## Palomar College

 Office of Institutional Research and Planning Research In Briefhttp://www.palomar.edu/irp

## Early Acceptance Program Tracking Study: Fall’07 Cohort

Introduction: Both the Early Acceptance Program (EAP) adopted by Palomar in Fall 2007 and its predecessor, the Student Testing $\underline{\text { Admission }} \underline{\text { Registration Service }}$ (STARS) program, extended local high school graduates an offer of "priority" registration during the first Fall after their graduation. Inviting those students to register for their Fall classes before open registration began was intended to improve the likelihood of their securing hard-to-get courses (such as English and Math) and, thereby, accelerating attainment of their educational goals.

However, left to their own devices under STARS, many students failed to take advantage of their priority registration invitation. It was recognized that they needed more structure and support in being guided through the registration and orientation processes. With the advent of EAP in 2007, invited students now physically come to Palomar's campus during one of several scheduled weekends in June to complete both their orientation and registration for Fall classes.

The research questions addressed by the current study include:

1) Did EAP increase priority registration usage over that achieved by STARS?
2) Did EAP students actually earn units in hard-to-get courses their first Fall?
3) How well did EAP students persist from Fall to Spring?
4) What academic progress had EAP students achieved by their first Spring?

Each research question will be addressed in the order listed above. For those anxious to cut to the chase, a summary of the answers to the questions can be found at the end of this article.

Did EAP increase priority registration usage versus STARS? The invitation lists from the Fall'07 EAP program and the prior three Fall STARS programs were extracted from People Soft and matched to student enrollment records to determine whether each student enrolled:

- "early" (prior to open registration);
- "late" (during open registration);
- "never" (for the Fall they were invited).


As shown above in Figure 1:

- The percentage of invitees who took advantage of "early" registration jumped
to $56 \%$ with the advent of EAP -- twice the highest rate achieved under STARS.
- The percentage of invitees who registered "late" dropped to $11 \%$-- at least two thirds less than under STARS.
- The percentage of invitees who failed to register at all declined to $34 \%$-- five percentage points less than the lowest rate (39\%) achieved under STARS.

Methodology: The balance of the research questions were addressed in the form of a cohort tracking study with a matched control group. A cohort is a group of students who share common characteristics. In this case, the Fall'07 EAP cohort was formed based on two student characteristics:

- was a Fall’07 EAP invitee;
- took advantage of early registration.

The matched control group cohort was formed by quasi randomly selecting a group of Fall’07 first-time freshmen, high school graduates, 17 to 20 years old, not on student visas who were not Fall’07 EAP invitees, signed up for Fall'07 classes during open registration (i.e. not "early") and as-a-group matched the EAP cohort in terms of their first Fall:

1) English and Math Placement Levels
o Pre-AA Level (catalog\#'s 1-49);
o AA Level (50-99);
o Transfer Level (100 and above);
o None (no placement of record).
2) Full-Time/Part-Time status
o Full-time $=$ took 12 or more units;
o Part-time $=$ took under 12 units.
For the purpose of forming both the EAP and control cohorts, only students with transcript grade enrollments (i.e. grades of A, B, C, CR, D, F, FW, NC, W) during their first Fall were considered eligible for inclusion. The resulting EAP and control cohort sizes were as follows:

| Table 1 |  |  |
| :--- | ---: | ---: |
|  | EAP | Control |
| Cohort Size | 1,430 | 455 |

Demographics: As mentioned above, the Control cohort was "matched" to the EAP cohort on three separate demographic variables. Table 2
shows that those demographic distributions were matched to within less than $\pm$ one percentage point of each other.

Table 2
Demographics for which Control

| Cohort was matched to EAP Cohort |  |  |
| :--- | ---: | ---: |
|  | EAP | Control |
| \# in Cohort | 1,430 | 455 |
| English Place Level |  |  |
| Transfer Lvl | $34.0 \%$ | $33.8 \%$ |
| AA Level | $28.3 \%$ | $28.4 \%$ |
| Pre-AA Level | $32.4 \%$ | $31.9 \%$ |
| None | $5.4 \%$ | $5.9 \%$ |
| Math Place Level |  |  |
| Transfer Lvl | $13.8 \%$ | $14.1 \%$ |
| AA Level | $47.2 \%$ | $46.6 \%$ |
| Pre-AA Level | $38.3 \%$ | $38.0 \%$ |
| None | $0.6 \%$ | $1.3 \%$ |
| FT/PT Time Status 1st Fall |  |  |
| Full Time | $72.2 \%$ | $71.4 \%$ |
| Part Time | $27.8 \%$ | $28.6 \%$ |

Table 3 shows several standard demographics which were left free to vary between the Control and EAP cohorts.

Table 3
Demographics for which Control Cohort was NOT matched to EAP

|  | EAP | Control |
| :--- | ---: | ---: |
| \# in Cohort | 1,430 | 455 |
| Gender |  |  |
| Female | $46.6 \%$ | $45.9 \%$ |
| Male | $53.3 \%$ | $53.8 \%$ |
| Unknown | $0.1 \%$ | $0.2 \%$ |
| Ethnicity |  |  |
| Asian | $4.5 \%$ | $3.7 \%$ |
| Black | $3.4 \%$ | $5.3 \%$ |
| Filipino | $3.6 \%$ | $5.3 \%$ |
| Hispanic | $34.8 \%$ | $30.8 \%$ |
| Nat.Am. | $1.3 \%$ | $0.7 \%$ |
| Pac.Isl. | $0.8 \%$ | $1.8 \%$ |
| Unknown | $6.1 \%$ | $6.4 \%$ |
| White | $45.5 \%$ | $46.2 \%$ |
| Age* |  |  |
| 17 \& Under | $36.1 \%$ | $29.2 \%$ |
| 18-20 | $63.8 \%$ | $70.8 \%$ |
| 21-24 | $0.1 \%$ | $0.0 \%$ |

*Note Controls were limited to be 17-20.
While the gender distributions match to within less than $\pm$ one percentage point of each other, ethnicity and age are a slightly different story:

- Filipinos and Blacks are over represented in the Control cohort by 1.7 to 1.8 percentage points each;
- Hispanics are under represented in the Control cohort by 4.0 percentage points;
- 18-20 year olds are over represented in the Control cohort by 6.9 percentage points and 17\&Unders are correspondingly under represented by that same amount.


## Did EAP students earn units in hard-to-get

 courses in their $1^{\text {st }}$ Fall? Simply providing the reader with the percentage of EAP students who earned units in a hard to get course (say transfer level English) begs the issue of whether that percentage represents good news or bad. That's where the Control cohort comes into play. Unlike the EAP cohort, the Control cohort members did not have benefit of registering early for their classes. And, by design, the Control cohort closely matches the EAP cohort in terms of their English and Math placement levels as well as their first Fall full-time/part-time status and other student characteristics outlined in the Methodology section. Therefore, the percentage of Control students who earned units in a hard to get course provides a benchmark against which to evaluate the corresponding percentage achieved by the EAP students.Figure 2 shows the percentage of EAP and Control students who earned units in each level of English during their first Fall term (i.e. the term for which the EAP students got to register early).


The above figure shows that EAP students were roughly twice as likely to have earned English
units at any given course level versus their Control counterparts:

- $22 \%$ versus $11 \%$ at Transfer level;
- $19 \%$ versus $10 \%$ at AA level;
- $17 \%$ versus $9 \%$ at Pre-AA level.


Although not as dramatic as for English, Figure 3 shows that the EAP students were also more likely to have earned Math units at any given level versus their Control counterparts:

- $9 \%$ versus $6 \%$ at Transfer level;
- $31 \%$ versus $22 \%$ at AA level;
- $16 \%$ versus $12 \%$ at Pre-AA level.

In honor of our hard working friends in the Reading and English as a Second Language disciplines, we have also broken out units earned in those subjects.


Figure 4 shows that EAP again showed greater rates of earning units in the higher levels of Reading and tied with the Controls at Pre-AA level:

- 7\% versus 2\% at Transfer level;
- $8 \%$ versus $2 \%$ at AA level;
- $1 \%$ versus $1 \%$ at Pre-AA level.


Figure 5 shows that EAP students also earned slightly more ESL units at Transfer and Pre-AA levels than did their counterparts in the Control cohort:

- $3 \%$ versus $1 \%$ at Transfer level;
- $2 \%$ versus $1 \%$ at Pre-AA level. With regard to AA level ESL, it should be noted that curriculum at that level is limited to a single 3 -course vocational sequence.


Figure 6 rounds out the picture of EAP students’ first Fall unit earning achievements by looking at whether they earned units in any other subjects (i.e. other than English, Math, Reading and ESL). EAP showed a slight advantage over the Controls at Transfer Level, tied with the Controls at Pre-AA level and ceded the first advantage so far to the Controls at AA level:

- $74 \%$ versus $71 \%$ at Transfer level;
- $3 \%$ versus $8 \%$ at AA level;
- $2 \%$ versus $2 \%$ at Pre-AA level.

How well did EAP students persist from Fall to Spring? A student is considered to have persisted from Fall to Spring if she/he received at least one transcript grade in Fall and then went on to receive another such grade the following Spring.


As can be seen in Figure 7, EAP persistence was almost nine percentage points (8.8\%) higher than it was for the Controls. However, it should be noted that both groups exceeded the Fall to Spring persistence rate of $65 \%$ typically observed for incoming credit freshmen populations (see Palomar College Fact Book 2006-07 page\#45).

What academic progress had EAP students achieved by their first Spring? The key word in the preceding question is the word by. It is not atypical for students to have completed courses at Palomar during the Summer immediately after they graduate high school and/or while concurrently enrolled in K-12 prior to high school graduation. Therefore, in order to capture a complete picture of the progress they have achieved by their first Spring, the data presented next include any and all Palomar coursework completed through Spring’08.

## Transfer Level Coursework by Spring’08

Figure 8 displays the number of Transfer units students had earned by their first Spring. As can be seen in that exhibit:

- EAP students are six percentage points more likely to have earned "at least" some Transfer units (0.1-9.9) by their
first Spring (88.3\% versus 82.2\% for the Controls);
- Another way to look at the above numbers is that while only about $12 \%$ of EAP students failed to earn any Transfer units by their first Spring, that figure jumps (by six percentage points) to about 18\% for the Controls;
- EAP students maintain about a 7\% advantage over the Controls in terms of having earned at least 10-19.9 Transfer units;
- The controls exhibited three-tenths of a percentage point advantage over EAP when it came to earning at least 20-29.9 units;
- The gaps in favor of the Controls widen to $0.8 \%$ and $1.4 \%$ for the $30-39.9$ and 40+ unit categories, respectively.


Now that we have explored the quantity of their Transfer level work, we will move on to look at the quality of that work.

Figure 9 displays the grade point averages that the students achieved in their Transfer level coursework. The exhibit shows that:

- $4.1 \%$ of EAP students failed to have a GPA ( $100 \%-95.9 \%$ ) as did $5.7 \%$ of the Controls. [It should be noted that there are two circumstances under which this can occur - (1) the student did not take any Transfer level courses or (2) the student took courses, but did not receive
any grades of A, B, C, D, F, or FW which are the only ones that contribute toward a GPA.];
- EAP students were eight percentage points more likely to have achieved a GPA of 2.0 or higher than were their Control counterparts ( $58.4 \%$ versus 50.3\%);
- Likewise, EAP students were three percentage points more likely to have achieved a Transfer GPA of 3.0 or higher ( $25.7 \%$ versus 22.9\%).


Before leaving the topic of Transfer level coursework, we will touch upon students' achievements in passing English and Math courses at that level. The Chancellor's Office uses Transfer level achievement in these two subjects as the basis for their definition of "transfer directed" - students who pass a Transfer course in both subjects are considered to be transfer directed.

Figure 10 shows the percentage of students who passed Transfer level English, Math or both. The exhibit shows:

- EAP students outperformed the Controls in all three cases;
- EAP students were over four percentage points more likely to have passed both English and Math (9.6\% versus 5.3\%) thus achieving transfer directed status;
- EAP students were almost four percentage points more likely to have passed English only (19\% versus 15.2\%);
- EAP students were almost two percentage points more likely to have passed Math only ( $5.2 \%$ versus $3.5 \%$ ).


Degree Applicable Coursework by Spring'08
Degree Applicable coursework encompasses both the Transfer level and the AA level coursework that students completed. Associate in Arts Degrees are awarded based on combinations of units earned at these two course levels.

Figure 11 displays the number of Degree Applicable units students had earned by their first Spring. As can be seen in that exhibit:

- EAP students are five percentage points more likely to have earned "at least" some Degree Applicable units (0.1-9.9) by their first Spring ( $90.5 \%$ versus $85.5 \%$ for the Controls);
- Another way to look at the above numbers is that while only $9.5 \%$ of EAP students failed to earn any Degree Applicable units by their first Spring, that figure jumps (by five percentage points) to $14.5 \%$ for the Controls;
- EAP students maintain about a $12 \%$ advantage over the Controls in terms of having earned at least 10 Degree Applicable units (70.2\% versus 58.5\%);
- EAP's advantage over the Controls narrows to about $6 \%$ at the $20+$ units category ( $42.5 \%$ versus $36.7 \%$ );
- EAP students came to within half a percentage point of the Controls for earning $30+$ units ( $11.3 \%$ versus $11.9 \%$ );
- The Controls edged ahead of the EAP students by slightly over two percentage points when it came to earning 40+ units (3.5\% versus 1.2\%).


Now that we have explored the quantity of their Degree Applicable work, we will move on to look at the quality of that work.

Figure 12 displays the grade point averages that the students achieved in their Degree Applicable coursework. The exhibit shows that:

- Only $2.5 \%$ of EAP students failed to have a GPA ( $100 \%-97.5 \%$ ) as did $3.1 \%$ of the Controls. [It should be noted that there are two circumstances under which this can occur - (1) the student did not take any Degree Applicable courses or (2) the student took courses, but did not receive any grades of A, B, C, D, F, or FW which are the only ones that contribute toward a GPA.];
- EAP students were six percentage points more likely to have achieved a GPA of 2.0 or higher than were their Control counterparts (55.5\% versus 49.7\%);
- Likewise, EAP students were about one percentage point more likely to have achieved a Degree Applicable GPA of 3.0 or higher (21.2\% versus 20.4\%).


Pre-AA Level Coursework by Spring'08
Palomar College Catalog 2008-09, page 64, describes courses numbered 1-49 (herein referred to as "Pre-AA") as follows:
Remedial or college preparatory courses which do not apply toward an A.A. degree and which are not intended for transfer to another community college or four-year college or university.
Units earned at that level are of interest in the current context only in so far they provide an index of the extent to which EAP and Control students required remedial/preparatory coursework in order to move forward with their studies.

Figure 13 displays the number of Pre-AA units students had earned by their first Spring. As can be seen in the exhibit:

- EAP students are eight percentage points more likely to have earned "at least" some Pre-AA units (0.1-9.9) by their first Spring (34.5\% versus $26.4 \%$ for the Controls);
- EAP students are one percentage point more likely to have earned 10-19.9 PreAA units than are the Controls (1.4\% versus $0.4 \%$ );


The above findings with respect to Pre-AA level units earned seem to suggest that the EAP students were somewhat more in need of (or more prone to partake of) remedial/preparatory work than were their Control counterparts.

With less space being taken up in their class schedules by Pre-AA coursework, the Controls had more room to take Degree Applicable units. That slight edge could well account for the correspondingly slight edge the Controls showed over the EAP students at the highest levels of Transfer and Degree Applicable units earned (i.e. at the 30+ and 40+ unit levels).

Assuming that the bulk of their Pre-AA coursework was behind them at the end of their first Spring, it will be exciting to see where the Fall'07 EAP cohort stands versus the Controls at the end of their second Spring in 2009.

## Summary of Answers to Research Questions

1) Did EAP increase priority registration usage over that achieved by STARS?

- The percentage of invitees who registered "early" jumped to $56 \%$-- twice the highest rate achieved under STARS.


## 2) Did EAP students earn units in hard-to-get courses in their $1^{\text {st }}$ Fall?

- In English, EAP students were roughly twice as likely to have earned units at any given course level versus their Control counterparts:
$>22 \%$ versus $11 \%$ at Transfer level;
$>19 \%$ versus $10 \%$ at AA level;
$>17 \%$ versus $9 \%$ at Pre-AA level.
- In Math, EAP students were also more likely to have earned units at any given level versus their Control counterparts:
$>9 \%$ versus $6 \%$ at Transfer level;
$>31 \%$ versus $22 \%$ at AA level;
$>16 \%$ versus $12 \%$ at Pre-AA level.


## 3) How well did EAP students persist from Fall to Spring?

- EAP persistence was almost nine percentage points (8.8\%) higher than it was for the Controls (82.9\% versus 74.1\%).


## 4) What academic progress had EAP students achieved by their $1^{\text {st }}$ Spring?

- In Transfer courses:
$>$ EAP students ran neck and neck with the Controls in terms of the percent who earned 20 or more Transfer units (23.6\% versus 24\%);
$>$ EAP students were eight percentage points more likely than the Controls to have earned a Transfer GPA of 2.0 or higher (58.4\% versus $50.3 \%$ );
$>$ EAP students were more likely to have passed Transfer level English, Math or both:
o passed English only -- 19\% versus $15.2 \%$;
o passed Math only -- $5.2 \%$ versus $3.5 \%$;
o passed both English and Math -- 9.6\% versus 5.3\%.
- In Degree Applicable courses:
$>$ EAP students were six percentage points more likely than the Controls to have earned 20 or more Degree Applicable units (42.5\% versus 36.7\%);
$>$ EAP students were six percentage points more likely to have achieved a Degree Applicable GPA of 2.0 or higher than were their Control counterparts ( $55.5 \%$ versus $49.7 \%$ ).
- In Pre-AA level courses:
$>$ EAP students were eight percentage points more likely to have earned "at least" some PreAA units by their first Spring (34.5\% versus 26.4\% for the Controls);
$>$ Assuming that the bulk of their Pre-AA coursework was behind them at the end of their first Spring, it will be exciting to see where the Fall'07 EAP cohort stands versus the Controls at the end of their second Spring in 2009.

More information? Please contact the Office of Institutional Research and Planning if you have any questions about this or other research and planning issues (Ext. 2360).

