College Curriculum
Review Committee

OAKLAND
COMMUNITY
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WELCOME TO THE CURRICULUM REVIEW SELF-STUDY PROCESS

Discipline/Program CIS-MMC-CT (Multimedia Certificate) Coordinator(s) Bill Schanerberger

CRC Mentor _____ Review Date: April 13, 2007

Thank you for agreeing to coordinate the Curriculum Review in your area. As Discipline/Program Case Review Coordinator, it is your responsibility to make sure the steps detailed below are completed by the Review Date. Your packet includes instructions and forms for completing the Review. If needed, a CRC mentor is available to you. Your Dean will also be able to provide meaningful assistance in completing this important task.

In the Part I-Core Review, the College asks your discipline/program to analyze its curriculum from a variety of perspectives. These include course offerings and contents, enrollment/retention, transfer trends, and plans for the future. An additional section of activities is contained in Part II. The nature of these review activities will depend on whether you are a member of a Discipline or a Program.

Included in this document to help you work on your review are: 1) Data Collection forms to distribute to your Discipline/Program Case colleagues and 2) Data Analysis forms with summary sections. Allow two to three months for this work. Please send all completed forms to the Chair of CRC 3 weeks prior to your scheduled review.

Once again, thank you for agreeing to work on this very important process with your colleagues. Together we will constantly strive to ensure the excellence of instruction at OCC.

College Curriculum Review Membership
2006-2007

Imagene Bailey (OR)
Thomas Boozer (AH)
Nadia Boulos (HL)
Charlott Couch (RO/SF)
Diane Hill (OR)
Tony Ingram (OR)
Shelley Larson (RO/SF)
Darlene Levinson (OR)
Gail Mays (AH)-Chair
Michele Merritt (AH)
Janet Peart (AH)
Letyna Roberts (ex-officio)
Karen Robinson (HL)
Beverly Stanbrough (RO/SF)
David Mathews (RO/SF)

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CURRICULUM REVIEW SELF-STUDY PROCESS
FOR
DISCIPLINE/PROGRAM COORDINATORS

Coordinator: The bold type below indicates forms that are attached and also available on the P drive. Check off steps as completed.

- ☐ Step 1—Request that the Office of Assessment & Effectiveness (contact information available on InfoMart) to send you the Dashboard data for your Discipline/Program.
- ☐ Step 2—If you are an occupational program coordinator, distribute the PROE surveys to faculty, students, and advisory committees. Return completed surveys to the OCC's Office of State and Federal Programs 6 weeks before your scheduled review.
- ☐ Step 3—Send the Data Collection forms to all the full-time faculty and/or adjunct members of your Discipline/Program, as specified on each form.
- ☐ Step 4—Collect syllabi from all adjuncts and full-time faculty for every course they are teaching, and complete the Data Collection forms for each course.
- ☐ Step 5—After collecting the above data, complete the Data Analysis forms to help you organize and analyze the information you've gathered.
- ☐ Step 6— Complete the Curriculum Review Report by compiling the Data Analysis forms
- ☐ Step 7—Forward a DRAFT copy of your compiled Discipline/Program Curriculum Review Report along with a Faculty Sign-off form to all faculty participating in the review at least 6 weeks prior to your review appointment. NOTE: As part of the official CRC Review Document, please include the returned Faculty Sign-Off forms.
- ☐ Step 8—Send a completed hard copy of all completed forms (including the Data Collection, Data Analysis forms) to the Chairperson of the Curriculum Review Committee at least 3 weeks prior to your review, along with enough copies of your completed report for each committee member. The Chairperson will distribute them.
- ☐ Step 9—Present the Discipline/Program Self-Study to the Curriculum Review Committee on the appointed date.

The Curriculum Review Committee will then provide your Discipline/Program with recommendations and suggestions and share the results of your review with the College Academic Senate, Vice-Chancellor of Academic and Student Services, and the Office of Assessment & Effectiveness.

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CRC
PART I-CORE REVIEW

Coordinator: Data Collection and Data Analysis forms for the following review areas are attached. Please also attach a copy of your program requirements from the catalog and all course descriptions.

A. CATALOG COURSE DESCRIPTIONS

- Please reproduce copies of all your Discipline/Program catalog course descriptions, and distribute them to the full-time members of the Discipline/Program with the Data Collection form asking the faculty to comment on whether the catalog course descriptions are accurate, clear, and current.

- Analyze the responses in order to determine where there is a need for revision.

B. SYLLABUS REVIEW

- Collect syllabi from all full-time and adjunct faculty for every section of each courses listed in the catalog under your Discipline/Program.

- Analyze where there are inconsistencies or omissions in the syllabi.

C. ENROLLMENT TRENDS AND STUDENT RETENTION

- Collect the Dashboard enrollment and retention data for the current and last academic year (available from the Office of Assessment & Effectiveness).

- Analyze areas of strength and weakness. Discuss, where applicable, student recruitment and student retention strategies that your Discipline/Program participates in currently or intends to implement in the future.

D. DISCLIPLINE/PROGRAM NEEDS AND RESOURCES

- Collect information on the Discipline/Program's current and anticipated needs and resources by distributing the Data Collection form to all full and adjunct faculty.

- Discuss what resources and staff development activities your Discipline/Program needs and also indicate necessary curriculum changes/revisions where appropriate.

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DATA COLLECTION

CORE REVIEW

A. CATALOG COURSE DESCRIPTION

FOR: _____
Course Number

Coordinator: Distribute this form to all full-time members of the discipline/program for every course listed in the catalog.

CATALOG COURSE DESCRIPTION:

	Yes	No
Accurate	☐	☐
Clear	☐	☐
Current	☐	☐
NUMBER OF CREDITS Appropriate	☐	☐

Please explain any NO answer:

*Please return to*_____ *at* _____ *by*_____.
Name Campus Date

DATA ANALYSIS

CORE REVIEW

A. CATALOG COURSE DESCRIPTION

Coordinator: Complete this form after reviewing the Catalog Course Data Collection forms from members of your Discipline/Program on all of the courses listed in the Catalog. Please also attach a photocopy of all program requirements and course descriptions in the catalogue.

Multimedia Communication Certificate Requirements		**Credits**
CIS 1050	Personal Computer Productivity Tools (MS-Office)	4
CIS 1400	Introduction to Web Systems	4
CIS 1500	Introduction to Software Engineering	4
ENG 1510	Composition I	3
GRD 1850	Digital Illustration I	4
MMC 2100	Multimedia Authoring	4
MMC 2401-3	Multimedia Internship 1, 2, or 3	3
PHO 1700	Beginning Digital Photography	4
SPE 1610[2]	Fundamentals of Speech	3
Multimedia Communication Certificate Electives		
Students must select 6 credits from the following list.		
BIS 2000	Desktop Publishing	3
or		
GRD 1750	Computer Design I	4
CIS 2151	Object-Oriented Programming (Java)	4
CIS 2656	Visual Basic Programming	4
ENG 2200	Professional Communication	4
LIB 1200	Introduction to Media Technology	3
MMC 2411-3	Multimedia Internship II 1, 2 or 3	3
PHO 2700	Advanced Digital Imaging	4
PHO 2450	Special Project Design	4
SPE 1290	Interpersonal Communication	3
or		
SPE 2610	Persuasion	3
or		
SPE 2640	Leadership and Small Groups	3
	Total Certificate Credits	**(38) 42**

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List every course that is listed in the catalog. Check where revision is indicated or no revisions seem necessary. Please, add lines where needed.

	Revision needed	No Revision necessary
Course Number 1050 (core requirement)	X (one word change)	
Course Number 1400 (core requirement)	X (tool-specific language)	
Course Number 1500 (core requirement)		X
Course Number MMC 2100 (core requirement)	X	
Course Number 2151 (option requirement)		X
Course Number 2656 (option requirement)		X

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CATALOG COURSE DESCRIPTION REVIEW SUMMARY:

Certificate Requirements

As shown above in the requirements for multimedia certificate, the courses which students must take are divided into two categories: certificate requirements; and certificate electives.

Course Descriptions

Based on multiple discussions in past CIS discipline meetings, the general consensus within the discipline is that the entire multimedia certificate requires a complete re-design. (See discussion below.) Therefore, the MMC 2100 course description should be re-written as part of that process. Descriptions for other required or elective CIS courses listed in the MMC program are required in other CIS degrees or certificate programs and, in general, do not require modification.

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DATA COLLECTION

CORE REVIEW

B. SYLLABUS REVIEW

FOR: _____
Course Number

INSTRUCTORS ⇨									
Mandatory Items (per FMA and Federal Law)									
ADA Notification									
Course Goals									
Grading Standards and Practices									
Tentative Schedule of Assignments and Tests									
Recommended Items (per Academic Senate)									
Course Name and Number									
Instructor, Office Location, Method of Contact									
Office Hours									
Available Assistance									
Course Catalog Description with Prerequisites									
General Education Attributes (where pertinent)									
Required Books and Supplies									
List of Supportive Materials (where available)									
Evaluation/Testing System & Policies									
Attendance Policy									
Safety Instructions									
Disclaimer Allowing for Reasonable Revisions									
Optional Items									
Semester Meeting Times & Room									
Teaching/Learning Strategies									
Applicable Forms Pertinent to Course									
Reference to Student Policies in OCC Catalog									
Policy on Use of Computing Resources									
Description of Required Computing Skills									
Policy on Plagiarism									
Student Bill of Responsibilities									

Coordinator: Ask all full-time and adjunct faculty to send you the syllabi for all of their courses by a given date. Use this form to collect information about their syllabi.

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DATA ANALYSIS

CORE REVIEW

B. SYLLABUS REVIEW

Coordinator: Use a separate sheet for each course.

Course Number 1050	**Number of Sections**	**Percent of Inclusion**
Mandatory Items (per FMA and Federal Law)		
ADA Notification	7	86%
Course Goals	7	100%
Grading Standards and Practices	7	100%
Tentative Schedule of Assignments and Tests	7	100%
Recommended Items (per Academic Senate)		
Course Name and Number	7	100%
Instructor, Office Location, Method of Contact	7	100%
Office Hours	7	100%
Available Assistance	7	100%
Course Catalog Description with Prerequisites	7	100%
General Education Attributes (where pertinent)	7	N/A
Required Books and Supplies	7	100%
List of Supportive Materials (where available)	7	86%
Evaluation/Testing System & Policies	7	100%
Attendance Policy	7	100%
Safety Instructions	7	N/A
Disclaimer Allowing for Reasonable Revisions	7	86%
Optional Items		
Semester Meeting Times & Room	7	100%
Teaching/Learning Strategies	7	43%
Applicable Forms Pertinent to Course	7	N/A
Reference to Student Policies in OCC Catalog	7	57%
Policy on Use of Computing Resources	7	71%
Description of Required Computing Skills	7	71%
Policy on Plagiarism	7	71%
Student Bill of Responsibilities	7	43%

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DATA ANALYSIS

CORE REVIEW

B. SYLLABUS REVIEW

Coordinator: Use a separate sheet for each course.

Course Number 1400	**Number of Sections**	**Percent of Inclusion**
Mandatory Items (per FMA and Federal Law)		
ADA Notification	1	100%
Course Goals	1	100%
Grading Standards and Practices	1	100%
Tentative Schedule of Assignments and Tests	1	100%
Recommended Items (per Academic Senate)		
Course Name and Number	1	100%
Instructor, Office Location, Method of Contact	1	100%
Office Hours	1	100%
Available Assistance	1	100%
Course Catalog Description with Prerequisites	1	100%
General Education Attributes (where pertinent)	1	N/A
Required Books and Supplies	1	100%
List of Supportive Materials (where available)	1	100%
Evaluation/Testing System & Policies	1	100%
Attendance Policy	1	100%
Safety Instructions	1	N/A
Disclaimer Allowing for Reasonable Revisions	1	100%
Optional Items		
Semester Meeting Times & Room	1	100%
Teaching/Learning Strategies	1	0%
Applicable Forms Pertinent to Course	1	N/A
Reference to Student Policies in OCC Catalog	1	100%
Policy on Use of Computing Resources	1	100%
Description of Required Computing Skills	1	100%
Policy on Plagiarism	1	0%
Student Bill of Responsibilities	1	0%

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DATA ANALYSIS

CORE REVIEW

B. SYLLABUS REVIEW

Coordinator: Use a separate sheet for each course.

Course Number 1500	**Number of Sections**	**Percent of Inclusion**
Mandatory Items (per FMA and Federal Law)		
ADA Notification	1	100%
Course Goals	1	100%
Grading Standards and Practices	1	100%
Tentative Schedule of Assignments and Tests	1	100%
Recommended Items (per Academic Senate)		
Course Name and Number	1	100%
Instructor, Office Location, Method of Contact	1	100%
Office Hours	1	100%
Available Assistance	1	100%
Course Catalog Description with Prerequisites	1	100%
General Education Attributes (where pertinent)	1	N/A
Required Books and Supplies	1	100%
List of Supportive Materials (where available)	1	100%
Evaluation/Testing System & Policies	1	100%
Attendance Policy	1	100%
Safety Instructions	1	N/A
Disclaimer Allowing for Reasonable Revisions	1	100%
Optional Items		
Semester Meeting Times & Room	1	100%
Teaching/Learning Strategies	1	0%
Applicable Forms Pertinent to Course	1	N/A
Reference to Student Policies in OCC Catalog	1	100%
Policy on Use of Computing Resources	1	100%
Description of Required Computing Skills	1	100%
Policy on Plagiarism	1	0%
Student Bill of Responsibilities	1	0%

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CORE REVIEW

B. SYLLABUS REVIEW

Coordinator: Use a separate sheet for each course.

Course Number MMC 2100	**Number of Sections**	**Percent of Inclusion**
Mandatory Items (per FMA and Federal Law)		
ADA Notification	1	100%
Course Goals	1	100%
Grading Standards and Practices	1	100%
Tentative Schedule of Assignments and Tests	1	100%
Recommended Items (per Academic Senate)		
Course Name and Number	1	100%
Instructor, Office Location, Method of Contact	1	100%
Office Hours	1	100%
Available Assistance	1	100%
Course Catalog Description with Prerequisites	1	100%
General Education Attributes (where pertinent)	1	N/A
Required Books and Supplies	1	100%
List of Supportive Materials (where available)	1	100%
Evaluation/Testing System & Policies	1	100%
Attendance Policy	1	100%
Safety Instructions	1	N/A
Disclaimer Allowing for Reasonable Revisions	1	100%
Optional Items		
Semester Meeting Times & Room	1	100%
Teaching/Learning Strategies	1	0%
Applicable Forms Pertinent to Course	1	N/A
Reference to Student Policies in OCC Catalog	1	100%
Policy on Use of Computing Resources	1	100%
Description of Required Computing Skills	1	100%
Policy on Plagiarism	1	0%
Student Bill of Responsibilities	1	0%

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DATA ANALYSIS

CORE REVIEW

B. SYLLABUS REVIEW

Coordinator: Use a separate sheet for each course.

Course Number 2151	**Number of Sections**	**Percent of Inclusion**
Mandatory Items (per FMA and Federal Law)		
ADA Notification	1	100%
Course Goals	1	100%
Grading Standards and Practices	1	100%
Tentative Schedule of Assignments and Tests	1	100%
Recommended Items (per Academic Senate)		
Course Name and Number	1	100%
Instructor, Office Location, Method of Contact	1	100%
Office Hours	1	100%
Available Assistance	1	100%
Course Catalog Description with Prerequisites	1	100%
General Education Attributes (where pertinent)	1	N/A
Required Books and Supplies	1	100%
List of Supportive Materials (where available)	1	100%
Evaluation/Testing System & Policies	1	100%
Attendance Policy	1	100%
Safety Instructions	1	N/A
Disclaimer Allowing for Reasonable Revisions	1	100%
Optional Items		
Semester Meeting Times & Room	1	100%
Teaching/Learning Strategies	1	0%
Applicable Forms Pertinent to Course	1	N/A
Reference to Student Policies in OCC Catalog	1	100%
Policy on Use of Computing Resources	1	100%
Description of Required Computing Skills	1	100%
Policy on Plagiarism	1	0%
Student Bill of Responsibilities	1	0%

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DATA ANALYSIS

CORE REVIEW

B. SYLLABUS REVIEW

Coordinator: Use a separate sheet for each course.

Course Number 2656	**Number of Sections**	**Percent of Inclusion**
Mandatory Items (per FMA and Federal Law)		
ADA Notification	1	100%
Course Goals	1	100%
Grading Standards and Practices	1	100%
Tentative Schedule of Assignments and Tests	1	100%
Recommended Items (per Academic Senate)		
Course Name and Number	1	100%
Instructor, Office Location, Method of Contact	1	100%
Office Hours	1	100%
Available Assistance	1	100%
Course Catalog Description with Prerequisites	1	100%
General Education Attributes (where pertinent)	1	N/A
Required Books and Supplies	1	100%
List of Supportive Materials (where available)	1	100%
Evaluation/Testing System & Policies	1	100%
Attendance Policy	1	100%
Safety Instructions	1	N/A
Disclaimer Allowing for Reasonable Revisions	1	100%
Optional Items		
Semester Meeting Times & Room	1	100%
Teaching/Learning Strategies	1	0%
Applicable Forms Pertinent to Course	1	N/A
Reference to Student Policies in OCC Catalog	1	0%
Policy on Use of Computing Resources	1	100%
Description of Required Computing Skills	1	100%
Policy on Plagiarism	1	0%
Student Bill of Responsibilities	1	0%

DATA ANALYSIS

CORE REVIEW

B. SYLLABUS REVIEW, *(CONTINUED)*

Coordinator: After reviewing the Data Analysis forms on all the courses in the Discipline/Program, please summarize your analysis of whether or not there are course syllabi in your Discipline/Program that need revision due to inconsistencies or omissions, or other issues.

SYLLABUS REVIEW SUMMARY:

Based on multiple discussions in past CIS discipline meetings, the general consensus within the discipline is that the entire multimedia certificate requires a complete re-design. (See discussion below.)

DATA ANALYSIS

CORE REVIEW

C. ENROLLMENT TRENDS AND STUDENT RETENTION

Coordinator: The Dashboard report on your Discipline/Program will collect the necessary data in regard to Enrollment Trends and Student Retention. Use this form to review that data in the following areas. Please also attach Dashboard Data.

Enrollment (Use the Dashboard data on Average Section Size, Sections Filled to Capacity, Percent of Completed Sections, Percent Change in Headcount, and Percent Change in Credit Hours to discuss this area.)

Minority Students (Use the Dashboard data on Minority Students to discuss this area.)

Student and Course Success (Use the Dashboard data on Percent of Withdrawals, Percent of Incompletes, and Student Course Completion Rate to discuss this area.)

Summary of data from OCC Office of Assessment and Effectiveness.

	CIS (all programs)			College-Wide
	2003-2004	2004-2005	2005-2006	2005-2006
Average Section Size	23/27	22/27	22/27	?
Sections Filled to Capacity	84.0%	79.8%	80.6%	83.2%
Percent of Completed Sections	77.7%	65.8%	77.9%	86.6%
Headcount Trend Ratio	0.89	0.86	0.93	1.02
Credit Hour Trend Ratio	0.89	0.85	0.92	1.02
Percent of Minority Students	30.0%	30.8%	30.4%	27.9%
Percent of Withdrawals	16.0%	16.4%	16.7%	17.8%
Percent of Incompletes	0.9%	1.5%	1.3%	1.6%
Student Course Completion Rate	59.3%	64.7%	63.6%	68.2%

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ENROLLMENT TRENDS AND STUDENT RETENTION
REVIEW SUMMARY:

Over the past ten years, only eight MMC certificates have been awarded. Other than MMC internships, the only required MMC course was MMC 2100. In the past six years, MMC 2100 has only been offered two or three times. In each case, the enrollment was less than six students. Most of the student engagement in the program has centered on the MMC internships sponsored by art department faculty. In general, the MMC program has suffered from lack of attention from CIS.

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DATA COLLECTION

CORE REVIEW

D. DISCIPLINE/PROGRAM NEEDS AND RESOURCES

Coordinator: Distribute this form to all full-time and adjunct faculty.

What resources or services does the Discipline/Program need in order to improve instruction? Please explain the reason you are requesting each resource.

What curriculum revisions or development would enhance instruction in your Discipline/Program?

*Please return to*_____ *at* _____ *by*_____.
Name Campus Date

DATA ANALYSIS

CORE REVIEW

D. DISCIPLINE/PROGRAM NEEDS AND RESOURCES

Coordinator: Please summarize the needs, resources, and curriculum actions indicated on the Data Collection forms.

What resources or services does your Discipline/Program need?

None submitted.

What curriculum revisions or development does your Discipline/Program see as beneficial to instruction?

A complete re-design of this program is required.

DISCIPLINE/PROGRAM NEEDS AND RESOURCES REVIEW SUMMARY:

The original idea for an MMC-like program was created within the OCC art department. For reasons difficult to explain, this program was attached to CIS to give it a home but most of the faculty support was still in the art department. Ever since MMC was attached to CIS, is has been treated as an orphaned program.

Recently, at a CIS discipline meeting, there was renewed interest from the faculty at the Highland Lakes campus in creating a new beginning for this program. There is genuine excitement that this program may finally emerge as a legitimate program with a new face and interesting content. Other educational institutions have created similar programs targeting new media communications as one of the areas that will attract future creative professionals who are also very technically savvy. Many of these comparable programs are interdisciplinary in nature.

As a start, the CIS faculty are proposing the following list of items to generate positive discussions that will result in the definition of an attractive new program.

New certificate title – "New Media"

Course topics – Multimedia databases, Storyboarding, Principles of video editing, Principles of video animation effects, Principles of 2D animation and programming, Principles of 3D animation, Principles of character design, Principles of 3D environment construction, Programming for Gaming environments, Digital imaging, Principles of digital audio editing, and Principles of DVD production and editing.

CRC
PART II- PROGRAM REVIEW
and
PROGRAM REVIEW OF OCCCUPATIONAL EVALUATION (PROE)

Under the provisions of the Carl D. Perkins Vocational and Technical Education Act/Public Law 105-332, if a Program is of an occupational nature, a Program Review in Occupational Education (PROE) report is required by the State of Michigan every five (5) years and can be used for the purposes of the Curriculum Review process.

Coordinator: Data Collection and Data Analysis forms for the following review areas are attached.

E. INPUT FROM INTERNAL & EXTERNAL COMMUNITY

- Collect information from faculty, students and external community (e.g., advisory committees and accrediting agencies) on your Program curriculum. It is recommended that you send or personally distribute these survey forms in your classes, during your advisory committee meetings, and/or at your departmental/staff meetings. Return these survey forms to the Office of State and Federal Programs.

  Required survey forms:

  - ☐ Individual Faculty Perceptions of Occupational Programs Forms
  - ☐ Individual Student Perceptions of Occupational Programs Forms
  - ☐ Individual Advisory Committee/Industry Perceptions of Occupational Program Forms

- Analyze the data you have received from the internal and external community surveys. Record your findings on the PROE Data Analysis form and Final Review Summary

F. COMPARABLE COURSES/PROGRAMS AND TRENDS

- Collect information on transferability and articulation from the Counseling Department. Obtain labor market trends from the Office of Assessment & Effectiveness. Identify the job performance requirements with the aid of advisory committees, professional journals, along with student and employer feedback.

- Analyze and summarize these findings.

G. OUTCOMES ASSESSMENT

- Analyze the results of your most recent Program Assessment Plan, particularly evidence regarding the quality of student learning, and recommended action plans.

DATA COLLECTION

E. INPUT FROM INTERNAL & EXTERNAL COMMUNITY

OAKLAND COMMUNITY COLLEGE
FACULTY PERCEPTIONS OF OCCUPATIONAL PROGRAMS
(Program Review of Occupational Evaluation - PROE)

Thank you for taking the time to complete the following survey as it will help to improve upon the success of the occupational programs at Oakland Community College. Please circle the letter that corresponds to your selection. *Please circle only one letter.*

1. The program of study in which I teach at Oakland Community College is meeting my expectations as a faculty member.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

2. The courses offered in the program are preparing the students for the workforce.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

3. The program can be more challenging academically for the students.

    a. Agree
    b. Neutral
    c. Disagree
    d. Strongly Disagree

4. The program can be more competitive with other institutions that offer similar programs.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

DATA COLLECTION

E. INPUT FROM INTERNAL & EXTERNAL COMMUNITY *(continued)*

OAKLAND COMMUNITY COLLEGE
FACULTY PERCEPTIONS OF OCCUPATIONAL PROGRAMS
(Program Review of Occupational Evaluation - PROE)

5. I am satisfied with the quality of instruction provided to the students in this program.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

6. My fellow faculty members in the program are knowledgeable about the course subject-matter.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

7. I am satisfied with the course offerings in this program.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

8. I feel that the program has a focus real-world application.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

DATA COLLECTION

E. INPUT FROM INTERNAL & EXTERNAL COMMUNITY *(continued)*

OAKLAND COMMUNITY COLLEGE
FACULTY PERCEPTIONS OF OCCUPATIONAL PROGRAMS
(Program Review of Occupational Evaluation - PROE)

9. I feel that the students are prepared for the rigors of the program.

   a. Strongly Agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly Disagree

10. I am informed about what is happening in this program.

   a. Strongly Agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly Disagree

11. Opportunities are available for me to make suggestions for improvements in this program.

   a. Strongly Agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly Disagree

12. I think the department has a commitment to student success in the program.

   a. Strongly Agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly Disagree

DATA COLLECTION

E. INPUT FROM INTERNAL & EXTERNAL COMMUNITY (*continued)*

OAKLAND COMMUNITY COLLEGE
FACULTY PERCEPTIONS OF OCCUPATIONAL PROGRAMS
(Program Review of Occupational Evaluation - PROE)

13. I am satisfied with the direction of this program because ;

    a. I think it prepares students for employment in the workforce.
    b. Working in conjunction with the advisory committee keeps the program going in the right direction.
    c. Feedback that I have received from the students indicates that the program is headed in the right direction.
    d. I know that other programs at other institutions do not compare to OCC.

14. If there is one thing you would like to change about the program, explain what it is and how it would enhance the program.

_____

_____

_____

_____

_____

_____

Thank you for taking the time to complete this survey!

Name: _____

Industry Type/Agency: _____

What OCC Program do you advise for :_____

Date Completed: _____

Please Return To: Letyna A. Roberts
Oakland Community College, Office of State and Federal Programs, AH Campus

Due Date: _____

DATA COLLECTION

E. INPUT FROM INTERNAL & EXTERNAL COMMUNITY

OAKLAND COMMUNITY COLLEGE
STUDENT PERCEPTIONS OF OCCUPATIONAL PROGRAMS
(Program Review of Occupational Evaluation - PROE)

Thank you for taking the time to complete the following survey as it will help to improve upon the success of the occupational programs at Oakland Community College. Please circle the letter that corresponds to your selection. *Please circle only one letter*.

1. What is your program of study? _____

2. What is your career goal? _____

3. My program of study at Oakland Community College is meeting my expectations.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

4. The courses offered in my program of study are preparing me for the workforce.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

5. I would like to change my current program of study because of academic reasons.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

DATA COLLECTION

E. INPUT FROM INTERNAL & EXTERNAL COMMUNITY *(continued)*

OAKLAND COMMUNITY COLLEGE
STUDENT PERCEPTIONS OF OCCUPATIONAL PROGRAMS
(Program Review of Occupational Evaluation - PROE)

6. I would like to attend another institution because of dissatisfaction with my current program of study at Oakland Community College.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

7. I am satisfied with the quality of the instructors in my program of study.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

8. I feel that the instructors are knowledgeable about the course subject-matter.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

9. I am satisfied with the course offerings in my current program of study at Oakland Community College.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

DATA COLLECTION

E. INPUT FROM INTERNAL & EXTERNAL COMMUNITY *(continued)*

OAKLAND COMMUNITY COLLEGE
STUDENT PERCEPTIONS OF OCCUPATIONAL PROGRAMS
(Program Review of Occupational Evaluation - PROE)

10. My instructors help me to understand how useful my program of study can be in the real-world.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

11. My instructors make the course subject-matter seem interesting.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

12. I am informed about what is happening in my program.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

13. I think the department is committed to student success in the program.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

DATA COLLECTION

E. INPUT FROM INTERNAL & EXTERNAL COMMUNITY *(continued)*

OAKLAND COMMUNITY COLLEGE
STUDENT PERCEPTIONS OF OCCUPATIONAL PROGRAMS
(Program Review of Occupational Evaluation - PROE)

14. I am satisfied with my program of study.

    a. Strongly Agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly Disagree

15. If there is one thing you would like to change about the program, explain what it is and how it would enhance the program.

_____

_____

_____

_____

_____

_____

Thank you for taking the time to complete this survey!

Name: _____

Industry Type/Agency: _____

What OCC Program do you advise for :_____

Date Completed: _____

Please Return To: Letyna A. Roberts
Oakland Community College, Office of State and Federal Programs, AH Campus

Due Date: _____

E. INPUT FROM INTERNAL & EXTERNAL COMMUNITY

OAKLAND COMMUNITY COLLEGE
ADVISORY COMMITTEE/INDUSTRY PERCEPTIONS OF OCCUPATIONAL PROGRAMS
(Program Review of Occupational Evaluation - PROE)

Thank you for taking the time to complete the following survey as it will help to improve upon the success of the occupational programs at Oakland Community College. Please circle the letter that corresponds to your selection. *Please circle only one letter*.

1. The program at Oakland Community College is meeting the expectations of the advisory committee.

   a. Strongly Agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly Disagree

2. The courses offered are preparing the students for the workforce.

   a. Strongly Agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly Disagree

3. The advisory committee is informed about the program.

   a. Strongly Agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly Disagree

4. The advisory committee has substantial input into decision-making within the program.

   a. Strongly Agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly Disagree

DATA COLLECTION

E. INPUT FROM INTERNAL & EXTERNAL COMMUNITY *(continued)*

OAKLAND COMMUNITY COLLEGE
ADVISORY COMMITTEE/INDUSTRY PERCEPTIONS OF OCCUPATIONAL PROGRAMS
(Program Review of Occupational Evaluation - PROE)

5. The advisory committee is satisfied with the direction of the program.

   a. Strongly Agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly Disagree

6. If there is one thing the committee would like to change about the program, explain what it is and how it would enhance the program.

_____

_____

_____

_____

_____

_____

Thank you for taking the time to complete this survey!

Name: _____

Industry Type/Agency: _____

What OCC Program do you advise for :_____

Date Completed: _____

Please Return To: Letyna A. Roberts
Oakland Community College, Office of State and Federal Programs, AH Campus

Due Date: _____

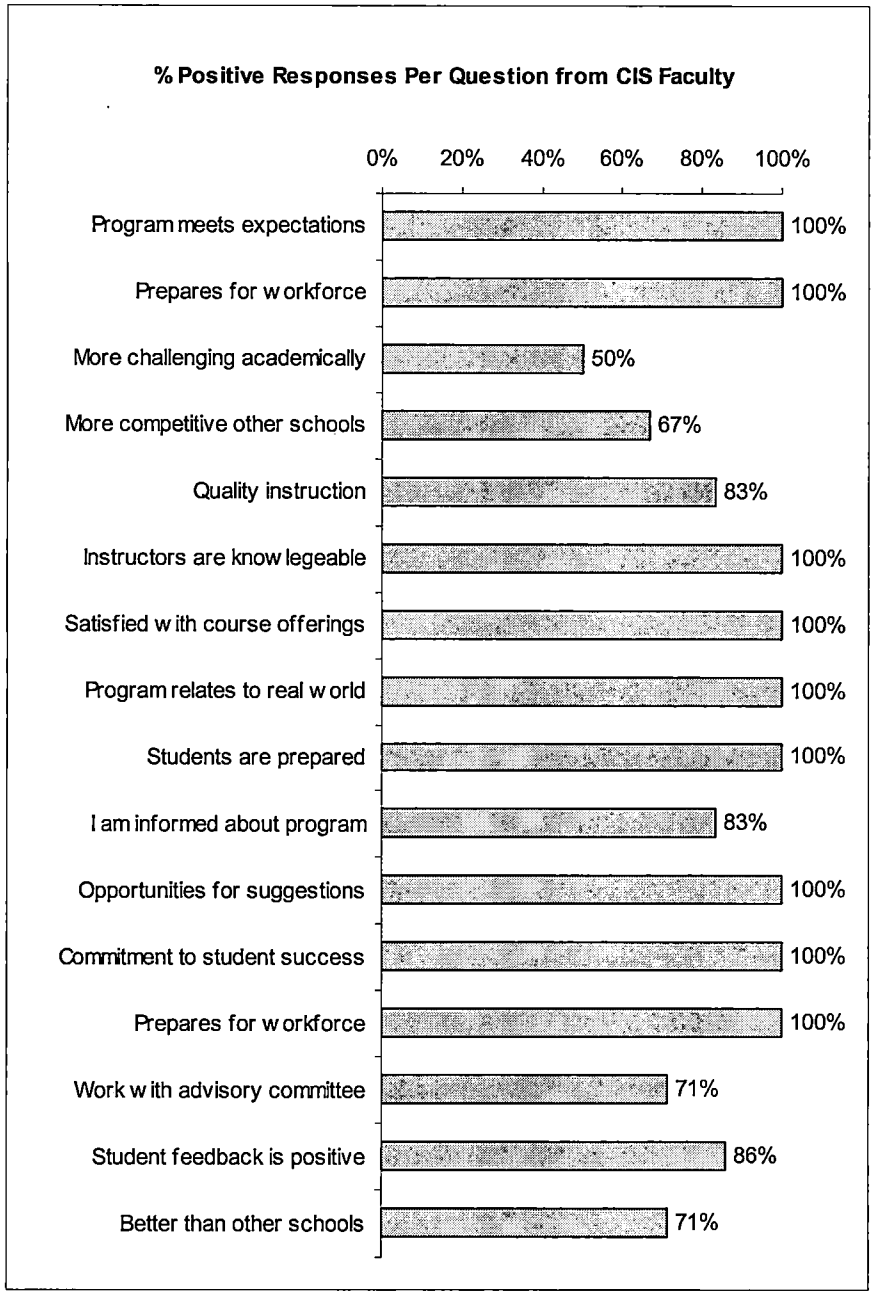
DATA ANALYSIS

E. INPUT FROM INTERNAL & EXTERNAL COMMUNITY

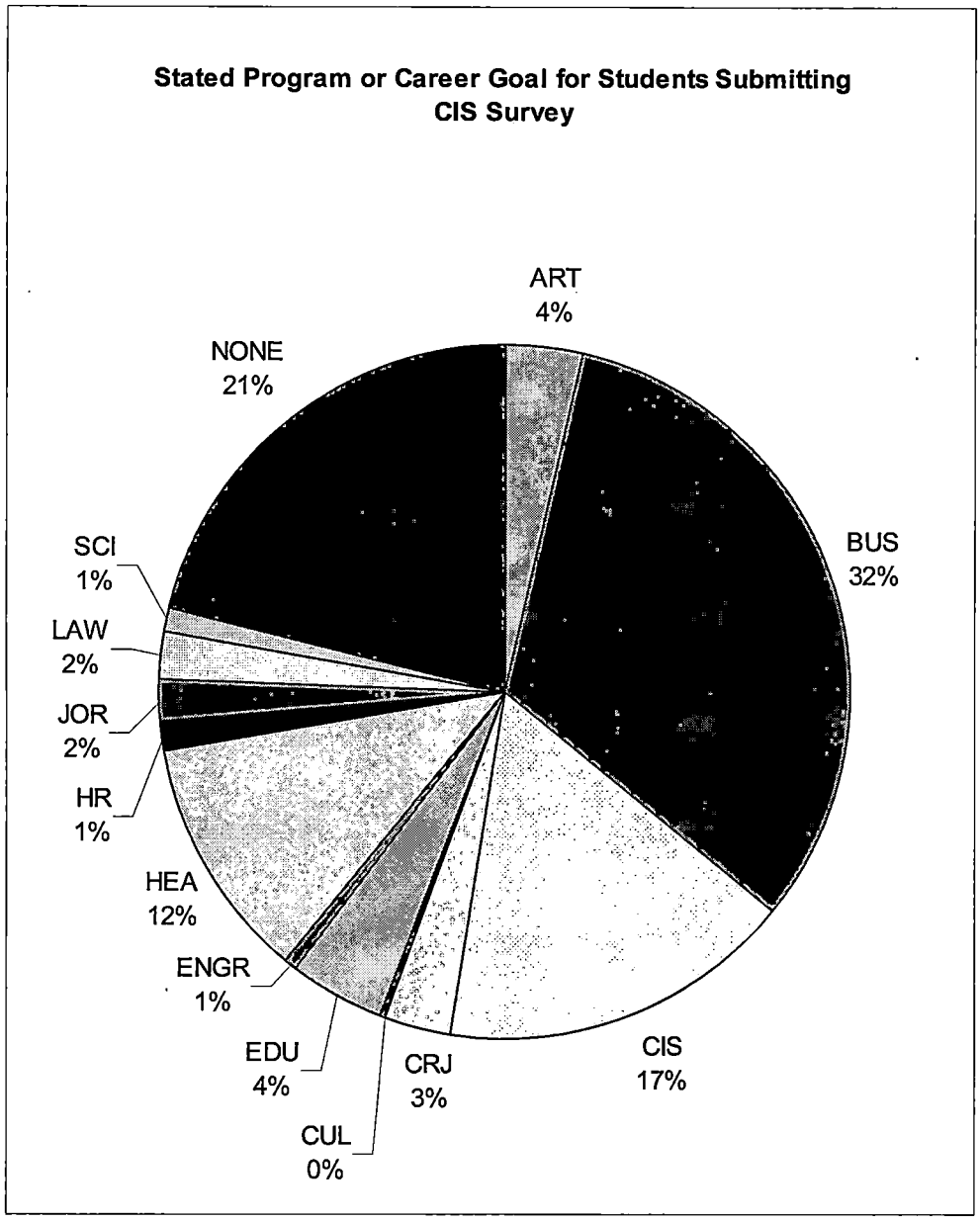
Coordinator: After reviewing the Data Collection forms on all the courses in the Program, along with the collated data summary, please analyze and summarize these findings.

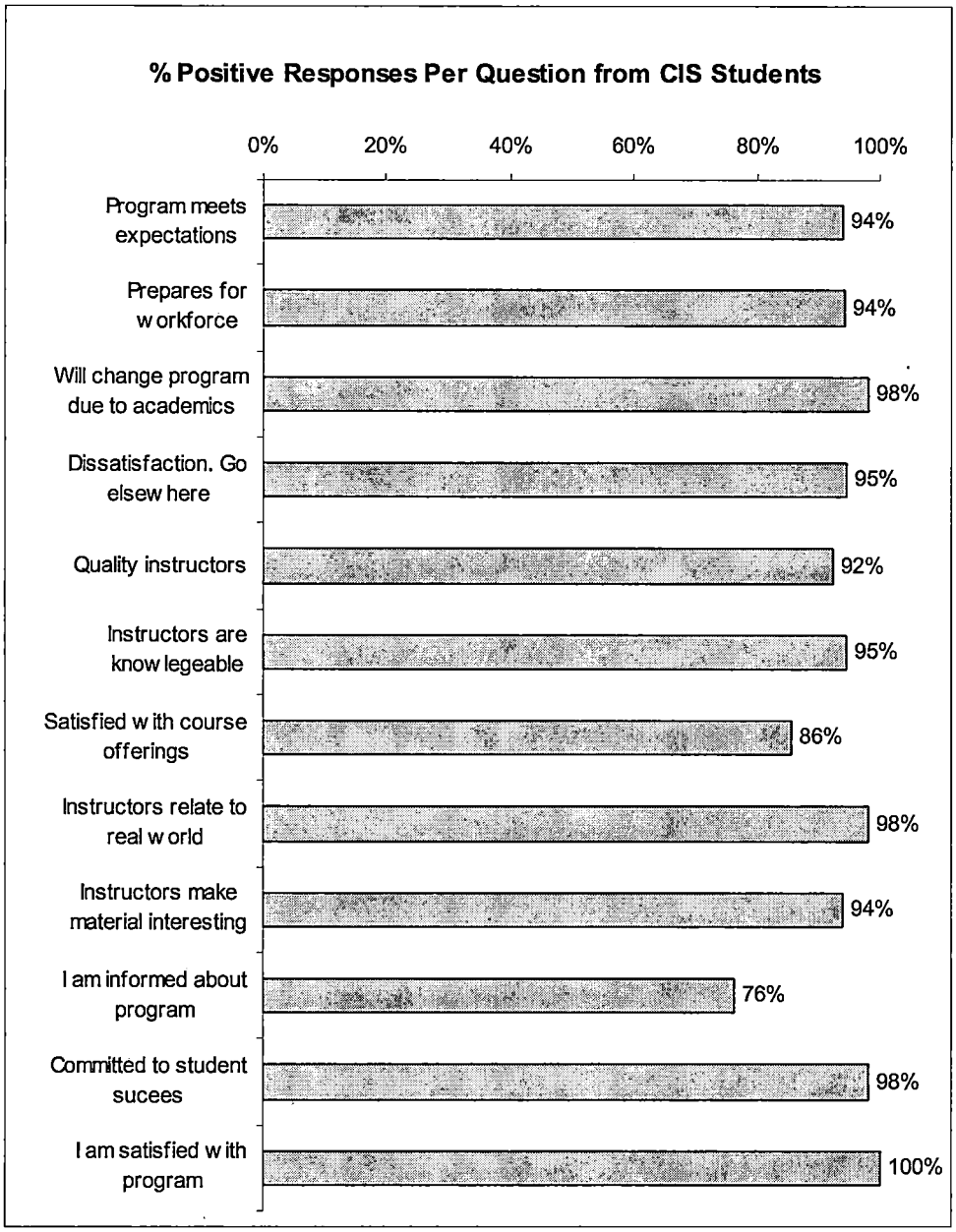
Important Note: Survey responses of "Agree" or "Strongly agree" were recorded as "positive" responses in the charts.

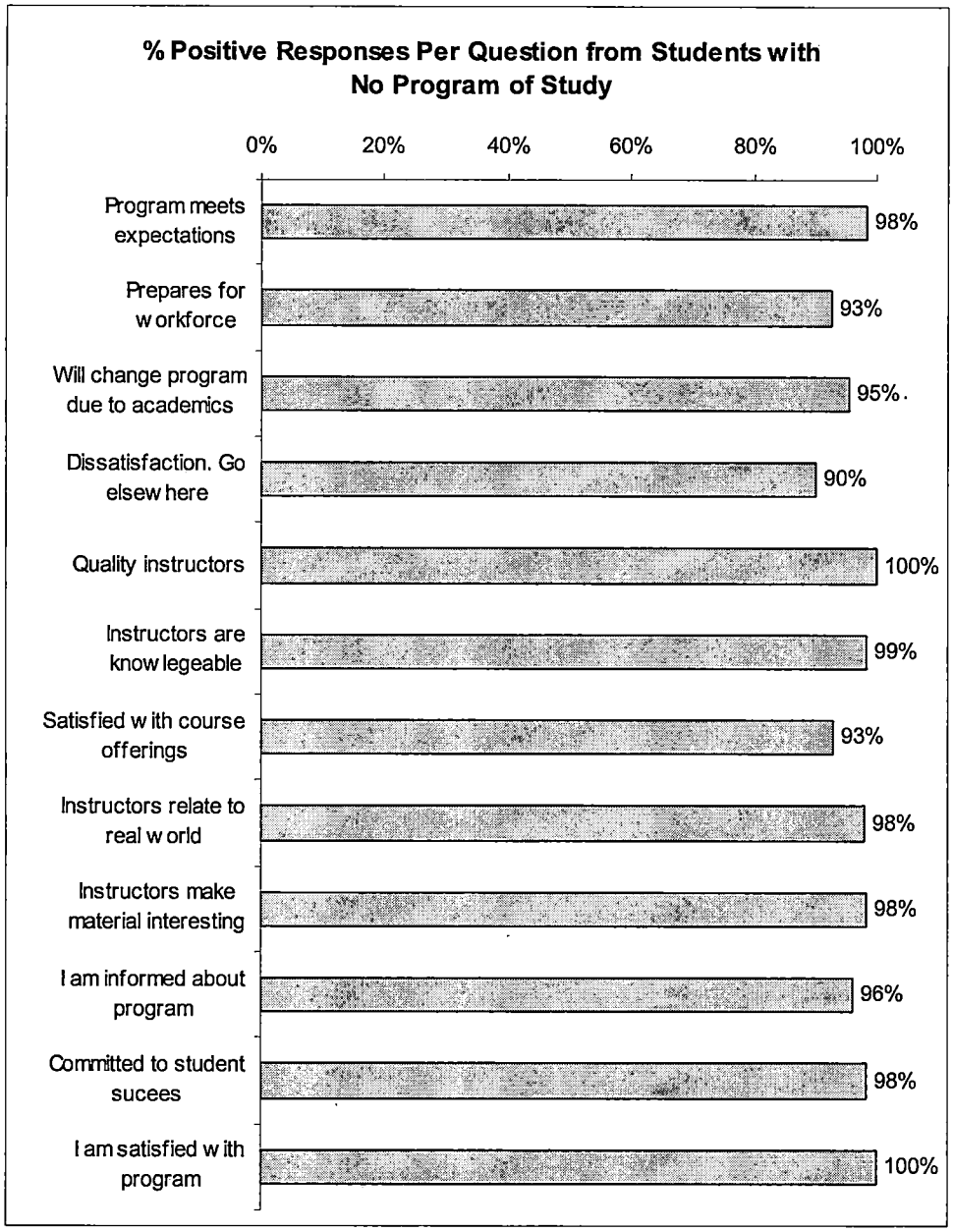
Faculty Perceptions of Occupational Programs Analysis
(10 faculty surveys from 4 campuses)

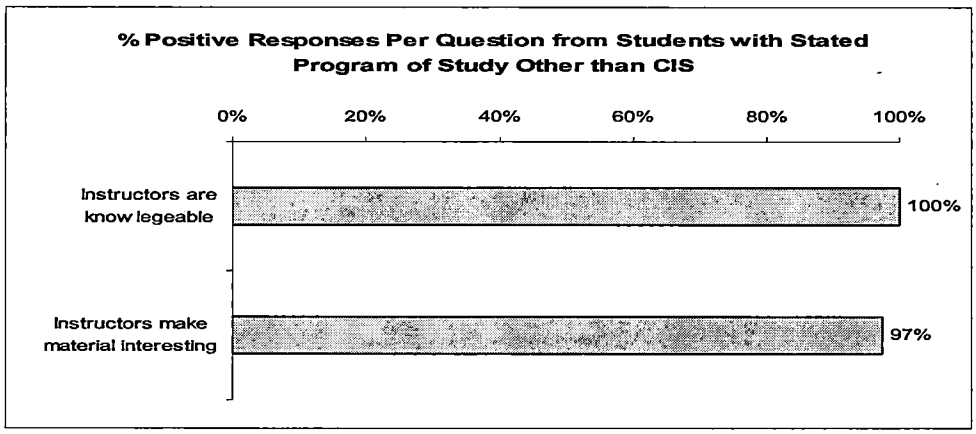


Student Perception of Occupational Programs Analysis
(347 student surveys from all levels of CIS courses and multiple campuses)




% Positive Responses Per Question from CIS Students
0%
20%
40%
60%
80%
100%
Program meets expectations
94%
Prepares for w orkforce
94%
Will change program due to academics
98%
Dissatisfaction. Go elsew here
95%
Quality instructors
92%
Instructors are know legeable
95%
Satisfied w ith course offerings
86%
Instructors relate to real w orld
98%
Instructors make material interesting
94%
I am informed about program
76%
Committed to student sucees
98%
I am satisfied w ith program
100%


% Positive Responses Per Question from Students with No Program of Study
0%
20%
40%
60%
80%
100%
Program meets expectations
98%
Prepares for workforce
93%
Will change program due to academics
95%
Dissatisfaction. Go elsewhere
90%
Quality instructors
100%
Instructors are knowlegeable
99%
Satisfied with course offerings
93%
Instructors relate to real world
98%
Instructors make material interesting
98%
I am informed about program
96%
Committed to student sucees
98%
I am satisfied with program
100%


% Positive Responses Per Question from Students with Stated Program of Study Other than CIS
0%
20%
40%
60%
80%
100%
Instructors are knowlegeable
100%
Instructors make material interesting
97%

Advisory Committee/Industry Perceptions of Occupational Programs Analysis

(In progress. First meeting with industry committee scheduled for April 20, 2007.)

INPUT FROM THE INTERNAL AND EXTERNAL COMMUNITY
REVIEW SUMMARY

Faculty Input

No MMC-relevant data.

Student Input

This collection of survey responses represented an excellent cross-section of students from all different levels of CIS classes (i.e., 1000 and 2000-level courses) and from multiple OCC campuses.

As illustrated in the pie chart shown above, 4% (or approximately 14) of the 347 students surveyed indicated that Art was their program of study or career goal.

The bar charts showing results from student surveys indicate that CIS is doing a superior job in almost all categories. The percentage of positive responses (agree or strongly agree) averaged 95% over all questions. Due to the fact that most questions were relevant to an OCC program, many responses from students in non-CIS programs were not used in the last bar chart. For example, we may assume that answers from art students would be targeted toward the art program. Therefore, the only two questions that could be considered relevant to CIS are:

- Did the instructor seem knowledgeable about the subject matter? and
- Did the instructor make the material seem interesting?

On these two questions, CIS instructors scored exceptionally high marks of 100% and 97% positive responses.

Amidst all the excellent response scores, only the question of whether or not the student was informed about the program produced a lower score of 76%. However, this was only lower for CIS program students. The new web site that we recently created along with initiatives to improve external marketing should help improve this service to students.

DATA COLLECTION

F. COMPARABLE COURSES/PROGRAMS AND TRENDS

Coordinator: Answer the following questions.

1. List three institutions to which the courses in your Program transfer, and list the specific courses for each institution. (Consult with the Counseling Department)

   No MMC-relevant data.

2. List the institutions with which articulation agreements exist that include the courses in your Program. (Consult with the Counseling Department)

   No MMC-relevant data.

3. Provide information regarding labor market trends in your field. (Consult with the Office of Assessment & Effectiveness)

   Data Sources – U.S. BLS (projections thru 2014)
   Michigan Department of Labor and Economic Growth (projections thru 2012)

   (Complete U.S. detail data available in file "US_BLS_Computer_Occupation_Data.zip")

Rank - All Careers	Career Category	% Change in # of Job Openings (SE MI.)	Median Salary (SE MI.)	% Change in # of Job Openings (U.S.)	Median Salary (U.S.)
43	Graphic Designers	+18	$45.4K	+15	$38.4K
Other non-Computer Job Categories (for Comparison)					
1	Registered Nurses	+19	$57.8K	+29	$54.7K
2	Nursing Aids	+15	$24.2K	+22	$21.4K
14	Dental Hygiene	+25	$59.4K	+43	$60.9K
17	Emergency Medical Technicians	+13	$32.3K	+27	$26.1K
?	Fire Fighters	+15	$46.6K	+24	$39.1K
?	Police Officers	+17	$50.7K	+16	$46.3K

4. Identify changes in job performance and employer expectations that have occurred within your industry in the past 5 years. (Consult with advisory committees, professional organizations)

   (In progress. First meeting with industry committee scheduled for April 20, 2007.)

DATA ANALYSIS

G. COMPARABLE COURSES/PROGRAMS AND TRENDS

Coordinator: Please use the data from the Comparable Courses/Programs and Trends Data Collection form to answer the following questions:

1. Discuss how your program serves transferring students.

   No MMC-relevant data.

2. Discuss the program's current articulation agreements. If your program does not transfer, discuss how the courses and/or program serve our students.

   No MMC-relevant data.

3. Discuss employment opportunities for students in both the current and future job market.

   The labor data from the U.S. BLS and from the State of Michigan show modest opportunities for graphic design professionals through 2012 and 2014. However, a re-definition of this certificate program toward topics such as "New Media" and "Visual Communications" will create a need to re-evaluate this labor and job market data in the new context.

4. Discuss the changes that will be made in your program in response to current/future employer expectations and market trends.

   (In progress. First meeting with industry committee scheduled for April 20, 2007.)

COMPARABLE COURSES/PROGRAMS AND TRANSFER REVIEW SUMMARY:

No MMC-relevant data.

DATA ANALYSIS

H. OUTCOMES ASSESSMENT

Coordinator: Complete this form after reviewing your most recent Program Assessment Plan. Obtain the most recent copy of your Program Assessment Plan from the Office of Assessment & Effectiveness. Please attach it your review.

1. How have you used the findings from your Program Assessment to improve your program?

2. What revisions to your Program Assessment Plan would you suggest?

3. Discuss the SAGE findings that apply to the instruction in your Program.
   Obtain these findings from the Office of Assessment & Effectiveness.

OUTCOMES ASSESSMENT REVIEW SUMMARY:

Assessment data was generated for this certificate program but due to the fact that a complete re-design is planned, new assessment data will also need to be created.

College Curriculum
Review Committee

Faculty Sign-Off Form*

For Curriculum Review of Program:

I approve the Curriculum Review Report as written by the Faculty Program Review Coordinator.

Yes _____ No _____

Comments: (Attach additional sheets if necessary)

Name (printed) _____

Signature _____

Date _____

* This form is to be copied by and distributed to all faculty within the Program to ensure awareness and participation.

National Employment Matrix, employment by occupation, industry, and percent distribution, 2004 and projected 2014.

11-3021 Computer and information systems managers

[Occupations with fewer than 100 workers or confidential data are not displayed]

Industry		2004			2014			Percent change	Numeric change
		Number	Percent of ind	Percent of occ	Number	Percent of ind	Percent of occ		
000000	Total employment, all workers	280,294	0.19	100.00	352,916	0.21	100.00	25.91	72,622
000500	Total wage and salary employment	276,214	0.21	98.54	348,561	0.23	98.77	26.19	72,347
000520	Wage and salary employment, except agriculture, forestry, fishing, hunting, and private households	276,214	0.21	98.54	348,561	0.23	98.77	26.19	72,347
210000	Mining	292	0.06	0.10	278	0.06	0.08	-4.79	-14
211000	Oil and gas extraction	168	0.14	0.06	157	0.15	0.04	-6.55	-11
211100	Oil and gas extraction	168	0.14	0.06	157	0.15	0.04	-6.55	-11
220000	Utilities	1,791	0.31	0.64	1,888	0.34	0.53	5.42	97
221000	Utilities	1,791	0.31	0.64	1,888	0.34	0.53	5.42	97
221100	Electric power generation, transmission and distribution	1,357	0.33	0.48	1,414	0.35	0.40	4.20	57
221200	Natural gas distribution	352	0.32	0.13	365	0.34	0.10	3.69	13
230000	Construction	675	0.01	0.24	807	0.01	0.23	19.56	132
236000	Construction of buildings	348	0.02	0.12	424	0.02	0.12	21.84	76
236200	Nonresidential building construction	270	0.04	0.10	334	0.04	0.09	23.70	64
237000	Heavy and civil engineering construction	122	0.01	0.04	138	0.01	0.04	13.11	16
238000	Specialty trade contractors	204	0.00	0.07	244	0.00	0.07	19.61	40
238200	Building equipment contractors	165	0.01	0.06	197	0.01	0.06	19.39	32
238210	Electrical contractors	123	0.01	0.04	147	0.02	0.04	19.51	24
31-330	Manufacturing	29,947	0.21	10.68	29,908	0.22	8.47	-0.13	-39
311000	Food manufacturing	869	0.06	0.31	969	0.06	0.27	11.51	100
311400	Fruit and vegetable preserving and specialty food manufacturing	117	0.06	0.04	127	0.07	0.04	8.55	10
311900	Other food manufacturing	386	0.25	0.14	446	0.27	0.13	15.54	60
312000	Beverage and tobacco product manufacturing	341	0.18	0.12	299	0.17	0.08	-12.32	-42
312100	Beverage manufacturing	193	0.12	0.07	210	0.13	0.06	8.81	17
313000	Textile mills	534	0.22	0.19	325	0.27	0.09	-39.14	-209
313200	Fabric mills	401	0.35	0.14	250	0.42	0.07	-37.66	-151
314000	Textile product mills	160	0.09	0.06	147	0.10	0.04	-8.13	-13
314100	Textile furnishings mills	107	0.10	0.04	104	0.12	0.03	-2.80	-3
315000	Apparel manufacturing	328	0.12	0.12	189	0.16	0.05	-42.38	-139
315200	Cut and sew apparel manufacturing	226	0.10	0.08	123	0.15	0.03	-45.58	-103
321000	Wood product manufacturing	196	0.04	0.07	248	0.04	0.07	26.53	52
321900	Other wood product manufacturing	151	0.05	0.05	198	0.05	0.06	31.13	47
322000	Paper manufacturing	404	0.08	0.14	416	0.09	0.12	2.97	12
322100	Pulp, paper, and paperboard mills	173	0.12	0.06	157	0.13	0.04	-9.25	-16
322200	Converted paper product manufacturing	231	0.07	0.08	259	0.07	0.07	12.12	28
323000	Printing and related support activities	1,162	0.17	0.41	1,169	0.19	0.33	0.60	7
323100	Printing and related support activities	1,162	0.17	0.41	1,169	0.19	0.33	0.60	7
324000	Petroleum and coal products manufacturing	128	0.11	0.05	116	0.12	0.03	-9.38	-12
324100	Petroleum and coal products manufacturing	128	0.11	0.05	116	0.12	0.03	-9.38	-12
325000	Chemical manufacturing	3,953	0.45	1.41	4,705	0.54	1.33	19.02	752
325100	Basic chemical manufacturing	379	0.24	0.14	280	0.25	0.08	-26.12	-99
325200	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing	266	0.24	0.09	225	0.26	0.06	-15.41	-41
325400	Pharmaceutical and medicine manufacturing	2,485	0.85	0.89	3,353	0.91	0.95	34.93	868
325500	Paint, coating, and adhesive manufacturing	218	0.32	0.08	218	0.34	0.06	0.00	0
325600	Soap, cleaning compound, and toilet preparation manufacturing	280	0.24	0.10	321	0.27	0.09	14.64	41
325900	Other chemical product and preparation manufacturing	249	0.23	0.09	240	0.25	0.07	-3.61	-9
326000	Plastics and rubber products manufacturing	1,129	0.14	0.40	1,137	0.16	0.32	0.71	8
326100	Plastics product manufacturing	911	0.14	0.33	956	0.16	0.27	4.94	45
326200	Rubber product manufacturing	218	0.13	0.08	180	0.14	0.05	-17.43	-38
327000	Nonmetallic mineral product manufacturing	218	0.04	0.08	243	0.05	0.07	11.47	25
331000	Primary metal manufacturing	402	0.09	0.14	359	0.09	0.10	-10.70	-43
331400	Nonferrous metal (except aluminum) production and processing	111	0.16	0.04	102	0.17	0.03	-8.11	-9
332000	Fabricated metal product manufacturing	1,884	0.13	0.67	1,959	0.13	0.56	3.98	75
332100	Forging and stamping	141	0.13	0.05	142	0.14	0.04	0.71	1
332300	Architectural and structural metals manufacturing	446	0.11	0.16	494	0.12	0.14	10.76	48
332700	Machine shops; turned product; and screw, nut, and bolt manufacturing	325	0.10	0.12	353	0.10	0.10	8.62	28
332710	Machine shops	162	0.07	0.06	190	0.07	0.05	17.28	28
332720	Turned product and screw, nut, and bolt manufacturing	162	0.19	0.06	164	0.21	0.05	1.23	2
332900	Other fabricated metal product manufacturing	575	0.21	0.21	574	0.22	0.16	-0.17	-1
333000	Machinery manufacturing	2,925	0.26	1.04	2,686	0.27	0.76	-8.17	-239
333100	Agriculture, construction, and mining machinery manufacturing	414	0.21	0.15	431	0.23	0.12	4.11	17
333200	Industrial machinery manufacturing	429	0.36	0.15	398	0.38	0.11	-7.23	-31
333300	Commercial and service industry machinery manufacturing	413	0.36	0.15	322	0.38	0.09	-22.03	-91
333400	Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing	320	0.21	0.11	304	0.22	0.09	-5.00	-16
333500	Metalworking machinery manufacturing	332	0.16	0.12	299	0.18	0.08	-9.94	-33
333600	Engine, turbine, and power transmission equipment manufacturing	262	0.28	0.09	234	0.30	0.07	-10.69	-28
333900	Other general purpose machinery manufacturing	755	0.28	0.27	698	0.30	0.20	-7.55	-57
334000	Computer and electronic product manufacturing	9,448	0.71	3.37	8,774	0.71	2.49	-7.13	-674
334100	Computer and peripheral equipment manufacturing	2,573	1.21	0.92	2,146	1.23	0.61	-16.60	-427
334200	Communications equipment manufacturing	853	0.57	0.30	719	0.53	0.20	-15.71	-134

	Industry	2004			2014			Percent change	Numeric change
		Number	Percent of ind	Percent of occ	Number	Percent of ind	Percent of occ		
334400	Semiconductor and other electronic component manufacturing	2,860	0.63	1.02	2,638	0.66	0.75	-7.76	-222
334500	Navigational, measuring, electromedical, and control instruments manufacturing	2,627	0.61	0.94	2,727	0.61	0.77	3.81	100
334600	Manufacturing and reproducing magnetic and optical media	431	0.92	0.15	459	0.98	0.13	6.50	28
335000	Electrical equipment, appliance, and component manufacturing	1,124	0.25	0.40	981	0.27	0.28	-12.72	-143
335100	Electric lighting equipment manufacturing	127	0.19	0.05	115	0.21	0.03	-9.45	-12
335200	Household appliance manufacturing	162	0.18	0.06	127	0.19	0.04	-21.60	-35
335300	Electrical equipment manufacturing	487	0.32	0.17	401	0.34	0.11	-17.66	-86
335900	Other electrical equipment and component manufacturing	348	0.25	0.12	337	0.27	0.10	-3.16	-11
336000	Transportation equipment manufacturing	2,348	0.13	0.84	2,646	0.14	0.75	12.69	298
336300	Motor vehicle parts manufacturing	435	0.06	0.16	502	0.07	0.14	15.40	67
336400	Aerospace product and parts manufacturing	1,596	0.36	0.57	1,802	0.38	0.51	12.91	206
337000	Furniture and related product manufacturing	704	0.12	0.25	762	0.14	0.22	8.24	58
337100	Household and institutional furniture and kitchen cabinet manufacturing	376	0.10	0.13	405	0.11	0.11	7.71	29
337110	Wood kitchen cabinet and countertop manufacturing	116	0.07	0.04	146	0.08	0.04	25.86	30
337120	Household and institutional furniture manufacturing	260	0.12	0.09	259	0.13	0.07	-0.38	-1
337200	Office furniture (including fixtures) manufacturing	247	0.18	0.09	278	0.20	0.08	12.55	31
339000	Miscellaneous manufacturing	1,643	0.25	0.59	1,743	0.27	0.49	6.09	100
339100	Medical equipment and supplies manufacturing	870	0.29	0.31	957	0.31	0.27	10.00	87
339900	Other miscellaneous manufacturing	773	0.22	0.28	786	0.24	0.22	1.68	13
3399RR	Signs, sporting and athletic goods, and all other miscellaneous manufacturing	692	0.23	0.25	728	0.25	0.21	5.20	36
420000	Wholesale trade	15,950	0.28	5.69	19,465	0.32	5.52	22.04	3,515
423000	Merchant wholesalers, durable goods	10,443	0.35	3.73	12,981	0.40	3.68	24.30	2,538
423100	Motor vehicle and motor vehicle parts and supplies merchant wholesalers	424	0.12	0.15	523	0.14	0.15	23.35	99
423200	Furniture and home furnishing merchant wholesalers	261	0.24	0.09	306	0.26	0.09	17.24	45
423300	Lumber and other construction materials merchant wholesalers	215	0.09	0.08	266	0.10	0.08	23.72	51
423400	Professional and commercial equipment and supplies merchant wholesalers	6,471	1.01	2.31	8,147	1.09	2.31	25.90	1,676
423500	Metal and mineral (except petroleum) merchant wholesalers	190	0.16	0.07	224	0.17	0.06	17.89	34
423600	Electrical and electronic goods merchant wholesalers	1,401	0.41	0.50	1,778	0.45	0.50	26.91	377
423700	Hardware, and plumbing and heating equipment and supplies merchant wholesalers	246	0.11	0.09	301	0.12	0.09	22.36	55
423800	Machinery, equipment, and supplies merchant wholesalers	876	0.13	0.31	997	0.15	0.28	13.81	121
4238RR	Industrial machinery and all other machinery, equipment, and supplies merchant wholesalers	792	0.14	0.28	910	0.16	0.26	14.90	118
423900	Miscellaneous durable goods merchant wholesalers	358	0.13	0.13	439	0.15	0.12	22.63	81
424000	Merchant wholesalers, nondurable goods	3,617	0.18	1.29	4,173	0.20	1.18	15.37	556
424100	Paper and paper product merchant wholesalers	294	0.20	0.10	338	0.22	0.10	14.97	44
424200	Drugs and druggists' sundries merchant wholesalers	760	0.35	0.27	958	0.38	0.27	26.05	198
424300	Apparel, piece goods, and notions merchant wholesalers	447	0.31	0.16	487	0.34	0.14	8.95	40
424400	Grocery and related product wholesalers	866	0.13	0.31	1,002	0.14	0.28	15.70	136
424600	Chemical and allied products merchant wholesalers	157	0.12	0.06	189	0.13	0.05	20.38	32
424700	Petroleum and petroleum products merchant wholesalers	132	0.13	0.05	100	0.14	0.03	-24.24	-32
424800	Beer, wine, and distilled alcoholic beverage merchant wholesalers	253	0.18	0.09	296	0.19	0.08	17.00	43
424900	Miscellaneous nondurable goods merchant wholesalers	640	0.18	0.23	748	0.20	0.21	16.88	108
425000	Wholesale electronic markets and agents and brokers	1,890	0.27	0.67	2,311	0.29	0.65	22.28	421
425100	Wholesale electronic markets and agents and brokers	1,890	0.27	0.67	2,311	0.29	0.65	22.28	421
44-450	Retail trade	6,160	0.04	2.20	7,986	0.05	2.26	29.64	1,826
441000	Motor vehicle and parts dealers	960	0.05	0.34	1,184	0.06	0.34	23.33	224
441100	Automobile dealers	613	0.05	0.22	756	0.05	0.21	23.33	143
441300	Automotive parts, accessories, and tire stores	286	0.06	0.10	352	0.07	0.10	23.08	66
442000	Furniture and home furnishings stores	242	0.04	0.09	303	0.05	0.09	25.21	61
442100	Furniture stores	139	0.05	0.05	170	0.05	0.05	22.30	31
442200	Home furnishings stores	103	0.04	0.04	133	0.04	0.04	29.13	30
443000	Electronics and appliance stores	1,747	0.34	0.62	2,277	0.37	0.65	30.34	530
443100	Electronics and appliance stores	1,747	0.34	0.62	2,277	0.37	0.65	30.34	530
444000	Building material and garden equipment and supplies dealers	191	0.02	0.07	241	0.02	0.07	26.18	50
444100	Building material and supplies dealers	181	0.02	0.06	230	0.02	0.07	27.07	49
445000	Food and beverage stores	177	0.01	0.06	223	0.01	0.06	25.99	46
445100	Grocery stores	124	0.01	0.04	158	0.01	0.04	27.42	34
446000	Health and personal care stores	321	0.03	0.11	425	0.04	0.12	32.40	104
446100	Health and personal care stores	321	0.03	0.11	425	0.04	0.12	32.40	104
446110	Pharmacies and drug stores	175	0.03	0.06	222	0.03	0.06	26.86	47
4461RR	Cosmetic, beauty supply, and all other health and personal care stores	146	0.06	0.05	203	0.06	0.06	39.04	57
448000	Clothing and clothing accessories stores	370	0.03	0.13	438	0.03	0.12	18.38	68
448100	Clothing stores	265	0.03	0.09	318	0.03	0.09	20.00	53
451000	Sporting goods, hobby, book, and music stores	195	0.03	0.07	245	0.03	0.07	25.64	50
451100	Sporting goods, hobby, and musical instrument stores	112	0.03	0.04	143	0.03	0.04	27.68	31
452000	General merchandise stores	114	0.00	0.04	141	0.00	0.04	23.68	27
453000	Miscellaneous store retailers	575	0.06	0.21	742	0.07	0.21	29.04	167
453200	Office supplies, stationery, and gift stores	318	0.08	0.11	390	0.09	0.11	22.64	72
453900	Other miscellaneous store retailers	213	0.07	0.08	288	0.08	0.08	35.21	75
454000	Nonstore retailers	1,230	0.29	0.44	1,725	0.35	0.49	40.24	495
454100	Electronic shopping and mail-order houses	1,105	0.49	0.39	1,591	0.55	0.45	43.98	486

	Industry	2004			2014			Percent change	Numeric change
		Number	Percent of ind	Percent of occ	Number	Percent of ind	Percent of occ		
454300	Direct selling establishments	108	0.07	0.04	115	0.08	0.03	6.48	7
48-490	Transportation and warehousing	4,097	0.10	1.46	5,006	0.11	1.42	22.19	909
481000	Air transportation	520	0.10	0.19	618	0.11	0.18	18.85	98
481100	Scheduled air transportation	492	0.10	0.18	577	0.11	0.16	17.28	85
482000	Rail transportation	257	0.11	0.09	269	0.13	0.08	4.67	12
482100	Rail transportation	257	0.11	0.09	269	0.13	0.08	4.67	12
483000	Water transportation	218	0.38	0.08	252	0.43	0.07	15.60	34
483100	Deep sea, coastal, and great lakes water transportation	189	0.52	0.07	216	0.58	0.06	14.29	27
484000	Truck transportation	842	0.06	0.30	993	0.07	0.28	17.93	151
484100	General freight trucking	698	0.07	0.25	823	0.08	0.23	17.91	125
484200	Specialized freight trucking	145	0.04	0.05	170	0.04	0.05	17.24	25
486000	Pipeline transportation	180	0.46	0.06	182	0.49	0.05	1.11	2
488000	Support activities for transportation	826	0.15	0.29	1,023	0.17	0.29	23.85	197
488100	Support activities for air transportation	193	0.14	0.07	229	0.14	0.06	18.65	36
488500	Freight transportation arrangement	529	0.31	0.19	666	0.35	0.19	25.90	137
492000	Couriers and messengers	536	0.10	0.19	638	0.11	0.18	19.03	102
492100	Couriers	493	0.10	0.18	588	0.11	0.17	19.27	95
493000	Warehousing and storage	632	0.11	0.23	912	0.13	0.26	44.30	280
493100	Warehousing and storage	632	0.11	0.23	912	0.13	0.26	44.30	280
510000	Information	33,854	1.08	12.08	46,386	1.32	13.14	37.02	12,532
511000	Publishing industries (except Internet)	11,584	1.27	4.13	18,140	1.63	5.14	56.60	6,556
511100	Newspaper, periodical, book, and directory publishers	2,834	0.42	1.01	3,403	0.48	0.96	20.08	569
511110	Newspaper publishers	932	0.25	0.33	1,011	0.27	0.29	8.48	79
5111RR	Periodical publishers and all other book and directory publishers	1,902	0.64	0.68	2,392	0.70	0.68	25.76	490
511200	Software publishers	8,750	3.67	3.12	14,736	3.68	4.18	68.41	5,986
512000	Motion picture, video, and sound recording industries	1,183	0.30	0.42	1,554	0.34	0.44	31.36	371
512100	Motion picture and video industries	1,135	0.31	0.40	1,504	0.35	0.43	32.51	369
5121RR	Motion picture and video production, distribution, and all other related industries	1,096	0.48	0.39	1,461	0.52	0.41	33.30	365
515000	Broadcasting (except Internet)	1,128	0.35	0.40	1,456	0.40	0.41	29.08	328
515100	Radio and television broadcasting	609	0.25	0.22	648	0.27	0.18	6.40	39
515110	Radio broadcasting	212	0.19	0.08	229	0.21	0.06	8.02	17
515120	Television broadcasting	397	0.31	0.14	419	0.33	0.12	5.54	22
515200	Cable and other subscription programming	519	0.61	0.19	808	0.65	0.23	55.68	289
517000	Telecommunications	6,525	0.63	2.33	6,793	0.70	1.92	4.11	268
517100	Wired telecommunications carriers	2,814	0.51	1.00	2,093	0.55	0.59	-25.62	-721
517200	Wireless telecommunications carriers (except satellite)	2,106	1.11	0.75	2,886	1.17	0.82	37.04	780
517300	Telecommunications resellers	908	0.61	0.32	907	0.64	0.26	-0.11	-1
517500	Cable and other program distribution	497	0.38	0.18	591	0.36	0.17	18.91	94
516890	Internet and other information services	13,433	2.86	4.79	18,444	3.07	5.23	37.30	5,011
516000	Internet publishing and broadcasting	917	2.93	0.33	1,355	3.02	0.38	47.76	438
516100	Internet publishing and broadcasting	917	2.93	0.33	1,355	3.02	0.38	47.76	438
518000	Internet service providers, Web search portals, and data processing services	12,198	3.14	4.35	16,688	3.36	4.73	36.81	4,490
518100	Internet service providers and Web search portals	4,060	3.45	1.45	4,847	3.56	1.37	19.38	787
518200	Data processing, hosting, and related services	8,138	3.01	2.90	11,841	3.29	3.36	45.50	3,703
519000	Other information services	319	0.63	0.11	401	0.68	0.11	25.71	82
519100	Other information services	319	0.63	0.11	401	0.68	0.11	25.71	82
520000	Finance and insurance	36,781	0.62	13.12	43,343	0.67	12.28	17.84	6,562
521-20	Monetary authorities, credit intermediation, and related activities	13,954	0.49	4.98	15,861	0.53	4.49	13.67	1,907
521000	Monetary authorities - central bank	136	0.63	0.05	141	0.72	0.04	3.68	5
521100	Monetary authorities - central bank	136	0.63	0.05	141	0.72	0.04	3.68	5
522000	Credit intermediation and related activities	13,818	0.49	4.93	15,721	0.53	4.45	13.77	1,903
522100	Depository credit intermediation	8,567	0.49	3.06	8,943	0.52	2.53	4.39	376
522200	Nondepository credit intermediation	4,359	0.57	1.56	5,539	0.63	1.57	27.07	1,180
522290	Other nondepository credit intermediation, including real estate credit and consumer lending	1,974	0.37	0.70	2,536	0.41	0.72	28.47	562
5222RR	Credit card issuing and sales financing	2,385	1.02	0.85	3,003	1.13	0.85	25.91	618
522300	Activities related to credit intermediation	892	0.29	0.32	1,239	0.33	0.35	38.90	347
523000	Securities, commodity contracts, and other financial investments and related activities	6,733	0.88	2.40	8,585	0.97	2.43	27.51	1,852
523900	Other financial investment activities	2,348	0.86	0.84	3,121	0.93	0.88	32.92	773
524000	Insurance carriers and related activities	15,443	0.68	5.51	18,123	0.73	5.14	17.35	2,680
524100	Insurance carriers	12,613	0.90	4.50	14,277	0.98	4.05	13.19	1,664
524120	Direct insurance (except life, health, and medical) carriers	3,800	0.63	1.36	4,362	0.69	1.24	14.79	562
5241RR	Direct life, health, and medical insurance carriers and reinsurance carriers	8,813	1.11	3.14	9,915	1.20	2.81	12.50	1,102
524200	Agencies, brokerages, and other insurance related activities	2,830	0.33	1.01	3,846	0.38	1.09	35.90	1,016
524210	Insurance agencies and brokerages	1,560	0.24	0.56	2,118	0.28	0.60	35.77	558
524290	Other insurance related activities	1,270	0.60	0.45	1,729	0.67	0.49	36.14	459
525000	Funds, trusts, and other financial vehicles	650	0.77	0.23	773	0.83	0.22	18.92	123
525100	Insurance and employee benefit funds	415	0.90	0.15	498	0.98	0.14	20.00	83
525900	Other investment pools and funds	235	0.61	0.08	275	0.65	0.08	17.02	40
530000	Real estate and rental and leasing	1,877	0.09	0.67	2,384	0.10	0.68	27.01	507
531000	Real estate	1,221	0.09	0.44	1,568	0.09	0.44	28.42	347
531100	Lessors of real estate	282	0.05	0.10	346	0.05	0.10	22.70	64
531200	Offices of real estate agents and brokers	411	0.12	0.15	475	0.14	0.13	15.57	64
531300	Activities related to real estate	528	0.11	0.19	747	0.12	0.21	41.48	219
532000	Rental and leasing services	511	0.08	0.18	645	0.09	0.18	26.22	134
5322-3	Consumer goods rental and general rental centers	147	0.04	0.05	174	0.05	0.05	18.37	27

Industry		2004			2014			Percent change	Numeric change
		Number	Percent of ind	Percent of occ	Number	Percent of ind	Percent of occ		
532200	Consumer goods rental	108	0.04	0.04	127	0.04	0.04	17.59	19
532400	Commercial and industrial machinery and equipment rental and leasing	221	0.21	0.08	291	0.23	0.08	31.67	70
533000	Lessors of nonfinancial intangible assets (except copyrighted works)	144	0.57	0.05	171	0.61	0.05	18.75	27
533100	Lessors of nonfinancial intangible assets (except copyrighted works)	144	0.57	0.05	171	0.61	0.05	18.75	27
540000	Professional, scientific, and technical services	61,761	0.91	22.03	87,038	1.00	24.66	40.93	25,277
541000	Professional, scientific, and technical services	61,761	0.91	22.03	87,038	1.00	24.66	40.93	25,277
541100	Legal services	1,838	0.16	0.66	2,294	0.17	0.65	24.81	456
541200	Accounting, tax preparation, bookkeeping, and payroll services	4,071	0.50	1.45	5,961	0.54	1.69	46.43	1,890
541300	Architectural, engineering, and related services	5,086	0.40	1.81	6,184	0.42	1.75	21.59	1,098
541312	Architectural and landscape architectural services	490	0.21	0.17	612	0.23	0.17	24.90	122
541337	Engineering, surveying, mapping, building inspection, and drafting services	4,152	0.47	1.48	5,017	0.49	1.42	20.83	865
541380	Testing laboratories	444	0.31	0.16	555	0.33	0.16	25.00	111
541400	Specialized design services	244	0.20	0.09	345	0.22	0.10	41.39	101
541500	Computer systems design and related services	35,603	3.10	12.70	50,552	3.16	14.32	41.99	14,949
541600	Management, scientific, and technical consulting services	6,213	0.80	2.22	10,815	0.87	3.06	74.07	4,602
541700	Scientific research and development services	5,538	1.01	1.98	6,456	1.05	1.83	16.58	918
541710	Research and development in the physical, engineering, and life sciences	5,253	1.09	1.87	6,133	1.13	1.74	16.75	880
541720	Research and development in the social sciences and humanities	285	0.44	0.10	323	0.48	0.09	13.33	38
541800	Advertising and related services	1,911	0.45	0.68	2,542	0.49	0.72	33.02	631
541900	Other professional, scientific, and technical services	1,256	0.25	0.45	1,888	0.29	0.53	50.32	632
5419RR	Marketing research, public opinion polling, and all other professional, scientific, and technical services	1,167	0.72	0.42	1,773	0.79	0.50	51.93	606
550000	Management of companies and enterprises	21,264	1.24	7.59	25,361	1.33	7.19	19.27	4,097
551000	Management of companies and enterprises	21,264	1.24	7.59	25,361	1.33	7.19	19.27	4,097
551100	Management of companies and enterprises	21,264	1.24	7.59	25,361	1.33	7.19	19.27	4,097
560000	Administrative and support and waste management and remediation services	10,305	0.13	3.68	14,877	0.14	4.22	44.37	4,572
561000	Administrative and support services	10,072	0.13	3.59	14,545	0.15	4.12	44.41	4,473
561100	Office administrative services	2,444	0.77	0.87	3,744	0.83	1.06	53.19	1,300
561200	Facilities support services	239	0.21	0.09	384	0.23	0.11	60.67	145
561300	Employment services	2,743	0.08	0.98	4,695	0.09	1.33	71.16	1,952
561400	Business support services	2,759	0.37	0.98	3,517	0.42	1.00	27.47	758
561420	Telephone call centers	1,554	0.43	0.55	1,872	0.53	0.53	20.46	318
5614RR	Collection agencies and all other business support services	1,205	0.31	0.43	1,645	0.34	0.47	36.51	440
561500	Travel arrangement and reservation services	628	0.28	0.22	755	0.32	0.21	20.22	127
561510	Travel agencies	186	0.17	0.07	195	0.19	0.06	4.84	9
5615RR	Tour operators and all other travel arrangement and reservation services	443	0.39	0.16	560	0.43	0.16	26.41	117
561600	Investigation and security services	322	0.04	0.11	383	0.04	0.11	18.94	61
561610	Investigation, guard, and armored car services	173	0.03	0.06	183	0.02	0.05	5.78	10
561620	Security systems services	149	0.14	0.05	200	0.16	0.06	34.23	51
561700	Services to buildings and dwellings	101	0.01	0.04	130	0.01	0.04	28.71	29
561900	Other support services	835	0.28	0.30	937	0.31	0.27	12.22	102
562000	Waste management and remediation services	233	0.07	0.08	332	0.08	0.09	42.49	99
5622-9	Waste treatment and disposal and waste management services	205	0.10	0.07	291	0.11	0.08	41.95	86
562200	Waste treatment and disposal	151	0.14	0.05	216	0.16	0.06	43.05	65
610000	Educational services, private	6,745	0.24	2.41	9,623	0.26	2.73	42.67	2,878
611000	Educational services, private	6,745	0.24	2.41	9,623	0.26	2.73	42.67	2,878
611100	Elementary and secondary schools, private	334	0.04	0.12	440	0.04	0.12	31.74	106
6112-3	Junior colleges, colleges, universities, and professional schools, private	5,930	0.41	2.12	8,467	0.43	2.40	42.78	2,537
611200	Junior colleges, private	202	0.24	0.07	290	0.25	0.08	43.56	88
611300	Colleges, universities, and professional schools, private	5,728	0.42	2.04	8,178	0.44	2.32	42.77	2,450
6114-7	Other educational services, private	480	0.10	0.17	716	0.11	0.20	49.17	236
611400	Business schools and computer and management training, private	204	0.26	0.07	259	0.27	0.07	26.96	55
611500	Technical and trade schools, private	103	0.10	0.04	136	0.11	0.04	32.04	33
611700	Educational support services, private	145	0.22	0.05	281	0.23	0.08	93.79	136
620000	Health care and social assistance	9,203	0.06	3.28	12,208	0.07	3.46	32.65	3,005
621-30	Health care	8,545	0.07	3.05	11,290	0.07	3.20	32.12	2,745
621000	Ambulatory health care services	2,891	0.06	1.03	4,429	0.06	1.25	53.20	1,538
6211-3	Offices of health practitioners	1,314	0.04	0.47	1,977	0.04	0.56	50.46	663
621100	Offices of physicians	1,221	0.06	0.44	1,836	0.07	0.52	50.37	615
621600	Home health care services	430	0.06	0.15	784	0.06	0.22	82.33	354
621459	Outpatient, laboratory, and other ambulatory care	1,147	0.14	0.41	1,668	0.14	0.47	45.42	521
621400	Outpatient care centers	429	0.10	0.15	649	0.10	0.18	51.28	220
621420	Outpatient mental health and substance abuse centers	171	0.12	0.06	239	0.12	0.07	39.77	68
6214RR	Outpatient care centers, except mental health and substance abuse	259	0.09	0.09	410	0.09	0.12	58.30	151
621500	Medical and diagnostic laboratories	440	0.23	0.16	592	0.25	0.17	34.55	152
621900	Other ambulatory health care services	279	0.14	0.10	428	0.15	0.12	53.41	149
621990	All other ambulatory health care services	242	0.29	0.09	376	0.31	0.11	55.37	134

Industry		2004			2014			Percent change	Numeric change
		Number	Percent of ind	Percent of occ	Number	Percent of ind	Percent of occ		
622000	Hospitals, private	5,275	0.12	1.88	6,314	0.13	1.79	19.70	1,039
622100	General medical and surgical hospitals, private	4,969	0.12	1.77	5,933	0.13	1.68	19.40	964
622300	Specialty (except psychiatric and substance abuse) hospitals, private	209	0.14	0.07	295	0.14	0.08	41.15	86
623000	Nursing and residential care facilities	379	0.01	0.14	546	0.02	0.15	44.06	167
623100	Nursing care facilities	100	0.01	0.04	118	0.01	0.03	18.00	18
6232-9	Residential care facilities	279	0.02	0.10	428	0.02	0.12	53.41	149
623200	Residential mental retardation, mental health and substance abuse facilities	100	0.02	0.04	156	0.02	0.04	56.00	56
623300	Community care facilities for the elderly	107	0.02	0.04	179	0.02	0.05	67.29	72
624000	Social assistance	657	0.03	0.23	918	0.03	0.26	39.73	261
6241-3	Individual, family, community, and vocational rehabilitation services	621	0.05	0.22	864	0.05	0.24	39.13	243
624100	Individual and family services	361	0.04	0.13	509	0.04	0.14	41.00	148
6241RR	Child, youth, and all other individual and family	277	0.06	0.10	391	0.06	0.11	41.16	114
624300	Vocational rehabilitation services	192	0.05	0.07	266	0.05	0.08	38.54	74
710000	Arts, entertainment, and recreation	303	0.02	0.11	410	0.02	0.12	35.31	107
711000	Performing arts, spectator sports, and related industries	131	0.04	0.05	168	0.04	0.05	28.24	37
713000	Amusement, gambling, and recreation industries	112	0.01	0.04	164	0.01	0.05	46.43	52
720000	Accommodation and food services	276	0.00	0.10	362	0.00	0.10	31.16	86
721000	Accommodation, including hotels and motels	201	0.01	0.07	268	0.01	0.08	33.33	67
721113	Traveler accommodation, including hotels and motels	201	0.01	0.07	268	0.01	0.08	33.33	67
7211RR	Hotels (except casino), motels, and all other traveler accommodation	125	0.01	0.04	167	0.01	0.05	33.60	42
810000	Other services (except government and private households)	5,009	0.09	1.79	6,303	0.10	1.79	25.83	1,294
811000	Repair and maintenance	337	0.03	0.12	346	0.02	0.10	2.67	9
811200	Electronic and precision equipment repair and maintenance	301	0.30	0.11	299	0.33	0.08	-0.66	-2
812000	Personal and laundry services	130	0.01	0.05	196	0.01	0.06	50.77	66
812900	Other personal services	113	0.05	0.04	176	0.07	0.05	55.75	63
813000	Religious, grantmaking, civic, professional, and similar organizations	4,542	0.16	1.62	5,761	0.17	1.63	26.84	1,219
813100	Religious organizations	1,562	0.09	0.56	1,933	0.10	0.55	23.75	371
8132-3	Grantmaking services and social advocacy organizations	827	0.27	0.30	1,045	0.29	0.30	26.36	218
813200	Grantmaking and giving services	473	0.37	0.17	604	0.40	0.17	27.70	131
813300	Social advocacy organizations	354	0.20	0.13	441	0.21	0.12	24.58	87
8134-9	Civic, social, professional, and similar organizations	2,153	0.23	0.77	2,782	0.26	0.79	29.22	629
813400	Civic and social organizations	288	0.07	0.10	343	0.07	0.10	19.10	55
813900	Business, professional, labor, political, and similar organizations	1,865	0.36	0.67	2,439	0.41	0.69	30.78	574
8139RR	Business associations and all other professional and similar organizations	1,775	0.47	0.63	2,352	0.51	0.67	32.51	577
990000	Government	29,921	0.14	10.67	34,927	0.15	9.90	16.73	5,006
910000	Federal government	7,919	0.29	2.83	8,624	0.31	2.44	8.90	705
919999	Federal government, excluding postal service	7,828	0.40	2.79	8,528	0.43	2.42	8.94	700
940000	State and local government	22,002	0.12	7.85	26,303	0.13	7.45	19.55	4,301
946110	State and local government educational services	7,824	0.08	2.79	9,715	0.09	2.75	24.17	1,891
946220	State and local government hospitals	1,093	0.11	0.39	1,164	0.11	0.33	6.50	71
949400	State and local government, excluding education and hospitals	13,085	0.17	4.67	15,424	0.18	4.37	17.88	2,339
920000	State government	11,596	0.23	4.14	13,930	0.25	3.95	20.13	2,334
926110	State government educational services	5,708	0.25	2.04	7,195	0.27	2.04	26.05	1,487
926220	State government hospitals	376	0.11	0.13	379	0.12	0.11	0.80	3
929200	State government, excluding education and hospitals	5,512	0.23	1.97	6,356	0.25	1.80	15.31	844
930000	Local government	10,406	0.07	3.71	12,373	0.08	3.51	18.90	1,967
936110	Local government educational services	2,116	0.03	0.75	2,520	0.03	0.71	19.09	404
936220	Local government hospitals	717	0.11	0.26	785	0.11	0.22	9.48	68
939300	Local government, excluding education and hospitals	7,573	0.14	2.70	9,068	0.15	2.57	19.74	1,495
006700	Self-employed and unpaid family workers, all jobs	4,080	0.03	1.46	4,355	0.03	1.23	6.74	275
006701	Total self-employed and unpaid family workers, primary job	2,539	0.02	0.91	2,773	0.03	0.79	9.22	234
006702	Total self-employed and unpaid family workers, secondary job	1,541	0.10	0.55	1,582	0.10	0.45	2.66	41
000600	Self-employed workers, all jobs	4,080	0.03	1.46	4,355	0.04	1.23	6.74	275
000601	Self-employed workers, primary job	2,539	0.02	0.91	2,773	0.03	0.79	9.22	234
000602	Self-employed workers, secondary job	1,541	0.10	0.55	1,582	0.10	0.45	2.66	41