that we can increase the number of sections of introductory Computer Science courses to meet demand.

Enrollment Management Plan

Starting Semester: Spring 2013   Ending Semester: Spring 2015

Department: Computer Technologies   Program: Computer Science

Date Submitted: September 2013   Faculty Responsible: C. Herbert & C. Nelson

Recruitment

Key Performance Indicator (KPI): Increase New Students Entering the Program

Metric (What is the specific activity/initiative?)	Strategy	Timeline	Resources Required	Expected Outcome/Data Tracking	Indicator (What will success look like? How will you know the outcome was achieved?)
Schedule game programming & Android development Workshops	Increase awareness & visibility of program at the College & with high schools	Spring 2013 – Spring 2015	Classrooms with required software or Internet access	A minimum of 15-18 students attend (36 seats maximum)	Increase number of CSCI 111 sections offered
Visit Philadelphia School District High Schools (M.L.King, Roxborough, George Washington) and parochial high schools	Inform high school students about program and the ability to transfer to 4-year institutions; include schools with a large female population	Spring semesters	Identify relevant high schools to visit	High School students complete CCP inquiry cards	After high school graduation students enroll in CSCI program
Present to Philadelphia School District High Schools Teacher at their Professional Development meetings	Present mini-gaming workshops to high school teachers	2014-2015	James Gist will identify relevant high school faculty	Increase high school teachers' awareness of CSCI program	Increase in number of high school graduates who directly enroll in program
Attend Philadelphia School District-wide Advisory Committee for Information Technology	Increase visibility of CSCI program faculty and participation in the IT Advisory Committee to cultivate additional high school partnerships	Spring 2013 – Spring 2015	James Gist will inform of date and location of meeting	Improve communication of activities between School District and CSCI	Requests from additional high schools to visit CSCI program at Community College of Philadelphia or for CSCI faculty receive more invitations to visit high schools
Participate in College sponsored Majors Fairs and Open Houses	Increase students' awareness & visibility of CSCI at the College	Spring 2013 – Spring 2015	PowerPoint about CSCI as an information tool at table	Increase interest in students are undecided about their major	Requests for more program information from undecided majors
Conduct a CSCI Career Day for high school girls	Communicate with high schools	Spring 2014	Reserve classrooms; connect with Admissions staff; Betty Canon, Manager of ITS will be keynote speaker	Increase visibility of CSCI program to high school students	Requests for CSCI program information
Explore awarding scholarships for incoming	Fund scholarships using the Computer Technologies Dept.		Discuss using scholarship funds with Department	Identify how many female students have	Decision by Department faculty for how to proceed regarding

Starting Semester: <u>Spring 2013</u> Ending Semester: <u>Spring 2015</u>

Department: <u>Computer Technologies</u> Program: <u>Computer Science</u>

Date Submitted: <u>September 2013</u> Faculty Responsible: <u>C. Herbert & C. Nelson</u>

female students	endowment		faculty	entered CSCI program	scholarship.

Retention

Key Performance Indicator (KPI): Increase Student Retention

Metric (What is the specific activity/initiative?)	*Strategy*	*Timeline*	*Resources Required*	*Expected Outcome/Data Tracking*	*Indicator* (What will success look like? How will you know the outcome was achieved?)
Participate in industry events that promote gaming and development of software applications	Communicate to CSCI students what the local industry events are and how they are able to participate/attend	Spring 2013-Spring 2015	Industry e-news, professional organizations, journals,	CSCI students network with industry professionals	Increased student participation in professional events
Increase the number of female CSCI majors at the College	Contact female students taking CSCI courses who are not CSCI majors	Spring 2014-Spring 2015	Class lists for CSCI sections; outreach to AWC (Association of Women in Computing) and ACMW (Association for Computing Machinery, Committee on Women)	Students will change curriculum & will be mentored by members from both professional organizations	Increase in the number of female CSCI majors
Sponsor trip for CST students	Visit the Extraordinary Women in Science and Medicine exhibition at the Grolier Club in New York City that features several women who have made important contributions to computer science.	2014-2015	Coordination with Office of Student Life and Co-curricular activity form to reserve bus and make arrangements	CST students participate	Feedback from students after taking the trip.
Communicate to students about the Software Development and Programming Certificate (PC)	Inform current and former students who have taken CSCI courses about the PC	2014-2015	Request Bantasks report with student data; prepare and send email communication	Increase in the number of student inquiries about PC	Increase in the number of PC completers