

*Report on the  
Maricopa Community Colleges*

**Governing Board's  
Goals and Measures**

**November 2001**



Prepared by the Maricopa  
Community Colleges  
Institutional Effectiveness Office  
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## **Executive Summary**

### **Report on the Maricopa Community Colleges Governing Board's Goals and Measures 2000-01**

#### **Purpose**

This report reviews the performance of the Maricopa Community Colleges toward achievement of the Governing Board's goals, which reflect district mission components including Transfer and General Education, Developmental Education, Workforce Development, Student Development Services and Continuing/Community Education. The Maricopa Governing Board has directed that each of its goals be monitored on an annual basis, for the purpose of linking goals to financial planning and monitoring the Chancellor's executive performance to the degree to which Board policies are fulfilled.

#### **Methodology**

A number of groups assisted in this process through consultation and data collection, including the Deans of Instruction, Deans of Student Development Services, Deans of Occupational Education, Institutional Research Council, and the District Offices of Workforce Development and Student Services. Feedback from the Deans groups last year suggested a number of format changes: a report format easily read by constituents; more focus on hard data, less reliance on surveys, more clarification of measures and more meaningful measures, input and participation from the Deans and other groups. The work group made every effort to incorporate these considerations into the process for the 2000-01 report.

#### **Major Findings: Are We Doing What We Say We Are Doing?**

- ✓ Yes. The Maricopa Community Colleges individually and collectively provide a diverse range of opportunities for students, community members, K-12 schools, universities and public/private partners. Some programs and services are uniquely customized to meet specific student or community needs, while others provide more basic support to all students or the community at large.
- ✓ Yes. We strive to monitor whether we are doing what we say we are doing, and to find various ways to improve.

#### **I. University Transfer Education/General Education**

Early indications are that an increasing number of students will use the AGEC and transfer pathway (ATP) options to transfer to ASU, which is the primary university pipeline for Maricopa students. Approximately 50% or more of the ASU baccalaureate recipients each year have Maricopa credits. Also, over 50% of the ASU students in a given year have Maricopa transfer credits. Over 3,000 students with Maricopa credits are new freshmen/new transfers each year at ASU.

Student feedback on the transfer process was obtained from a transfer survey in Spring 2000. Over 800 students responded, yielding a 31% response rate. Most were enrolled at the ASU Main campus. This group was split in their reported experience with transfer: 45% reported that all Maricopa credits transferred, while 50% indicated that not all of their credits transferred. When asked why their courses did not transfer, about 25 - 30% took more courses than they were allowed to transfer, took courses they thought would transfer but these did not, took courses specific to a major but changed majors, and/or chose to take courses they knew would not transfer. A group (23%) reported they were misadvised about the courses (that did not transfer).

Early feedback on the Maricopa Course Applicability System Implementation Project, a project designed to improve the advisement and transfer articulation process, appears to be very positive, given its ease of access to course information at one web site. Over 400 students responded to the CAS survey; more than 80% reported that CAS has useful information and that they would use CAS again.

The number of completed certificate or associate degrees totaled 14,250 in 2000-01, which is more than double the number of awards given in 1996-97. Over this five-year period, certificates increased by over 200%, and comprise over 70% of all awards in 2000-01.

## **II. Developmental Education**

Developmental education courses (below 100 level courses) generate about 9 - 10% of the annual FTSE for the district, and represent roughly 14% of the headcount. The trend over the past 5 years has been for the percentage of students taking exclusively developmental courses to increase over time (from 21% to 29% from Fall 1994 to Fall 2000).

Typically over 50% of student successfully completed (with a C or better) the first course in each sequence - over 60% in Developmental Reading to about 55-60% in English, and approximately 50% in the Math sequence. About 35-50% continue on to the second course in the sequence. In terms of attrition, the proportion of students who enroll in a subsequent course two years later and who successfully complete the subsequent course (C or better) is in the 20-30% range. As example, the sequence RDG081 → RDG091 showed the following: 70% successfully completed RD081 (C or better), and then 46% enrolled in the subsequent course, RDG091, within two years. A total of 203 students (27%) successfully completed RDG081 and RDG091 (A,B,C,P) within two years. A review of each sequence for three fall cohorts yielded similar results, with results varying somewhat by area (Reading, English or Math).

## **III. Workforce Development**

A Carl Perkins III Wage study suggests that attending college tends to be associated with an increase in wages over a given period of time for this cohort of 3,536 students, comprised of 58% females. Over 40% of this cohort completed an Associate in Applied Science degree, while another 40% completed certificates.

Enrollments in occupational fields continue to increase - reaching over 244,000 course enrollments. Certificates have been concentrated predominantly in a few fields - flight attendant, law enforcement/corrections, personal services and health services, while the AAS degree has been primarily awarded for nursing (R.N. training). Anticipating future trends become critical to anticipate resource needs.

Maricopa continues to be responsive to student and community needs by collaborating with partners on recruitment, training and educational needs. Partnerships have resulted in the training of the most number of students in apprenticeships, computer related training, on line teacher education, medical/healthcare and technology/workforce training.

## **IV. Student Development Services**

Student Services collect data on student satisfaction with programs and services in support of their learning and employment/ career goals through varied means, including student government, clubs, and student events. Every several years, the colleges administer the Noel Levitz Survey, with six colleges planning to administer the Survey during 2001-02.

The Maricopa Colleges all provide programs and services to support student development needs. These range from the formal services of Admissions and Registration and all the related services (for e.g., enrollment services, transcripts, graduation check-out out), Advising, Career Counseling and Services, Counseling Center Services, Assessment Center (e.g., ASSET and other testing), Learning Center, Outreach, Recruitment and Retention programs, and Financial Aid, to more informal services of Student Government, Student Clubs, Refugee life skills program, programs where students engage in service learning and community volunteer opportunities (Habitat for Humanity).

Since September 1999, 15,974 students and 5,785 employers have utilized "The Maricopa Recruiter," a web-site tool to post over 10,000 jobs and seek jobs, respectively.

Developing multiple measures of student academic achievement of learning outcomes, as a result of student development services, is a very difficult and complex, even in the more structured classroom setting where faculty are addressing college-wide assessment of student academic achievement. This is an area that the Deans of Student Services may wish to collaborate at some level with the Deans of Instruction for the future.

#### **V. Continuing and Community Education**

Most colleges cited course evaluations, and the continued growth in the number of participants and the number of course offerings, as evidence of community member satisfaction with opportunities for personal interest/development. The colleges offer a variety of noncredit programs and classes in the areas of business & occupations, personal enrichment, professional development, home & family, fitness & wellness, youth, seniors, arts & crafts, recreation & sports, pastimes & hobbies, language, alternative health, music, dance and theater. The colleges cited course evaluations as the primary means of determining community member satisfaction with college offerings.

Maricopa Colleges continue to be very responsive to the continuing and community education needs of students and community, through personal interest and development opportunities, ranging from personal enrichment, professional development, fitness and wellness and senior programs, to language, music, dance and theatre. The colleges also offer diverse programs that serve to outreach and recruit students, such as dual enrollment, occupational programs, programs with a science focus, those aimed at under-represented and first generation college students, as well as test preparation courses.

Information on the college-going rates of high school graduates participating in an outreach program is very limited, yet illustrates from one college's report, approximately 14% of the high school graduates from the primary feeder schools enroll the following fall term at that college, a consistent rate for the past three years. However, some students may also attend other Maricopa colleges or other colleges.

District-wide, approximately 45% of Maricopa County's high school graduates attend the Maricopa colleges, a level that has remained constant over the past three years.

#### **VI. How is the Diversity goal being addressed?**

The goal of diversity was adopted for reporting in November 2002. Measures need to be developed and a status report provided in February 2002. The same applies for the goal of Teacher Education.

#### **VII. How is the Teacher Education goal being addressed?**

Maricopa has assumed a leadership role in Arizona by establishing the Teacher Education Partnership Commission to address the PreK-12 teacher shortage. Maricopa colleges have developed several teacher education programs within the district, as well as working in partnership with other colleges and

associations to promote the community college role in teacher education. The National Association of Community College Teacher Education Programs is being developed in partnerships with other groups.

#### **In Review, How Well Are We Doing?**

- ✓ As our monitoring process evolves into an institutionalized strategy, we need to clarify standards for outcome levels to be reached for outcome areas. We are in effect developing baseline snapshots of what we are doing collectively for existing areas as well as relatively new areas (e.g., AGECE and ATP transfer options), and how well we are doing collectively. Some areas require additional resources and alternative methods (e.g., tracking students for several years, given turnover from semester to semester).
- ✓ The various councils (e.g., Deans groups) have provided assistance on goal clarification, measures and process, and discussions have followed on lessons learned not only on goals/measures, but also on the monitoring process and data collection.

#### **What Could We Do Better?**

- ✓ The monitoring process could be enhanced, with a critical review of the process and roles/responsibilities, beginning in November 2002, with the issuing of the Monitoring Report, and continuing through the school year.
- ✓ While there are some roles/responsibilities for the groups assisting with the data collection and analyses, these are not as clear for those who would follow-up with implications of the monitoring report findings, to effect change collectively as an organization.

#### **Are There Other Things We Should Be Doing As Part of Institutional and System-Wide Effectiveness?**

- ✓ A question for future consideration is, to what extent the Board Goals cover the key organizational components, which make our organization very effective (responsive to our students and communities)?
- ✓ Trend data over 3- 5 years is included where feasible, even though the Board request typically calls for one year of data, the most recent. As we continue this monitoring process, it is helpful to continue to look at data over 3 - 5 years, where resources permit, to get a more comprehensive picture of trends in outcomes, challenges and improvement efforts. Trend data over 3- 5 years is included where feasible, even though the Board request typically calls for one year of data, the most recent.

#### **What are the Next Steps for November?**

- ✓ Engage in discussion with the various deans councils to determine priorities (that will shape the 2003-04 budget)
- ✓ Review existing goals and measures to make recommendations if any adjustments are needed in the goals, measures or process
- ✓ Encourage feedback and participation from various groups (for e.g., research council).
- ✓ Post the Report on the Maricopa web site for the purpose of informing the community.

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## **Purpose**

This report reviews the performance of the Maricopa Community Colleges toward achievement of the Governing Board's goals, which reflect components of the district mission. These components are Transfer and General Education, Developmental Education, Workforce Development, Student Development Services and Continuing/Community Education.

As part of the Maricopa Governance model, the Maricopa Governing Board has directed that each of its goals be monitored on an annual basis. The goals serve as a Board policy that addresses the institutional products, impacts, benefits and outcomes that are delivered to its constituencies. Both the linking of the goals to financial planning, and the monitoring of the Chancellor's executive performance to the degree to which Board policies are fulfilled, serve as a foundation for achieving public accountability. The focus is on outcomes and implications for Maricopa's planning for the future. The measures are posed in question format and followed by key findings.

## **Methodology**

Various groups assisted with this report through consultation and data collection, including the Deans of Instruction, Student Development Services and Occupational Education, Institutional Research Council, and the offices of Workforce Development and Student Services. Feedback from the Deans' groups suggested a number of format changes: a report easily read by constituents; more focus on hard data, less reliance on surveys, more clarification of measures and more meaningful measures, input from the Deans and other groups. The work group made every effort to incorporate these considerations into the process for this report.

## **Maricopa Demographics**

Maricopa has one of the lowest tuition rates in the nation (\$43 per credit hour in AY2001-02) and an open admissions policy, relative to state universities and private colleges. Maricopa also provides geographical access in metropolitan areas, as well as distance learning access for urban and rural areas via its college beyond walls - Rio Salado, primary provider of Internet courses for the Maricopa district. A review of the demographics indicates the following:

- The ethnic diversity of the student population exceeds the diversity of Maricopa County (about 37% and 23% minority, respectively).
- The age profile of the student body is as diverse as the age profile of the County - with younger persons and mid-age persons attending the colleges.
- Females (54%) outnumber males (42%) at the colleges.
- Maricopa students attend college primarily on a part-time basis (80%), reflective of the County's educational enrollment pattern.
- The ratio of day-evening student headcount is approximately 57% to 43%.
- Maricopa Colleges enrolled over 12,000 students under the age of 18 in FY1999-2000; this represented over 60% of students under age 18 enrolled in community colleges in Arizona. Typically, students tend to come from the larger population centers with 5 of the top 10 feeder high schools being in Mesa, 2 in Gilbert, and 1 each from Scottsdale, Glendale and Phoenix.
- High school students who graduated high school in year 2000 and who enrolled in Maricopa Colleges in Fall 2000 are diverse, 3% American Indian, 3% Asian, 5% Black, 20% Hispanic, with 53% being female. About 72% of this group continues from fall to spring at Maricopa Colleges, a rate typical of Arizona high school students in general.



## Progress on Goals and Outcomes

### I. University Transfer Education/General Education.

• STUDENTS WHO TRANSFER TO A BACCALAUREATE DEGREE GRANTING INSTITUTION WILL BE PREPARED TO SUCCESSFULLY ATTAIN THEIR EDUCATIONAL GOALS. THE FOCUS IS ON TRANSFER TO ARIZONA STATE UNIVERSITY (ASU), PRIMARY PIPELINE FOR MARICOPA STUDENTS.

***a. What #/% of AGEC and "transfer pathway" completers transfer to a baccalaureate degree granting institution within 2 years of completing the program?***

Since these are newer options for students, data are limited and should be viewed as preliminary of any trends at this time. In 1998-99, 13 out of 17 students with AGEC transferred to ASU within 2 years, a 76% rate. In 1999-00, 47 out of 110 students (43%) with AGEC have transferred to ASU. In that same year, 55 out of 71 (77%) with the "transfer pathway" also transferred to ASU. However, 2 years have not yet passed. These options will need review for at least 3 - 5 years to determine trends, if any. (Source: ASSIST Data Warehouse, September 2001. ASSIST is the abbreviation for the Arizona State System for Information on Student Transfer.)

***b. What percent of baccalaureate degree graduates have Maricopa Community College transfer credits?***

- In 2000-01, a total of 7742 baccalaureate degrees were awarded by ASU (with 6285 from ASU Main, 1176 from ASU West and the remaining 281 from ASU East). Of these 7742, 4204 degree recipients had Maricopa transfer credits; thus they comprised 54% of all ASU degree recipients. Their average GPA was in the 3.2 to 3.4 range (ASU Main and ASU West).
- A review of the past 5 years (1996-97 to 2000-01) indicates that ASU awarded 6880 degrees in 1996-97 to over 7700 degrees in 2000-01. Nearly 55% of the baccalaureate recipients had Maricopa credits each year.

	1996-97	1997-98	1998-99	1999-00	2000-01
Baccalaureate Recipients at ASU	6880	7312	7507	7940	7742
With Maricopa Credits	3541	4110	4376	4296	4004
% with Maricopa Credits	51%	56%	58%	54%	54%

Source: ASSIST Data Warehouse, September 2001. ASSIST is the abbreviation for the Arizona State System for Information on Student Transfer.

***c. What is the number of students who transfer community college credits 1-11, 12-23, 24-31, 32-47, 48-63, and 64+?***

Over the past 5 years, at any given fall terms, there have been over 15,000 students with Maricopa College transfer credits enrolled at Arizona State University (ASU), while over 18,000 students with Maricopa transfer credits were enrolled at ASU in Fall 2000. Students with Maricopa College credits continue to comprise generally over 50% of the ASU student body. ASU continues to be the

primary university pipeline. (This contrasts with roughly 10% of Northern Arizona University and about 35% of the University of Arizona student body, for the years for which data have been provided by NAU and U of A, 1996-97 through 1998-99).

MCCD Credits	1996 Fall	1997 Fall	1998 Fall	1999 Fall	2000 Fall
1-11 credits	3505	4017	4487	4418	4530
12-23	1948	2237	2542	2685	2750
24-31	1031	1175	1240	1277	1402
32-47	1933	2123	2248	2288	2320
48-63	3025	3210	3277	3458	3517
64+	3994	4090	3909	3664	3529
Total	15436	16852	17703	17790	18048

***d. What is the average GPA of transfer students by university college compared to the average GPA of native students at comparable credit levels who have completed 24 community college credits, a 35 credit AGEC, and an associate's degree?***

The GPA is not available in the ASU transfer database for years prior to 2000-01. GPA's for ASU degree recipients with Maricopa credits were obtained indicating that degree recipients with Maricopa credits recorded solid B averages -- a 3.2 GPA from ASU Main, 3.4 GPA from ASU West and 3.12 GPA from ASU East. Obtaining the GPA of native students at ASU is one of the goals for future collaboration with ASU. Work with the state universities on the transfer data warehouse will evolve over the next year or two. (Data from the University of Arizona and Northern Arizona University are not available for recent years.)

***e. What is the total number of new Maricopa students attending state universities annually?***

Over 3,000 students with Maricopa credits are new freshman/new transfers each year at ASU. The number of freshmen Maricopa students annually attending ASU has fluctuated from 3,220 students in 1996 to over 3,800 students in 2000-01.

ASU	1996-97	1997-98	1998-99	1999-00	2000-01
New Students to ASU With Maricopa Credits	3220	3723	3681	3981	3815

In addition, students with Maricopa College credits comprise over 50% of the ASU student body.

***f. How do these measures compare to Adelman's and other national statistics regarding community college transfers?***

As we obtain more information from the universities through ASSIST, we can begin to compare our results to those of other college transfer processes.

• STUDENTS WILL DEMONSTRATE POST-SECONDARY COMPETENCIES IN COMMUNICATION (WRITING, SPEAKING, LISTENING), READING, THE HUMANITIES, SCIENCE, CRITICAL THINKING, PROBLEM SOLVING, COMPUTER AND INFORMATION LITERACY AND MATHEMATICS.

The current monitoring cycle for this particular goal is scheduled for reporting in February 2002.

- **STUDENTS WILL EXPERIENCE A SEAMLESS TRANSFER TO BACCALAUREATE DEGREE GRANTING INSTITUTIONS.**

***a. What is the number of students who transfer with an AGEC or pathway degree without loss of credit?*** The Arizona State System for Information on Student Transfer (ASSIST) data warehouse does not include loss of credit data; it is an area for possible development for next year. ASSIST is a statewide database designed for the purpose of tracking Arizona community college student enrollment at our state universities, and whether they graduate from the university. Statewide work on the data warehouse continues, so that we may generate additional information on the transfer process in the future.

***b. What is student evidence of satisfaction with the transfer process?***

The district council of academic advisors has begun developing a process to obtain student views of the transfer process.

The advisors, with the assistance of district office, mailed out the University Transfer Student Survey to 2753 students.

A total of 844 students (31%) responded to the mail survey. The majority of the respondents were female (69%) and between the ages of 20-29 years. Most (66%) indicated that they were enrolled at the Main campus of ASU. Key findings follow:

- 40% had earned 49 - 64 credits at Maricopa, while 31% had earned 65+ credits
- 45% reported that all Maricopa credits transferred while 50% reported that not all credits transferred
- 42% reported that they lost 1 -6 credits, while 23% reported loss of 7-12 credits.

Students provided the following reasons for why courses did not transfer. The following suggests that students were aware in many cases that courses would not transfer, given their analyses of why Maricopa courses did not transfer to the university. Students could provide more than one reason.

- 31% took more courses than they were allowed to transfer
- 29% took courses they thought would transfer but these did not transfer
- 25% took courses specific to a major but changed majors
- 23% chose to take courses they know would not transfer
- 23% reported they were misadvised about the courses (that did not transfer).

The loss of credits issue is one for further review. (Source: Maricopa Community Colleges University Transfer Student Survey, Spring 2000)

***c. What is the evaluative report on the MCCD Course Applicability System (CAS) implementation Project, a project designed to improve the advisement and transfer articulation process?***

The CAS project is being developed both at the local Maricopa level and statewide level, and assessed on an ongoing basis. There have been state and district meetings with individual staff users to get feedback on what seems to work well/less well through the process. Those comments have been shared and reviewed, and incorporated where feasible into the ongoing development of the CAS. Students can access the web page to provide feedback through the Student Survey option, but the system does not track the number of unique "hits" from each institution (Maricopa or

other). CAS brings together course applicability and curriculum information at one web location, for student ease of use. Student feedback has been favorable.

A total of 431 students responded to the Arizona CAS student survey as follows:

- 63% are students currently enrolled at a community college, while 23% are at a Arizona university
- 83% indicated their main goal in transferring was to complete a 4-year degree (vs. AGEC, 2-year or other award)
- 41% wanted to match their community colleges courses to university courses, while 37% wanted information on how their courses apply to a university degree program
- 84% indicated that CAS has useful information
- 75% reported that CAS has clear directions, also 75% found CAS to be user-friendly.

These students (89%) would use CAS again.

**• STUDENTS WILL SUCCESSFULLY COMPLETE CERTIFICATE PROGRAMS AND ASSOCIATE DEGREE PROGRAMS.**

***a. What is the number of completed certificate or associate degrees in a given year?***

Over the past 5 years, the number of awards has doubled -- from 6,884 awards in FY1996-97 to over 14,000 awards in FY2000-01. Maricopa historically has awarded more degrees than certificates. In the recent 5 years, that pattern has been shifting. Certificates comprised 49% of all degree and certificate awards in FY 1996-97; in contrast, they comprised 71% of all awards in FY2000-01. Thus over 5 years, degrees increased by nearly 19% while certificates increased by over 200%.

	1996-97	1997-98	1998-99	1999-00	2000-01
<b>Total Awards</b>	6,884	10,856	9,759	10,773	14,250
<b>Certificates</b>	3,346	7,361	5,990	6,815	10,172
<b>Degrees</b>	3,538	3,495	3,769	3958	4078
<b>Certificates as % of Awards</b>	49%	68%	61%	63%	71%
<b>Degrees as % of Awards</b>	51%	32%	39%	37%	29%

Degrees	1996-97	1997-98	1998-99	1999-00	2000-01
<b>AA</b>	1425	1533	1780	1635	1312
<b>AAS</b>	1384	1297	1291	1447	1385
<b>ABUS</b>	0	0	0	8	35
<b>AGS</b>	659	647	682	781	1076
<b>AS</b>	70	18	15	16	15
<b>ATP</b>	0	0	1	71	255
<b>Total</b>	3538	3495	3769	3958	4078

Source: IR Data Warehouse, September 24, 2001. Awards reported by "Date Received."

<b>Certificates</b>	<b>1996-97</b>	<b>1997-98</b>	<b>1998-99</b>	<b>1999-00</b>	<b>2000-01</b>
<b>1-15 Credit Hrs.</b>	1134	3864	3201	3677	<b>4155</b>
<b>16-30</b>	796	2289	1645	1579	<b>1824</b>
<b>31-45</b>	1310	1126	1068	1403	<b>3980</b>
<b>46+</b>	106	82	76	156	<b>213</b>
<b>Total</b>	<b>3346</b>	<b>7361</b>	<b>5990</b>	<b>6815</b>	<b>10172</b>

Note: A substantial percentage of these certificates have resulted from contractual agreements between a college and external agencies.

### **Summary/Implications: Transfer and General Education.**

The AGEC and transfer pathway (ATP) are relatively new options for students. Early indications are that an increasing number of students will use these options to transfer to ASU. In fact, ASU is the primary university pipeline for Maricopa students. Approximately 51% to 58% of the ASU baccalaureate recipients each year have Maricopa credits. Also students with Maricopa credits continue to comprise generally over 50% of the ASU student body, with roughly 15,000 students with Maricopa transfer credits. Over 3,000 students with Maricopa credits are new freshmen/new transfer each year at ASU.

Student feedback was obtained from a transfer survey in Spring 2000. This group was split in their reported experience with transfer: 45% reported that all Maricopa credits transferred, while 50% indicated that all credits did not transfer. When asked why their courses did not transfer, about 25-30% took more courses than they were allowed to transfer, took more courses they thought would transfer but these did not, took courses specific to a major but changed majors, and/or chose courses they knew would not transfer. A group (23%) reported they were misadvised about the courses (that did not transfer).

There is a need to continue to work with the universities to continue to gather data. This includes the need for Maricopa to track AGEC completers, to get data on grades for natives students at the university, and to monitor loss of credits as they transfer to the universities.

## **II. Developmental Education.**

- **STUDENTS DEMONSTRATE COMPETENCIES IN COURSES BELOW 100 LEVEL (READING, ENGLISH, MATH), WHICH PREPARE THEM FOR SUCCESS IN COLLEGE LEVEL COURSES.**

*a. Do students successfully complete courses (C or better) in developmental education (courses below 100 level)? Do they successfully complete (C or better) a subsequent related course within 2 years of completing the development course?*

Developmental education focuses on students who enter with lower levels of skills, and their ability to develop their skills to college level. Developmental education courses (below 100 level courses) generate about 9 - 10% of the annual FTSE and represent roughly 14% of the headcount of the district. The FTSE generated varies by receiving colleges; several have more than their proportionate share of students with developmental skills levels. This has serious implications for services to help students reach college level work levels. Less than 30% of the students are enrolled exclusively in developmental education courses. The trend over the past 5 years has been for the percentage of students taking exclusively developmental courses to increase over time

(from 21% to 29% from Fall 1994 to Fall 2000). The overall course completion rate for Developmental Courses (below 100 level courses) is approximately 60%:

	Students Enrolled in Developmental Courses Below 100 (Reading, English, Math)	Completed With A,B,C,P	Completion Rate
Fall 1998	18,489	11,167	60%
Fall 1999	19,145	11,502	60%
Fall 2000	20,428	12,486	61%

### Demographic Profile of Fall Developmental Education Cohorts

The demographic profile of the entering fall term cohorts (1998) indicates some differences between these developmental cohorts and the overall student population in the district.

- o The overall district student population is predominantly female (54% in Fall 2000 45<sup>th</sup> day); However, the developmental courses/sequences reviewed suggest that males tend to be slightly over-represented in these courses, about 47% to 50% male, compared to their numbers at about 46% overall in district.
- o Students in these courses/sequences tend to be predominantly younger students, with roughly 40 -50% of the students being 15 - 19 years of age, and roughly 21 - 24% being 20 - 24 years of age. The figures vary somewhat by developmental sequence (Reading, English, Math). This compares to over 25% under 20 years of age and about 24% ages 20-24 years of age in the district in Fall 2000 45<sup>th</sup> day; thus younger students are over-represented in these developmental courses.
- o These students are predominantly enrolled on a part-time basis (over 70%), which is lower than the district part-time rate of 80%. These students also predominantly enroll in day classes - over 70%, as compared to 58% for the district for Fall 2000 45<sup>th</sup> day.
- o Finally, students who self-report themselves as Hispanic are over-represented in these Developmental courses/sequences at roughly 33 - 35% compared to their numbers in the district overall at roughly 17%.

Three key developmental sequences - Reading, English and Math - are the focus for this report. Typically over 50% of students successfully complete (A,B,C,P) the first developmental education course in a sequence. Rates vary from over 60% in the Developmental Reading sequence, to about 55-60% in English, and approximately 50% in the Math sequence. The sequences reviewed for this report are defined below. Students were tracked for two years through a given developmental sequence. Students enrolled for the first time in the course in the sequence were tracked. Based on discussions with the Deans of Instruction and Institutional Research Councils, in the future, students need to be tracked through an entire developmental course sequence. The groups also asked that multiple cohorts be tracked in order to identify any trends.

### Reading Sequence: RDG081 → RDG091

The majority of students enrolled in RDG081 for the first time successfully complete that course with a C or higher grade:

- o In Fall 1998, 744 students enrolled for the first time in RDG081.
- o Of that 744, 522 students (70%) successfully completed RDG081 (with a C or better).
- o Within 2 years, 345 students (46%) enrolled in subsequent course RDG091.
- o 203 students (27%) successfully completed RDG081 and RDG091 (with a C or better) within two years.

A review of the Fall 1997 and Fall 1996 cohorts yielded similar results.

	Cohort: Students Enrolled First Time in RDG081	Students Who Complete RDG081 with A,B,C,P	Students Who Complete RDG081 With A,B,C,P and Enroll in RDG091 Within 2 Years	Students Who Complete RDG081 and RDG091 With A,B,C,P Within 2 Years
Fall 1998	744	522	345	203
		70%	46%	27%

Source: IR Data Warehouse, October 2001.

### Reading Sequence: RDG091 → CRE101

Over 65% of students who enroll in RDG091 for the first time successfully complete that course with a C or higher grade:

- In Fall 1998, 1583 students enrolled for the first time in RDG091.
- Of that 1583, 1041 students (66%) successfully completed RDG091 (with a C or better).
- Within 2 years, 557 students (35%) enrolled in subsequent course CRE101.
- 347 students (22%) successfully completed RDG091 and CRE101 (with a C or better) within two years.

	Cohort: Students Enrolled First Time in RDG091	Students Who Complete RDG091 with A,B,C,P	Students Who Complete RDG091 With A,B,C,P and Enroll in CRE101 Within 2 Years	Students Who Complete RDG091 and CRE101 With A,B,C,P Within 2 Years
Fall 1998	1583	1041	557	347
		66%	35%	22%

A review of the Fall 1997 and Fall 1996 cohorts generated very similar results.

### English Sequence: ENG061 → ENG071

Over 60% of students enrolled in ENG061 successfully complete that course with a C or higher grade. To illustrate, we look at the Fall 1998 cohort:

- In Fall 1998, 685 students enrolled for the first time in ENG061.
- Of that 685, 418 students (61%) successfully completed ENG061 (with a C or better).
- Within 2 years, 326 students (48%) enrolled in subsequent course ENG071.
- 191 students (28%) successfully completed ENG061 and ENG071 (with a C or better) Within two years.

	Cohort: Students Enrolled First Time in ENG061	Students Who Complete ENG061 with A,B,C,P	Students Who Complete ENG061 With A,B,C,P and Enroll in ENG071 Within 2 Years	Students Who Complete ENG061 and ENG071 With A,B,C,P Within 2 Years
Fall 1998	685	418	326	191
		61%	48%	28%

The Fall 1997 and Fall 1996 cohort data yielded a similar pattern of results.

**English Sequence: ENG071 → ENG101**

In terms of ENG071, 60% of students enrolled in this course for the first time successfully complete that course with a C or higher grade:

- In Fall 1998, 2183 students enrolled for the first time in ENG071.
- Of that 2183, 1303 students (60%) successfully completed ENG071 (with a C or better).
- Within 2 years, 1091 students (50%) enrolled in subsequent course ENG101.
- 775 students (36%) successfully completed ENG071 and ENG101 (with a C or better) within two years.

	Cohort: Students Enrolled First Time in ENG071	Students Who Complete ENG071 with A,B,C,P	Students Who Complete ENG071 With A,B,C,P and Enroll in ENG101 Within 2 Years	Students Who Complete ENG071 and ENG101 With A,B,C,P Within 2 Years
Fall 1998	2183	1303	1091	775
		60%	50%	36%

A similar pattern of results was obtained from a review of the Fall 1996 and Fall 1997 cohorts.

**Math Sequence: MAT090,091,092 → MAT120,121,122**

In the math area, we look at sets of courses that are equivalent, as identified by a group of math faculty. Thus the course sets reviewed for this report are MAT090,091,092 and MAT120,121,122 and how students complete a course in the first set, and move on to a course in the second set:

- In Fall 1998, 5902 students enrolled in MAT090,091,092.
- Of that 5902, 2938 students (50%) successfully completed MAT090,091,092 (with a C or better).
- Within 2 years, 2231 students (38%) enrolled in subsequent course MAT120,121,122.
- 1508 students (26%) successfully completed MAT090,091,092 AND MAT120,121,122 (with a C or better) within two years.

	Cohort: Students Enrolled First Time in MAT090,091,092	Students Who Complete MAT090,091,092 with A,B,C,P	Students Who Complete MAT090,091,092 With A,B,C,P and Enroll in MAT120,121,122 Within 2 Years	Students Who Complete MAT090,091,092 and MAT120,121,122 With A,B,C,P Within 2 Years
Fall 1998	5902	2938	2231	1508
		50%	38%	26%

Similar results characterized the Fall 1997 and Fall 1996 cohorts.

**Math Sequence: MAT120,121,122 → MAT142,150,151,152**

A similar pattern of results was generated for this sequence.

- In Fall 1998, 5705 students enrolled in MAT120,121,122.
- Of that 5705, 3006 students (53%) successfully completed MAT120,121,122 (with a C or better).
- Within 2 years, 2374 students (42%) enrolled in subsequent course MAT142,150,151,152.
- 1829 students (32%) successfully completed MAT090,091,092 AND MAT120,121,122 (with a C or better) within two years.



	Cohort: Students Enrolled First Time in MAT120,121,122	Students Who Complete MAT120,121,122 with A,B,C,P	Students Who Complete MAT120,121,122 With A,B,C,P and Enroll in MAT142,150,151,152 Within 2 Years	Students Who Complete MAT120,121,122 and MAT142,150,151,152 With A,B,C,P Within 2 Years
Fall 1998	5705	3006	2374	1829
		53%	42%	32%

Similar results were obtained for the Fall 1997 and Fall 1996 cohorts.

### Summary/Implications: Developmental Education.

Very specific developmental sequences - reading, English and math - were the focus for this report. Typically over 50% of students successfully complete (with a C or better) the first course in each sequence -- over 60% in the Developmental Reading sequence, to about 55-60% in English, and approximately 50% in the Math sequence. About 35-50% continue on to the second course in the sequence.

If the attrition rate is viewed, then the proportion of students who are in a subsequent course two years later and who successfully complete the subsequent course (with a C or better) are in the 20% -30% range. The Deans and Instructional Councils should determine benchmarks for success in developmental education courses. Also, some of the measures should be redefined.

### III. Workforce Development

#### • STUDENTS COMPLETE OCCUPATIONAL PROGRAMS AND COURSES WITH SKILLS SOUGHT BY THEMSELVES OR EMPLOYERS.

##### *a. What is the annual student enrollment in occupational courses?*

Occupational course enrollments continue to increase over time, as evidenced by enrollments over the past five years - over 240,000 enrollments in occupational courses for the most recent year. That translates into over 94,000 students taking at least one occupational course. Successful course completion rates (with grade of A,B,C,P) are relatively high, approaching the 90% range.

Year	Enrollments in Occupational Courses	Occupational Enrollments Completed Successfully (A,B,C,P)	Completion Rate
1996-97	182166	158024	87%
1997-98	188727	166895	88%
1998-99	220776	199005	90%
1999-00	230654	209961	91%
2000-01	244233	217069	89%

Source: IR Warehouse, with year including summer II, Fall, Spring and Summer I. These figures reflect enrollments in occupational courses past 45<sup>th</sup> day.

***b. What is the number of completed certificates and/or AAS degrees in a given year?***

Certificates outnumber degree awards 9:1, with over 10,000 certificates (of varying credit hours) to roughly 1380 AAS degree awards in 2000-01. The top 10 listings for each category are provided to give a sense of what areas appear to be priorities for students. The top fields include: flight attendant, law enforcement and corrections, personal services, and health-related areas.

Certificates 1 - 30 hours			
Rank	CIP	Description	Awards
1	490106	Flight Attendant	1889
2	430102	Corrections/Correctional Administration	931
3	129999	Personal & Miscellaneous Services, Other	699
4	511614	Nurse Assistant/Aide	610
5	510904	Emergency Medical Technology/Technician	509
6	521204	Bus. Systems Networking & Telecommunications	264
7	130499	Education Administration and Supervision, Other	187
8	521201	Mgmt. Information Systems & Business Data Processing, Gen.	154
9	430203	Fire Science/Firefighting	86
10	430107	Law Enforcement/Police Science	76
Total for Top 10 Certificates:			5405

Certificates 30 or more hours			
Rank	CIP	Description	Awards
1	430107	Law Enforcement/Police Science	3517
2	511613	Practical Nurse (L.P.N. Training)	121
3	511614	Nurse Assistant/Aide	98
4	521201	Mgmt. Information Systems & Business Data Proc., Gen.	43
5	430203	Fire Science/Firefighting	43
6	460302	Electrician	35
7	200401	Institutional Food Workers & Administrators, Gen.	32
8	512399	Rehabilitation/Therapeutic Services, Other	32
9	510905	Nuclear Medical Technology/Technician	31
10	470607	Aircraft Mechanic/Tech., Airframe	29
Total for Top 10 Certificates:			3981

AAS Degrees			
Rank	CIP	Description	Awards
1	511601	Nursing (R.N. Training)	347
2	521201	Mgmt. Information Systems & Business Data Proc., Gen.	84
3	430107	Law Enforcement/Police Science	65
4	430203	Fire Science/Firefighting	63
5	510602	Dental Hygienist	57
6	220103	Paralegal/Legal Assistant	41
7	521204	Bus. Systems Networking & Telecommunications	41
8	040501	Interior Architecture	36
9	150303	Electrical, Electronic & Comm. Engineering Technology/Technician	34
10	100104	Radio & Television Broadcasting Technology/Technician	31
Total for Top 10 AAS Degrees:			799

Source: IR Data Warehouse, September 24, 2001. Awards reported by Date Received.

*c. What is the percent of occupational students employed in the State of Arizona within 3 years of entry into the community college? d. What is the evidence of wage increase (mean or percentage increase) and employment status over time?*

This report focuses on the employment and wage status of students who completed vocational programs at community colleges in Arizona during the fiscal year 1999-2000 (Carl Perkins III completers cohort). The student files, submitted by colleges in Arizona, to the Arizona Department of Economic Security (DES), were populated with wage data and returned to Maricopa with social security identifiers removed. All Arizona colleges were included in this report, the first year of Carl Perkins III implementation.

Some limitations in this study include the following:

- o the DES Unemployment Insurance Base Period Wage database contains wage information of companies doing business in Arizona and are guided by unemployment insurance law
- o only students who were in the AZ labor force for that quarter were included
- o the quarterly wage of \$3,750 (equivalent to annual wage of \$15,000) was used as an indicator of full employment, a wage under \$3,750 was used as indicator of part-time employment, and a zero quarterly wage as not in the labor force
- o students with a zero quarterly wage were removed from calculating average wages for the respective quarters
- o ten outliers (extremely high wages that did not continue to subsequent quarters suggesting possible movement out of these jobs) were excluded from subsequent calculations.

Attending college tends to be associated with an increase in wages over a given period of time. for this cohort of 3,536 students, comprised of 58% females. Over 40% of this cohort completed an Associate in Applied Science degree, while another 40% completed certificates (primarily certificates of 1-15 hours, followed by 16-30 hours, and then certificates of 31-45 hours).

In quarter 1, 1998, over 26% of these students had a wage equal to or greater than \$3,750. By quarter 3 of 2000, 47% of these students had a wage equal to or greater than \$3,750. (The quarterly wage of \$3,750 was deemed equivalent to an annual salary of \$15,000 for this report.)

In quarter 2, 1998, their average quarterly wage was \$3,947, as compared to \$5,715 in quarter 3 of 2000. It is plausible to suggest that the cohort not only increased in their full employment but also in their quarterly average wages. (Further study could look at how much of this increase is due to working more, versus making more money; one would suspect that both males and females would work more hours with completion of educational programs.)

The quarterly wage was different for males and females, with a significant advantage to males. In quarter 1, 1998 males' average wage was \$4,698 as compared to females' average of \$3,412. In quarter 3, 2000 males' average wage was \$6,768 as compared to females' average of \$5,004.

There was some wage differential by ethnic group. While Native Hawaiian/Pacific Islanders fared poorly on average wages, Hispanic and Asian students matched or exceeded the average wages of White students on most quarters. (Given the very small number of Hawaiian/Pacific Islanders, these interpretations are very tentative.) The average wages of each ethnic group increased over the 11 quarters.

Thus completion of occupational programs seems positively correlated with increasing number of students employed full-time and with increasing average wages over time, regardless of group (gender, ethnicity). Future goals - as resources permit - are to look at employment and wage status over longer periods of time.

**• MARICOPA COLLEGES WILL COLLABORATE WITH PRIVATE, PUBLIC AND COMMUNITY PARTNERS TO IDENTIFY AND RESPOND TO RECRUITMENT, TRAINING AND EDUCATIONAL NEEDS.**

The colleges collaborate with a variety of partners in responding to recruitment, training and educational needs. Currently there are a variety of partnerships, private, public and community partners. Private sector organizations represent automotive, aircraft/airline, general business, hospitals and health care organizations, hotels, information technology, telecommunications industries, retail as well as trade and labor associations. District-wide, public sector organizations include municipal and tribal governments, service agencies and schools. Churches and youth organizations comprise the category of community partners. For this particular reporting cycle, non-credit courses were reviewed primarily in the section, "Continuing/Community Education," and thus resulted in a smaller identification of community partners under this particular section.

***a. What is the evidence of partners who indicate satisfaction with services that meet their employment needs, measured on an annual basis?***

Satisfaction was judged on a scale of 1-3, with 1 being dissatisfied and 3 being satisfied, for partners that are provided contract training. For the 2000-01 reporting period, private, community and public partners averaged a satisfaction rate of 2.99. (Source: Deans of Occupational Education)

***b. What is the number/names/purpose of organizations by college; number of persons trained; number of contract training hours generated?***

For the July 2000-June 2001 reporting period, partnerships with the largest concentration of persons trained included apprenticeships, computer related training, on-line teacher education, management/administrative, medical/health care, technology/workforce, language/communication, and automotive. The top partnerships are listed below.

Purpose of Partnership	Number of Persons Trained	Number of Training Opportunities
Apprenticeships	2543	12*
Computer Related Training	2417	21*
Management/Administrative	2200	17*
On-line Teacher Education	1714	2*
Medical/Healthcare	1403	29*
Technology/Workforce Training & Information Sharing	1032	5*
Language/Communication (workplace Spanish, ESL, Comm.)	818	25*
Automotive Specific	750	2*
Subtotal	12877	113*
Customized Partnerships/Certificates & Degrees	15854**	137,073**
Total	28731	137,186

Source: Deans of Occupational Education. \*The numbers in the third column represent the number of times a particular subject or topic was offered as a training opportunity and does not reflect an actual number of partnerships. The different training opportunities within a given category could have been presented to an individual partner in multiple ways. \*\*Numbers represent the reporting of two colleges.

The type of training offered most often was in the area of medical/healthcare, followed by language/communication, computer-related training, management/administrative and apprenticeships. Medical and healthcare training was offered most often to hospitals and health care organizations. Computer-related training, management/administrative training and language courses, particularly job-specific Spanish were provided to both private and public sector organizations. Trade associations were the primary areas of partnerships that involved apprenticeships indicated in the above chart.

Partnerships are also formed to provide industry specific college courses that lead to Associate degrees when combined with general studies requirements. Information technology, aerospace, airlines, banking & credit card services, and telecommunications comprise some of the industries where customized college courses are provided. Over 16,000 persons were served through the certificate and degree programs. (See Appendix for additional information on Workforce Development efforts by the colleges.)

#### **Summary and Implications: Workforce Development.**

Enrollments in occupational fields continue to increase - reaching over 240,000 course enrollments, representing over 94,000 students. Certificates have been concentrated predominantly in a few fields - flight attendant, law enforcement/corrections, personal services and health services, while the AAS degree has been primarily awarded for nursing (R.N. training). Certificates outnumbered degrees 9:1.

DES Wage data suggest that attending college is associated with increasing numbers of students employed fulltime and increases in wages over time. There is need to continue to look at tracking some cohorts over time, as resources permit.

Maricopa continues to be responsive to student and community needs by collaborating with partners on recruitment, training and educational needs. Partnerships have resulted in the training of the most number of students in apprenticeships, computer related training, online teacher education, medical/healthcare and technology/workforce training. Anticipating future trends (e.g., high enrollment courses, programs) and continuing to work very closely with advisory committees become very critical to anticipating resource needs.

#### **IV. Student Development Services**

- **STUDENTS WILL BE PROVIDED PROGRAMS AND SERVICES THAT SUPPORT THEIR LEARNING, EDUCATIONAL AND EMPLOYMENT/CAREER GOALS.**

##### ***a. What is the evidence of student satisfaction with programs and services in support of their learning and employment/career goals?***

The Deans of Student Services collect student feedback both formally and informally on an ongoing basis. During the last reporting cycle, four colleges administered the formal Noel-Levitz Survey. Several years prior, several other colleges had administered the instrument. Six colleges plan to administer the Survey during 2001-02, as it best fits into their college planning cycle. This survey is most effectively utilized every 2-3 years to gauge trends and follow-up college planning efforts.

Thus reporting via formal instrument will be provided in the next reporting cycle. The student services offices at each of the colleges also obtain feedback from students through various mechanisms - surveys, student forums, student government and clubs.

***b. What are the student services provided by colleges, which support student learning, educational and career goals?***

Various programs and services are established at each college within Maricopa that provide support and guidance to students during the course of their educational experience. Programs and services range from those that assist students on how to start college, advisement for the proper courses to take in seeking a degree or certificate, assessment for adequate placement in English math and reading, to leadership and cooperative learning opportunities, career placement and assistance with the university transfer process. Additional support areas within the colleges that enhance the overall learning environment for students include access to information technology, on-site food service, and campus safety/security.

The very nature of the organizational functions and responsibilities that fall within Student Services demonstrates the foundational support that presently exists for student learning and employment/career goals. On the forefront, Admissions, Records & Registration is an area that provides services to all students from enrollment to graduation. In a sample listing of other functional areas within Student Services, the reported volume of students served varied according to the size of the college and the vehicle used (i.e., on-line services/versus in-person contacts):

Academic Advisement	8664 - 25,220 students
Assessment & Testing	1700 - 16,270 students
Athletics	100- 500 students
Career & Placement Services	800 - 21006 students
Childcare Centers	75 - 480 (families)
Counseling	400 - 3800 students
Financial Aid	1450 - 8330 students
Disability Resources & Services	96 - 547 student contacts
Student Life & Leadership	1000 - 6218 students

**Functional Areas/Programs and Services:**

**Academic Advisement**

- Assistance and preparation of program of study
- Calls (inbound & outbound)
- Classroom visits by advisors
- Direct/one-on-one advisement
- E-Mail advisement
- Off-site advisement
- Student Orientations on campus (welcome new & potential students, college preview days)

**Admissions, Records & Registration**

- A/R Workshops
- Calls regarding enrollment issues
- College admissions (domestic and international)
- Credit and non-credit course registration
- E-mail advisement/registration

- Enrollment Verification
- Graduation check out
- Posting of degrees/certificates
- Registration
- Registration, Drop/Add
- Student ID Cards
- Student Information Forms
- Transcripts/transcript evaluation
- Vehicle Registration
- Walk-in advisement/registration

#### Assessment and Testing

- Asset Placement Test
- Dual-Enrollment Asset Placement Test
- CELSA Tests
- COMPASS Tests
- CAAP (Collegiate Assessment of Academic Proficiency)
- GED Completers
- CLEP/DANTES
- Instructor Exams
- MLPA (Minnesota Language Proficiency Assessment)
- Other Credit by Exam
- Language Proficiency Exams
- Various other tests
- College-wide Assessment for NCA Related Work
- Use of Standardized tests to assess student outcomes (e.g., CAP, Academic Profile)

#### Athletics

- Intercollegiate Athletic Teams (male & female)

#### Career and Placement Services

- Career Center
- Career Services
- Job Search Services
- Job Fairs, Career Expos
- Employer/Worker Information
- Maricopa Recruiter
- Personality assessment test for possible career match
- Virtual Career Center

#### Counseling

- Counseling
- Career Counseling/Placement Assistance
- Crisis Counseling
- Class Visits - giving orientations on services offered
- Personal Development
- New Student Orientation

## **Workshops**

### **Child Care/Development Centers**

Childcare Services offered to students while in class

### **Disability Resources & Special Services**

Assistance and accommodations provided to students with documented disabilities:

Advising

Registration

Interpreters

Equipment

Referral Services

### **Financial Aid**

Financial Aid Process Assistance

Scholarships and Grants

Subsidized & Unsubsidized Loans

Work Study

### **Learning Support Center**

Instructional Support Services

Student Support Services Program

Disability Support Services

Special Services

Interpreting Services

Title V Instructional Support Services

### **Recruitment and Retention**

New Student Orientations

Potential Student Orientations

Campus Tours

Bridge Programs

Upward Bound

First Year Experience

Customer Service

Outreach Activities

Student Support Services

Student Success Office

POWER

### **Student Life and Leadership**

Student Government

Student Clubs & Organizations

Student Activities

Service Learning and Community Service

Student participation on campus committees



Veterans Services  
 Veterans Certification  
 Information on Veterans Benefits

Examples of programs that support student learning, educational, employment & career goals: 2+2+2 Partnership, ACE Plus Program, Adult Re-Entry Program, inspire.teach, Urban Teacher Corps, Genesis West, America Reads, Emerging Leaders, Oxford Flight Program, International Students Program, English As A Second Language Program, Earn by Reaching to Achieve Program, Honors Program. (Source: Deans of Student Services. \*Information was collected from individual colleges and summarized according to common functional areas, programs and services offered throughout the district.)

***c. What is the use of employment/career services by employers and students in a given year?***

"The Maricopa Recruiter" is a web-site tool, initiated in September 1999, for Maricopa Colleges to provide various employment career services to students. Employers can post jobs, along with qualifications, responsibilities and pay scale, while students can look for various jobs. Since its inception, over 10,000 jobs have been posted with students using the Maricopa Recruiter about 2 ½ times more frequently than employers. A total of 5,785 employers and 15,974 students have used the Recruiter (as of August 8, 2001).

The most frequent job postings by occupational area since inception are listed to give a sense of employers' use of the Recruiter:

Occupational Area	Number of Job Postings
Office/Admin. Support Occupations	2255
Sales/Related Occupations	1100
Business/Financial Operations Occupations	847
Education/Training/Library Occupations	484
Healthcare Support	471
Personal Care/Service	470
Food Preparation	444
Computer/Mathematical	349
Arts/Design/Entertainment/Sports/Media	322
Architecture	312
Total of Top 10 Postings	7054

Source: Maricopa Recruiter statistics, as of August 8, 2001, provided by Information Technology Services, Miguel Corzo.

The average hourly wage of jobs posted (nearly \$8.50) exceeds minimum wage, with the average low salary over \$22,000 and the average high salary exceeding \$35,000. The Recruiter is not designed to generate job placement information or tracking, thus it cannot provide information on student employment.

***d. What are the multiple measures of student academic achievement of learning outcomes as a result of student development services?***

This is a very difficult and complex task, even in the more structured classroom setting where faculty are addressing college-wide assessment of student academic achievement. This is an area

that the Deans of Student Services may wish to collaborate on at some level with the Deans of Instruction for the future.

**• STUDENTS WILL BE PROVIDED PROGRAMS AND SERVICES THAT SUPPORT THEIR PERSONAL GROWTH AND CITIZENSHIP DEVELOPMENT.**

***a. What is the evidence of student satisfaction with programs and services that support their growth and development?***

As previously indicated, student satisfaction feedback will be provided via a formal instrument during the next reporting cycle.

***b. Are students provided programs and services by colleges, which support their personal growth and citizenship development?***

Each college within the district offers programs and services that focus on the development of the total student beyond their learning goals. On-campus activities such as political forums and voter registration provide students with exposure to civic issues, while diversity training and multicultural affairs programs provide students with tools and guidance to develop awareness and to address needs that result from cultural, economic and other differences in background. Key programs and services include:

Admissions, Records & Registration (provide guidance to students on policies & procedures)

Adult Re-Entry Program

Adult Re-Entry Services

Advisement for co-curricular activities

Athletics

Bridge Program

Career & Placement Services

College Newspaper

Counseling

CPD Classes

Day of Dialogue

Disability Resources & Services

Diversity Awareness Training

Eagle Feather

Early Alert Services

Financial Aid Success Plan

Future Teachers of America

Honors Programs

International Students Program

Multicultural Affairs Program

Partners in Academic Learning

Party Representation

Political Forums

POWER

Recruitment workshops

Student employee tutors

Student Leadership/Government

Study Abroad Experiences  
 The Essence of Color  
 Urban Teacher Corps Partnership  
 Various Student Clubs & Organizations  
 Vocational & Industrial Clubs of America  
 Voter Registration  
 Wellness Week  
 International Week

***c. What is the number and types of student leadership/student life, service learning and volunteer opportunities?***

In addition to college programs and services, student personal growth and development is fostered via participation in clubs and organizations, leadership opportunities in student government, and connection with the community through service learning programs and courses, as well as volunteer activities. Whether occupational, religious, or related to ethnicity, the diverse personal interests of students is evident in the range of organizations and clubs that are available for student participation. Participation in activities such as food and blood drives, peer mentor programs and United Way events, helps them to grow as individuals and as citizens in the larger community.

**Leadership**

Associated Student Council & Leadership Retreat	Carpe Diem
AIDS Awareness Week	Emerging Leaders Program
Campus Ambassadors/Guides & Hosts for Visitors	MCCD Student Public Policy Forum
Model UN	Peer Mentor Program
Student Leadership Council	Student Safety Officers
Student Leadership Training & Workshops	Student Government Welcome Back
MCCCD Student Retreat	Inter Club Council
CPD 103 Dynamics of Leadership	

**Honors Programs**

Honors Program
National Collegiate Honors Conference
First Year Experience (students complete service projects in context of a block of AGEC Courses)

**Service Learning**

Service Learning Programs and Courses
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Source: Deans of Student Services.

#### Student Clubs and Organizations

Administration of Justice Studies (A.J.S.)	LeCoin Francais
Adults Who Are Returning to Education	Leo Club
Adventures Club	Lesbian/Gay/Bisexual Academic Union
Alternative Lifestyle Student Organization	M.E.C.H.A. Club
American Association of Interior Design	Masque & Gavel Club
American Society of Interior Design	Mind/Body/Spirit Association
Animation Club	Muslim Student Association
Association Latina Estudiantil	NASSRRANN – Native American Student Services
Association of Student Nurses	Newman Club
Baptist Student Union	Partners in Art
Bent Cable/VPT	Performing Arts Student Organization
Black Student Union	Phi Theta Kappa
Campus Crusade for Christ	Pho Pi
Chess Club	Pre-Dental Student Association
Christian Student Association	Pre-Med Club
Christians in Action	Psi Beta
Club Ed	Recreational Outing Club
Clubs Carnival	River boarding Club
Computer Club	Russian Club
Dance Club	SADD
Delta	SEAIC
Environmental Action Club	Sigma Delta Mu
Environmental Club	Sigma-Phi-Sigma
Evening Students' Club	Society of Professional Journalists
Fencing Club	SPIRIT
Friends of Kids	Student American Dental Assistant Association
Future Teachers of America	Student American Dental Hygienist Association
Gay, Lesbian, open-minded, Bisexual, Associated League (G.L.O.B.A.L.)	Student Enthusiasts of Technology
Geology Club	Student Honors Organization
Hispanic Student Organization	Student Nurses Association
Interior Design Club	Students With a Cause (S.W.A.C.)
International Cultural Exchange Club	Vietnamese Student Association
International Students Association	Vocational and Industrial Clubs of America
Inter-Tribal Student Organization	Web Club
John Paul Theatre Troupe	Writers' Guild
Latter Day Saints Student Organization	Young Democratic Socialists
People with Alternative Lifestyles	

Source: Deans of Student Services.

#### Volunteerism

"Into the Streets"	Homecoming
"Reading Across America"	Hunger Banquet/Food Drives
Adopt-a-Family Program	Jingle Books/Literacy Projects
America Reads	Make a Difference Day
Andre House	Peer Mentor Program
Blood Drives	Recycling Program
Boys and Girls Club Clinics	Ronald McDonald House
Camps and Clinics	Student Activities Events
Christmas Drives	Student athletes as camps counselors
Club Community Service Projects	Student Safety Officers

#### Volunteerism – Activities Continued

Community Garden	Student volunteers as note takers, readers, tutors, child development center workers
Coyote Days	Students With A Cause
Cultural & Diversity Awareness Activities	United Way Day of Caring
Drug/Alcohol Awareness Week	Volunteer Fair
Emerging Leaders Program	Welcome Week
First Year Experience	

Data Source: Deans of Student Services. \*Information was collected from individual colleges and summarized according to common functional areas, programs and services offered throughout the district.

#### **Summary/Implications: Student Development Services**

The Maricopa Colleges all provide major groups of programs and services to support student development needs. These range from the formal services of Admissions and Registration and all the related services (for e.g., enrollment services, transcripts, graduation check-out out), Advising, Career Counseling and Services, Counseling Center Services, Assessment Center (e.g., ASSET and other testing), Learning Center, Outreach, Recruitment and Retention programs, and Financial Aid, to more informal services of Student Government, Student Clubs, Refugee life skills program, programs where students engage in service learning and community volunteer opportunities (Habitat for Humanity).

There is a need for the Deans of Instructions and Deans of Student Services to develop measures for student academic achievement of learning outcomes as a result of student development services.

#### **V. Continuing and Community Education**

• COMMUNITY MEMBERS WILL BE PROVIDED OPPORTUNITIES FOR PERSONAL INTEREST/DEVELOPMENT TO INCLUDE: 1) ACCESSIBILITY TO COLLEGE FACILITIES AND SERVICES AS APPROPRIATE (LIBRARIES; RECREATIONAL/ ATHLETIC FACILITIES; ARTS PROGRAMS; INTERNET/ TECHNOLOGICAL DELIVERY; COURSES OF A VOCATIONAL NATURE TO INCLUDE LEISURE, WELLNESS AND SPECIALIZED TRAINING); AND 2) FORUMS, DIALOGS FOR BALANCED VIEWS OF CONTEMPORARY CIVIC AND PUBLIC ISSUES.

##### ***a. What is the evidence of community member satisfaction with opportunities for personal interest/development?***

During the 1999-2000 reporting cycle, results from the "Faces of the Future" survey were reported, but the data represented five colleges. This year, all colleges were asked, "*What evidence is there of community member satisfaction with the personal interest and development opportunities offered at your college?*" The majority cited course evaluations as the method to determine community member satisfaction with the personal interest and development opportunities that were offered. Continued growth in the number of participants and the number of course offerings was also listed as evidence of community satisfaction. During the next reporting cycle, the question of evidence should be refined in order that actual rates or degrees of satisfaction with continuing/community education programs and services can be reported.

***b. What programs and services are provided by college?***

The programs and services reported for this goal reflect non-credit course offerings. The colleges offer a variety of programs and classes in the areas of business & occupations, personal enrichment (development), professional development, home & family, fitness & wellness, youth, seniors, arts & crafts, recreation & sports, pastimes & hobbies, language, alternative health, music, dance and theater. The number of persons served through personal interest and development opportunities during the 2000-2001 reporting cycle was over 410,000. This includes the listening population for KJZZ/KBAQ radio stations, which totals over 300,000.

- In an effort to be responsive to the community, one college has developed a pilot system to track requests for courses and workshops from community organizations and businesses.
- Another college reports a growing demand for "alternative" types of health and fitness classes such as Tai Chi, Reiki, Yoga, Reflexology, Herbal Medicine and Alternative Medicine. In addition, growing community demand was reported for classes on paranormal topics such as Psychic Phenomena, Developing Psychic Ability, Mysteries Around Us, and Tarot Card Reading
- The colleges serve the community through a range of college-sponsored events and activities such as Water Safety Day to promote drowning prevention and awareness, access to voter registration information, the Southwest Valley Citizen Academy which helps to educate and inform citizens about their local government, and the Vibrant Arts Grants-Silent Film Series and Plays.
- The colleges extend Outreach to kids and older adults via, such activities as Programs for Gifted Youth, Summer Musical Workshop for Kids, Kids College, Senior College, and Silver Sneakers Fitness for seniors and the Institute for Senior Education. (Source: Deans of Student Development Services, Deans of Instruction.)

In a survey distributed to facilities personnel in Spring 2001 for the purpose of reviewing the current MCCCCD rental rate structure, the types of groups and organizations cited as using the colleges' facilities most often were: Athletic and Sports Clubs, Car Dealers, Chambers of Commerce, church groups, dance troops, groups that have formal partnerships with a college (e.g., workforce development training & programs), homeowners' associations, local K-12 district and educational institutions (e.g., NAU), motorcycle training schools, municipal groups (city, state, county), Rotary and Kiwanis Clubs, special events groups, swap meet vendors, and volunteers organizations.

**• THE MARICOPA COMMUNITY COLLEGES WILL HAVE COLLABORATIVE PARTNERSHIPS AND PROGRAMS WITH ELEMENTARY SCHOOLS AND HIGH SCHOOLS AND OTHER HIGHER EDUCATION INSTITUTIONS TO INCREASE THE NUMBER OF STUDENTS THAT MATRICULATE TO THE COLLEGE LEVEL.**

***a. What percentage of recent high school graduates attends our colleges?***

Approximately 45% of Maricopa County's high school graduates attend the Maricopa colleges. This has remained constant for the past 3 years.

***b. What programs provide for outreach and recruitment?***

The colleges were asked to list the programs and services that served to outreach and recruit students from other educational institutions to Maricopa. Each has established a relationship with the local school districts and/or the educational institutions in their service areas. These efforts cover a range of outreach activity such as dual enrollment, occupational programs, programs with a science focus, those aimed at under-represented and first generation college students, as well as test preparation courses. A sample of the types of programs and services offered are listed below:

College	Types Programs and Services
CGCC	Center for Gifted Youth (Chandler, Gilbert, Higley and Queen Creek school districts), Dual Enrollment Intergovernmental Agreements, High School Articulations
EMCC	Community Education Program (Dysart High School & Pendergast Elementary School Districts), Financial Aid, College Goal Sunday, High School/Library Nights, Genesis West, High School Visits, On Campus Tours, Free Summer Class, Summer Bridge Program National Science Foundation, Education & Career Fairs
GWCC	Dual Enrollment Partnerships, Home Depot Stay in School partnership, Junior Achievement, Phoenix Union Think Tank, Summer Bridge Programs, Upward Bound, VICA Summer Program
GCC	ACE+ Program, AZTEC (AZ Teachers' Excellence Coalition) Program, Presentations to recruit education majors in Education field, Biology Bridges Program, Biology Tutoring Program, Career Work Experience, Chemistry Day, Child and Family Studies, Chip Camp, Dual Enrollment Program, ESL Partnership, Automotive Program, GCC North, GCC Readfest, High School Counselor Day, La Petite Academy, Maricopa Recruiter, Math Tutoring Program, One-Stop Maricopa Workforce Development Career Center, Community Outreach for economically disadvantages & under-represented students, Adult Outreach, Earn by Reaching to Achieve Program, Mentoring Task force, Deer Valley High School, Chino Valley High School, Moon Valley High School, Program Presentations for child development students at Tolleson High School, Observation site for City of Phoenix Head Start Program, Westside Head Start, City of Glendale's Parks & Recreation programs for at-risk youth, Dysart Bilingual Education Program, Glendale Elementary Migrant Program, Trevor Browne and Maryvale High School limited-English students service.
MCC	Scholarships for at-risk students (AIMES/MESA, East Valley Teacher Corps, African American Student Success, Concurrent Enrollment, ESL, MESA Broaden, Returning Students), Summer Science Camp for Children, MCC School of Education, State endorsement programs for K-12 teachers, HOPE, East Valley Health Academy, Dual Enrollment for high school students, Geology Outreach Program
PC	Testing (testing high school students in their home school environment), Advisement/Transfer (high school & community visits), Student Life & Leadership (Storybook Stagecoach, Club Community Involvement, Mocha High School Conference), Athletics (High School basketball games & tournaments), Admissions & Records (on-site registration, Women's Expo, Early Registration) Recruitment & Retention (Project Success, PC Support, Hoop of Learning, Adelante, Urban Teacher Corps Partnership)
PVCC	Learning Connections Consortium (Careers in Education, Counseling & Advisement, Advisement, Diversity, Math Reform, Science Reform, Faculty and Staff Development, Honors, Service Learning, ESL, Fine Arts, Library/Media, SUCCED (Bridges) Program, PVCC-ASU West Science Bridge Program, 2+2+2 Education Program, Test Preparation Courses & Workshops, Kids College
RIO	Dual Enrollment, Ottawa, Governor's State, Western Governor's University, Army University, Access Online, Community College of the Air Force (pathways to baccalaureate & other degrees)
SCC	Cave Creek School District, American Indian Program, International Education Program, High School Campus Visits
SMCC	Achieving a College Education (ACE Program, Junior ACE Program, Dual Enrollment Program, Dynamic Learning, Early Outreach, Entrepreneurs Program, Disability Resources & Services Direct Recruitment Efforts, Athletics/Game Nights, College AZ Call A Teen, College Goal Sunday, Assessment, Welcome Center & Speedy Advisement

Source: Deans of Instruction and Student Development Services.

***c. What is the evidence that outreach programs (programs which include enrollment in college credit classes) meet the criteria for minimum standards established by the Arizona Council of Academic Administrators and approved by the State Board of Directors for Community Colleges of Arizona?***

Maricopa's Dual enrollment courses, locations and total enrollment have increased somewhat from 1999-00 to 2000-01. Colleges report full compliance with the requirements of R7-1-709 governing the offering of community college courses in conjunction with high schools.

Year	No. of Locations	No. of Courses	Total Enrollment (Unduplicated Headcount)
1999-00	102	948	11,147
2000-01	108	981	11,390

Source: Report on Community Colleges Courses Offered in Conjunction with High Schools.

***d. What are the high school graduation and college-going rates within two years of high school graduation of students who participate in outreach programs compared to their class? (College-going rates will be limited to Arizona colleges and universities.)***

Information on the college-going rates of high school graduates participating in an outreach program is very limited. Yet it provides insight into high school students continuing on to a Maricopa college. To illustrate from one college's report, approximately 14% of the high school graduates from the primary feeder schools enroll the following fall term at that college, a consistent rate for the past three years. This involves some careful tracking on the part of the program as to its outreach participants and their feeder school. Some high school graduates may also be going on to other Maricopa Colleges in fall, since a portion of Maricopa students enroll at more than one college, and there are 10 Maricopa colleges and two Skills Centers. Additionally, some students may work rather than attend college, stop out for a semester, and then enroll.

Fall Term	No. Enrolled at Maricopa College "X"	Total H.S. Graduation Class	% Who Continue On To Maricopa College "X"
Fall 1998	585	4320	14%
Fall 1999	635	4454	14%
Fall 2000	680	4789	14%

Source: College Outreach Coordinator Report, Summer 2001.

Perhaps another view of the likely college-going rates - at a district wide level - can be gauged from Maricopa's Admission of Students Under the Age of Eighteen for Fall 2000-01. Of the 20,430 students under age 18 enrolled in a community college in Arizona in 1999-200, over 13,000 students were enrolled at Maricopa colleges, an over 60% market share.

#### **Summary/Implications: Continuing/Community Education.**

Maricopa Colleges continue to be very responsive to the continuing and community education needs of students and community, reporting during the 2000-01 reporting cycle. The community has been served through numerous personal interest and development opportunities - ranging from personal enrichment, professional development, fitness and wellness and senior programs, to language, music, dance and theatre. Additionally, groups and organizations for their events access college facilities. Maricopa also offers diverse programs that serve to outreach and recruit students, such as dual



enrollment, science programs and orientation programs encouraging underrepresented and first generation college students.

The colleges cited course evaluations as the primary means of determining community member satisfaction with college offerings; for the next reporting cycle, the question of evidence should be refined to indicate rates or degrees of satisfaction with program offerings.

## **VI. How is the Diversity goal being addressed?**

**• STUDENTS WILL BE SERVED BY FACULTY AND STAFF WHO REFLECT THE COMMUNITIES WE SERVE AND WHO CREATE AN ENVIRONMENT OF EQUITY AND MUTUAL RESPECT OF EACH PERSON.**

The diversity goal was approved by the Governing Board in March 2001. A report on the progress of monitoring efforts will be presented in February 2002. Diversity monitoring will focus on the components of the goal that are related to creating an environment of equity and mutual respect. The purpose of monitoring is to identify best practices and to establish whether or not adequate systems are in place to address climate issues for students.

A preliminary plan for data collection includes a review of: the number and types of programs and activities that assist to build or enhance an environment of equity and mutual respect for students; number and types of services that assist to build or foster an environment of equity and mutual respect for students; types of forums/focus groups that are hosted by colleges that serve to measure student satisfaction with programs and services and student feedback on college climate, and demographic information for employees. Monitoring efforts are to be coordinated with the District Diversity Advisory Council, the Deans of Student Services and the Equal Employment Opportunity/Affirmative Action Office.

A sample of diversity related activities that are currently in place include:

- The Diversity Advisory Council, which serves in an advisory capacity to the Chancellor's Executive Council. Co-chairs are Dr. Raul Cardenas and Mrs. Linda B. Rosenthal.
- An on-line diversity newsletter with links to helpful resources ([www.maricopa.edu/diversity/newsletter/](http://www.maricopa.edu/diversity/newsletter/))
- A program for infusing diversity into the curriculum ([www.dist.maricopa.edu/diversity\\_curriculum](http://www.dist.maricopa.edu/diversity_curriculum))
- Diversity training opportunities provided by the Employee and Organizational Learning Team
- College diversity coordinators.

## **VII. How is the Teacher Education goal being addressed?**

This goal was also adopted by the Governing Board in March 2001, for reporting in November 2002. Measures need to be developed and a status report to the Governing Board will be provided in February 2002.

Maricopa has assumed a leadership role in Arizona by establishing the Teacher Education Partnership Commission. The Commission's purpose is to address the PreK-12 teacher shortage by

developing strategies for the recruitment, preparation, and retention of teachers. The colleges have also developed several teacher education programs, which include:

- ✓ 2+2+2 partnerships with local school districts and universities (Chandler-Gilbert, Estrella Mountain, Mesa, Paradise Valley, and Phoenix Colleges)
- ✓ Post-baccalaureate certification and endorsement courses and programs (Rio Salado College)
- ✓ Partnership programs with local universities to offer university junior and senior level courses and programs for education majors on site at two Maricopa community colleges (discussions in progress at Glendale and South Mountain Community Colleges)
- ✓ Grow Your Own programs for teacher aides, cafeteria workers, and support staff (Chandler-Gilbert and Mesa Community Colleges)
- ✓ Faculty development opportunities for current teachers (all colleges, the Office of Public School Programs, and the Phoenix Think Tank)
- ✓ Teacher education track for charter secondary school students (GateWay Community High School)
- ✓ Flexible delivery of education courses and programs including on-line delivery via the Internet (Rio Salado College)
- ✓ Training courses for substitute teachers at the colleges (all colleges).

In addition, Maricopa is working in partnership with Cerritos College, the League for Innovation, the American Association of Community Colleges and several colleges to develop the National Association of Community College Teacher Education Programs. The mission of the National Association is to advance and promote the community college role in the preparation, retention, and renewal of PreK-12 teachers.

Monitoring efforts will be coordinated with the Education Instructional Council, Deans of Instruction, Deans of Student Services, Occupational Administrators, and the Education Coordinating Council (a new Council) that is being formed.

## **Summary: Lessons Learned - Outcomes, Process, Goals**

### ***Are We Doing What We Say We Are Doing?***

- ✓ Yes. The Maricopa Community Colleges individually and collectively provide a diverse range of opportunities for students, community members, K-12 schools, universities and public/private partners. Some programs and services are uniquely customized to meet specific student or community needs, while others provide more basic support to all students or community at large.
- ✓ Yes. The colleges strive to monitor whether they are doing what they say they are doing, and to find various ways to monitor and improve where needed individually as colleges and collectively as an organization.

### ***How Well Are We Doing?***

- ✓ As the monitoring process evolves into an institutionalized strategy, there is a need to clarify standards for outcome levels to be reached for outcome areas. This involves baseline snapshots of what Maricopa is doing collectively as some areas are relatively new (e.g., the AGEC and ATP transfer options) or require resources and alternative methods (e.g., tracking students for several years, given turnover from semester to semester), and how well Maricopa is doing collectively.

- ✓ The various councils (e.g., Deans groups) have provided assistance on goal clarification, measures and process, and discussions have followed on lessons learned not only on goals/measures, but also on the monitoring process and data collection.

#### ***What Could We Do Better?***

- ✓ The monitoring process could be enhanced, with a critical review of the process and roles/responsibilities, beginning in November 2002, with the issuing of the Monitoring Report, and continuing through the school year.
- ✓ While there are some roles/responsibilities for the groups assisting with the data collection and analyses, these are not as clear for those who would follow-up with implications of the monitoring report findings, to effect change collectively as an organization.

#### ***Are There Other Things We Should Be Doing As Part of Institutional and System-Wide Effectiveness?***

- ✓ A question for future consideration is, to what extent do we wish the Governing Board Goals to cover key organizational components , which make the organization very effective (responsive to students and communities)?
- ✓ As this monitoring process is continued, it is helpful to look at data over 3 - 5 years, where resources permit, to get a more comprehensive picture of trends in outcomes, challenges and improvement efforts. Trend data over 3- 5 years is included where feasible, even though the Governing Board request typically calls for one year of data, the most recent.
- ✓ In this reporting cycle, there was a focus on outcomes data and multiple years of data at the request of the Deans groups, and less reliance on survey data. In the future, some standard survey reporting, such as the results from the Noel Levitz student surveys, should be included. These survey data can provide more context information about students' views of our programs and services.

#### ***What are the Next Steps?***

- ✓ Engage in discussion with the various councils to determine priorities (that will shape the 2003-04 budget)
- ✓ Review existing goals and measures to make recommendations if any adjustments are needed in the goals, measures or process
- ✓ Encourage feedback and participation from various groups (e.g., research council)
- ✓ Post the report on the Maricopa web site for the purpose of informing the community.

## **Appendices**

**A. The Governing Board's Goals and Measures**

**B. Workforce Development Information**



## Measures for Governing Board Monitoring Goals

### University Transfer Education/General Education

1. Students who transfer to a baccalaureate degree granting institution will be prepared to successfully attain their educational goals.

**Measures:**

- a. Number and percent of AGECE and transfer pathway completers who transfer within two years of completing the program.
  - b. Percent of baccalaureate degree graduates with community college transfer credits: 1-11.9, 12-23.9, 24-31.9, 32-47.9, 48-63.9, 64+.
  - c. Number of students who transfer community college credits: 1-11.9, 12-23.9, 24-31.9, 32-47.9, 48-63.9, 64+.
  - d. Average GPA of transfer students by university college compared to the average GPA of native students at comparable credit levels who have completed:
    - 1) 24 community college credits;
    - 2) a 35-credit AGECE;
    - 3) an associate's degree.
  - e. Total number of new MCCC students attending state universities annually.
  - f. Measures will be compared to Adelman's and other national statistics regarding community college transfers. Source: Arizona State System for Information on Student Transfer (ASSIST).
2. Students will demonstrate post-secondary competencies in communication (writing, speaking, listening), reading, the humanities, science, critical thinking, problem solving, computer and information literacy and mathematics.

**Measure:**

- \*a. Multiple measures of student achievement of general education outcomes conducted by college faculty and compiled and inventoried by the Office of Institutional Effectiveness in cooperation with the Deans of Instruction and District Student Academic Achievement Assessment Committee (DSAAAC).
3. Students will experience a seamless transfer to baccalaureate degree granting institutions.

**Measures:**

- a. Number of students who transfer with an AGECE or pathway degree without loss of credit. Source: ASSIST
  - b. Evidence of student satisfaction with the transfer process. Source: District Survey conducted by the Office of Institutional Effectiveness in cooperation with the Deans of Instruction and the Deans of Student Services.
  - c. An evaluative report of the MCCC Course Applicability System (CAS) Implementation Project, a project designed to improve the advisement and transfer articulation process. Source: Office of Institutional Effectiveness
4. Students will successfully complete certificate and associate degree programs.

**Measure:**

- a. Number of completed certificate or associate degrees in a given year. Source: IPEDS Completion Report.

\*Each college has individual evaluation parameters set by its own environment and faculty members. Therefore, the means and conditions used to document this goal will be applied relative to the Student Outcomes and Evaluation plans established by each college. This statement also applies to other measures in this document indicated by an asterisk.

### **Developmental Education**

1. Students will demonstrate competencies in courses below 100 level (reading, mathematics, English), which prepare them for success in college level courses.

#### **Measures:**

- a. Successful course completion rate (C or better) for developmental education courses (credit courses below 100 level).
- b. Number and percentage of developmental education completers who successfully complete (grade of C or better) a subsequent related course within two years of completing the developmental course. (Courses will be tracked in reading mathematics, and English. An example of a subsequent course sequence is ENG071 to ENG 101).  
Source: Maricopa Data Warehouse

### **Workforce Development**

1. Students will complete occupational programs or courses with skills sought by themselves or employers.

#### **Measures:**

- a. Annual student enrollment in occupational courses, certificate and degree programs by classes offered in institutional programs (CIP). Source: Maricopa Data Warehouse
- b. Number of completed certificates and/or AAS degrees in a given year. Source: IPEDS Completion Report
- c. Evidence of student satisfaction with completion of their goal to achieve workforce skills. Source: District Survey
- d. Percent of occupational program students employed in the state of Arizona within 3 years of entry into the community college. Source: Carl Perkins II/III Report
- e. Evidence of wage increase (mean or percentage increase) and employment status over time. Source: CPII Report
- f. Evidence of employer satisfaction with preparedness of MCCCCD students for the positions they hold in business and industry. Source: District survey

2. Maricopa Community Colleges will collaborate with private, public and community partners to identify and respond to recruitment, and training and educational needs.

#### **Measures:**

- \*a. Evidence of partners who indicate satisfaction with services that meet their employment needs, measured on an annual basis. Collated evaluations of major partner programs. Source: College Program Evaluations
- b. Number/names/purpose of organizations by college; number of persons trained; number of contract training hours generated. Source: College Deans

### **Student Development Services**

1. Students will be provided programs and services that support their learning, educational and employment/career goals.

#### **Measures:**

- a. Evidence of student satisfaction with programs and services in support of their learning and employment/career goals. Source: Compiled data from satisfaction surveys, graduate follow-up and other surveys.
- b. List of student services by college, which support student learning, educational and career goals. Source: College deans
- c. Use of employment/career services by employers and students in a given year. Source: Maricopa Recruiter
- \*d. Multiple measures of student achievement of learning outcomes as a result of student development program participation. Source: College Deans

2. Students will be provided programs and services that support their personal growth and citizenship development.

**Measures:**

- a. Evidence of student satisfaction with programs and services in support of their growth and development. Source: Compiled data from satisfaction surveys.
- b. List of programs and services by college that supports students' personal growth and citizenship development. Source: College Deans
- c. Number and types of student leadership/student life, service learning and volunteer opportunities for students in a given year. Source: College Deans

**Continuing/Community Education**

1. Community members will be provided opportunities for personal interest and development to include:
  - a. Accessibility to college facilities and services as appropriate (libraries; recreational/athletic facilities; arts programs; internet/technological delivery; courses of an avocational nature to include leisure, wellness and specialized training).
  - b. Forums, dialogs for balanced views of contemporary civic and public issues.

**Measures:**

- a. Evidence of community member satisfaction with opportunities for personal interest and development. (Data collection may require hiring an outside public opinion consultant at a cost range of \$15,000 to \$25,000).
- b. List of programs and services by college. Source: College Deans

2. Maricopa Community Colleges will have collaborative partnerships and programs with elementary schools and high schools and other higher education institutions to increase the number of students that matriculate to the college level.

**Measures:**

- a. Percentage of recent high school graduates attending our colleges. Trend data are available. Source: 2040 Report
- b. List of programs for outreach and recruitment. Source: College Deans
- c. Evidence that outreach programs (programs which include enrollment in college credit classes) meet the criteria for minimum standards established by the Arizona Council of Academic Administrators and approved by the State Board of Directors for Community Colleges of Arizona. These criteria include standards for credit, courses, student admission/placement, faculty certification/evaluation and textbook selection. Source: College Deans
- d. High school graduation and college-going rates within two years of high school graduation of students who participate in outreach programs compared to their class. (College-going rates will be limited to Arizona colleges and universities). Source: Maricopa Data Warehouse and ASSIST





**July 2000 - June 2001**

<b>Training Partnerships</b>			
<b>Name</b>	<b>Purpose of Partnership/Contract</b>	<b>No. of Persons</b>	<b>No. of Contact/Clock Training Hours</b>
Aircraft Maintenance Systems	AMS Basic Math, General Familiarization, Avionics	28	220 clock hrs
America West Airlines	AWA Commercial Aviation Composite	9	220 clock hrs
APS	Corporate Wellness	18	Not available
Arizona Departments of Transportation & Commerce	Highway Construction Training Program for women and minorities	22	210 Clock hours
Banner Health	Employee Career Training	30	Not available
Bombardier Aerospace	Metallurgy & Heat Treatments, Basic Wiring Harness Assembly	69	632 clock hrs
Chandler Unified School district	Spanish for Teachers & Support Staff, A.I.M.S., Financial Planning, English for Adult Learners	127	264 clock hrs
Choice Hotel	Leadership	36	Hours combined below:
Choice Hotel	Computer Training	51	552 contact hours
Cigna	EKG, Medication Application	35	700 contact hours
City of Chandler	Spanish, English as a Second Language	78	96 clock hrs
City of Phoenix	Spanish, Bosnian, Croation, Serbian, Korean, German, French, & Sign Language	101	192 contact hours
City of Phoenix	Corporate Wellness	10	Not available
Continental Airlines	Airbus Familiarization	161	1000 clock hrs
Curt Pippen, DDS	Cardiac Monitoring	15	150 contact hours
Department of Economic Security, Catholic & Lutheran Social Services, International Refugee Center, Maricopa County, Red Cross	Refugee Target Assistance Program Occupational Training	152	700 Clock hours
DMB Sports Clubs	Leadership, Mgt. Cust. Service	179	716 contact hours
Education to Go	Online Training	125	900 clock hrs
Ford Motor Company	Train Automotive fleet and dealer technicians on automotive industry updates	250	2000 Clock hrs
Gila River	English as Second Language	1	Not available
Gilbert Engineering	English as a Second language	97	120 Clock hrs
GM Motors/Raytheon	Automotive Industry Updates	774	2088 Clock hrs
Health Partners, Maricopa County, PV Hospital, PV School District, Phoenix Baptist Hospital, Samaritan Hospitals, Town of Gilbert	Corporate Wellness	3	Not available

**July 2000 - June 2001**

<b>Holsum Bakery</b>	<b>Leadership &amp; Safety</b>	<b>460</b>	<b>Hours combined below:</b>
<b>Holsum Bakery</b>	<b>Supervising Spanish Speakers</b>	<b>15</b>	<b>480 contact hours</b>
<b>Indian Health Service</b>	<b>40 HR HAZWOPER</b>	<b>8</b>	<b>320 Contact hrs</b>
<b>Lucent Technology</b>	<b>Soldering &amp; Blue Print Classes</b>	<b>88</b>	<b>72 Clock hrs</b>
<b>Macayos</b>	<b>Customer Service</b>	<b>60</b>	<b>180 contact hours</b>
<b>Maricopa County Department of Human Services</b>	<b>Client training – tractor trailer driving skills</b>	<b>10</b>	<b>8440 Clock hrs</b>
<b>Maricopa County Workforce Development</b>	<b>Revlon Plant Closing Retraining BTO Program, C-Tech, Medical Assistance</b>	<b>15</b>	<b>175 – 910 Clock hrs</b>
<b>Maryvale Medical</b>	<b>Basic Venipuncture</b>	<b>31</b>	<b>496 contact hours</b>
<b>MCC Business &amp; Industry Institute</b>	<b>Authorized Sun Education Center (ASEC) providing Sun specific</b>	<b>500</b>	<b>23,600 Training hrs</b>
<b>MCC Business &amp; Industry Institute</b>	<b>Informix specific training</b>	<b>127</b>	<b>4,112 Training hrs</b>
<b>MCC Business &amp; Industry Institute</b>	<b>3m Fiber Optic training</b>	<b>18</b>	<b>324 Training hrs</b>
<b>Microsoft, Inc.</b>	<b>AATP Training</b>	<b>31</b>	<b>80 clock hrs</b>
<b>Motorola University</b>	<b>Motorola University program at ASU Research Park</b>	<b>Not available</b>	<b>20,000 participant days</b>
<b>PacifiCare</b>	<b>Team Building</b>	<b>38</b>	<b>368 Contact hrs</b>
<b>Phoenix Union High School</b>	<b>Customer Service &amp; Supervisory Skills</b>	<b>1080</b>	<b>6,560 contact hours</b>
<b>St. Joan of Arc Catholic Church</b>	<b>Conversational Spanish</b>	<b>20</b>	<b>600 Contact hrs</b>
<b>St. Joan of Arc Catholic Church</b>	<b>English as a Second Language</b>	<b>20</b>	<b>600Contact hrs</b>
<b>Tolleson High School</b>	<b>C-Tech Training</b>	<b>5</b>	<b>175 Clock hrs</b>
<b>VA Medical Center</b>	<b>Successful Money Management</b>	<b>38</b>	<b>342 Contact hrs</b>
<b>VA Medical Center</b>	<b>Medicinal Plants of the Desert</b>	<b>22</b>	<b>66 Contact hrs</b>
<b>VA Medical Center</b>	<b>Spanish for Medical Personnel</b>	<b>19</b>	<b>570 Contact hours</b>
<b>Vocational Rehabilitation</b>	<b>BTO Program, Medical Assistant</b>	<b>9</b>	<b>420 –910 Clock hrs</b>
<b>Wyndham Gardens Hotel</b>	<b>Spanish for Hotel Workers</b>	<b>3</b>	<b>20 clock hrs</b>
<b>YMCA</b>	<b>Computer Training</b>	<b>36</b>	<b>144 contact hours</b>
<b>Total</b>		<b>5,024</b>	<b>80,129</b>

**July 2000 - June 2001**

Name	Purpose of Partnership/Contract	No. of Persons	No. of Credit/Training
A.P.S. Palo Verde	Apprenticeship	31	6-8 Credit hours
Arizona Builders Alliance	Apprenticeship	1280	8-10 Credit hours
Arizona Department of Environmental Quality	Computer Training	600	.5-1 Credit hour
Arizona Department of Revenue	Accounting Courses	37	3-6 Credit hours
Arizona Department of Transportation	Internet Computer Training	172	1-4 Credit hours
Arizona Field Ironworkers JATC	Apprenticeship	89	8-10 Credits hours
Arizona Heart Hospital	Hemodynamics	92	4 Credits hours
Arizona Insulators JATC	Apprenticeship	24	10 Credit hours
Arizona Millwright JATC	Apprenticeship	14	16 Credit hours
Arizona Roofers JATC	Apprenticeship	20	10 Credit hours
Arrowhead Hospital	Telemetry Training	24	3 Credit hours
AZ Credit Union League	Spanish for Tellers	30	1 Credit Hour
AZ Department of Economic Security	Visual Basic Training	35	3 Credit hours
AZ State Hospital	Patient Communication	30	2 Credit Hours
Banner Health	Pediatric Advanced Life Support	88	2 Credit hours
Banner Health AZ	Pilot Coding Program	15	11.5 Credit Hours
Bashas	Computer/Mgmt. Training	205	.5-1 credit
Boswell Hospital	Phlebotomy Program	4	4 Credit Hours
Cartwright and Westside Headstart	English 101 and 102 classes to employees	36	60 Credit Hours
Central Arizona Carpenters JATC	Apprenticeship	505	10 Credit hours
Cigna	Spanish for Healthcare	44	1 Credit Hour
City of Avondale	Total Quality Management & Customer Service Training and Education	35	2-3 Credit hours
City of Buckeye	Total Quality Management & Customer Service Training and Education	21	2-3 Credit hours
City of Goodyear	Total Quality Management & Customer Service Training and Education	16	2-3 Credit hours
City of Litchfield Park	Total Quality Management & Customer Service Training and Education	10	2-3 Credit hours
City of Phoenix	Supervision Training	192	.5 credit
City of Phoenix	ND170AA 16-hour Multi-Vehicle Operator Training	43	43 Credit Hours
City of Phoenix	IND170AG 8-hour Trenching & Excavation Safety	43	43 Credit Hours
City of Phoenix	HMT 102 AA 8-hour HAZWOPER Refresher	29	14.5 Credit Hours

## July 2000 - June 2001

City of Phoenix	HMT 102 Hazardous Waste Operations and Emergency Response	21	84 Credit Hours
City of Phoenix	HMT103 Hazardous Waste Generation, Reduction and Treatment	21	63 Credit Hours
City of Phoenix	HMT 105 Hazardous Waste Management Applications	21	84 Credit Hours
City of Phoenix	HMT 106 Hazardous Materials Management Applications	21	84 Credit Hours
City of Phoenix	HMT Introduction to Environmental Hazardous Material Technology	19	57 Credit Hours
City of Phoenix	HMT104 Health Effects of Environmental Hazardous Materials	19	57 Credit Hours
City of Phoenix UNIDOS Project	Computer Training for Single Mothers BPC110	60	180 Credits
City of Phoenix UNIDOS Project	Computer Training for Single Mothers BPC135	30	60 Credits
City of Tolleson	Total Quality Management & Customer Service Training and	13	2-3 Credit hours
Desert Samaritan	Critical Care, EKG	32	7 Credit Hours
DMB	Supervising Spanish Speakers	15	1 Credit Hour
Dr. Matthew Hardy	Spanish for Physicians Office	10	1 Credit Hour
Electric League	DOS Training	16	2 Credit Hours
Electric League of Arizona	Technology/Workforce Training and Information Sharing	280	3 Credit Hours
Federal Express	Word/Excel Training	123	1 Credit
Gilbert Unified School District	Diabetes Training	54	.5 Credit
Glaziers JATC	Apprenticeship	9	10 Credit Hours
Good Samaritan	Cardiac Care, Cath Lab, Critical Care	186	.5 Credit
Head Start – City of Phoenix	General Education Classes	60	3 Credit Hours
Health South Meridian	Physical Assessment, Venipuncture	22	.5 Credit
Holsum Bakery	Supervising Spanish Speakers	15	1 Credit Hour
Honeywell	Statistical Process Control/Focus Training	41	2.5 Credit Hours
Hospitality Consortium	Provide hospitality education to high school students in partnership with	12	36 Student Credit Hours
IECA	Technology/workforce training and information sharing	198	10 Credit Hours
Johnson Controls Inc.	Technology/workforce training and information sharing	534	3 Credit Hours
Kitchell Corporation	Computer Training	14	1.5 Credits
Kyrene School District	Diabetes Training	48	.5 Credit

**July 2000 - June 2001**

Lincoln Health Care	Critical Care	18	4 Credit Hours
Lockheed Martin	Corporate Fitness program	58	2 Credit hours
Maricopa County Department of Human Services	Client Training – Clerical Skills	47	128 Credit Hours
Maricopa County Head Start	Early Childhood Development Courses	72	100 Credits
Maricopa Integrated Health Systems	Attendant Care	103	10 Credit Hours
Maricops Co. Dept. of Transportation	Web Design Training	20	2 Credit Hours
Mesa Airlines	Management Training	9	1 Credit
Mesa Lutheran/Valley Lutheran/Lutheran Heart	Critical Care, EKG	108	.5 Credit
New World Education/Charter School	Spanish for Teachers and Staff	12	1 Credit Hour
Nissan	Technology/workforce training and information sharing	4	12 Credit hours
Omni Care IV Services	IV Therapy	72	1 Credit
Palo Verde Nuclear Generating Plant	Maintenance Intern Program	15	17 Credit hours
Pathway Learning Center/Chandler Unified School District	Spanish for Childcare Providers	13	1 Credit Hour
Peskind, Hymson & Goldstein	Word/Excel Training	28	.5 Credit
Phase II	Employee Professional Development in business Fastrack	128	393 Student Credit Hours
Phoenix Baptist Hospital	Patient Care Technician	20	4 Credit Hours
Phoenix Baptist Hospital	Spanish For Healthcare	12	1 Credit Hour
Phoenix Electrical JATC	Apprenticeship	268	8 Credit Hours
Phoenix Job Corps	Computer Training	47	8 Credit Hours
Phoenix Memorial	Critical Care	12	4 Credit Hours
Phoenix Opthamologists	Spanish for Physicians Office	18	1 Credit Hour
Phoenix Painters & Decorators JATC	Apprenticeship	32	8 Credit Hours
Phoenix Pipe Fitting Trades JATC	Apprenticeship	113	10 Credit Hours
Phoenix Sheet Metal JATC	Apprenticeship	158	10 Credit Hours
Progressive Roofing	Computer/Mgmt. Training	23	3-9 Credits Hours
Quaker Oats	Machine Maintenance (Tech Math)	0	4 Credit hours
QWEST	Cisco	16	4 Credit Hours
Roger's Corporation	Computer Training	270	1 Credit
Roosevelt School District	Medication Review	42	1 Credit
Rural Metro	Contract to provide paramedic	169	1266 Student Credit
Saguaro Children Surg.	Spanish for Physicians Office	13	1 Credit Hour
Salt River Pima Maricopa Indian Community	Delivery of math and English courses to employees of Human Services Department	12	36 Student Credit Hours
Scottsdale Healthcare	Emergency Room	16	4 Credit Hours
Sprint	Excel/Powerpoint Training	30	1.5 Credits

### July 2000 - June 2001

St. Daniels Church	Provide ESL for special population	31	93 Student Credit Hours
St. Joseph's Hospital and Medical Center	Training of School Health Staff, OB Nurses, Diabetes Update, Pain Management	297	3-4 Credit Hours
State Farm Insurance	Spanish	28	2 Credit Hours
State Farm Insurance	Spanish	23	3 Credit Hours
Stevens & Leinweber	Spanish for Construction Supervisors	12	1 Credit Hour
Toyota	Technology/workforce Training and information sharing	16	12 Credit Hours
VA Medical Center	HCC101 Health Care Today	18	9 Credit Hours
VA Medical Center	HCC 103 Workplace Behavior	15	7.5 Credit Hours
VA Medical Center	HCC107 Communication and Teamwork in Health Care	14	14 Credit Hours
VA Medical Center	HCC105 Personal Wellness and Safety	13	6.5 Credit Hours
VA Medical Center	HCC140 Medical Terminology	13	26 Credit Hours
VA Medical Center	HCC151 Legal and Ethical Issues in Health Care	13	6.5 Credit Hours
VA Medical Center	HCC 153 Decision Making in Health Care Setting	13	6.5 Credit Hours
Vencor Hospital	IV Therapy	12	3 Credit Hours
Wigwam Resort	Corporate Fitness program	15	2 Credit hours
Youthbuild Guadalupe	Construction Training	87	10 Credit Hours
<b>Total</b>		<b>8,256</b>	<b>3,307</b>

### Certificate and Degree Programs

Aircraft Maintenance		11	65 Credits
Airframe Maintenance		22	32 Credits
Media Arts: Digital Imaging		3	16 Credits
Microsoft Networking Technician		3	36 Credits
Microsoft Product Specialist		27	14 Credits
Microsoft Systems Engineer		17	26 Credits
Networking Admin: Cisco		2	13 Credits
Networking Tech: Cisco		1	20 Credits
Powerplant Maintenance		9	33 Credits
<b>Total</b>		<b>95</b>	<b>255</b>

**July 2000 - June 2001**

<b>Rio Salado College</b>			
Individual Numbers Not Available, See Totals at Bottom			
Aid to Adoption of Special Kids			
Alaska Airlines			
America West Airlines			
American Express			
Americredit			
Arizona Public Service			
AT&T			
Avnet			
AZ Department of Corrections			
AZ Department of Economic Security			
AZ Department of Public Safety			
AZ Department of Transportation			
AZ Health Care Cost Containment System			
AZ Peace Officer Standards and Tr. Board			
Bank First			
Blue Cross/Blue Shield			
Carlson Wagonlit Travel			
Chase Manhattan Bank			
Club Med			
Discover Financial Services			
Excell			
First USA			
Honeywell			
Ikon Office Solutions			
Insight			
Maricopa County Dept. of Medical Eligibility			
Maricopa County Sheriffs Office			
McCord Consumer Direct			
Meadows			
Mesa Fire Department			
Mesa Police Department			
Phoenix Police Department			
Progressive Insurance			
<b>Total</b>		<b>15,854</b>	<b>136,818</b>



## July 2000 - June 2001

Online Teacher Professional Development Program	To provide certified teachers with special education endorsements to teach in specialized areas (eg. Computer Science, ESL/Bilingual, Math, Reading)	1364	
Online Teacher Certification Program	To address the teacher shortage nationwide by providing certification for individuals with Baccalaureate Degrees	350+	

### Partnerships for Credit/Non-Credit Training Advisory & Program Development

#### Chandler Gilbert Community College

Intel

#### Estrella Mountain Community College

##### Fitness Programs:

Aqua Fria

APS

Avondale Fire

Bunger Steel

City of Avondale

City of Goodyear

City of Phoenix

Glendale Elementary School District

Goodyear Fire Department

Lockheed Martin

Liberty Elementary School

Maricopa County

New Life Shelter

Samaritan

Wigwam Resort

##### ESL Courses:

Tolleson Elementary

#### GateWay Community College

City of Phoenix Employee Development

International Association of Heat, Frost Insulators & Asbestos Workers

Interstate Mechanical Contractors, Inc.

Plaster & Cement Masons JATC

Sundt

#### Glendale Community College

##### Cisco Systems Partners with:

Cisco Systems

Glendale Community College

Estrella Mountain Community College

Chandler Gilbert Community College

University College Center at ASU West

Glendale Community College North  
and Deer Valley Unified School

ASU West

Arizona State University (WISE)

AC Delco

City of Glendale Fire Station

IBM

Science Olympiad

Healthcare Dimensions

Intergroup & Pacific Care Insurance  
Companies

## July 2000 - June 2001

### Glendale Community College Cont.

#### Fire Academy and Fire Station:

Avondale  
Black Canyon City  
Buckeye  
Buckeye Rural  
Chandler  
Circle City  
Daisy Mountain  
El Mirage  
Fountain Hills  
Glendale  
Harque Hola Valley  
Laveen  
Montezuma  
Morris Town Fire Dept.  
Palo Verde Nuclear Generating Station  
Peoria  
Phoenix  
Rio Verde  
Rural Metro East and West Sumerton  
Sun City  
Sun City West  
Surprise  
Tolleson Fire Department  
Tonto Basin

#### Paramedic Program:

Avondale  
Central Yavapai Fire Dept.  
Daisy Mountain  
El Mirage  
Gila River  
Glendale  
Payson  
Peoria  
Prescott  
River Medical Inc.  
Surprise  
Ajo Ambulance  
Lifeline  
Maricopa County Sheriff's Office  
Phoenix Police Dept.  
Professional Medical Transport  
Rural Metro  
Southwest Terros  
Tolleson Fire Dept.  
Wickenburg

#### Police Academy:

Arizona Department of Corrections  
Buckeye Police Dept.  
El Mirage Police Dept.  
Goodyear Police Dept.  
Maricopa County Sheriff's Office  
Peoria Police Dept.  
Surprise Police Dept.  
Youngtown Police Dept.

### Mesa Community College

American Management Assoc.  
Banner Health  
Cisco  
ESRI  
General Motors  
Gila River Indian Community  
Intel  
Local Mortuaries

Mesa General Hospital  
Microsoft  
Novell  
Paramedic Training  
Sun Health Care  
Sun Microsystems  
Tempe Lukes Hospital  
TRW

## July 2000 - June 2001

### Paradise Valley Community College

#### Environmental Health and Safety Technology:

Allied Signal	Intel
Aspen Furniture LLC	Maricopa County Environmental Services Dept. Field Services Division
Biogard Environmental Services, Inc.	McPhee Environmental Supply
Boeing	Motorola
Central Arizona Project	Small Business Environmental Assistance Program of Maricopa County
Chaos Supplies, Inc.	Sumitomo-Sitix
Dames & Moore	Unisys Corp.
Environmental Hotline	

### Phoenix College

American Express	Phoenix Fire Department
Arizona State Dental Association	Phoenix Memorial Hospital
Mayo Clinic	Tempe Fire Department

### Scottsdale Community College

City of Scottsdale Tourism  
Rural Metro

### South Mountain Community College

ABCO	Fry's
Arizona Food & Marketing Allicane	Intel
AT&T	Motorola
Bashas	Pinacor
Cisco Systems	Safeway
Cox Communications	