

#1

**OAKLAND COMMUNITY COLLEGE
1994 OUTCOMES ASSESSMENT COHORT
INITIAL STUDY**

Prepared by:

*Office of Institutional Planning & Analysis
Oakland Community College
August 1995*

**Oakland Community College
Outcomes Assessment
1994 Cohort Study**

Introduction:

This cohort study constitutes an essential part of the Student Outcomes Assessment Model submitted to the North Central Association by the task force of the Academic Senate of Oakland Community College. It was determined that as part of its Student Outcomes Assessment the College would use a longitudinal model to track a particular cohort of students throughout their experience at OCC. Information gathered by this method allows for a clear picture of a student's progression from admission through departure, transfer or graduation. Assessment of student opinion and progress will be made on a regular basis to determine if these students have met intended student outcomes described by the Student Outcomes Assessment Committee.

This first report summarizes data collected on the Fall 1994 student cohort at the first assessment point. It includes all data related to the admission of the student and the perceptions of the students in their first term. Demographic information includes gender, ethnicity, age, information about parents' educational background, socio-economic status and the high school attended by the student. This background information will be used in analysis later in the study to evaluate factors influencing student success.

Methodology:

It was conservatively estimated, using statistical measures (Van Marte & Gilbreath, 1980; Narins, 1994) that a final cohort size of 385 would constitute a valid student sample. In order to allow for expected attrition as the cohort moves through the College we calculated a starting sample size of 800 was needed.

A letter identifying students as part of the cohort and requesting their co-operation was mailed with the first survey in December 1994. One hundred and twenty-seven responses were received by mail and follow-up phone calls during the second and third weeks of December were made to all who did not respond. It proved more difficult than expected to contact some students in the group. Persistent efforts were made to do so with up to five phone calls being made per individual. We were finally forced to classify 121 (15%) of these students as unobtainable for the purposes of the survey. Many of those we were unable to contact reflected the characteristics of a transient population; phone numbers were disconnected, residence changed, no forwarding addresses were available.

We were able to obtain survey data by phone from an additional 485 students in the cohort. The total number reached by mail or phone was 612 which represents 77% of the original cohort, a response rate within the tolerances we anticipated. However, in addition to the 77% who

completed the survey, valid data was obtained in regard to another 41 students (5%) from the cohort who had already dropped their courses. With the addition of this data, a response rate of 82% was obtained overall. As the initial cohort size had been determined to allow for attrition of 25% the final attrition rate of 18%, although higher than hoped for, was well within the initial scale established. Only 12 students refused to participate in the survey, resulting in a 95% cooperation rate, while 11 indicated that although registered they never attended the College. It should be noted that those members of the cohort who we were unable to contact at this time will remain part of the cohort and may appear in the next phase of the study. We will make every effort to contact them at that time.

Table 1
Cohort Response Rate

Response	Number	Percentage
Interviewed	615	77.0
Refused	12	1.5
Not Eligible*	52	6.5
Not Interviewed	121	15.0

* 11 never attended, 41 dropped classes

ANALYSIS:

Demographic Data:

Gender:

Slightly over half (53%) of the respondents were female, while 47% were male. Of the whole cohort of 800 students, 51% were female and 49% were male. This slightly under-represents the Fall 94 College female population as reported in the 1995 Student and Financial Data Book (59.6%).

Ethnicity:

Of the respondents for whom we are able to report ethnic data, 80% classified themselves as White, 13% as African-American, 4% as Asian, 2% as Hispanic and one student was identified as American-Indian. These percentages correspond closely with the ethnic composition of the College reported in the 1995 Student and Financial Data Book, with our respondents reflecting slightly higher minority status. (Table 2)

Table 2
Ethnicity of Cohort Students

	Outcomes Cohort	Fall 1994 Students
African American	12.7%	11.6%
Asian	4.3%	3.4%
Hispanic	2.4%	2.0%
Native American	0.2%	0.7%
White	80.4%	82.2%

Age:

The age of students in the cohort varied from eighteen to seventy years old, with a mean age of 23.5 years old. The mean age of responding students was 23.3 years, with 62% of the group clustered at ages nineteen and twenty. The mean age of all students enrolled at the College in Fall 1994 was somewhat higher at 27.9 years.

To facilitate analysis by age, respondents were grouped into the following age groups:

Table 3
Cohort Students Grouped by Age

Age Group	Percent
Traditional (18-21)	72%
Generation X (22-31)	13%
Baby Boomers (32-54)	14%
Seniors (55 and above)	1%

It should be noted that the size of the "Seniors" group of respondents (6) limits its value for meaningful analysis.

High Schools:

We were able to obtain data from the OCC Student Information System on the high schools attended by 542 of our respondents. Data on the remaining 70 students was incomplete at this time but may become available in the future. Of those for whom high school information is available 76% attended public or private high school within Oakland County, while 131 (24%) came from outside Oakland County (Table 4). Eleven percent of this second group attended high school in Wayne County, while 3% attended high school in Macomb. Four percent of the respondent group (22 students) attended foreign high schools.

This data is very similar to that obtained from the OCC Retention Study which showed that 79% of students who were at OCC, as their first time in any college, came from Oakland County high schools. This suggests that our cohort is representative of the larger student group in this respect.

Table 4
Cohort Students from Oakland County Public School Districts

School District	Students
Avondale	7
Berkley	11
Birmingham	13
Bloomfield Hills	7
Brandon	7
Clarkston	15
Clawson	13
Farmington	30
Ferndale	9
Hazel Park	4
Holly	7
Huron Valley	22
Lake Orion	14
Lamphere	4
Madison	8
Novi	5
Oak Park	2
Oxford	9
Pontiac	18
Rochester	28
Royal Oak	25
Southfield	27
South Lyon	6
Troy	22
Walled Lake	24
Waterford	29
West Bloomfield	6

High School GPA:

We had hoped to provide additional analysis related to high school GPA. However, this self-reported data is currently too incomplete to provide meaningful analysis. For the minority of cohort students for whom high school data exist the mean reported GPA was 2.30.

ASSET:

ASSET data was compiled for the cohort group from scores obtained on the reading, writing, numerical skills, elementary and intermediate algebra tests.

Scores on the reading test vary from 26 to 53 with a mean of 40.76. The current cut-off levels for placement in reading are set as follows; College-level 42-53, Remedial 32-41 and Adult Basic Education 0-31. The mean for the survey respondents is below college-level with 57% of those for whom a score is reported, achieving below this level. This is similar to the levels reported in the 1995 Student and Financial Data Book for students entering OCC in 1993-94 (53% below college-level).

ASSET writing scores of respondents ranged between 26 and 54 with a mean of 40.75. Current college-level cut-off in this area is at 42-54; placing 57% of the responding group below college level. Again this data is similar to that reported in the 1995 Student and Financial Data Book for students entering OCC in 1993-94 (55% below college-level).

In the mathematics area the largest group of respondents (331) took the numerical skills test, with scores ranging from 25 to 54. The mean score was 37.91. Fifty-five percent of this group scored at 38 or below. Ninety-six respondents completed the Elementary Algebra test with scores ranging from 0 to 54, with 68% of them scoring at 38 or below and a mean of 35.1. At the Intermediate Algebra test level 70 respondents completed the test with scores from 0 to 53, and a mean of 35.06.

It should be noted that there are some limitations to this data as information on the ASSET scores of cohort members is incomplete. It is possible that some students were exempted from the testing or have delayed taking the tests.

Table 5
ASSET Scores

Variable	Mean	Minimum	Maximum	No.
ASSET Reading	40.76	26	53	477
ASSET Writing	40.75	26	54	477
ASSET Numerical	37.91	25	54	331
ASSET Elementary Algebra	35.10	0	54	96
ASSET Intermediate Algebra	35.06	0	53	70

In an effort to devise a measure of academic preparedness which could be used in further analysis we aggregated three ASSET scores into an overall measure. This procedure necessitated the use of individual cut-off scores for each of the reading, writing and numerical skills tests which were then aggregated into an overall measure of preparedness ranging from least prepared (0) to most prepared (3). The usefulness of the overall measure is limited by the fact that it was possible only for those members of the cohort who had scores in the requisite three areas. Almost half of respondents (281) were missing one or more scores. Of the 331 valid cases we found 38% (126) were in the least prepared category, while 15% were in the most prepared group (50 respondents who were prepared in all three areas). (Table 6)

Table 6
Overall Academic Preparedness
(ASSET Derived Data)

Level of Preparedness	Number	Percent
(0) Least prepared	126	38%
(1) Prepared in one area	87	26%
(2) Prepared in two areas	68	21%
(3) Most prepared	50	15%

Cross tab analysis of gender and academic preparedness indicates that the most prepared group corresponds closely to the gender split of the respondent group (52% female and 48% male). However, female respondents are disproportionately under prepared (62%) compared with males (38%). In addition, analysis by ethnicity indicates that 59% of African-American respondents are in the least academically prepared group.

STUDENT INTENTIONS:

Reason for Attendance:

The most frequently cited reason for attendance at OCC is for transfer, cited by almost half of those surveyed (46%). This is in line with information from the ASSET EPF form which also indicated 45% of entering students intended to transfer. Longitudinal study will determine if these students actually transfer or at what point their intentions change. In addition, another quarter of the cohort (25%) identified their reason as being the intention to gain an associate's degree. (Table 7)

Table 7

**Which of the following is the single most important reason for your being at OCC?
(Analysis by cohort and gender)**

	Cohort	Female	Male
To gain a certificate	4%	6%	2%
To gain an associate degree	25%	29%	20%
To gain transfer credits	46%	45%	47%
To gain job skills for a new career	10%	9%	10%
To upgrade existing job skills	6%	4%	8%
To gain personal enrichment	7%	6%	9%
Other	3%	1%	4%
No of cases	612	323	289

Analysis of reason for attendance by age group provides some interesting contrasts (Table 8). The percentage of respondents interested in obtaining an associate degree remains fairly consistent across age groups. However, the transfer intent is typically a much more frequent motive among the "traditional" students (58%) than for "generation X" (24%) or "baby boomers" (8%). "Generation X" respondents (23%) and "baby boomers" (21%) are more likely to be intending to gain job skills for a new career than "traditionals" (5%). Baby boomers (23%) are the largest group looking to upgrade their job skills. "Seniors" reasons for attendance are to upgrade their existing skills (33%) and to gain personal enrichment (67%).

Table 8

**Which of the following is the single most important reason for your being at OCC?
(Analysis by age group)**

Reason	Traditional	Generation X	Boomers	Seniors
To gain a certificate	4%	4%	5%	
To gain an associate degree	25%	26%	23%	
To gain transfer credits	58%	24%	8%	
To gain job skills for a new career	5%	23%	21%	
To upgrade existing job skills	2%	9%	23%	33%
To gain personal enrichment	4%	11%	16%	67%
Other	2%	4%	5%	

Further analysis by gender and ethnicity of reasons for attending OCC suggest some differences in motivation between males and females. Females (29%) are more likely than males (20%) to intend to gain an associate degree, while slightly more males (8%) are intending to upgrade their existing skills or gain personal enrichment (4%). African Americans (39%) and Hispanics (29%) are more likely than other ethnic groups to intend to gain an associate degree, while Asians (60%) are more likely to intend transfer than other groups. Hispanics (21%) are more likely than other groups to intend to gain job skills for a new career.

An analysis of student motivation in relation to the educational experience of their parents confirmed that the intention to transfer is more likely for those respondents whose parents had college degrees. For example, of those respondents whose mothers had four year degrees 65% were attending OCC to gain transfer credits.

Additional cross tab analysis using the preparedness measure indicates that under prepared students are more likely to attend OCC in order to gain an associate degree, while the two most prepared groups are interested in transfer.

Length of stay:

Almost a half of those surveyed intend to stay at OCC for two years, while an additional 13% intend to stay one year. The rest of the respondents are distributed over time periods ranging from one semester to more than three years. Almost one tenth are uncertain how long they will stay. Analysis by gender and ethnicity show little difference between these groups. However, analysis by age group illustrates the same patterns shown by the responses to their reasons for being at OCC. More than half of the "traditional" student group, consistently with their higher than average propensity to transfer, intends to stay two years at OCC. The small number of "seniors" expect to stay only one or two semesters or are uncertain of their length of stay (33%). (Table 9)

Table 9
How long do you expect to stay at OCC?
(Analysis by cohort and age group)

	Cohort	Traditional	Generation X	Boomers	Seniors
One semester	7%	5%	13%	14%	33%
Two semesters	6%	6%	5%	10%	17%
Three semesters	4%	5%	1%	1%	
One year	13%	16%	2%	5%	
Two years	47%	53%	40%	30%	17%
Three years	8%	6%	17%	13%	
More than three years	5%	3%	9%	13%	
Unsure	9%	7%	12%	14%	33%
No. of cases	612	438	82	84	6

Of those who intended to stay at OCC for more than one semester a considerable majority (76%) stated their intention to enroll continuously during that time. Males (22%) are slightly more likely than females (13%) to expect to take a break between semesters (Table 10). In addition, Hispanics (31%) are more likely than other groups to express this intention or be uncertain about their intentions (23%) (Table 11).

Table 10
If you expect to stay at OCC for more than one semester do you expect to enroll continuously or do you expect to take a break between semesters?
(Analysis by cohort and by gender)

	Cohort	Male	Female
Continuously enroll (Fall, Winter, Spring)	432 76%	74%	79%
Take a break between semesters	97 17%	22%	13%
Uncertain at this time	36 6%	4%	8%
No. of cases	568	260	308

Table 11

**If you expect to stay at OCC for more than one semester do you expect to enroll continuously or do you expect to take a break between semesters?
(Analysis by cohort and ethnicity)**

	White	African-American	Asian	Hispanic	American-Indian
Continuously enroll (Fall, Winter, Spring)	77%	84%	79%	46%	
Take a break between semesters	17%	11%	17%	31%	
Uncertain at this time	6%	4%	4%	23%	100%
No. of cases	441	70	24	13	1

Credits Intended:

Almost one fifth of the entering cohort stated their intention to take 62 credits at OCC. The next largest group (40 students) indicated an intention to take 60 credits. Another group of 24 students identified their intention to take 30 credits. Beyond these three groupings the number of intended credits was widely scattered over a range from 2 to over 100. It should be noted that the largest group of the cohort (28%) did not respond to this question, probably indicating uncertainty about their intentions or academic requirements. The 443 students who responded to this question reported a mean of 44 credits.

Long-term educational plans:

Most of the responding cohort (82.5%) have long-term educational plans beyond OCC. (Table 12) A slightly lower percentage of Hispanic students (79%) than other groups indicate these plans. Educational aspirations are high among those who intend to continue their studies with almost half of the cohort (46%) identifying their wish to complete a bachelor's degree, while another third of the cohort want to complete a higher level degree. (Table 13) Their confidence level in these plans is also high; almost two thirds of the respondents are "very sure" about their goal, while an additional third are "somewhat sure". (Table 14) Further analysis indicates a tendency for more female (68%) than male students (53%) to indicate that they are "very sure" of their plans. In addition, African American (72%) and Hispanic (73%) students are more likely to make this statement.

Age group analysis shows, as we might expect, the younger the group the more likely they are to have long-term educational goals. Ninety percent of "traditional" students intend further study in comparison with 74% of "generation X", 53% of "baby boomers", 17% of "seniors". These "seniors" see their further education as personal enrichment. On the other hand the "baby boomers" (16%) are more likely than average to look for certification.

Table 12
After completing your studies at OCC do you intend to pursue further educational goals? (Analysis by cohort and age group)

	Cohort	Traditional	Generation X	Boomers	Seniors
No plans for further education beyond current studies at OCC	104 18%	10%	26%	47%	83%
Intend to pursue further education after OCC	492 82%	90%	74%	53%	17%
No. of cases	595	428	80	79	6

Table 13
How much education do you want to complete in the long-term after OCC?

	Cohort	Traditional	Generation X	Boomers	Seniors
22 Personal improvement courses	4%	3%	5%	10%	100%
28 Professional development courses	5%	5%	6%	8%	
43 Professional certification	8%	8%	6%	16%	
234 A bachelor's degree	46%	45%	48%	49%	
165 A professional, master's or doctorate	32%	35%	29%	14%	
23 Other	5%	5%	5%	4%	
No. of cases	515	397	63	51	2

Overall

Table 14
How sure are you about this long-term educational goal?

	Cohort	Male	Female	<u>n</u>
Very sure	61%	53%	68%	314
Somewhat sure	31%	39%	24%	158
Not sure at all	9%	9%	8%	44
No. of cases	516	241	275	

Long-term career goals:

A large majority (72%) of the cohort reported that their attendance at OCC relates to their career goals (Table 15). When asked more details about how attendance is related the largest group (58%) identified a very traditional goal of gaining new skills for their first career, while 22% want to gain new skills to change career (Table 16). Male and female students reported very similar patterns of career reasons. Differences between minority and non-minority students were in general slight. However, the most academically prepared students were less likely to relate their attendance to career goals, while the least academically prepared groups clearly related their attendance to career reasons.

Almost three-quarters of "traditional" students (71%) wish to gain new skills for their first job while "generation X" (36%) and "baby boomers" (36%) were more likely than average to intend to gain new skills to enter a different career. "Baby boomers" were the most likely group to be looking for new skills to use in their current careers (21%) or for promotion in their current careers (15%).

Table 15
Are you attending OCC for career reasons?

Not related to career goals	28%	170
Attendance is related to career goals.	72%	434
No. of cases	603	

Table 16
How does your attendance at OCC relate to your career goals?

	Cohort	Traditional	Generation X	Boomers	Seniors
258 Gain skills for first career position	58%	71%	39%	15%	
99 Gain new skills for a different career	22%	16%	36%	36%	50%
48 Gain new skills for current career	11%	9%	10%	21%	
18 Gain new skills for promotion	4%	1%	1%	15%	
11 Satisfy employer's training requirement	3%		3%	11%	50%
13 Other	3%	4%	2%	2%	
No. of cases	447	311	67	66	2

When asked about the career they intend entering after OCC the largest single group in the cohort (22%) is undecided. This may represent members of the transfer group who have not made a final decision about their careers. Other sizeable groups are found choosing business (8%), nursing (5%), education (5%), accountancy (4%), law enforcement (4%) and engineering (3%). Another group of the cohort (6%) reported their intention of staying in their current field (Table 17). Career choices analyzed by gender show some traditional patterns with clerical, education and nursing fields primarily chosen by females, engineering and skilled trades primarily chosen by males.

Table 17

Please check the career or occupation you intend entering when you complete your studies at OCC.

	Number
Accountant	24
Actor, musician or entertainer	6
Architect or urban planner	11
Artist	10
Business (clerical)	14
Business executive (management, administration)	47
Business owner or proprietor	5
Business sales person or buyer	6
Child care provider	5
Communications (television, radio, video, advertising)	13
Computer programmer or analyst	16
Counselor/social worker	10
Dentist, orthodontist	3
Educator (teacher, librarian)	29
Education support (teacher's aide, library assistant)	1
Engineer	21
Draftsman/CAD technician	7
Food service	7
Human resources	2
Interior decorator	3
Lab technician or hygienist	13
Law enforcement officer/security	22
Lawyer (attorney) or judge	10
Nurse	30
Pharmacist	3
Physician	20
Retail	3
Scientific researcher	6
Skilled trades, precision production	12
Therapist (physical, occupational, speech)	18
Veterinarian	4
Writer or journalist	2
Other	41
Undecided	133
Do not intend entering a occupational field now	9
Stay in my present field.	39
No. of cases	605

Transfer intentions:

The largest transfer group intends to move on to 4-year schools. It is interesting to note that the number with this intention (66%) is larger than that who previously told us transfer was the "primary reason" for attending the college. It would seem that some students who gave other primary reasons for OCC attendance also have this intention (Table 18). Males and females showed small differences in transfer patterns, but both African-American (78%) and Asian (80%) groups showed a greater propensity to transfer than the rest of the cohort (65%). As would be expected the largest group intending to transfer to four year college is also the youngest; 84% of them are "traditional" students.

Table 18
Do you intend to transfer to another college or university after OCC?
(Analysis by cohort and age group)

	Cohort	Traditional	Generation X	Boomers	Seniors
100 Not intending to transfer	17%	8%	24%	51%	
58 Undecided about transfer	10%	7%	13%	16%	
29 To a 2-year college	5%	5%	5%	2%	
394 To a 4-year college	66%	76%	51%	27%	
22 Another type of school/college	4%	3%	8%	4%	
No. of cases	600	432	79	82	5

Do you intend to transfer to another college or university after OCC?
(Analysis by cohort and ethnic group)

	Cohort	White	African-American	Asian	Hispanic	A/Indian
Not intending to transfer	17%	16%	11%	8%	21%	100%
Undecided about transfer	10%	10%	8%	8%	7%	
To a 2-year college	5%	6%	3%	4%		
To a 4-year college	66%	65%	78%	80%	64%	
Another type of school/college	4%	4%			7%	
No. of cases	570	458	72	25	14	1

When asked about intentions related to state and professional licensing the largest group in the cohort (40%) is "uncertain". This may reflect a lack of knowledge at this early stage of their academic career at OCC of just what requirements are, as well as uncertainty about their intentions (Table 19).

Table 19

Do you intend in the future to take any state licensing or professional examinations related to your OCC academic studies?

Yes	31%	196
No	29%	174
Uncertain	40%	241
No. of cases	604	

Two general demographic questions related to household income and parental educational levels were asked of all respondents. The intention is to use these in future statistical analysis with other data gathered.

A small number of students were unwilling to answer questions about household income, while a larger group (26%) said they did not know. Fifty percent of the cohort placed their household income below \$60,000 per year while 9% placed their household income above \$90,000 per year (Table 20)

Table 20

Please check the appropriate income group that represents your total household income. This would include parental income - if living with parents; spouse's income - if married; or income of others who live permanently in your home.

Less than \$15,000	9%
\$15,000 to \$29,999	12%
\$30,000 to \$44,999	14%
\$45,000 to \$59,999	16%
\$60,000 to \$74,999	8%
\$75,000 to \$89,999	7%
\$90,000 or more	9%
Don't know	26%
No. of cases	601

A question on parental education levels produced data showing a concentration at the high school and "some college" level with a tendency for slightly more fathers than mothers to have four year or higher degrees (Table 19). Half of the cohort are first generation college students.

Table 21

What is the highest level of education attained by each of your parents?

Mother	Father	
13%	9%	Did not complete High school
37%	28%	High school diploma or GED
15%	12%	Some college (but did not complete degree)
11%	8%	Two-year college degree
13%	20%	Four-year college degree
5%	11%	Master's, doctorate or professional degree
7%	9%	Don't know
587	612	No. of cases

Summary:

This initial study was designed to answer research questions concerning the motivations/intentions of students in the cohort and the way in which the gender, ethnicity, age group, parental education level, or academic preparedness might influence those intentions.

Some data on members of the student cohort proved to be more difficult to obtain than expected. As previously described we had difficulty contacting some of the students. In other instances the College's student information system data was incomplete. Consideration of a few research issues was limited by sub-sample size, as in the case of the senior age-group. However, despite these difficulties and limitations some interesting differences in student character and motivation can be identified:

Gender

- ▶ Female respondents are more likely than males to be attending OCC in order to gain an associate degree.
- Males are slightly more likely than females to expect to take a break in enrollment between semesters.
- More female than male respondents are "very sure" about their long term educational plans.
- Career choices at this stage fall into traditional gender patterns with clerical, education and nursing fields primarily chosen by females, while engineering and skilled trades were primarily chosen by males.

Ethnicity

- African Americans (39%) are more likely than other groups to intend to gain an associate degree, while Asians (80%) are more likely to intend to transfer.

Age Group

- Fifty eight percent of "traditional" age students report attending OCC in order to gain transfer credits in comparison with the "Generation X" group who are more likely to be seeking job skills for a new career (23%). "Baby boomers" are the largest group looking to upgrade their job skills. "Seniors" are more likely to be seeking personal enrichment (67%) and upgrading of their existing skills.
- As we might anticipate the younger the age group of respondents the more likely they are to have long-term educational goals; ninety percent of traditional students in comparison with 74% of "generation X", 53% of "baby boomers."
- Age group analysis demonstrates a predictable relationship between further education and career development. Almost three quarters of "traditional" students (71%) wish to gain new skills for their first job while "generation X" and "baby boomers" were more likely than average to be looking for new skills to enter a different career.

Parental Education

- Half of the cohort are first generation college students.
- Respondents whose parents had higher levels of education (four year degrees and above) were more likely to intend to transfer from OCC.

Academic Preparedness

- Additional cross tab analysis using the preparedness measure indicates that under prepared students are more likely to attend OCC in order to gain an associate degree, while the two most prepared groups are interested in transfer.