

Computer Science Program Review

2011-2012

1. Program Description

A. Description

Ventura College's degree program provides opportunities for students who wish to continue their studies at a four-year institution in fields such as computer science, computer information sciences, information technology, or information systems management. Computer science education, moreover, seeks to prepare students for lifelong learning that will enable them to move beyond today's technology to meet the challenges of the future.

B. Program Student Learning Outcomes - Successful students in the program are able to:

C. College Level Student learning Outcomes

1. Critical Thinking and Problem Solving
2. Communication
3. Information Competency

D. Estimated Costs (Required for Certificate of Achievement ONLY)

	Cost
Enrollment Fees	
Books	
Supplies	
Total	

E. Criteria Used for Admission

F. Vision

Ventura College will be a model community college known for enhancing the lives and economic futures of its students and the community.

G. Mission

Ventura College, one of the oldest comprehensive community colleges in California, provides a positive and accessible learning environment that is responsive to the needs of a highly diverse student body through a varied selection of disciplines, learning approaches and teaching methods including traditional classroom instruction, distance education, experiential learning, and co-curricular activities. It offers courses in basic skills; programs for students seeking an associate degree, certificate or license for job placement and advancement; curricula for students planning to transfer; and training programs to meet worker and employee needs. It is a leader in providing instruction and support for students with disabilities. With its commitment to workforce development in support of the State and region's economic viability, Ventura College takes pride in creating transfer, career technical and continuing education opportunities that promote success, develop students to their full potential, create lifelong learners, enhance personal growth and life enrichment and foster positive values for successful living

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and membership in a multicultural society. The College is committed to continual assessment of learning outcomes in order to maintain high quality courses and programs. Originally landscaped to be an arboretum, the College has a beautiful, park-like campus that serves as a vital community resource.

H. Core Commitments

Ventura College is dedicated to following a set of enduring Core Commitments that shall guide it through changing times and give rise to its Vision, Mission and Goals.

- Student Success
- Respect
- Integrity
- Quality
- Collegiality
- Access
- Innovation
- Diversity
- Service
- Collaboration
- Sustainability
- Continuous Improvement

I. Degrees/Certificates

Program's courses are designed to articulate to UC and CSU for transfer students.

A.S. Computer Science

Certificate of Achievement

J. Program Strengths, Successes, and Significant Events

- CS courses are required by some universities for Science majors.
- In August of 2011 a full-time math faculty was restricted by the district from teaching CS courses. The reason given for this action was that there is no record that this faculty member was hired by the district to teach CS. This is despite the fact that this faculty member was recruited to spearhead a grant funded project beginning in 1999 to create the current CS program.

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K. Organizational Structure

President: Robin Calote

Executive Vice President: Ramiro Sanchez

Dean: David Oliver

Department Chair:

Instructors and Staff

Name	Rabin Polito
Classification	Adjunct Faculty
Year Hired	
Years of Work-Related Experience	
Degrees/Credentials	

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2. Performance Expectations

A. Program Student Learning Outcomes - Successful students in the program are able to:

1.

B. Student Success Outcomes

1. The program will increase its retention rate from the average of the **program's** prior three-year retention rate. The retention rate is the number of students who finish a term with any grade other than W or DR divided by the number of students at census.
2. The program will increase its retention rate from the average of the **college's** prior three-year retention rate. The retention rate is the number of students who finish a term with any grade other than W or DR divided by the number of students at census.
3. The program will increase the student success rates from the average of the **program's** prior three-year success rates. The student success rate is the percentage of students who receive a grade of c or better.
4. The program will increase the student success rates from the average of the **college's** prior three-year success rates. The student success rate is the percentage of students who receive a grade of C or better.
5. Students will complete the program earning certificates and/or degrees.

C. Program Operating Outcomes

1. The program will maintain WSCH/FTEF above the 525 goal set by the district.
2. Inventory of instructional equipment is functional, current, and otherwise adequate to maintain a quality-learning environment. Inventory of all equipment over \$200 will be maintained and a replacement schedule will be developed. Service contracts for equipment over \$5,000 will be budgeted if funds are available.

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D. Courses to Student Learning Outcomes Map

Course to Program-Level Student Learning Outcome Mapping (CLSLO)

I: This program-level student learning outcome is **INTRODUCED** in this course.

P: This program-level student learning outcome is **PRACTICED** in this course.

M: This program-level student learning outcome is **MASTERED** in this course.

Leave blank if program-level student learning outcome is not addressed.

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3. Operating Information

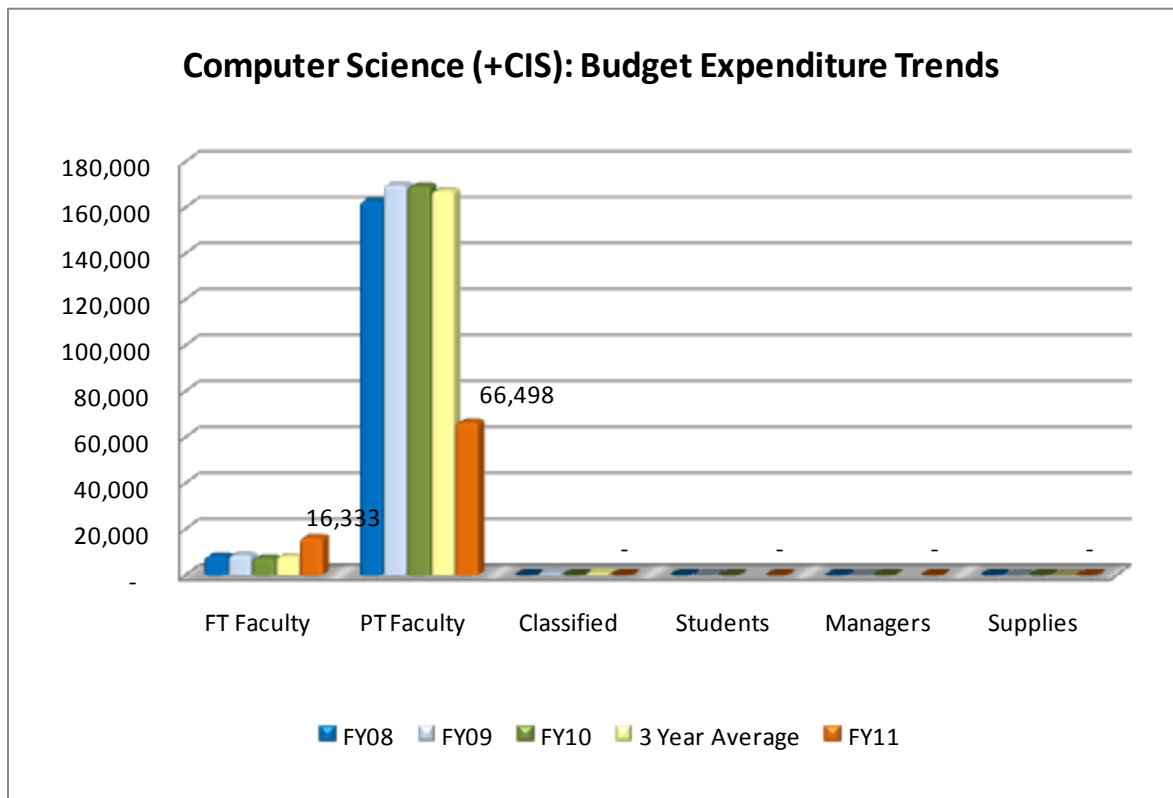
A1: Budget Summary Table

To simplify the reporting and analysis of the Banner budget detail report, the budget accounts were consolidated into nine expense categories. The personnel categories include employee payroll expenses (benefits). The “3 Year Average” was computed to provide a trend benchmark to compare the prior three year expenses to the FY11 expenses. The “FY11 College” expense percentages are included to provide a benchmark to compare the program’s expenses to the overall college expenses.

Category	Title	FY08	FY09	FY10	3 Year Average	FY11	FY11 Program	FY11 College
1	FT Faculty	8,309	8,732	7,372	8,138	16,333	101%	12%
2	PT Faculty	162,922	169,862	169,268	167,351	66,498	-60%	-10%
3	Classified	-	791	-	791	-	-100%	-1%
4	Students	-	32	-	-	-	-	10%
6	Managers	-	77	-	-	-	-	-8%
7	Supplies	71	-	-	71	-	-100%	24%
Total		171,302	179,494	176,640	175,812	82,831	-53%	0%

A2: Budget Summary Chart

This chart illustrates the program’s expense trends. The data label identifies the FY11 expenses (the last bar in each group). The second-to-last bar is the program’s prior three year average.

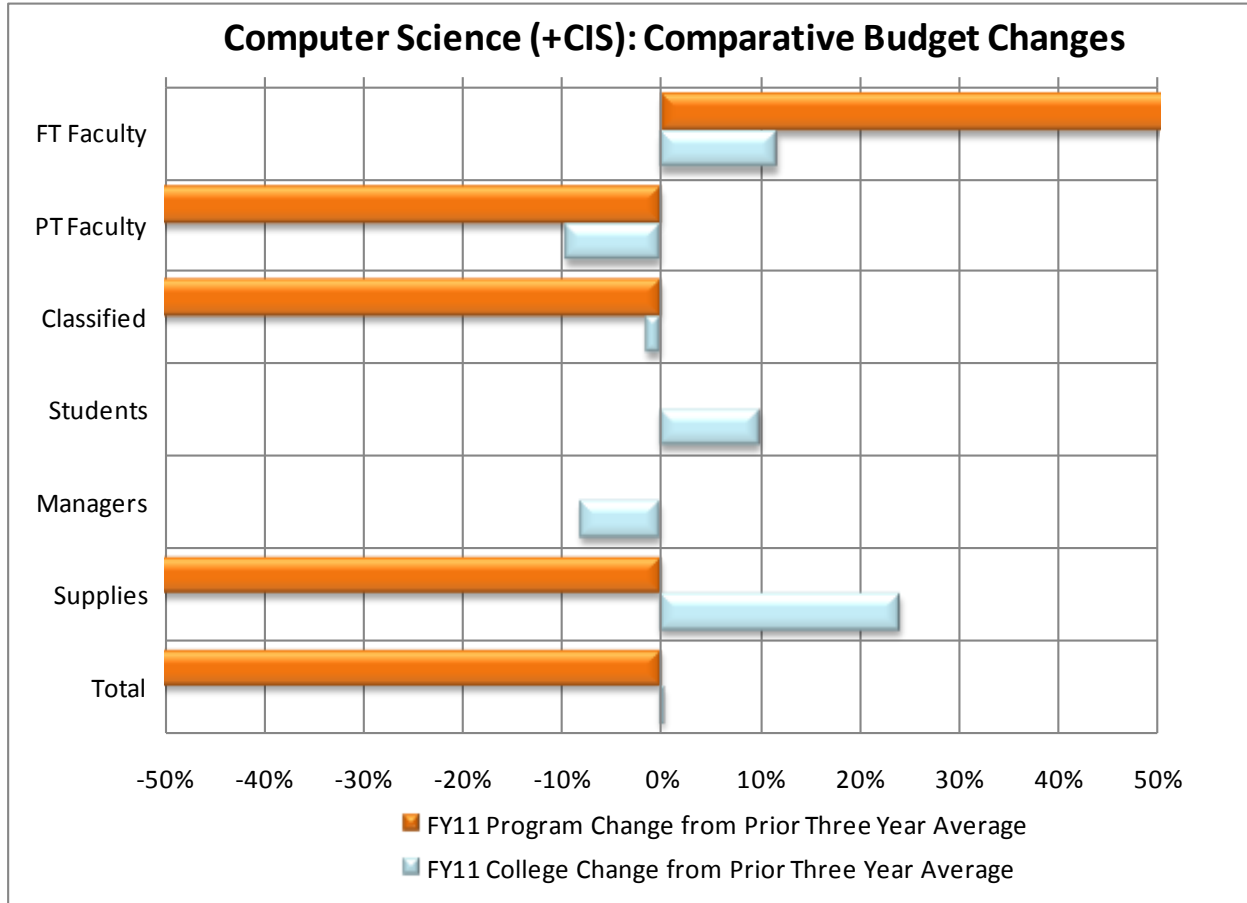


A3: Comparative Budget Changes Chart

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This chart illustrates the percentage change from the prior three year average expense to the FY11 expenses. The top bar for each budget category represents the program's change in expenses and includes the data label. The second bar represents the college's change in expenses.



A4: Budget Detail Report

The program's detail budget information is available in *Appendix A – Program Review Budget Report*. This report is a PDF document and is searchable. The budget information was extracted from the District's Banner Financial System. The program budget includes all expenses associated to the program's Banner program codes within the following funds: general fund (111), designated college equipment fund (114-35012), State supplies and equipment funds (128xx), and the technology refresh fund (445). The *Program Review Budget Report* is sorted by program (in alphabetical order) and includes the following sections: total program expenses summary; subtotal program expenses for each different program code; detail expenses by fund, organization and account; and program inventory (as posted in Banner). To simplify the report, the Banner personnel benefit accounts (3xxx) were consolidated into employee type benefit accounts (3xxx1 = FT Faculty, 3xxx2 = PT Faculty, 3xxx3 = Classified, etc.).

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A5: Interpretation of the Program Budget Information

The statistics above show budget expenses for full-time faculty in CS, but there are no full-time CS faculty. In prior years a full-time math faculty taught one course in CS each spring, summer, and fall, and this class was sometimes counted toward load and sometimes counted as extra-hourly. It is the semesters that were coincidentally recorded as load that caused the full-time faculty expense.

There is no explanation for the disparity in part-time expenses in FY08, FY09, and FY10 versus FY11. There have only been two faculty teaching the same load each year for several years. The only differences in expenses should be for step and column increases. This is further verified by Table C2 below which illustrates consistent census enrollment each of the past four years.

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B1: Program Inventory Table

This chart shows the inventory (assets) as currently posted in the Banner Financial System. This inventory list is not complete and will require review by each program. Based on this review an updated inventory list will be maintained by the college. A result of developing a complete and accurate inventory list is to provide an adequate budget for equipment maintenance and replacement (total-cost-of-ownership). The college will be working on this later this fall.

Item	Vendor	Org	Fund	Purchased	Age	Price	Perm Inv #	Serial #
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018102	48C12C1
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018097	53C12C1
Computer Dell Optiplex GX520n	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018095	8C1Q1C1
Computer, Dell Opti GX520N	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018096	38C12C1
Computer Dell Optiplex GX520n	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018088	FC1Q1C1
Computer Dell Optiplex GX520n	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018094	7C1Q1C1
Computer Dell Optiplex GX520n	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018087	HC1Q1C1
Computer Dell Optiplex GX520n	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018086	JC1Q1C1
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018085	FZ0Q1C1
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018084	BZ0Q1C1
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018083	GY0Q1C1
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018082	JZ0Q1C1
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018081	4Z0Q1C1
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018077	7Z0Q1C1
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018078	701Q1C1
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018080	601Q1C1
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018079	BY0Q1C1
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018101	B7C12C1
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018076	101Q1C1
CPX444Ser Hitachi LCD Projector	Troxell Communi	37310	129	5/24/2007	4	986	N00018247	F7C0147
CPX444Ser Hitachi LCD Projector	Troxell Communi	37310	129	5/24/2007	4	986	N00018246	F7C014772
CPX444Ser Hitachi LCD Projector	Troxell Communi	37310	129	5/24/2007	4	986	N00018248	F7C014782
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018100	87C12C1
Printer, Dell LaserJet 5310N	Dell Computer C	37310	129	2/5/2007	4	1,180	N00018063	3QWS4B1
Dell Printer LaserJet 5310N	Dell Computer C	37310	129	2/5/2007	4	1,180	N00018062	CWWS4B1
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018104	G7C12C1
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018103	D7C12C1
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018098	C7C12C1
Optiplex GX520n Small Form Fa	Dell Computer C	37310	129	1/22/2007	4	1,097	N00018099	68C12C1
List continues with 155 items								

B2: Interpretation of the Program Inventory Information

The inventory must be updated. At one point there was a booming CS offering and a lab specifically designated for CS classes; however the program has been dramatically reduced, the lab was converted to a math classroom, and the above listed equipment was absorbed by other programs on campus.

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C1: Productivity Terminology Table

Sections	A credit or non-credit class. Does not include not-for-credit classes (community education).
Census	Number of students enrolled at census (typically the 4 th week of class for fall and spring).
FTES	Full Time Equivalent Students A student in the classroom 15 hours/week for 35 weeks (or two semesters) = 525 student contact hours. 525 student contact hours = 1 FTES. Example: 400 student contact hours = $400/525 = 0.762$ FTES. The State apportionment process and District allocation model both use FTES as the primary funding criterion.
FTEF	Full Time Equivalent Faculty A faculty member teaching 15 units for two semesters (30 units for the year) = 1 FTE. Example: a 6 unit assignment = $6/30 = 0.20$ FTEF (annual). The college also computes semester FTEF by changing the denominator to 15 units. However, in the program review data, all FTE is annual. FTEF includes both Full-Time Faculty and Part-Time Faculty. FTEF in this program review includes faculty assigned to teach extra large sections (XL Faculty). This deviates from the district practice of not including these assignments as part of FTEF. However, it is necessary to account for these assignments to properly produce represent faculty productivity and associated costs.
Cross Listed FTEF	FTEF is assigned to all faculty teaching cross-listed sections. The FTEF assignment is proportional to the number of students enrolled at census. This deviates from the practice of assigning load only to the primary section. It is necessary to account for these cross-listed assignments to properly represent faculty productivity and associated costs.
XL FTE	Extra Large FTE: This is the calculated assignment for faculty assigned to extra large sections (greater than 60 census enrollments). The current practice is not to assign FTE. Example: if census > 60, 50% of the section FTE assignment for each additional group of 25 (additional tiers).
WSCH	Weekly Student Contact Hours The term "WSCH" is used as a total for weekly student contact hours AND as the ratio of the total WSCH divided by assigned FTEF. Example: 20 sections of 40 students at census enrolled for 3 hours per week taught by 4.00 FTEF faculty. $(20 \times 40 \times 3) = 2,400$ WSCH / 4.00 FTEF = 600 WSCH/FTEF.
WSCH to FTES	Using the example above: $2,400$ WSCH x 35 weeks = 84,000 student contact hours = $84,000 / 525 = 160$ FTES (see FTES definition). Simplified Formulas: $FTES = WSCH/15$ or $WSCH = FTES \times 15$
District Goal	Program WSCH ratio goal. WSCH/FTEF The District goal was set in 2006 to recognize the differences in program productivity.

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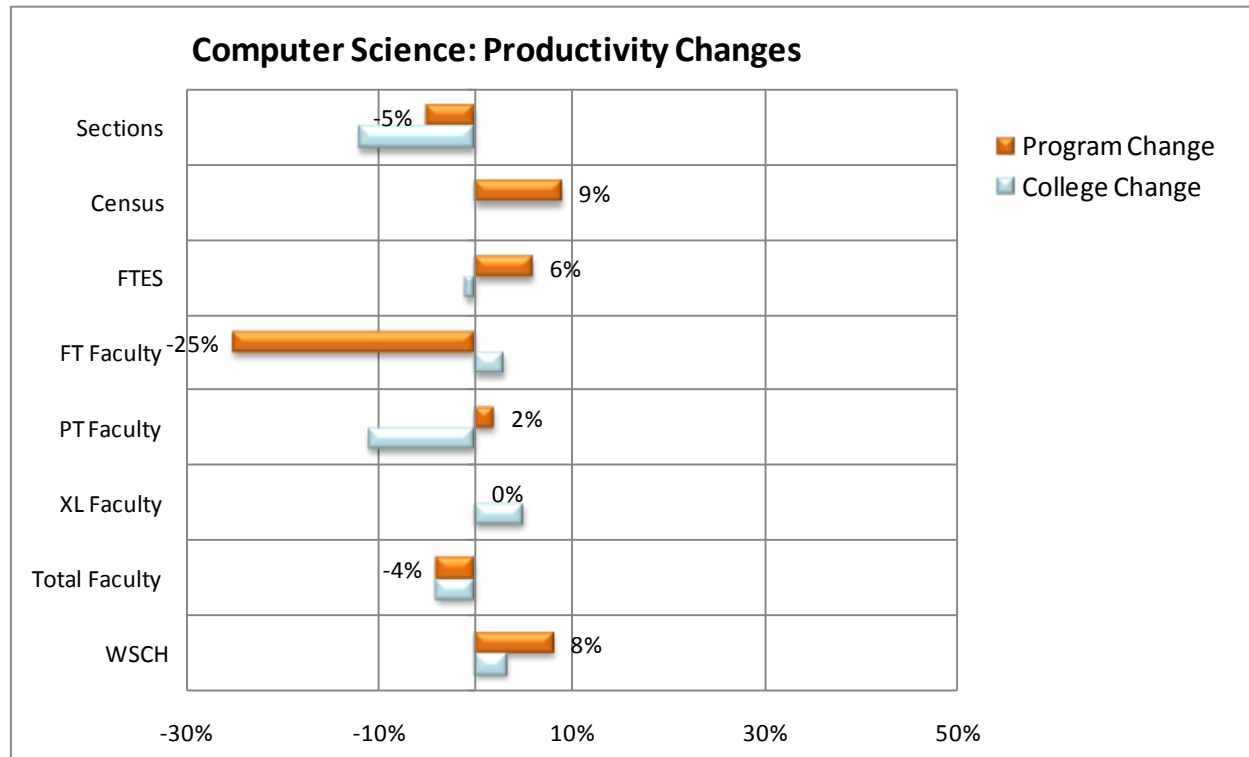
C2: Productivity Summary Table

This table is a summary of the detail information provided in the *Program Review Productivity Report*. The “3 Year Average” was computed to provide a trend benchmark to compare the results of the prior three years to the FY11 results. The “FY11 College” percentages are included to provide a benchmark to compare the program’s percentages.

Title	FY08	FY09	FY10	3 Year Average	FY11	Program Change	College Change
Sections	5	7	7	6	6	-5%	-12%
Census	152	221	246	206	224	9%	0%
FTES	20	29	31	27	28	6%	-1%
FT Faculty	-	0.23	0.23	0.16	0.12	-25%	3%
PT Faculty	0.58	0.55	0.58	0.57	0.58	2%	-11%
XL Faculty	-	-	-	-	-	0%	5%
Total Faculty	0.58	0.78	0.82	0.73	0.70	-4%	-4%
WSCH	517	558	567	555	600	8%	3%

C3: Comparative Productivity Changes Chart

This chart illustrates the percentage change from the prior three year average productivity to the FY11 productivity. The top bar for each budget category represents the program’s change in productivity and includes the data label. The second bar represents the college’s change in productivity.



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C4: Interpretation of the Program Productivity Information

The full-time faculty productivity is an anomaly that is dependent upon the way one full-time math faculty member teaching one CS class each semester had her load calculated.

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D1: District WSCH Ratio Productivity Table

This table shows the District WSCH ratio (WSCH/FTEF) for each course by year for this program. Courses not offered during FY11 (last year) or without faculty load (independent study) are excluded. Because these are ratios, the combined average is computed using total WSCH and total FTEF (not the average of ratios). The formula used in this table distributes FTEF to all cross-listed sections (proportional to census enrollment) but does not include the associated faculty costs of extra large assignment.

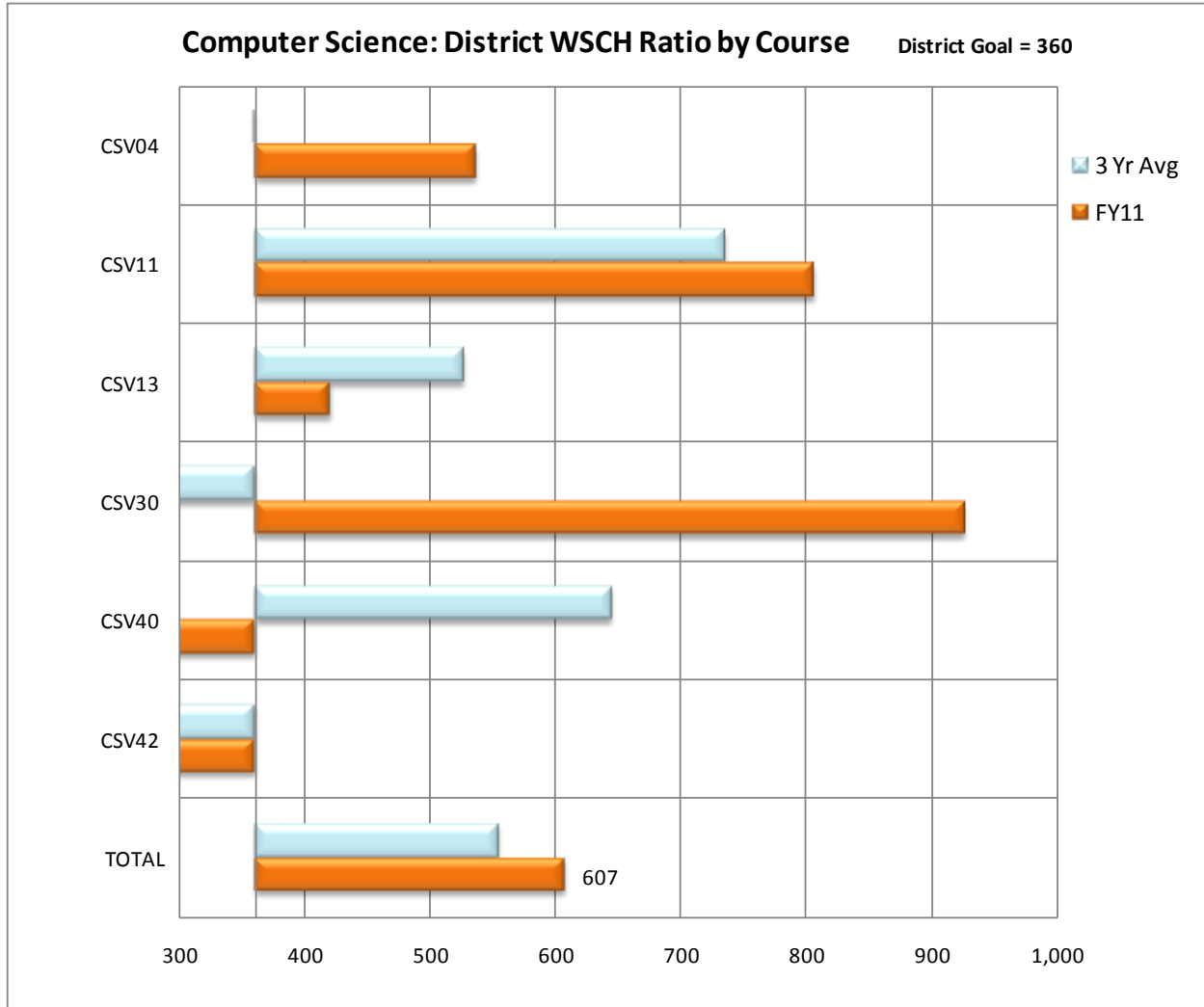
District WSCH Ratio = $WSCH / (PT\ FTE + FT\ FTE)$.

District WSCH Ratio: Weekly Student Contact Hours/(FT FTE+PT FTE)									
Course	Title	FY08	FY09	FY10	3 Yr Avg	FY11	Change	Dist Goal	% Goal
CSV04	Computers and Computer Lit	-	429	289	359	536	49%	360	149%
CSV11	Programming Fundamentals	652	860	712	735	806	10%	360	224%
CSV13	Object-Oriented Programming	463	497	617	526	420	-20%	360	117%
CSV30	Beginning C++	-	-	-	-	926	0%	360	257%
CSV40	Beginning Java	532	669	687	644	-	-100%	360	0%
CSV42	Intermediate Java	293	277	-	285	-	-100%	360	0%
TOTAL	Annual District WSCH Ratio	518	562	571	554	607	10%	360	169%

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D2: District WSCH Ratio Productivity Chart

This chart illustrates the course level District WSCH ratio. The top bar shows the program's three year average. The second bar shows the program's FY11 WSCH ratio. The axis represents the District WSCH ratio goal set in 2006. The program's (or subject's) total WSCH ratio is shown as the TOTAL at the bottom of the chart.



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D3: College WSCH Ratio Productivity Table

This table shows the College's WSCH ratio (WSCH/FTEF) for each course by year for the program. Courses not offered during FY11 (last year) or without faculty load (independent study) are excluded. Because these are ratios, the combined average is computed using total WSCH and total FTEF (not the average of ratios). The formula used in this table includes the associated faculty costs of extra large sections. Faculty teaching extra large sections are paid stipends equal to 50% of their section FTE assignment for each group of 25 students beyond the first 60 students (calculated in this table as XL FTE). This College WSCH Ratio is a more valid representation of WSCH productivity. The College WSCH Ratio will be used in the program review process.

College WSCH Ratio = WSCH / (PT FTE + FT FTE + XL FTE)

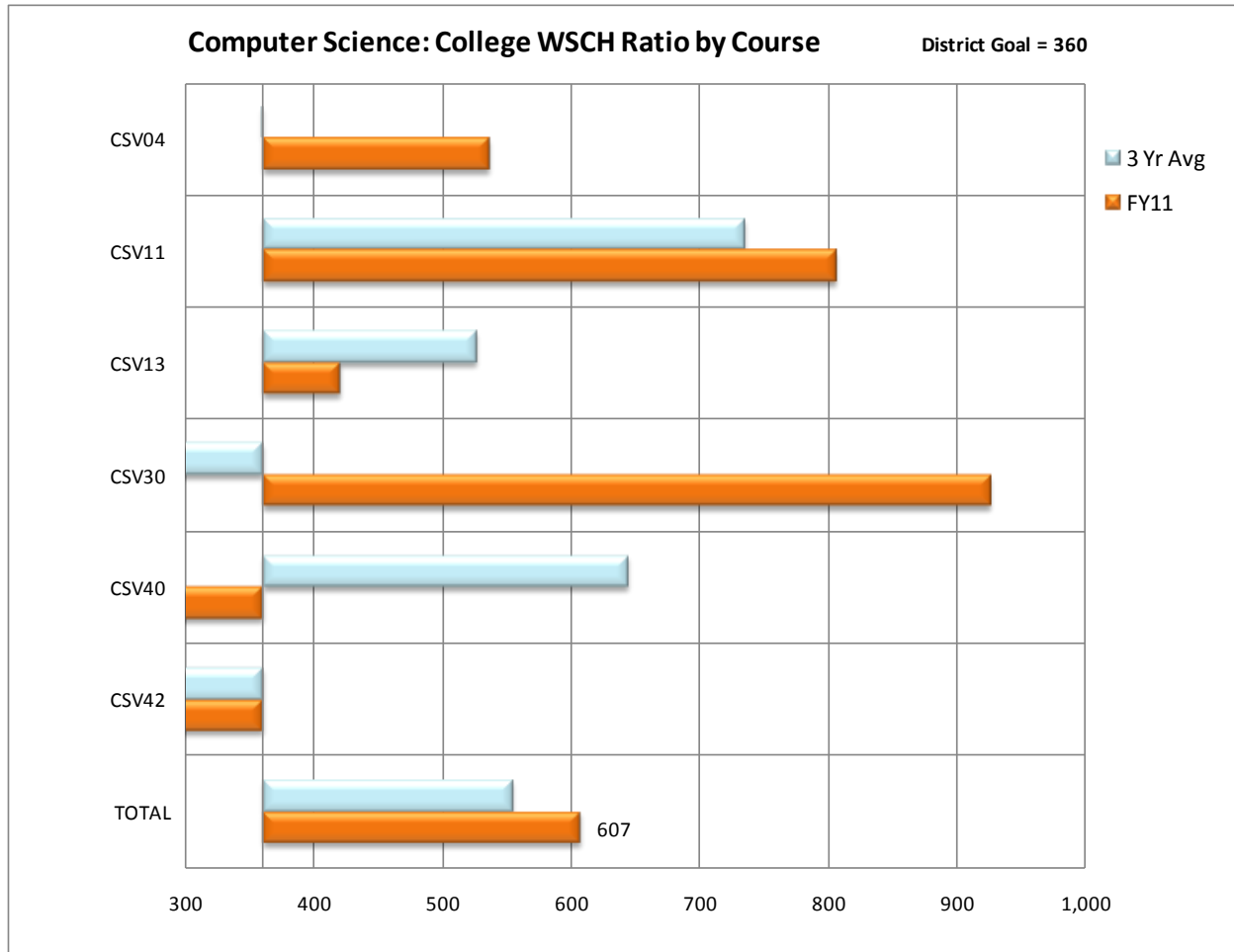
College WSCH Ratio: Weekly Student Contact Hours/(FT FTE + PT FTE + XL FTE)									
Course	Title	FY08	FY09	FY10	3 Yr Avg	FY11	Change	Dist Goal	% Goal
CSV04	Computers and Computer Lit	-	429	289	359	536	49%	360	149%
CSV11	Programming Fundamentals	652	860	712	735	806	10%	360	224%
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TOTAL	Annual College WSCH Ratio	518	562	571	554	607	10%	360	169%

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D4: College WSCH Ratio Productivity Chart

This chart illustrates the course level College WSCH ratio. The top bar shows the program's three year average. The second bar shows the FY11 WSCH ratio. The axis represents the District WSCH ratio goal set in 2006. The program's (or subject's) total WSCH ratio is shown as the TOTAL at the bottom of the chart. The computation used for the College WSCH Ratio includes XL FTE (extra-large sections) and the assignment of FTEF to all cross-listed sections (proportional to census enrollment).



D5: Productivity Detail Report

The program's detail productivity information is available in *Appendix B – Program Review Productivity Report*. This report is a PDF document and is searchable. The productivity information was extracted from the District's Banner Student System. The productivity information includes all information associated with the program's subject codes. The *Program Review Productivity Report* is sorted by subject code (alphabetical order) and includes the following sections: productivity measures and WSCH ratios by course by year.

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D6: Interpretation of the Program Course Productivity Information

The inconsistencies in the productivity portrayed above is largely due to the fact that the CS schedule is very limited and it changes from year to year. Despite these fluctuations, productivity is considerably higher than the district goal in every course every year portrayed above.

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E1: Student Success Terminology

Census	Number of students enrolled at Census (typically the 4 th week of class for fall and spring). Census enrollment is used to compute WSCH and FTES for funding purposes.
Retain	Students completing the class with any grade other than W or DR divided by Census Example: 40 students enrolled, 5 students dropped prior to census, 35 students were enrolled at census, 25 students completed the class with a grade other than W or DR: Retention Rate = 25/35 = 71%
Success	Students completing the class with grades A, B, C, CR or P divided by Census Excludes students with grades D, F, or NC.

E2: Student Success Summary

The following two tables summarize the detail information provided in the *Appendix C - Program Review Student Success Report*. The first table shows the number of students. The second table shows the percentage of students. Both tables show the distribution of student grades by year for the program (subject). They show the number of students who were counted at census, completed the class (retention), and were successful. The “3 Year Average” was computed to provide a trend benchmark to compare the prior three year expenses to the FY11 success measures. The “College” success percentages are included to compare the results of the program to the results of the college.

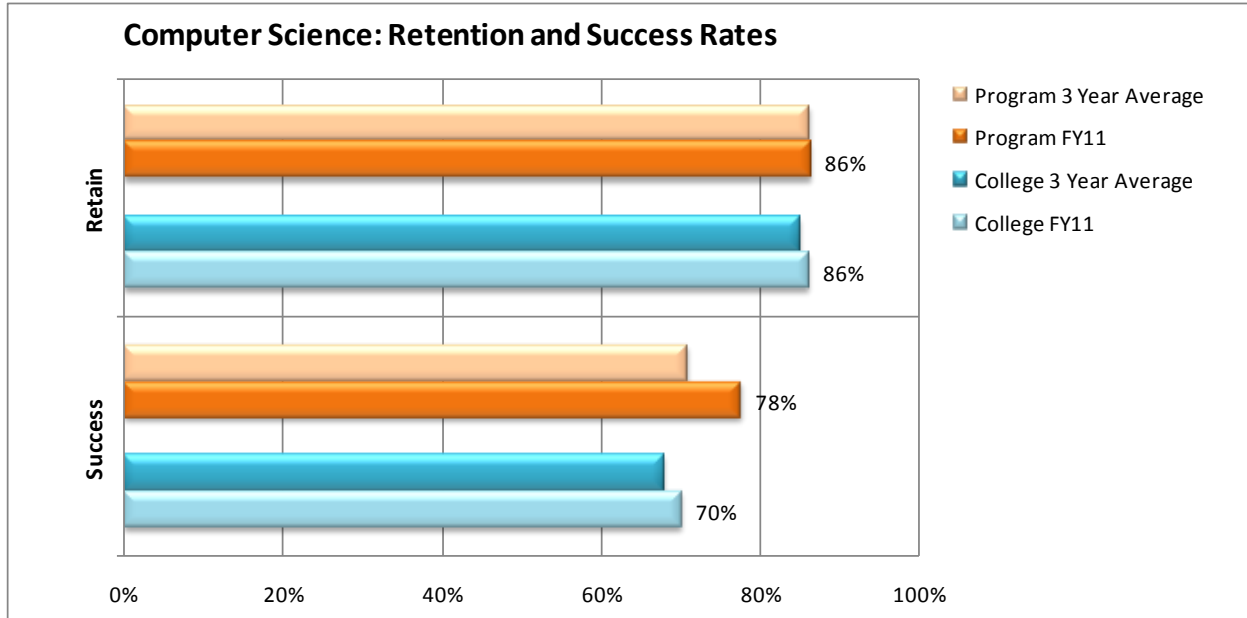
Subject	Fiscal Year	A	B	C	P/CR	D	F	W	NC	Census	Retain	Success
CS	FY08	71	28	14	-	11	4	20	1	149	128	113
CS	FY09	108	23	8	1	18	30	25	1	214	189	140
CS	FY10	148	17	12	-	16	12	39	-	244	205	177
CS	3 Year Avg	109	23	11	-	15	15	28	1	202	174	143
CS	FY11	133	15	21	-	8	11	30	-	218	188	169
Subject	Fiscal Year	A	B	C	P/CR	D	F	W	NC	Census	Retain	Success
CS	FY08	48%	19%	9%	0%	7%	3%	13%	1%		86%	76%
CS	FY09	50%	11%	4%	0%	8%	14%	12%	0%		88%	65%
CS	FY10	61%	7%	5%	0%	7%	5%	16%	0%		84%	73%
CS	3 Year Avg	54%	11%	5%	0%	7%	7%	14%	0%		86%	71%
CS	FY11	61%	7%	10%	0%	4%	5%	14%	0%		86%	78%
College	3 Year Avg	33%	19%	12%	5%	5%	10%	15%	2%		85%	68%
College	FY11	33%	20%	13%	3%	5%	10%	14%	2%		86%	70%

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E3: Retention and Success Rates

This chart illustrates the retention and success rates of students who were counted at census. Each measure has four bars. The first bar represents the program's prior three year average percent. The second bar shows last year's (FY11) percent. The third and fourth bars represent the overall college percents.

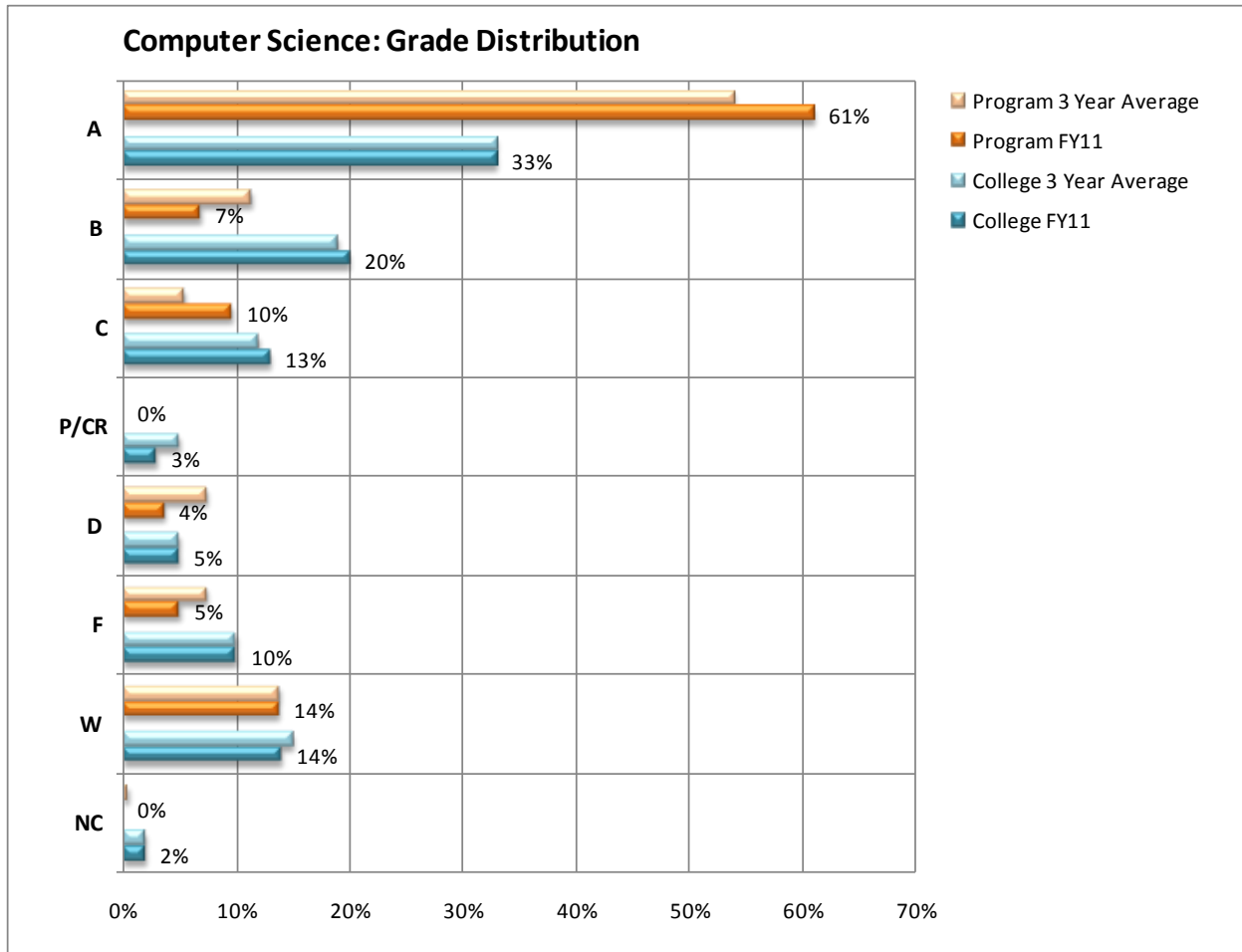


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E4: Grade Distribution

This chart illustrates the program’s distribution of grades (by subject). Each grade has four bars. The first bar represents the program’s prior three year average percent of grades. The second bar shows last year’s (FY11) grade distribution percents. The third and fourth bars represent the overall college distribution percents.



E5: Student Success Detail Report

The program student success detail information is available in *Appendix C – Program Review Student Success Report*. This report is a PDF document and is searchable. The student success information was extracted from the District’s Banner Student System. The student success information includes all information associated with the program’s subject codes. The *Program Review Student Success Report* is sorted by subject code (alphabetical order) and includes the following sections: comparative summary and course detail by term. The following table defines the terminology.

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E6: Interpretation of Program Retention, Student Success, and Grade Distribution

Retention is consistent with college averages, but success appears to be better in CS than the college average. The statistics also show a higher number of A's and fewer B's and C's than the college averages. These statistics suggest that further study must be done to determine the reasons for the disproportionate percentages of A's, B's and C's.

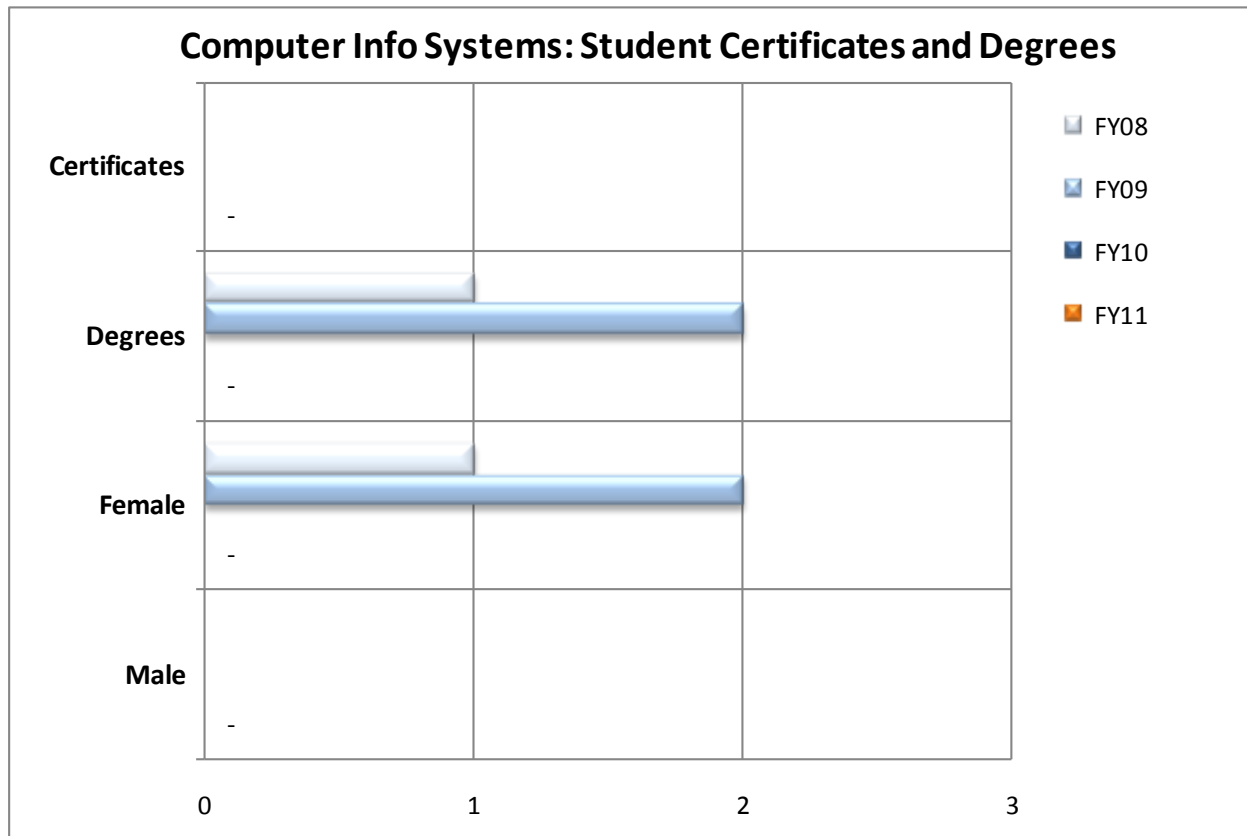
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F1: Program Completion – Student Awards

This table shows the number of students who completed a program certificate or degree during the fiscal year. Gender distribution is included. The following chart illustrates this information.

Program	FY	Certificates	Degrees	Female	Male
Computer Information Sys	FY08	-	1	1	-
Computer Information Sys	FY09	-	2	2	-
Computer Information Sys	FY10	-	-	-	-
Computer Information Sys	FY11	-	-	-	-
Total Awards in 4 Years		-	3	3	-



F2: Interpretation of the Program Completion Information

Though a CS degree program was created with the intent of implementing it, but it was created immediately prior to repeated state budget crises. These fiscal constraints precluded offering the full complement of classes; therefore it has not yet been possible to take enough CS courses to earn a degree.

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G1: Student Demographics Summary Tables

This table shows the program and college census enrollments for each demographic category. It also shows the average age of the students. The program FY11 results can be compared to its prior three year average, the college FY11 results, and the college prior three year average.

Subject	FY	Hispanic	White	Asian	Afr Am	Pac Isl	Filipino	Nat Am	Other	Female	Male	Other	Avg Age
CS	FY08	40	66	9	3	3	9	2	17	21	127	1	25
CS	FY09	66	102	14	7	-	10	1	14	34	180	-	25
CS	FY10	73	116	15	3	-	12	4	21	42	202	-	24
CS	3 Year Avg	60	95	13	4	1	10	2	17	32	170	-	25
CS	FY11	72	104	22	7	-	5	2	6	44	174	-	23
College	3 Year Avg	11,806	11,169	988	1,005	217	827	403	2,302	15,888	12,694	134	27
College	FY11	13,034	10,566	977	1,040	196	886	402	1,688	15,734	13,014	40	24

This table shows the program and college percentage of census enrollments for each demographic category.

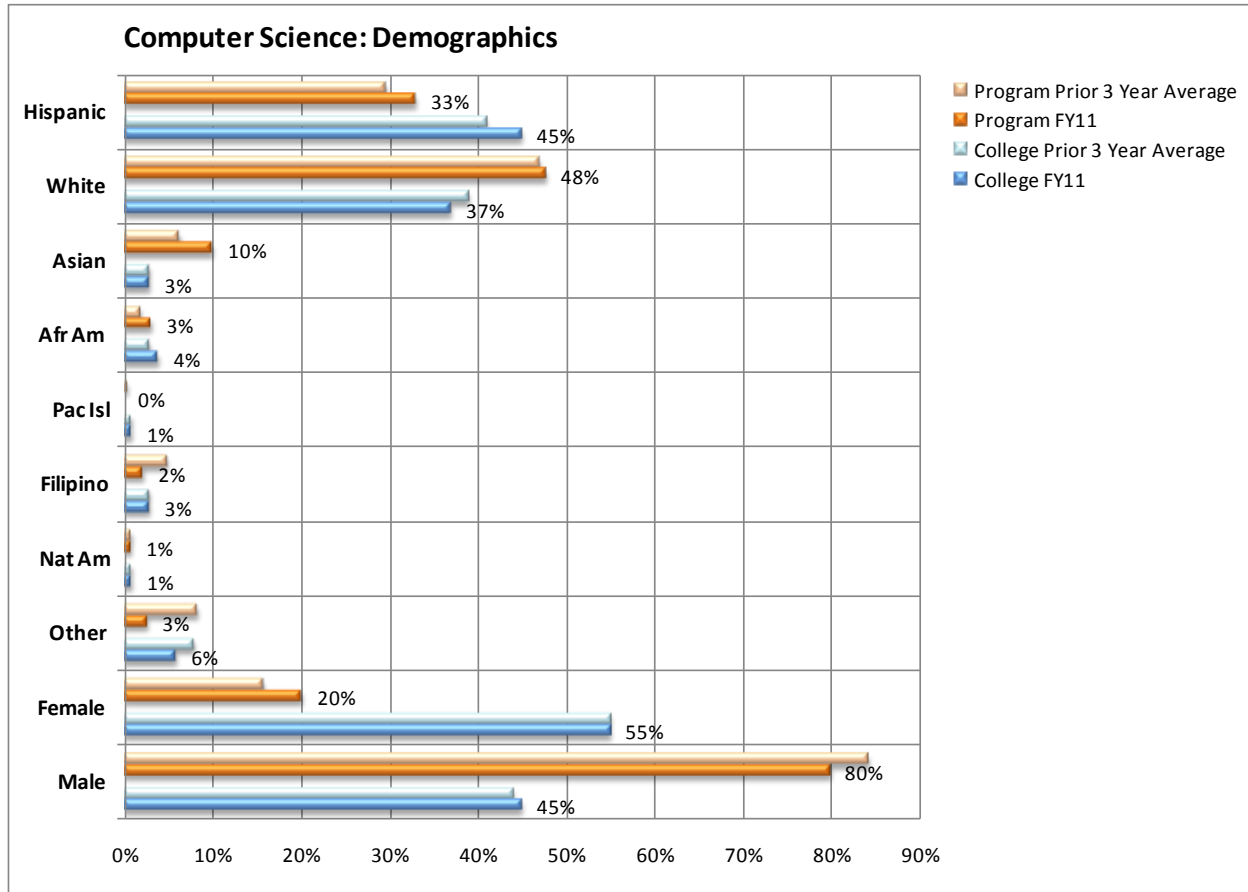
Subject	FY	Hispanic	White	Asian	Afr Am	Pac Isl	Filipino	Nat Am	Other	Female	Male	Other	Avg Age
CS	FY08	27%	44%	6%	2%	2%	6%	1%	11%	14%	85%	1%	25
CS	FY09	31%	48%	7%	3%	0%	5%	0%	7%	16%	84%	0%	25
CS	FY10	30%	48%	6%	1%	0%	5%	2%	9%	17%	83%	0%	24
CS	3 Year Avg	30%	47%	6%	2%	0%	5%	1%	8%	16%	84%	0%	25
CS	FY11	33%	48%	10%	3%	0%	2%	1%	3%	20%	80%	0%	23
College	3 Year Avg	41%	39%	3%	3%	1%	3%	1%	8%	55%	44%	0%	27
College	FY11	45%	37%	3%	4%	1%	3%	1%	6%	55%	45%	0%	24

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G2: Student Demographics Chart

This chart illustrates the program's percentages of students by ethnic group. . Each group has four bars. The first bar represents the program's prior three year percent. The second bar shows last year's (FY11) percent. The third and fourth bars represent the overall college percents.



G3: Student Demographics Detail Report

The program student success detail information is available in *Appendix D – Program Review Student Demographics Report*. This report is a PDF document and is searchable. The student success information was extracted from the District's Banner Student System. The student demographic information includes all information associated with the program's subject codes. The *Program Review Student Demographics Report* is sorted by subject code (alphabetical order) and includes the following sections: comparative summary by year, and detail demographics by term and course.

G4: Interpretation of the Program Demographic Information

It appears that the CS enrollments are largely dominated by males. This is counter to college's averages which shows more female enrollments than males in other programs. Additionally, statistics suggest significantly fewer Hispanics enroll in CS courses. This information suggests that the program should attempt to attract more females and Hispanics into the program.

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4. Performance Assessment

A1: Program-Level Student Learning Outcomes

Program-Level Student Learning Outcome 1	Performance Indicators
Operating Information	
Analysis – Assessment	

Program-Level Student Learning Outcome 2	Performance Indicators
Operating Information	
Analysis – Assessment	

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Program-Level Student Learning Outcome 3	Performance Indicators
Operating Information	
Analysis – Assessment	

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4B: Student Success Outcomes

Student Success Outcome 1	Performance Indicators
The program will increase its retention rate from the average of the program's prior three-year retention rate. The retention rate is the number of students who finish a term with any grade other than W or DR divided by the number of students at census.	The program will increase the retention rate by 2% or more above the average of the program's retention rate for the prior three years.
Operating Information	
Analysis – Assessment	
The program is currently operating at the college average.	

Student Success Outcome 2	Performance Indicators
The program will increase its retention rate from the average of the college's prior three-year retention rate. The retention rate is the number of students who finish a term with any grade other than W or DR divided by the number of students at census.	The program will increase the retention rate by 2% or more above the average of the college retention rate for the prior three years.
Operating Information	
The program only has one part-time faculty member assigned to it. There must be more faculty commitment and involvement to facilitate change.	
Analysis – Assessment	

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Student Success Outcome 3	Performance Indicators
The program will increase the student success rates from the average of the program's prior three-year success rates. The student success rate is the percentage of students at census who receive a grade of C or better.	The program will increase student success rate by 2% or more above the program's average student success rate for the prior three years.
Operating Information	
Analysis – Assessment	
The program currently realizes a higher level of success than the college average.	

Student Success Outcome 4	Performance Indicators
The program will increase the student success rates from the average of the college's prior three-year success rates. The student success rate is the percentage of students at census who receive a grade of C or better.	The program student success will increase by 5% over the average of the college's student success rate for the prior three years.
Operating Information	
Analysis – Assessment	
In FY11 the program operated at 8% above the college average.	

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Student Success Outcome 5	Performance Indicators
Students will complete the program earning certificates and/or degrees.	Increase the number of students earning a certificate to a minimum of 20% of the number of students enrolled in second-year courses.
Operating Information	
The program cannot produce any degrees without a commitment by the college to offer the full complement of CS courses.	
Analysis – Assessment	

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C. Program Operating Outcomes

Program Operating Outcome 1	Performance Indicators
The program will maintain WSCH/FTEF above the 525 goal set by the district.	The program will exceed the efficiency goal of 525 set by the district by 2%.
Operating Information	
Analysis – Assessment	
The program currently operates at 169% of the district goal.	

Program Operating Outcome 2	Performance Indicators
Inventory of instructional equipment is functional, current, and otherwise adequate to maintain a quality-learning environment. Inventory of all equipment over \$200 will be maintained and a replacement schedule will be developed. Service contracts for equipment over \$5000 will be budgeted if funds are available.	A current inventory of all equipment in the program will be maintained. Equipment having a value over \$5000 will have a service contract. A schedule for service life and replacement of outdated equipment will reflect the total cost of ownership.
Operating Information	
The inventory list is out of date and needs to be reviewed (3B1)	
Analysis – Assessment	

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Program Operating Outcome 3	Performance Indicators
No outcomes have been generated since there is only one part-time faculty assigned to the program	
Operating Information	
The program must have a full-time faculty member to update the curriculum and generate and evaluate student learning outcomes.	
Analysis – Assessment	

Program Operating Outcome 4	Performance Indicators
Operating Information	
Analysis – Assessment	

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5. Findings

Finding 1 A full-time faculty member is necessary for the program to flourish. For several years the program has done nothing more than to exist to provide a few basic CS courses for Science majors who need them in order to transfer. There have been no updates to the program, and student learning outcomes have not been created or assessed.

Finding 2

Finding 3

Finding 4

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6. Initiatives

Initiative Hire a full-time CS faculty member to update the program.

Initiative ID CS 6-1

Links to Finding 1

Benefits: Revamping of the program, growth of the program, increase in the number of degrees, and better access to courses necessary for transfer for the Science majors.

Request for Resources Approximately \$100,000 for salary and benefits

Funding Sources General fund budget

No new resources are required (use existing resources)	N
Requires additional general funds for personnel, supplies or services (includes maintenance contracts)	Y
Requires computer equipment funds (hardware and software)	Y
Requires college equipment funds (other than computer related)	N
Requires college facilities funds	N
Requires other resources (grants, etc.)	N

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Initiative

Initiative ID

Links to Finding 2

Benefits

Request for Resources

Funding Sources

Please check one or more of the following funding sources.

No new resources are required (use existing resources)	
Requires additional general funds for personnel, supplies or services (includes maintenance contracts)	
Requires computer equipment funds (hardware and software)	
Requires college equipment funds (other than computer related)	
Requires college facilities funds	
Requires other resources (grants, etc.)	

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Initiative

Initiative ID

Links to Finding 3

Benefits

Request for Resources

Funding Sources

No new resources are required (use existing resources)	
Requires additional general funds for personnel, supplies or services (includes maintenance contracts)	
Requires computer equipment funds (hardware and software))	
Requires college equipment funds (other than computer related)	
Requires college facilities funds	
Requires other resources (grants, etc.)	

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Initiative

Initiative ID

Links to Finding 4

Benefits

Request for Resources

Funding Sources

No new resources are required (use existing resources)	
Requires additional general funds for personnel, supplies or services (includes maintenance contracts)	
Requires computer equipment funds (hardware and software)	
Requires college equipment funds (other than computer related)	
Requires college facilities funds	
Requires other resources (grants, etc.)	

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6A: Initiatives Priority Spreadsheet

The following blank tables represent Excel spreadsheets and will be substituted with a copy of the completed Excel spreadsheets.

Personnel –Faculty Requests

Other	Program	Program Priority (0, 1, 2, 3...)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	General Fund	Other
1												
2												
3												
4												
5												

Personnel – Other Requests

Personnel - Other	Program	Program Priority (0, 1, 2, 3...)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	New General Funds	Other
1												
2												
3												
4												
5												

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Computer Equipment and Software

Equipment - Computer Related	Program	Program Priority (0, 1, 2, 3...)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	Technology Fund	Other
1												
2												
3												
4												
5												

Other Equipment Requests

Equipment	Program	Program Priority (0, 1, 2, 3...)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	Equipment Fund	Other
1												
2												
3												
4												
5												

Facilities Requests

Facilities	Program	Program Priority (0, 1, 2, 3...)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	Facilities Fund	Other
1												
2												
3												
4												
5												

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Other Resource Requests

Other Resources	Program	Program Priority (0, 1, 2, 3...)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	General Fund	Other
1												
2												
3												
4												
5												

6B: Program Level Initiative Prioritization

All initiatives will first be prioritized by the program staff. If the initiative can be completed by the program staff and requires no new resources, then the initiative should be given a priority 0 (multiple priority 0 initiatives are allowed). All other initiatives should be given a priority number starting with 1 (only one 1, one 2, etc.).

6C: Division Level Initiative Prioritization

The program initiatives within a division will be consolidated into division spreadsheets. The dean may include additional division-wide initiatives. All initiatives (excluding the '0' program priorities) will then be prioritized using the following priority levels:

- R:** Required – mandated or unavoidable needs (litigation, contracts, unsafe to operate conditions, etc.).
- H:** High – approximately 1/3 of the total division’s initiatives by resource category (personnel, equipment, etc.)
- M:** Medium – approximately 1/3 of the total division’s initiatives by resource category (personnel, equipment, etc.)
- L:** Low – approximately 1/3 of the total division’s initiatives by resource category (personnel, equipment, etc.)

6D: Committee Level Initiative Prioritization

The division’s spreadsheets will be prioritized by the appropriate college-wide committees (staffing, technology, equipment, facilities) using the following priority levels.

- R:** Required – mandated or unavoidable needs (litigation, contracts, unsafe to operate conditions, etc.).
- H:** High – approximately 1/3 of the total division’s initiatives by resource category (personnel, equipment, etc.)
- M:** Medium – approximately 1/3 of the total division’s initiatives by resource category (personnel, equipment, etc.)
- L:** Low – approximately 1/3 of the total division’s initiatives by resource category (personnel, equipment, etc.)

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6E: College Level Initiative Prioritization

Dean's will present the consolidated prioritized initiatives to the College Planning Council. The College Planning Council will then prioritize the initiatives using the following priority levels.

R: Required – mandated or unavoidable needs (litigation, contracts, unsafe to operate conditions, etc.).

H: High – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

M: Medium – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

L: Low – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

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7A: Appeals

After the program review process is complete, your program has the right to appeal the ranking of initiatives.

If you choose to appeal, please complete the form that explains and supports your position. The appeal will be handled at the next higher level of the program review process.

7B: Process Assessment

In this first year of program review using the new format, programs will be establishing performance indicators (goals) for analysis next year. Program review will take place annually, but until programs have been through an entire annual cycle, they cannot completely assess the process. However, your input is very important to us as we strive to improve, and your initial comments on this new process are encouraged.