

Students First: Improving First-Generation  
Student Retention and Performance in Higher  
Education

**Final Report of Program Activities:  
2005 – 2008**

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## Students First : Improving First-Generation Student Retention and Performance in Higher Education

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Report of Program Activities: 2005 -- 2008

### Executive summary

The Students First Mentoring Project (SFMP) is a pilot program designed to improve low-income, first-generation<sup>1</sup> student retention and performance at Portland State University. This project is sponsored by the US Department of Education's Fund for the Improvement of Post Secondary Education (FIPSE) program. Based on analysis of data from the 2005-2006, 2006 -2007, and 2007-2008 Prior Learning Survey, administered in Portland State University Freshman Inquiry (FRINQ) courses, approximately 48% of freshmen in each year's cohort were first-generation students. While there is only incomplete information on the percentage of first generation students among PSU transfer students, nationally 53% of all incoming community college students are first generation. Because each year, approximately two thirds of all incoming students are transfer students, it is reasonable to suggest that at least 50% of PSU undergraduates are first generation students. There is a clear need for a program to assist those students in making a smooth adjustment to PSU, particularly during their first year at the university. SFMP is such a program.

In 2005-2006, the first year of service, 65 students – 51 freshmen and 14 transfer students – participated in the Students First Mentoring Program. For 2006-2007, the program increased the number of students served by more than 50%. 104 students – 68 freshmen and 36 transfer students – participated in the 2006-2007 program. 84 students were enrolled in the 2007-2008 SFMP -- 46 freshmen and 38 recent community college transfer students.

In SFMP, new-to-campus, low-income (federal Pell grant eligible), first-generation freshmen and recent community college transfer students participate in a yearlong mentoring program intended to increase their relative level of “college student expertise.” SFMP proposes that this relatively higher level of expertise should then result in first generation students’ first-year academic performance and persistence rates approaching those of students from more educated families, e.g. “All PSU Freshmen.” Underlying this intervention is the process of *expertise development mentoring*.

Expertise development mentoring provides new students with useful information about “what to do in order to succeed at the university,” insights into the culture of higher education, and tips on how to become “more expert” students. This form of mentoring provides information to students about the range of support services that are available on campus, provides scripts for how to use specific campus resources appropriately as well as strategies for key campus interactions – e.g. how to get a question answered in a large lecture class. The Students First intervention is designed

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<sup>1</sup> The U.S. Department of Education’s TRIO program defines *first generation status* as students for whom neither parent graduated from a four-year university in the U.S. by the time the child was 16 years old

to move first-generation students along the continuum of college student role expertise. SFMP provides new students with a socialization setting for learning an appropriate version of the college student role and using it successfully.

SFMP mentoring activities take a variety of forms from on-line to one-on-one interactions with program staff. A consistent theme across the range of mentoring activities is that first generation students will make an easier adjustment to the university if they are provided with opportunities to utilize the expertise of already successful, first-generation PSU students.

After three years of providing service to low-income, first generation students at Portland State University we can provide evidence that, during the program year:

- **Participating in SFMP positively impacts low-income, first generation freshmen's relative level of "college student expertise."**

Additional research, involving the analysis of longitudinal focus group data, was conducted to examine the expertise development of SFMP students over the time they were in the program. Particular attention was paid to three areas explicitly emphasized in SFMP: knowledge of adjustment issues, awareness of campus resources, and articulation of strategies for addressing adjustment issues. Over the time they were in SFMP, students' discussions of adjustment issues, campus resources, and strategies for success became more nuanced and specific as they progressed from novices' context-free rules to the experience-based maxims that are associated with a higher level of expertise.

- **Participating in SFMP positively impacts low-income, first generation freshmen's educational outcomes (retention, yearly average gpa, yearly average number of credits earned).**

For all three cohorts of new-to-campus PSU freshmen, SFMP participation resulted in higher yearly retention rates, average gpa, and average number of credits completed successfully than students from the All Freshmen group. In regards to a comparison with the Comparison Freshmen group, all three cohorts of SFMP participants earned higher yearly average gpa, and average yearly number credits completed successfully, and both the 2005-2006 and 2007-2008 cohorts demonstrated higher yearly retention rates. While the 2006-2007 and 2007-2008 cohorts of EOP students demonstrated higher retention scores, the SFMP freshmen's average gpa and credits earned rates continued to be consistently higher than the EOP freshmen's rate across all three years.

- **The positive effects of SFMP participation for low-income, first generation freshmen persist beyond the program year.**

Though not part of the original project as proposed, additional research was conducted to examine the persistence of any effects. The positive effects of SFMP participation were found to continue beyond the program year. For the 2005-2006 and 2006-2007 cohorts of SFMP freshmen, their superior performance in regards to yearly retention rates, average gpa, and average

number of credits completed successfully, compared to the All Freshmen and Comparison Freshmen groups persisted through the year following SFMP participation, with one exception. The 2006-2007 All freshmen group earned “.07” credit more for the follow up year than SFMP students from the same cohort. Both cohorts of SFMP students continued to demonstrate higher yearly average gpa, and yearly average number of credits completed successfully than EOP students in the year following SFMP participation.

- **Participating in SFMP positively impacts low-income, first generation transfer student retention and academic success.**

While SFMP only started providing specialized services for transfer students during 2006-2007 and it was only in 2007-2008 that a range of support resources for transfer students comparable to those provided for freshmen were in place, similar positive effects have been demonstrated for transfer students. It should be noted that the relatively low number of transfer students in the initial SFMP cohort and the absence of fully-developed transfer student-focused program materials until the middle of the 2006-2007 program year makes it harder to interpret the SFMP data with the same certainty as can be done regarding the program’s effects on freshmen. It is clear SFMP participation strongly impacts transfer students’ academic performance – gpa and yearly average number of credits completed, while the pattern of retention data across the three program years is not as clear, though the retention rates for all groups of transfer students in this study are relatively high. Interestingly, the 2007-2008 SFMP cohort – the only one to experience the full range of SFMP services targeted specifically at transfer students – demonstrated both higher retention rates and higher yearly gpa than all three comparison groups.

- **On-line delivery of mentoring support proved to be as effective as a combination of on-line and in-person mentoring support in promoting relatively greater retention and academic performance rates for SFMP students.**

A comparison of on-line delivery of mentoring services to online plus in-person delivery found little difference in the relative effectiveness of either delivery system – both work well to improve retention and performance for both freshmen and transfer students. In regards to the type of mentoring services provided by SFMP, what is being delivered is more important than how it is delivered.

- **The participating students were highly satisfied with the mentoring services they receive from SFMP.**

All three cohorts of SFMP students were highly satisfied with the mentoring services they received in the program. SFMP participants would highly recommend the program to a “student from a similar background who is about to start at PSU.”

- **The success of SFMP has led to its institutionalization at Portland State university.**

One consequence of the SFMP intervention has been an increased awareness of the relatively high percentage of first generation students at PSU (over 50% total undergraduate population). The success of SFMP has led to its institutionalization, in an expanded form, the *University Studies' Student First Success System (SFSS)*, as part of PSU's General Education curriculum. SFSS incorporates the expertise-development mentoring and many of the resources developed for SFMP into an on-line support mechanism that is available for ALL incoming PSU students.

## Summary of Evaluation Plan Results

In this section, each of the four objectives (IA, IB, II, III) of the Students First Mentoring Program evaluation plan will be presented, along with the criteria for realizing this objective and the data that establishes whether or not the SFMP intervention met each of the four objectives or not. NOTE: the original evaluation plan was modified, after a discussion with the program officer, at several times over the duration of this project. Those modified areas will be discussed in this summary.

for Objective IA

Project area:

### 1. Resource Websites

a. Did the program generate a website that provided comprehensive access to student services at PSU?

**Data source:** existence of resource website

**Data collection:** observation

**Data analysis:** comparison of resource website with current PSU website

Data interpretation: **meets evaluation criteria:** equal or greater # student services links at project site compared to the PSU site. There are 45 Student resource Links at the PSU website (some with sub-pages), while there are 55 Student resource Links at the SFMP website, each with 4 sub-pages.

b. How often and how extensively did program students use the website?

**Data source: problems with data tracking aspect of website resulted in never getting accurate usage data.** The original plan called for the “capture” of student website usage by “following a trail of breadcrumbs” from webpage to webpage. The first version of the SFMP website, used in the first year of SFMP service (2005-2006) was plagued by technical problems and no breadcrumb data was collected. The code supporting the site – not the site content – was redone in 2006-2007 to correct problems from the previous year. The breadcrumb-tracking feature was tested in Spring 2006-2007 and was finally in place for the beginning of the 2007-2008 cohort. However preliminary examinations of the breadcrumb data captured on-line were disappointing as usage data was missing for some known users, which called in the question the utility of the breadcrumb tracking system.

**Data collection:** NA

**Data analysis:** NA

**Data interpretation: We can, however, provide additional usage data from exit interviews.** As part of a program exit interview, students were asked “which parts of SFMP were most helpful for you?” For the 2005-2006 cohort, 62% of the on-line mentoring only (OLM) and 66% of the on-line plus in-person mentoring (OLMP) students mentioned the website resources For the 2006-2007 SFMP cohort, 60% of the on-line mentoring only (OLM) and 68% of the on-line plus in-person mentoring (OLMP) students mentioned the website resources. For the 2007-2008 SFMP cohort, 67% of the OLM and 72% of the OLMP students mentioned the website resources. While this

is not the same as page-by-page usage data, it does suggest the SFMP students found the website resources very important to their success.

c. Did students and mentor-advisors rate the website positively?

**Data source: student satisfaction surveys**

**Data collection:** anonymous on-line survey at the end of each program year

**Data analysis:** average score higher than “4” on 7-point Likert scale

**Data interpretation: exceeded evaluation criterion;** all 3 cohorts of students rated the site favorably (05-06: 5.4, 06-07: 6.0, 07-08: 6.1)

## 2. Peer-mentoring Videos

a. Were adjustment issue videos with successful PSU first generation students made available via the website?

**Data source:** Existence of at least 5 adjustment issue videos at website

**Data collection: direct observation**

**Data analysis: count by evaluator**

**Data interpretation: exceeded evaluation criterion; existence of 12 adjustment issue videos:** 1. The importance of understanding faculty expectations, 2. The importance of understanding the syllabus, 3. Communication with professors, 4. Time-management issues, 5. The value and effective use of campus support resources, 6. The University is different from a community college in several important ways: It's Bigger - MUCH Bigger, 7. The University is different from a community college in several important ways: You Must Use Campus Resources to Succeed, 8. The University is different from a community college in several important ways: It is Important to Understand Professors' Expectations, 9. The University is different from a community college in several important ways: The Work is Harder. 10. Building Relationships with Professors. 11. Building Relationships with Advisors, 12. Building Relationships with Other Students

b. How often did both mentor-advisors and students make use of these videos?

**Data source: log-in records and tracking software embedded in website.**

**Data collection:**

**Data analysis:**

Data interpretation:

Problems with tracking software led to problems collecting complete video usage for 2005-2006 and 2006-2007. Still data on video usage for two different program years is available.

*From 2005-2006*

1) analysis based on data collected from November 4, 2005 to June 15, 2006 – after the period at the beginning of the school year when the videos were most likely to be watched.

2) it is possible that every instance of a SFMP student viewing a video may not have been captured due to irregularities within the system

45% (Thirty-two of seventy-one) SFMP participants visited the peer mentoring library and these students viewed a total of 60 videos. with four students watching all 5 videos. There was not a clear pattern in regards to which videos students watched.

Video title	Understanding syllabus	Understanding Professors' expectations	Communicating with professors	Time management	Using Campus Resources
<b>count</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>14</b>	<b>10</b>

### 2007-2008

Even with “new” data collection system, it is still possible that every instance of a SFMP student viewing a video may not have been captured due to irregularities within the system (see discussion of problems with counting website usage)

23% (18 of 79) SFMP students visited the peer mentoring video library and watched a total of 130 videos. Five students watched five or more videos.

Video title	Understanding syllabus	Understanding Professors' expectations	Communicating with professors	Time management	Using Campus Resources
<b>count</b>	<b>6</b>	<b>7</b>	<b>30</b>	<b>14</b>	<b>8</b>

Video title	Bigger much bigger	Work is harder	Importance of Understanding Professors' expectations	Must use campus resources	Relation-ship w/profs	Relation-ship w/advisor	Relation-ship w/students
<b>count</b>	<b>10</b>	<b>27</b>	<b>7</b>	<b>10</b>	<b>9</b>	<b>1</b>	<b>1</b>

### c. Did students and mentor-advisors rate the videos positively?

**Data source:** student satisfaction surveys

**Data collection:** anonymous on-line survey end of each program year

**Data analysis:** average score higher than “4” on 7-point Likert scale

**Data interpretation:** exceeded evaluation criterion; all 3 cohorts of students rated the videos favorably (05-06: 5.3, 06-07: 5.2, 07-08: 5.6)

## 3. Graduate Student Mentor-Advisors

### a. Were the graduate student mentor-advisors adequately trained?

Mentors were provided with a 5-day, approximately forty hour training prior to beginning to work with students during Fall 2005. In addition, mentors received on-going training associated with specific tasks at different times – e.g. prior to orienting new students,

prior to conducting assessment focus groups – in addition to on-going staff development training as part of the weekly staff meetings.

**(1) Data source:** mentor training satisfaction survey

**Data collection:** anonymous mentor training satisfaction survey at three points: immediately after training, at end of 1<sup>st</sup> term, at end of program year

**Data analysis:** average score higher than “4” on 7-point Likert scale

**Data interpretation: exceeded evaluation criterion;** all 3 cohorts of mentors rated the training favorably (05-06: 5.75 w/ no score below 5.4, 06-07: mean 5.85 in fall to 6.2 in Spring; 07-08: mean 6.2 in Fall to 6.5 in Spring)

**(2) Data source:** mentor training curriculum documents

**Data collection:**

**Data analysis: review by external evaluator**

**Data interpretation: met evaluation criterion;** curriculum deemed appropriate; similar to others designed for similar programs in literature

b. Were the graduate student mentor-advisors accessible to program students?

**Data source:** mentor advisor job description documents

**Data collection: provided by project**

**Data analysis: review by external evaluator**

**Data interpretation: met evaluation criterion; accessibility deemed appropriate as matches levels in grant proposal.** Based on mentor job description documents, mentors worked 12 to 15 hours a week, of which up to 8 to 11 hours were dedicated for contact with mentees. In addition, each mentor had a regularly scheduled 2-hour block of “drop-in” coverage, where he or she was available to any student from the program (not just their own mentees) who might have an immediate issue and was not able to reach that student’s personal mentor. Mentors also monitored student comments and questions posted on the “ask SFMP” section of the website, rotating responsibility every 24 hours. Though the on-line question forum was not part of the original SFMP proposal, it proved to be a useful avenue for SFMP students, particularly those in the on-line mentoring only (OLM) group.

c. How often did program students contact mentor-advisors?

**Data source:** mentor-mentee meeting log forms

**Data collection: review by staff**

**Data analysis:** frequencies

(1) in-person contact deemed appropriate if matches levels in grant proposal (minimum 2 X term+ assessment focus group)

(2) telephone / e-mail contact deemed appropriate if matches levels in grant proposal (minimum once a week)

**Data interpretation: met evaluation criterion; accessibility deemed appropriate as matches levels in grant proposal.** Mentors met in person with each OLMP student at least twice a term, in addition to student participation in discussion groups and social activities. While most (90+%) of mentees actually showed up for their scheduled bi-term face-to-face meetings with their mentors, there were some students who did not show

up for scheduled meetings and at least one requested telephone and email contact only due to scheduling conflicts. A review of mentor session logs showed that all students were contacted each week by their respective mentors. Students in both the OLM and OLMP groups also received a targeted email contact each week, with attached tip sheets on specific adjustment issues, via the program ListServes.

d. Did the students rate the mentor-advisors positively?

**Data source: student satisfaction surveys**

**Data collection:** anonymous on-line survey end of each program year

**Data analysis:** average score higher than “4” on 7-point Likert scale

**Data interpretation: exceeded evaluation criterion;** all 3 cohorts of students rated the mentors favorably (05-06: 6.0 06-07: 6.2 07-08: 6.5)

#### 4. Discussion Groups

a. Did the program create discussion groups among the program students

**Data source:** discussion group participant sign-in logs for each mentor section

**Data collection:** collected at each discussion group

**Data analysis:** document review by evaluator

**Data interpretation: exceeded evaluation criterion.** Proposal called for 1 discussion group for every 10.6 participating students in 2005-2006 (5 groups/term X 3 terms for a total of 15 groups/year for 160 students), and 1 discussion group for every 13.3 participating students in 2006-2007 and 2007-2008 (5 groups/term X 3 terms for a total of 15 groups for 200 students). Actual results: 2005-6: 1 discussion group for every 5.9 participating students / 11 groups/year for 65 participating students; 2006-7: 1 discussion group for every 6.9 participating students / 15 groups/year for 104 participating students; 2007-8: 1 discussion group for every 6.6 participating students / 12 groups/year for 79 participating students

b. What was the attendance rate at the discussion groups?

The initial evaluation goal of 50% participation was never reached in any of the three cohort years. It is clear from student comments – they almost all mentioned wanting to participate but many had trouble fitting focus group times into their already busy schedules – that we over-estimated the availability of the students in the proposed mentoring program, Interestingly, Fall term focus groups consistently had the highest participate rates for all three cohorts

**Data source:** discussion group participant sign-in logs for each mentor section

**Data collection:** collected at each discussion group

**Data analysis: comparison of sign-in log “counts” with actual # of program participants**

**Data interpretation: Did not meet evaluation criteria.** Attendance rate = “satisfactory” if actual discussion group participation is 50% of total # of program participants.

2005-6: Fall satisfactory 50% rate = 31.5 students/ actual 44.4% or 28 students;

Winter satisfactory 50% rate = 29 students/ actual 40% or 23 students; Spring

satisfactory 50% rate = 29 students/ actual 24.1% or 14 students.

2006-7: Fall satisfactory 50% rate = 43.5 students/ actual 35.6% or 31 students; Winter satisfactory 50% rate = 44.5 students/ actual 21.3% or 19 students; Spring satisfactory 50% rate = 40 students/ actual 27.5% or 22 students.

2007-8: Fall satisfactory 50% rate = 38.5 students/ actual 22.8% or 18 students; Winter satisfactory 50% rate = 37.5 students/ actual 29.3% or 22 students; Spring satisfactory 50% rate = 35.1 students/ actual 14.7% or 11 students.

c. Did the students rate the discussion groups positively?

**Data source: student satisfaction surveys**

**Data collection:** anonymous on-line survey end of each program year

**Data analysis:** average score higher than “4” on 7-point Likert scale

**Data interpretation: exceeded evaluation criterion:** all 3 cohorts of students rated the discussion groups favorably (05-06: 6.5 06-07: 6.7 07-08: 6.3)

(for Objective IB)

**NOTE:** In the initial SFMP proposal, “program success in terms of promoting first year retention and academic success” was only to be considered in terms of relatively higher performance compared to a statistical control group and EOP students. After beginning the project, it became clear that to really understand what was happening with the SFMP intervention, “All PSU Students” needed to be included as an additional comparison group. While the relative performance among the three groups of first generation students is important, in the end what is more important is whether the mentored students performed anywhere near the level of all PSU students (either “All freshmen” or “All transfer students” (who had transferred in the year preceding the SFMP program year).

### ***Expected Relationships***

Based on the literature, we would expect the group “all students” – whether they be freshmen or transfer students – to out-perform the SFMP, and EOP group students. In regards to the two mentoring programs, while EOP has a proven track record of success as a mentoring program, because of the more stringent income requirement and the fact that to be accepted in EOP students must have additional learning issues, we can only offer some tentative suggestions in regards to expected relationships. Because their program continues to support students as long as they are enrolled at PSU, EOP students may demonstrate higher retention rates, however the SFMP students may be more likely to demonstrate higher gpa and credits earned rates.

The Comparison group consists of first-generation students who are Pell-grant eligible and who either due to lack of information or choice are not participating in either of the two mentoring programs – EOP and SFMP. NOTE: As part of recruitment, SFMP tried to contact all PSU students who qualified for the program. Still, the difference for why comparison group students did not participate in a mentoring program is important in regards to predicting “expected relationships.” If these students did not know about the benefits of the different mentoring programs, than they would not be expected to perform up to the level of all PSU freshmen or the students in the two mentoring programs. If, however, comparison group students have chosen not to participate, the expected relationships are not as clear. If they chose not to participate because they

could not see the value of mentoring, then they are likely to demonstrate poorer performance than the other three groups. If, however, the choice not to participate is based on some other experiential factor – e.g. transferable work experience, age – then they may out-perform the mentored students in some situations.

### *Transfer students*

While initially proposed as a freshmen-only intervention, SFMP was expanded, after a discussion with the program officer, to also serve transfer students starting in the middle of 2005-2006. However the development of a complimentary set of student support resources for transfer students proceeded in a series of steps. Starting in 2006-2007, an additional set of transfer-focus trip sheets, labeled “second tier resources” on the project website, were introduced. Through a transfer-student only ListServ, these were sent out along with a weekly email to transfer students in the OLM and OLMP groups. Starting in 2007-2008, an additional set of 7 transfer-student focused, peer-mentoring videos were added to the resource website.

### *comparison of modes of delivering mentoring services*

Overall, for all three cohorts of SFMP students, both methods of delivering mentoring services – on-line only (OLM) and on-line plus in-person (OLMP) – produced comparable positive results in regards to yearly retention rates, average gpa, and average numbers completed successfully during the SFMP program-year. In the detailed results section, tables #25-39 and #55-69 show separate comparison data for freshmen and transfer students for each measure.

1. Did program students show higher retention rates than control groups during each year?

**Data source:** Banner data from PSU Data Warehouse

**Data collection:** collected at the end of each term by means of Hummingbird Bi-Query

**Data analysis:** tables produced by project staff

**Data interpretation:** *freshmen:* 05-06. 06-07 & 07-08 cohorts met evaluation criterion compared to “All freshmen”: 05-06 & 07-08 cohorts met evaluation criterion compared to “comparison freshmen”: 05-06 cohort met evaluation criterion compared to “EOP freshmen”. **See tables #7-10**

*transfer:* 07-08 cohort met evaluation criterion compared to ALL THREE COMPARISON GROUPS (“All freshmen,” “comparison freshmen,” and “EOP freshmen”.) Both 05-06 & 06-7 cohorts had lowest retention rate of the four groups

**See tables #40-42**

2. Did program students successfully complete more academic units than control groups?

**Data source:** Banner data from PSU Data Warehouse

**Data collection:** collected at the end of each term by means of Hummingbird Bi-Query

**Data analysis:** tables produced by project staff

**Data interpretation:** *freshmen:* 05-06. 06-07 & 07-08 cohorts met evaluation criterion compared to ALL THREE COMPARISON GROUPS (“All freshmen,” “comparison freshmen,” and “EOP freshmen”).)

**See tables #20-22**

*transfer:* 05-06 cohort met evaluation criterion compared to “comparison freshmen,” and “EOP freshmen”. Both 06-07 & 07-08 cohorts had lowest yearly credits earned rate of the four groups

**See tables #50-52**

3. Did program students earn higher grade point averages than control groups?

**Data source:** Banner data from PSU Data Warehouse

**Data collection:** collected at the end of each term by means of Hummingbird Bi-Query

**Data analysis:** tables produced by project staff

**Data interpretation:** *freshmen:* 05-06. 06-07 & 07-08 cohorts met evaluation criterion compared to ALL THREE COMPARISON GROUPS (“All freshmen,” “comparison freshmen,” and “EOP freshmen”).)

**See tables #15-17**

*transfer:* 05-06. 06-07 & 07-08 cohorts met evaluation criterion compared to ALL THREE COMPARISON GROUPS (“All freshmen,” “comparison freshmen,” and “EOP freshmen”).) **See tables #45-47**

4. Did the program students rate the Students First program positively?

**Data source:** student satisfaction surveys

**Data collection:** anonymous on-line survey end of each program year

**Data analysis:** average score higher than “4” on 7-point Likert scale

**Data interpretation: exceeded evaluation criterion:** all 3 cohorts of students rated SFMP favorably (05-06: 6.2 06-07: 6.0 07-08: 6.5)

(for Objective II)

1. Did the program results get presented at national meetings?

**Exceeded evaluation criteria; 11 presentations at National Meetings and two publications in refereed volumes of conference proceedings (2008 HICE Proceedings, and Proceedings of the 4th Annual National Symposium on Student Retention).**

“Expertise-development mentoring: A case study of an intervention to improve first-generation college freshmen's academic performance and retention,” September 2008. Co-author: Fellows, Collin. Paper presented at the 4th Annual National Symposium on Student Retention, Little Rock, Arkansas.

“Expertise-development mentoring: An intervention to improve first-generation college freshmen’s academic performance and retention,” August 2008. Co-author: Fellows,

Collin. Paper presented at the 103rd Annual meetings of the American Sociological Association, Boston, Massachusetts.

“Improving first-generation college freshmen’s performance, progress and persistence: The Students First Mentoring Program,” June, 2008. Co-author: Fellows, Collin. Paper presented at the 2008 Hawaii International Conference on Education, University of Hawaii-West, Oahu, Hawaii

“Improving First-Generation Student Retention: What We Know Works and How Service Learning Can Help” April 2008. Co-author: Fellows, Collin. Paper presented at the 11<sup>th</sup> Annual Continuums of Service Conference, Portland, Oregon.

“The Toolkit Revisited: Role Mastery & Cultural Capital” April 2008. Co-author: Morgan, David. Paper presented at the 79th Annual meetings of the Pacific Sociological Association Convention, Portland, Oregon.

“Students First: Evaluating a Program for Improving First-Generation Student Retention & Performance in Higher Education” April, 2008. Co-authors: Morgan, David, Fellows, Collin. Paper presented at the 79th Annual meetings of the Pacific Sociological Association Convention, Portland, Oregon.

“Mentoring as ‘Imported’ Cultural Capital: A Program to Facilitate 1<sup>st</sup>-generation Students’ Transition to the University” August, 2007. Co-authors: Morgan, David, Fellows, Collin. Paper presented at the 102nd Annual meetings of the American Sociological Association, New York, New York.

“Students First: Improving First Generation Students’ Performance and Retention in Higher Education,” Keynote address Minnesota Campus Compact State-wide Retention Summit, June, 2007, St. Paul, Minnesota.

“Learning How to Navigate college: Mentoring as a tool for student success,” June 2007. Workshop at Minnesota Campus Compact State-wide Retention Summit, June, 2007, St. Paul, Minnesota

“The “Nuts and Bolts” of developing mentor training programs and the multimedia delivery of mentoring resources.” June 2007. Workshop at Minnesota Campus Compact State-wide Retention Summit, June, 2007, St. Paul, Minnesota

“The Students First Mentoring Project: A Role-theory-based Intervention to Improve Low-income, First Generation Student Retention,” August, 2006. Co-author: Morgan, David. Paper presented: 101st Annual meetings of the American Sociological Association Convention, Montreal, Canada.

2. (Changed Spring 2007) Did the program establish a dissemination website where program results were available for review?

**Met evaluation criteria. Dissemination / “SFMP friends site”**

( <http://friends.studentsfirst.pdx.edu/index.html> ) established Fall 2007

3. Did the members of the advisory committee give a positive assessment for both the national meeting & the program as a whole?

(NA after Spring 2007 change in dissemination)

(for Objective III)

1. Did the Students First program receive continued support from PSU after the completion of the grant?

**Yes; Exceeded evaluation criteria.** SFMP received short-range support from PSU to continue to provide services through the 2008-2009 academic year after the grant was completed. However it was the institutionalization of the program as the *University Studies’ Student First Success System (SFSS)*, a on-line support mechanism for PSU’s General Education curriculum that reflects the magnitude of PSU’s commitment to this project. In addition for 2008-2009, PSU’s Office of Academic Affairs has provided a grant of \$170,000 and PSU’s College of Liberal Arts and Sciences a grant of \$47,000 for the continued development of SFSS.

2. Did the Students First program become part of proposed integrated learning center at PSU?

No, but **exceeded evaluation criteria** as the high level of success of the SFMP program led to it’s institutionalization in an expanded form as the *University Studies’ Student First Success System (SFSS)*, an on-line support mechanism for PSU’s General Education curriculum

3. Did the Students First program promote a commitment from the university to monitor the academic performance and continuation of low-income first generation students?

**Yes; Exceeded evaluation criteria.** NOTE: while the SFMP research brought campus attention to these issues, several other forces also independently contributed to the major changes in this area in regards to how PSU monitors and provides support for students. 1) Starting from an SFMP analysis of 2004 University Studies’ Incoming student Prior study data that identified a previously unutilized source of “parent educational level” data, PSU’s incoming new freshman student cohorts were shown to have much higher percentages of first-generation students than previously imagined (e.g. 48% in 2005-2006 and 2006-2007, 47% in 2007-2008). 2) University Studies, PSU’s general education curriculum, now uses that “parent educational level” data from the Incoming student Prior study to identify first generation students, monitor their academic indicators starting in the middle of the Fall term, send them weekly targeted emails about potential adjustment issues, and connect them to specific on-line support resources. NOTE: the last two elements are taken directly from the SFMP intervention.

3. There has been a change in how student retention is figured at PSU. Under the old Oregon University System (OUS) formula, a student was considered retained if she was

registered for classes during the fourth week of Fall term in year one, and registered for classes during the fourth week of Fall term in year two. Supported by SFMP data that showed the considerable term-to-term fluctuation in retention rates, PSU now reports two retention rates – the one that the OUS system requires, and a term by term rate that is more useful for PSU faculty and student affairs professionals.

## Chapter I Introduction

### Terms

Before beginning, it will be helpful to take a minute and clarify the terms we will be using in this report. In regards to the concept of “staying in school,” “persistence” is an individual level variable that refers to whether a student is continuing her education, regardless of institution, while “retention” is an institutional variable describing the rate at which students remain at the institution in which they initially enrolled. A similar relationship exists between “drop-out” and “attrition,” two terms that refer to the phenomena of an individual leaving college. We can speak of an individual “dropping out” – stopping attending school, while colleges have “attrition” rates – the percentage of enrolled students that leave the institution before graduation.

### Over-view

The Students First Mentoring Program (SFMP) is a U.S. Department of Education’s Fund for the Improvement of Post Secondary Education (FIPSE)-funded intervention to improve retention of low-income, first-generation students\* at Portland State University. Combining best practices from already established programs such as Student Support Services and Educational Opportunity Program with theoretical concepts from role theory, this program offers a wide range of support services for first-generation college students designed to make the shift to college life less difficult and, in the process, improve student retention rates.

### **A. What are the problems?**

The value of a college degree

Over past 30 years, the value of a college degree has increased dramatically as the earnings gap between those with bachelor’s degrees and those without has continued to widen (Postsecondary Education Opportunity, 2006). Gaining access to college and then staying in school long enough to complete a degree dramatically impacts life chances and quality.

Not surprisingly, at the same time the percentage of high school graduates enrolling in college has steadily increased. The number of first-generation students who might not otherwise have considered college as an option has also increased.

#### Differential access rates

Yet not all groups of students chose to enter college at same rates. Income makes a difference. For example, looking at national data on the percentage of high school graduates who enter college the subsequent fall, there is a strong association between income and access. 80% of students in the upper-third income group enrolled in college the fall following high school completion, compared to 58% of middle income and 53% of students from the lowest income group. (Choy, 2001)

Race/Ethnicity also affects the relative rates of college enrollment. Again, looking at the percentage of high school graduates who enter college the subsequent fall, 66% of White (non-Hispanic) graduates immediately entered college, compared to 59% of Hispanic and 58% of African American students. (Choy, 2001)

#### Differential graduation rates

There are also differences between groups in regards to persistence and graduation. Once again, level of family income and race/ethnicity both affected graduation rates. Looking at national data on the percentage of students who entered college in 2000 and persisted through 2005, income was again strongly associated with achieving the desired outcome – in this case, college graduation. Of students in the upper-third income group, 71% either graduated from or were still students in college five years after entry, compared to 65% of middle income and 61% of students from the lowest income group. (Chen & Carroll, 2005)

Race also affects persistence and graduation rates. Returning to the national data on the percentage of students who entered college in 2000 and persisted through 2005, 66% of White (non-Hispanic) students either graduated

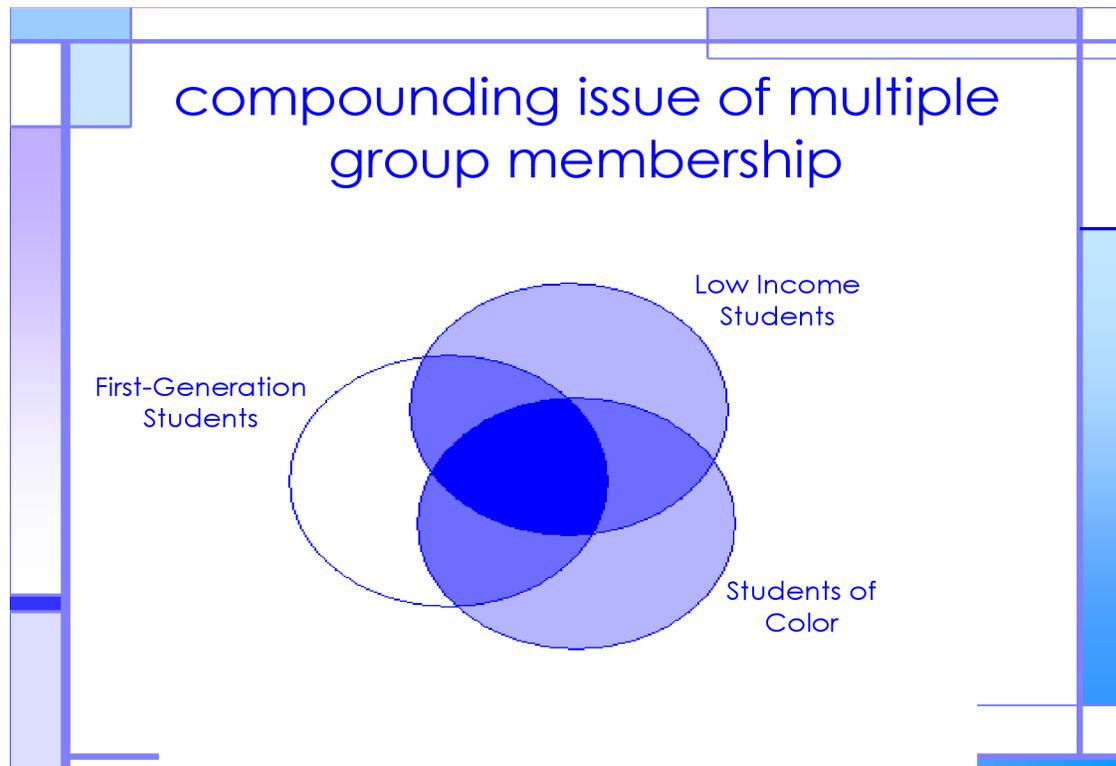
from or were still students at college five years after entry, compared to 60% of Hispanic and 55% of African American students. (Chen & Carroll, 2005).

### **B. First Generation Students**

1st generation students – those for whom neither parent completed a 4-year degree at a U.S. university – represent another group of under-supported students. As a group, first generation students have been shown to have lower college enrollment rates, as well as lower persistence rates, compared to students from more-educated families (Chen & Carroll, 2005; Choy, 2001).

The percentage of incoming college students who are 1st generation has steadily increased over time. Nationally, 1<sup>st</sup> generation students make up 47% of all entering college students but 53% of all entering students at 2 year and only 34% of all entering students at 4 year. Of all 2005-2006 high school graduates 35% were first generation (*Portland Oregonian*, February 2007)

figure #1 compounding issue of group membership



Unfortunately, being a member of one kind of under-supported group of students only increases the likelihood of a student's membership in other under-supported groups. Notice the over-lap with other under-supported groups – low income students, and students of color. This becomes even clearer when we examine some of the identified demographic characteristics of 1st generation students.

#### Characteristics of 1st generation students

Compared students whose parents w/ college degree, 1<sup>st</sup> generation students more likely to

- be African American or Hispanic, (59% of 1<sup>st</sup> generation versus 37% of traditional)
- come from lower-income families (avg. family yearly income: (1<sup>st</sup> generation) \$45K versus \$83K(traditional))
- be female, older, and with dependent children
- delay entry into postsecondary education, (49% versus 30%)
- begin college at a two year institution (56% versus 23%)
- take classes part-time while working fulltime,

- stop in and out of college, and
- need remedial coursework (49% versus 33%) compared to students whose parents have a degree. (Choy, 2001)

Each of these factors have been independently associated w/ lower rates of college performance and persistence (Engle, 2007, Chen & Carroll, 2005; Choy, 2001). 1st generation students also drop out at higher rate. First generation students leave college without degree at 43%, compared to 20% for traditional students (Chen & Carroll, 2005).

### Risk points

There are several transition points into and within higher education that are particularly associated with greater risks of students stopping out or dropping out. The first occurs as the student moves from high school into higher education at either a 2 or 4-year college. The second occurs as the student transfers from community college to a four-year school. At both of these transitions, the “rules of the game” change. The script that students need to follow to insure academic success is modified and elements of education that used to be taken for granted now become problematic.

### *high school to college: issue of 1st year persistence*

Students are most likely to drop out during the first year of college (Consortium for Student Retention Data Exchange, 1999; American College Testing, 2001) as well as during break between the 1<sup>st</sup> and 2<sup>nd</sup> years (Chen & Carroll, 2005). The importance of 1<sup>st</sup> year persistence is drawing more and more attention, both locally and nationally. And this issue is not just affecting public 4 year universities: both public and private, 2 and 4 year schools report increasing attrition rates.

While it may initially seem obvious, researchers have established a relationship between academic performance & college persistence – particularly with first year persistence (Smith, 2007; Chen & Carroll, 2005; Jacobi, 1991). For example, at Portland State University, any student with more than 12 credits and a cumulative gpa of less than a 2.00, receives an “academic warning.” If,

after the next term, the student has not raised his cumulative gpa, to 2.00 OR did not earn a 2,25 term gpa, the student is placed on “academic probation, and if the student’s performance does not improve, after a third term of sub-2.00 gpa the student is “academically disqualified” and dropped from the university (PSU Registration & Records:[http://www.pdx.edu/registration/academic\\_standing.html](http://www.pdx.edu/registration/academic_standing.html)).

It turns out that the “number of credits successfully completed” during the freshmen year is a particularly important variable in predicting degree completion. Recent research shows that the lower the number of credits completed during a student’s freshman year at college, the less likely that student was to complete any type of certificate or degree program (Miller & Spence, 2007, Chen & Carroll, 2005). Specifically, students completing 30 or more (semester) credits (45 quarter credits) were 7 times more likely to complete any certificate or degree than students completing 10 semester (15 quarter credits or less) (Miller & Spence, 2007).

improving first generation freshman persistence and performance

Research has shown that 1st generation students experience the transition to the college differently than traditional students (Thayer, 2000, Terenzini, Springer, Yaeger, Pascarella & Nora, 1996; York-Anderson & Bowman, 1991). Some factors that lead to differences in how groups of students experience the transition to college happen before they even apply to college.

*1. first generation students and their families need more useful information about college, especially about funding and finances, before students even begin at college.*

Research has shown that 1st generation students tend to have limited information about the college experience.(Engle, 2007, Adelman, 2006; Vargas, 2004) This is important because differences in available information can affect the likelihood of enrollment and persistence --- it’s all about cost. Not only are the parents of 1st generation students more likely to have lower levels of knowledge in regards to funding options (Tym, McMillion, Barone, & Webster,

2005; A Shared Agenda, 2004), they also demonstrate less willingness to take on debt in order to help children attend college (Striplin, 1999).

*2. In order to increase the chances of under-supported students being successful academically once they enroll in college, these students must improve their relative level of academic preparation before entering college*

Research has identified several major preparation-related factors that have been linked to the likelihood of 1<sup>st</sup> generation student persistence and academic performance: Several studies have shown that the rigor of high school curriculum is a good predictor of college success (Chen & Carroll, 2005; Miller & Spence, 2007). Unfortunately, 1<sup>st</sup> generation students are less likely take rigorous high school curriculum than traditional students (Saenz, Hurtado, Barrera, Wolf & Yeung, 2007). One result of this tendency is that 1<sup>st</sup> generation students are less likely to be enrolled continuously or to attain a degree at their initial school within 6 years compared to students from more educated families. However, when 1<sup>st</sup> generation students did take rigorous high school courses, this difference disappeared (Chen & Carroll, 2005).

The number of remedial courses a student is required to take upon entering college is also a predictor of academic success. Taking more than one remedial class the first semester of college has been found to be a predictor of poor first year performance (Miller & Spence, 2007).

Other factors impact the student only after they have enrolled at college.

*3) In order for under-supported students to be successful, colleges need to provide community, in the forms of a hospitable campus climate, as well as opportunities to remain connected to cultural communities.*

In order for students to become connected to college, not only must the campus be seen as welcoming for all students, but under-supported students, in particular, seem to benefit from being able to maintain ties to their cultural and “home” communities (Smith, 2007, Guiffrida, 2006, Hurtado & Carter, 1997).

*4. In order to be successful, new under-supported students need help navigating the institution.*

Because of a lack of familiarity with higher education, they do not know what kinds of issues to expect to encounter once they are in college and are less likely to receive informal family support in coping with problems (Adelman, 2006; Vargas, 2004; Thayer, 2000). In addition, they have a relatively harder time finding the resources they need once situations arise.

how do freshmen learn to navigate college?

We know that 1<sup>st</sup> generation students are less likely to receive informal family support in coping with problems. The combination of "differences in level of information about how college works, as well as the extent of available support networks, contribute to differences in persistence rates -- particularly 1<sup>st</sup> year persistence rates -- between 1<sup>st</sup> generation and traditional students. First generation students are more than twice as likely as those with a college-educated parent to leave before their 2nd year (23% vs. 10%). And, according to a 2005 U.S. Department of Education report, even after controlling for socio-economic status, institution types, and attendance rates, 1<sup>st</sup> generation students still demonstrated lower retention rates than students from more educated families (Chen & Carroll, 2005).

*transferring from community college to the university*

The second transition or risk point occurs when students transfer from a 2 year community college to a 4-year college or university. Here under-supported students face issues that are similar to those faced by freshmen on one level, but which are qualitatively different on other levels.

Under-supported transfer students need help recognizing some of the ways the university is different from community college, identifying available services, and asking the "right" questions to get the info that they need. For example, they may be unprepared when university expectations for written work go beyond good grammar -- the criteria for success at community college -- and

now also require appropriate use of sources. In addition, these students may encounter difficulties when professors expect them to demonstrate “critical thinking” rather than simply presenting arguments that are logically consistent.

For many transfer students, because they already have had experience with “expectations of higher education” while attending community college, even newly experienced differences in university expectations don’t typically result in failure – i.e. dismissal. Instead, for under-supported transfer students, the twin, associated issues of the relative “efficiency” and “effectiveness” of efforts to complete 4 yr degree become very important.

- **“Efficiency”** refers to how quickly the student can complete desired degree. First generation transfer students are sometimes not aware that some required major courses are only offered in sequence, and that missing the beginning class in a required sequence can add a year to the student’s plan for graduation.
- **“Effectiveness”** refers to getting the most out of efforts. First generation transfer students have a relatively short period of time, compared with incoming freshmen, to connect with professors and develop kinds of deep relationships that result in superior recommendation letters for graduate school or support for scholarships.

## **Chapter II. Theoretical Perspectives**

In this chapter theoretical models of persistence, student performance, mentoring, and expertise development will be discussed.

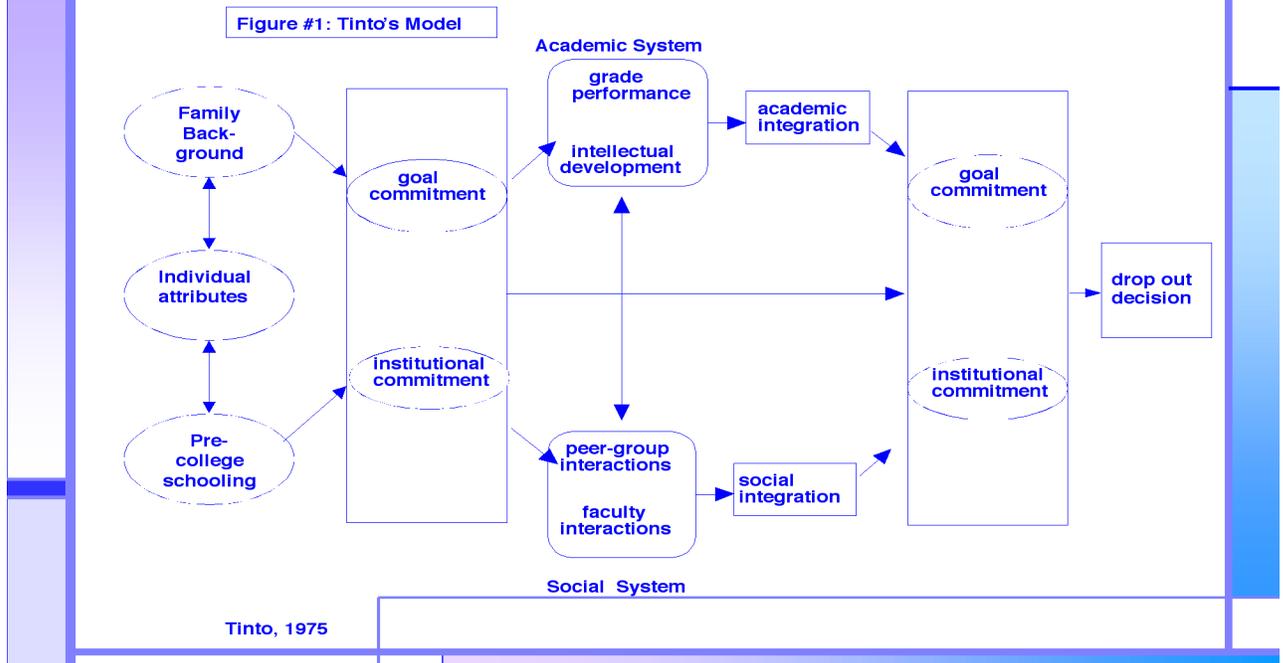
### **A. Models of persistence and performance**

SFMP draws upon two models of student persistence and one of academic performance. The first model, *Tinto’s Model of Persistence (1975, 1993)* is perhaps the single most widely cited model within the education literature.

Tinto’s model of persistence

*figure #2 Tinto’s Model of Persistence*

# Tinto's Model of Persistence



Tinto's model focuses on the degree of fit between student and institutional environment. In this model an individual arrives at college with a "package" of "assets" - individual attributes, pre-college schooling and family background characteristics. These assets impact two kinds of commitment: "goal commitment" (understood as commitment to get a degree in general) and "institutional commitment" (commitment to get the degree at that university). Tinto proposes that a combination of "background traits" and "initial commitments" influence how well a student will become integrated into institution's social & academic systems. "Integration", the degree to which an individual establishes membership in the college community, is the key process in Tinto's model.

## Social System (lower path)

Here Institutional commitment influences the student's experiences within the "social system" of the university, this includes experiences with faculty beyond the classroom and contact with other students. Based on what happens in the social system, students

develop differing levels of social integration, understood as the development of social ties and “community membership” based on interactions.

#### Academic System ( upper path)

The path involving the academic system is similar. “Goal commitment” impacts student’s experiences in the “academic system” of the university. Students get feedback from experiences in the academic system in the form of grades and evidence of intellectual development, and as a result develop different levels of academic integration. The key question is: “how well does the student fit with the academic culture of the college?”

These two kinds of integration – academic and social – are seen as important predictors students’ decisions to persist or drop-out of college. With all other factors held constant, the stronger the level of academic integration, the greater the commitment to the goal of completing a college degree. Similarly, the greater a student’s level of social integration, the greater his commitment is to completing a degree at THAT institution.

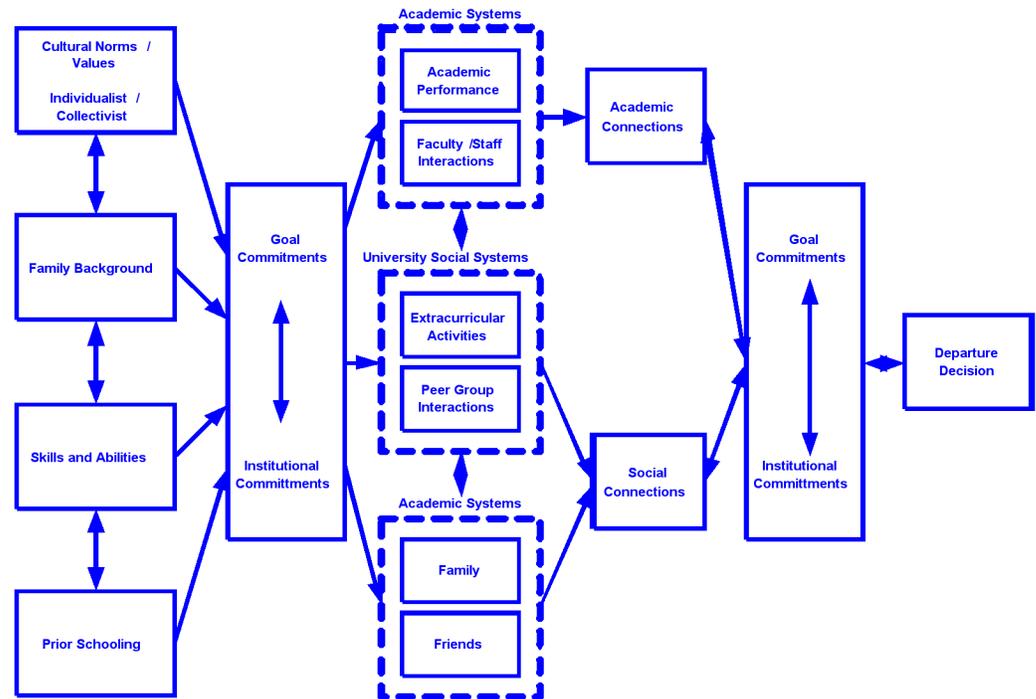
Tinto has revised this original model twice (Tinto, 1987, 1993) in response to issues raised by critics. Tinto’s original model has been critiqued for asserting that students need to break away from past associations and traditions to become integrated into the college’s social and academic realms (Tierney, 1992). Others argue that to remain relevant, this model must recognize the need for minority college students to remain connected to supportive members of their home communities (Guiffrida, 2006).

#### Modified model – Guiffrida

The second diagram represents some recent efforts by Guiffrida (2006) to make the model more culturally sensitive, and therefore, more applicable to non-dominant (a.k.a. under-supported) group students.

Figure #3 Modified model of student persistence

# Modified Model of Persistence



Drawn From Tinto 1975 and Guiffrida 2006

In this modified model, we need to focus on three important changes Guiffrida adds to Tinto.

1. *change in the “package of assets”*: “cultural norms and values” have been added to the individual attributes, pre-college schooling and family background characteristics that entering students bring with them to college.

2, *replacing “integration” with “connection”*: “integration” implies that students must be socialized into the dominant culture of the institution while abandoning their former cultures, but “connection” recognizes students’ subjective sense of “being a legitimate member of the campus community” without implying the need

to abandon supportive relationships or rejecting the values and norms of their home communities.

3. *“social connection” at college depend upon interactions in TWO social systems --- the campus social system, and the home social system:* Separate studies have shown that Latino (Rosas & Hamrick, 2002), Chicano (Gonzalez, 2002), Chicana (Delgado Bernal, 2002), Navajo (Jackson & Smith, 2001), and African American (Guiffrida, 2005) students all perceived the support received from families and members of their home communities as providing cultural connections and “nourishment” that helped them deal w/ the adversities of college. With these changes, the Modified model is more relevant for explaining under-supported group persistence.

Because of the importance placed by the Modified model on students’ experiences in college’s “academic system” for determining the level of academic connection, and subsequent persistence, next we want to explore how a new student’s package of “assets” are “converted” into successful or unsuccessful performances within academic system.

## **B. Sociological models of identity and performance**

First we must turn to sociological models of identity and, eventually, student performance in higher education.

### **Role theory**

Success in higher education is not simply a matter of students demonstrating their academic abilities. In addition, mastery of the "college student" role is necessary in order to both understand instructors' expectations and effectively apply their own academic skills to those expectations. Collier and Morgan (2007) propose that an individual's understanding of the “college student role” is a critical element in explaining student success at the university.

This approach to students’ acquisition and mastery of the college student role builds on the classic, Symbolic Interactionist version of role theory (e.g.,

Becker, 1963; Mead, 1934). In doing so, we rely on a recent series of theoretical developments that emphasize the use of "roles as resources" (Baker & Faulkner, 1991; Callero, 1986, 1994 2003; Collier, 2000, 2001). According to this approach, roles serve as *resources* that individuals use to pursue their goals through interactions with others. Three general types of resources have been identified: 1) material capital or physical assets; 2) social capital or social networks (Coleman, 1988) and 3) cultural capital or claims on ideas (Bourdieu, 1984; Collins, 1988), in this case, role-related problem-solving scripts. From this perspective, "role" is a critical element in student success in defining social identities, understanding and anticipating faculty expectations and accessing resources to achieve goals such as financial aid, good grades and graduation (Baker & Faulkner, 1991; Callero, 1994). In the case of higher education, students who arrive at the university with a greater mastery of the college student role possess an important resource both for recognizing what their instructors expect of them and for responding appropriately to those expectations.

Collier's Differentiated Model of Identity Acquisition (2000, 2001) expands on the idea of roles as resources by proposing that there are multiple, alternative conceptions for broad societal roles such as "college student." For example, students at different schools – such as a community college, a large public urban university, and an elite private university -- must typically deal with different sets of expectations in order to be recognized as a "successful" college student at their respective schools. Having differentiated versions of the same role allows individuals to generate more effective responses to the actual circumstances they experience as they pursue their goals (e.g. when students perform the version of student role required by their university or professor).

### *Learning to be a student*

The process of learning how to be a student works like this. The person has an idea about how to act like a student in her mind. This is the "role standard" Role standards develop through successful and not-so-successful interactions and past experiences with others. Based on that standard, the student decides how to act in her interactions

with others in particular situations. Those individuals interpret her actions and provide her with feedback as to “how well she is enacting the student role” according to their standard (Burke, 1991).

The person then compares that feedback with her role standard and if there is a discrepancy, she will modify her behavior so that over time she gets the feedback and rewards, often in the form of good grades and opportunities, that are “typically” associated with that role. However if she does not know in advance what role standard others will be using, it may take several iterations of “trying out” what she thinks are appropriate role-related behaviors in her interactions with others, getting feedback, and then again revising her actions to reach the point where her actions “match” the standard being used in that situation. This is where mentoring can help, by providing the student with assistance in seeing what standard others may be using

Models of identity development agree that feedback from a peer mentor is critical in assisting freshmen to develop effective student roles. However, the Differentiated Model (Collier, 2000, 2001) points out that not all self-referent feedback has the same effect on student role learning. The most effective feedback comes from others who understand and are using the same version of the role.

Therefore, the key to a successful peer-mentoring program for 1<sup>st</sup> generation students is not simply hiring mentors with similar background characteristics in terms of age, gender or even race, but in providing mentors who are similar in terms of their life experience (e.g. other first-generation, low-income students).

### *Differentiated role mastery*

This revitalized version of role theory points to the importance of being able to perform increasingly customized or context-specific versions of a particular role, or *role mastery*. This form of mastery applies to both halves of the distinction that Ralph Turner (1968) makes between “role playing” and “role making.” Role playing occurs when an individual in a new or uncertain situation utilizes an existing role standard to perform a “conventional” version of the role in question (e.g., when a college freshman concentrates on meeting a professor’s standards as a step toward learning the college student role). In contrast, role

making occurs when an individual develops her or his own “version” of the role, usually as a result of a series of previous performances of that role (e.g., when a college student negotiates with a professor to create a “reading and conference” or “directed studies” as an alternative to a regularly offered course). Individuals tend to start out with “role playing” (enacting a standardized version of a role), then, as their level of expertise increases, they do more “role making” (developing their personal version of that role). Because role playing and role taking typically work together, individuals may develop greater mastery through both role playing -- by increasing the number of different versions of role that they can perform, and role making -- by increasing their ability to create new but acceptable responses to role standards.

The differentiated model of role acquisition makes it possible to describe a more detailed version of role mastery, based on the realization that there are multiple role standards for the same role. When individuals successfully learn how to recognize and respond to different standards for a role, they develop a higher level of role mastery – *differentiated role mastery* --and this increased expertise gives them more options about how to perform that role. For example, success in college requires that students cope with the wide variety of standards that different professors will use in assessing their performance. Just as in our earlier example about how different types of colleges and universities will have different expectations for their students, different professors within any one school will have different expectations. Thus, the mastery of multiple versions of a role serves as a resource that enables people to accomplish their desired goals (e.g., getting a better grade in a course or graduating on time).

It is easier for traditional students entering the university to become “role experts”. They are usually more familiar with higher education from listening to family members' academic histories. They often receive parental coaching and are more likely to have learned how to use different interactional strategies or versions of student roles as well as how to appropriately utilize them to understand differences between their classes and professors' expectations.

Traditional students' facility with multiple versions of the student role is an example of how cultural capital (Bourdieu, 1984; Bourdieu & Passeron, 1990) increases the likelihood of college success and is linked to class-based structural differences in family educational attainment rather than to differences in individual intellectual capacity or effort. By improving first generation students' level of role mastery, the Students First program contributes to creating a more level playing field in the "game" of achieving college success.

First-generation students do not have an opportunity for parental advice to help them identify and resolve role-based problems in understanding the university's expectations. They come to the university with less understanding of student roles and less capacity to build their existing knowledge into genuine expertise. Regardless of whether she/he is aware of multiple versions of the student role, the first-generation student typically has facility only in using a single version of the role. She/he has less experience in "pattern recognition" in regard to either understanding the university's expectations for students or recognizing effective role-based problem-solving strategies.

For example, while both traditional and first-generation students may have a general awareness that they will have to "do the student role" differently in a math class compared to a sociology class, only the traditional student is likely to recognize how professors' expectations may be different in one sociology class compared to another. While traditional students are employing previously acquired role knowledge to differentiate expectations of professors in each class, first-generation students are usually struggling to understand the university's expectations "in general."

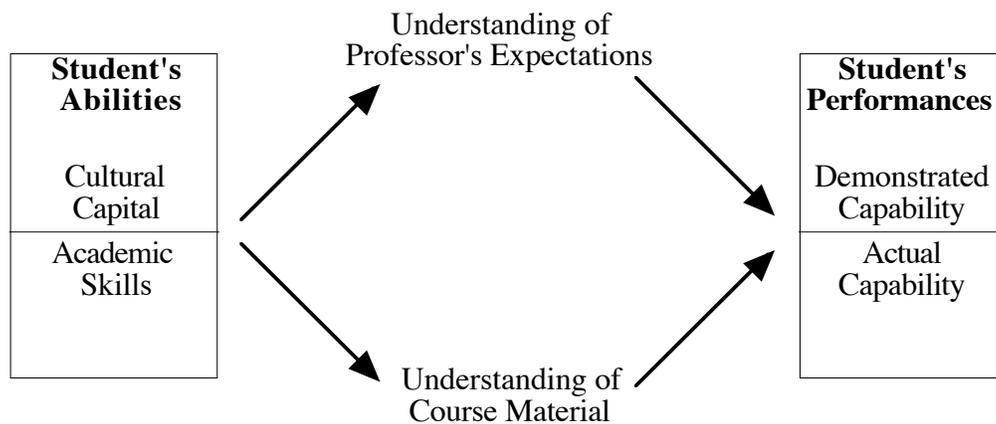
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The concept of differentiated role mastery is one central process in another model that explains college student academic success -- the Two-Path model of college student performance.

Two path model

The two-path model of student performance (Collier & Morgan, 2003, 2007), distinguishes between learning "how to be a successful college student" and learning course content as 2 important influences on students' academic performances.

*Figure #4 two-path model of student performance*



Collier & Morgan, 2003

The lower path of this model represents a traditional achievement model of education, in which a student's academic ability determines course material understanding, which then determines academic performance. The upper path expands the traditional model by including the "Fit Between Faculty Expectations and Student's understanding expectations " as an additional influence that mediates the relationship between the students' academic abilities and performances.

In the two-path model, the ability to understand course material, captured lower path, is a necessary but not sufficient predictor student's performance. In addition, "knowing how to be a successful college student"( i.e. understanding professors expectations)

also necessary in order to demonstrate knowledge of course materials. In a comparison between two students with equal understanding of the course material, with a better understanding of a faculty member's expectations will perform better in that professor's class.

Consistent with our dual-path approach, the model distinguishes between two parts of "Students' Abilities" and two aspects of "Students' Performances."

*Student Abilities:* 1) academic skills refers to prior preparation for acquiring content-related knowledge, (i.e. technical skills as the ability to read college-level texts, and so on), and 2) Cultural capital or "family background resources." This refers to knowledge the person already has as a result of successful interactions in academic settings, (i.e. ability recognize & respond to standards that faculty use when evaluate assignments).

*Student Performance* includes: actual capacity: the full set of what the student "knows and understands" in regards to course materials; and demonstrated capacity – the student's ability to express what she "knows and understands." Demonstrated capacity is what faculty use when assigning grades.

#### Bourdieu's theory of Social Reproduction and Cultural Capital

French Sociologist Pierre Bourdieu (1973, 1984) is concerned with the "practical mastery" -- the strategies and decisions individuals make and utilize to facilitate their day-to-day social interactions. For Bourdieu, underlying all social interaction is a quest for "distinction"—a difference between one group and others in society that favors that particular group. The goal here is to legitimate the advantage in key interactions enjoyed by dominant groups in ways that make dominated groups accept that advantage as part of the objective, natural way that things normally happen in society rather than something that is structured to promote the self-interest of the dominant group.

Individuals and groups draw upon a variety of cultural, social, and symbolic resources in order to maintain and enhance their positions in the social order. Bourdieu (1989: 375) conceptualizes such resources as capital when they function as a "social relation of power" that in, they become objects of struggle as valued resources.

Bourdieu (1986:243) generally speaks of four generic kinds of capital : economic capital (money and property), cultural capital (cultural goods and services including educational credentials), social capital (acquaintances and networks), and symbolic capital (legitimation). Bourdieu identifies cultural capital as one of the primary means by which the beliefs and values of the dominant class are transmitted, rewarded, and reproduced. Within education, it is proposed that schools are not socially neutral institutions but rather reflect the values and experiences of the "dominant class," i.e., those who have the most economic and cultural resources to influence what goes on in their environment.

Children from the dominant class enter school with an advantage due to their parents' experiences and background characteristics, which allows them to convey key social and cultural cues to their teachers. In contrast, working class and lower class students often need to acquire the knowledge and skills necessary to negotiate their educational experiences after they have entered school. While these disadvantaged students can acquire the social, language, and cultural competencies that characterize the upper and middle class, they still may not achieve the "natural familiarity" with these valued skills that those born to them display.

Bourdieu conceptualized cultural capital as performing several different functions, acting as at different times as an informal standard, a class attribute, a basis for social selection, a resource for power, or an indicator of class position (Lamont and Lareau, 1988). This multi-faceted conception of cultural capital is not the primary focus of Bourdieu's critics. Instead, the problem is the diverse and even incompatible ways that subsequent researchers have chosen to operationalize cultural capital: including: knowledge of high culture, the curriculum of elite schools, the capacity to perform tasks in culturally acceptable ways, household educational materials and books, and participation in high culture events.

Drawing from the earlier theoretical material on the resource perspective, we propose that "role mastery" – i.e. knowing how to successfully enact the college student role – is one form of cultural capital (Collier & Morgan, 2007). Basically, can the student interact with those with the power to give rewards or impose sanction in ways that those authorities view as "legitimate" and therefore recognize those

rewards? This is an area where students from families with little experience within higher education are at a marked disadvantage.

In contrast with 1st generation, low-income students, students from more traditional backgrounds enter university with a level of “family background resources” that make it easier for them to become “expert students.” Not only are they more familiar with higher education from listening to family members' academic histories but they are also more likely to have appropriate approaches for dealing with teachers and other educational authorities due to parental coaching. In many ways, parents have been preparing traditional students for college since first entered school.

### Summary

Models of student persistence consistently emphasize the importance of students developing “connections” to both the academic and social systems of the campus, as well as to the larger community. However, for many students, particularly students from under-supported groups, it is not obvious exactly how to go about building these connections. This is where having a mentor can prove invaluable.

### **C. Mentoring**

What is it?

The word “mentor” came from the Greeks – Mentor was a character in Homer’s Odyssey who befriended and guided Odysseus’ son. Initially this term referred to a relationship between a “younger” mentee and an older, more experienced mentor. Over time, the relationship has changed from one based on the principle of “age equals wisdom” to one where the mentor-mentee differences are understood in terms of expertise and experience in a specific domain or situation

Mentoring has become increasingly prevalent in higher education starting in the 1980’s. Mentoring programs have been shown to improve academic performance – improve grades and specific skills like critical thinking – and persistence (Muraskin, 1997). This is true for students at of both 2 year and 4 year colleges and universities. Mentoring is particularly effective for students from under-supported groups. Women, non-dominant racial-ethnic group members and 1st generation students have

particularly benefited from these programs (Walker & Taub, 2001; Johnson, 1989; Tinto, 1987).

Jacobi (1991) identifies 5 components of effective mentoring:

1. the relationship is focused on achieving a goal or acquiring knowledge
2. the mentor -- mentee relationship consists of support, direct assistance, and role modeling
3. the relationship is reciprocal, there are two-way benefits
4. the mentor-mentee relationship is a personal relationship
5. mentors have greater experience, influence and achievement within the mentoring context or setting.

In order to be successful, a mentoring program needs increase or draw attention to the perceived value of the program's strategies and resources and lower any perceived barriers to student success at the university.

#### Different forms of mentoring

Wallace and Abel (1997) found that students at risk for dropping out benefited from a wide range of mentoring experiences.

#### *Formal and informal*

Informal mentoring relationships develop on their own between individuals. Formal mentoring refers to an assigned relationship. In well designed formal mentoring programs there are program goals, schedules, training (for both mentor and mentee), and evaluation. SFMP, EOP and the Returning Women Students' Program are examples of formal mentoring programs at Portland State University.

#### *Expert mentoring*

Haring (1999) describes a "grooming" model of mentoring where an expert socializes the protégé / mentee into the culture of the institution and helps the mentee learn to "do the job". Expert mentoring is typically one-on-one and hierarchical. Examples of expert mentoring for 1<sup>st</sup> generation students would include faculty, administrators, student

support staff, counselors, alumni and anyone who helps under-supported students gain access to relatively resource rich social networks within education.

### *Peer mentoring*

Rendon (1994) suggests that peer mentoring can provide an important validation experience for first-generation students, for whom the transition to college is not a normal rite of passage. Many times these new-to-the-university, at-risk students have trouble recognizing that they are experiencing academic difficulties and are often reluctant to seek help (Levin & Levin, 1991). Peer mentoring can be valuable in these situations. Tinto notes that "while role modeling seems to be effective in retention programs, it appears to be especially important for disadvantaged minority students"(1987).

### *Network mentoring*

Haring (1999) describes a second model of mentoring, network mentoring, where a group of peers, with help of a facilitator, join together to realize benefits of more traditional mentoring. Everyone contributes and everyone benefits. Walker and Taub (2001) found that network mentoring -- where multiple students were mentored by one individual -- was comparable in effectiveness to one-to-one mentoring programs as measured by level of student satisfaction and frequency of contact.

### *Video mentoring*

#### *Positive effect of video technology on learning*

Video technology has been shown to have a positive effect on college students' content-based learning (Jeremiah, 1991; Childers, 1997) and self-learning (Hakel, 1997). Video has also been used as a means of providing role modeling in other educational contexts -- teacher education (Rowley & Hart, 1996), entrepreneurial consulting (Robertson, & Collins, 2003), and physician training (Sloan & McMillan, 2003)

#### *Positive effect of video technology on mentoring*

The National Academic Advising Association website (<http://www.nacada.ksu.edu>) indicates that, to date, the only videos that have been developed are targeted exclusively for advisors. There are no videos that have been developed or tested for use by advisor and student advisees together, or by just by the advisees themselves.

### *Duration*

SFMP is designed to provide a structured support network for students to use during their first year on campus until they are proficient enough to develop their own personal set of strategies for navigating within the university. While many mentoring programs targeting similar groups of students continue to provide support services over the course of the student's undergraduate career, one difference in SFMP is the emphasis on providing support services during the targeted period of transition to the university. By focusing our support efforts on this key period of transition, we hope to achieve similar positive effects on academic performance and retention though utilizing a shorter term program.

### Navigating the university: why mentoring can help

When we talk about “being prepared” for college, so much of focus is on whether the student has the basic skills to do college work without acknowledging that content knowledge, alone, is not enough to ensure student success.

New students actually vary in terms of two different modes of expertise:

1) expertise in specific content areas -- a high school student can enter college with mastery of college level conceptual material in math (calculus) or science. Typical evidence of expertise in this mode are high school gpa and SAT scores.

2) expertise in navigating the university

Many times when a student appears to be “up to college level” in regards to content area ability, it is just assumed that “navigating “ expertise is at the same level and that is not necessarily true. Unfortunately, there is, to date, no effective way to determine an individual's level of expertise in this mode.

For a student, successfully “navigating the university” involves both:

a) *finding the resources* they need in order to succeed

b) *knowing effective strategies* for dealing with specific college issues, including how to interact with professors, bureaucracy, and other students. This is where first generation students are at a disadvantage.

Many students from more-educated families, enter college with a pretty good idea about what they are going to encounter. Some students, because of previous family experience, begin school with a clear idea of how to find campus resources, as well as some strategies for success that actually work.

For other traditional students, even if they do not have a clear idea of what to expect based on their own experiences they bring family-based resources in the form of “people skills.” They know how to talk to other people, particularly people who share their similar background like the majority of other students they encounter at college. When these traditional enter school they immediately network with other students who are knowledgeable about the system in areas such as where resources are located and how to strategically deal with any issues that arise.

But for 1<sup>st</sup> generation students, things are not quite so clear. Often they don’t know exactly what the problem is (just that there is a problem), they have fewer options when trying to solve the problem, and most of the time really don’t even know what the rules are for this situation. This is where mentoring can make a difference.

What does mentoring provide?

In regards to promoting college student success, mentoring relationships provide three important elements:

Resources - where are services located?

Information - when is the best time to submit a FAFSA form?

Strategies - what is the best way to approach a professor before a test?

*Mentoring as increasing role mastery*

In the earlier section on *learning how to be a student*, it was proposed that when an individual is enacting a role in a new situation – e.g. a first generation student starting college -- because she does not know in advance what role standard others will be using, that it may take several iterations of “trying out” what she thinks are

appropriate role-related behaviors in her interactions with others, getting feedback, and then again revising her actions to reach the point where her actions “match” the standard being used in that situation. This is where mentoring can help, by providing the student with assistance in seeing what standard others may be using as well as which actions from a universe of possible role-related actions will be most effective in bringing her actions in line with others’ expectations of her in that role.

Models of identity development agree that feedback from a peer mentor is critical in assisting freshmen to develop effective student roles. However, the Differentiated Model (Collier, 2000, 2001) points out that not all self-referent feedback has the same effect on student role learning. The most effective feedback comes from others who understand and are using the same version of the role.

Therefore, the key to a successful peer-mentoring program for 1<sup>st</sup> generation students is not simply hiring mentors with similar background characteristics in terms of age, gender or even race, but in providing mentors who are similar in terms of their life experience (e.g. other first-generation, low-income students).

### *Mentoring as sharing social capital*

In regards to the earlier discussion of the Bourdieu, mentoring provides a combination of both social and cultural capital. Recent research by Farmer-Hinto and Adams (2006), and Smith (2007) propose that mentoring provides under-supported students with access to social capital in the form of relatively resource-rich networks. From this perspective, social capital is an asset embedded in networks of social relations which can be used to improve a person’s life chances (Farmer-Hinto & Adams, 2006).

One key aspect of these social networks is that it involves relationships with others who share the same goals. They are where the individual learns the norms and expectations of other network members. However, not every social network provides access to the same range of resources, and not everyone has equal access to all existing social networks.

Lin (2001) contends that differences in the composition of networks foster inequality in terms of access to social capital. *Resource-rich” networks*, composed of

diverse members with social advantages who interact to maximize those advantages (expertise, connections, material goods), are not accessible to all. From this perspective, school-based social capital promotes social mobility for under-supported groups.

Within higher education, when a mentoring program institutionalizes a social network, even a simple dyad, consisting of a 1<sup>st</sup> generation student and a more experienced, successful student mentor, this amounts to “**importing**” **social capital**. Basically the program is providing the student with a connection, an insider who knows her way around the college and can help the 1<sup>st</sup> generation student find needed resources.

Another way that mentors assist students in adjusting to college is by sharing strategies for success. For example, Healy (1997) notes that mentors cultivate qualitative changes in mentee’s approach to problem solving as well as quantitative changes in their level of achievement and productivity.

#### *Mentoring as sharing cultural capital*

Ann Swidler (1986) describes culture using the analogy of a toolkit which is full of values, beliefs, guidelines for behavior and we’d add role-based strategies used to construct “lines of action” to accomplish valued goals. Therefore, when the mentor shares “high likelihood of success” strategies for dealing with a range of critical situations relating to “navigating the university,” this amounts to “importing” cultural capital. The 1<sup>st</sup> generation student now has a new “strategy” in her problem solving toolkit, a strategy that has been proven successful in this specific situation in the past. The mentor is there to make sure that the student recognizes which situations are appropriate for that strategy, and when to employ the strategy.

#### **D. Mentoring and expertise development**

One of the major areas of SFMP program emphasis involves helping 1st generation students learn “how” to act in ways that increase the chances of them being successful at college. “Learning how to act like a successful college student” can be thought of as an example of “role mastery” or “expertise

development.” The active process underlying the SFMP intervention is ***expertise development mentoring***. Expertise development mentoring provides new students with useful information about “what to do in order to succeed at the university”, insights into the culture of higher education, and tips on how to become “more expert” students. This form of mentoring goes beyond informing students about the range of support services available on campus, providing scripts for how to use specific campus resources appropriately as well as strategies for key campus interactions.

Expertise development mentoring focuses on building up new-to-the-university students’ “*educational foundation*” by sharing useful information about “what to do in order to succeed at the university” and tips on how to become “more expert” students. Mentors serve as knowledgeable allies who, due to their own experiences, help the new student many ways, including providing insights into the culture of higher education. Through the SFMP program, first generation students learn “how” to act in ways that increase the chances of them being successful at college. “Learning how to act like a successful college student” can be thought of as an example of “role mastery” or “expertise development.”

### *Dreyfus model*

The model of expertise development mentoring used in the SFMP intervention builds upon Hubert and Stuart Dreyfus’s (2005) 5-Stage Model of expertise development. By expertise development, they mean how, adults learn new skills by instruction. First a description of each stage will be provided followed by a discussion of how the SFMP intervention targets each of the early stages of the model.

### *Stage 1: Novice*

The novice is new to the “task domain” – i.e. succeeding in college -- so the mentor, as someone with more experience in the domain, breaks down the task environment into set of easily identifiable features which the novice can identify even without any experience in the domain. The novice is provided with a set of context-free rules, which are employed in every situation encountered.

### *Stage 2: Advanced Beginner*

With time the novice gains some experience. And, even though actions based on his set of context-free rules are fairly successful, over time he becomes increasingly aware of a wide range of other factors that can significantly affect outcomes. The novice becomes an advanced beginner when the set of context-free rules is supplemented by increased awareness of situational aspects. This combination results in the development of instructional maxims, guidelines for action that require some experience in the domain in order to be understood.

### *Stage 3: Competent*

As his experiences continue, the advanced beginner becomes aware of more and more situational aspects that can each significantly impact outcomes. With so many different elements potentially critical to possible outcomes, the advanced beginner starts to feel over-whelmed. To cope with increasing overload, and to move to the stage of competence, he develops a set of contingency plans -- "if this happens, then adopt perspective A, but if that happens, adopt perspective B." Each perspective then determines which elements in the situation are critically important and must be considered when making a decision, and which elements can be ignored in a particular situation. By reducing the number of elements that must be considered before action is taken from an almost infinite number to a much smaller one, it makes the decision task easier and less stressful.

Increased experiences within the domain has brought the competent person the knowledge of the vast range of possible situations he may encounter, each differing from each other in subtle, but important ways. Furthermore, when he encounters each of these different situations, the competent individual realizes that he, alone, will have to decide which perspective to select in each context as well as when the appropriate time to actually engage that perspective might be.

The last two stages – proficient and expert -- represent a qualitative shift from the earlier stages. But in the SFMP program, the focus is on the first three stages. While most new-to-the-university first-generation students begin as novices, some are

actually at an earlier stage – pre-novice – where they are not really clear as to what actions are appropriate for acting like a college student.

### *Level-appropriate mentoring for developing student expertise*

#### *Novice*

SFMP initially tries to connect with students at the novice level. Underlying Students First is the idea that the university is a more confusing, complex environment than our students – whether they are new freshmen or recent transfers from community colleges -- are used to.

Traditional college orientation programs emphasis “what” things are available on campus and “where” they are located. New students also need to know “how” to appropriately use specific campus resources. In addition they need help with how to determine when it is the right time to use specific resources.

SFMP helps with both of these kinds of issues. The program provides needed “what” and “where” information of available resources, but, in addition, emphasizes “how to do” critical elements of the college student role (e.g. getting help with a paper at the writing center).

Three of the four SFMP areas of program emphasis (recognizing student adjustment issues, identifying campus resources and using each appropriately, and developing strategies for dealing with issues) directly relate to providing novice college students with a set of context-free college success rules based on the experiences of already successful students from similar backgrounds. SFMP is designed to help new students make smarter choices by teaching them adjustment strategies that have already been proven to work for current PSU students.

#### *Advanced beginner*

In the Dreyfus model, as the novice student gains experience, the context-free rules are no longer adequate – she becomes more and more aware of additional elements that need to be considered in order to realize her goal. At this stage, the good mentor reinforces the advanced beginner’s successes, and helps develop “maxims,” or guidelines, for action that require some experience in the domain in order to be

understood.

One intentional feature of SFMP is that program elements demonstrating “how to do” specific parts of being a college student (e.g. videos), are set up to be both easily accessible as well as confidence inspiring for students. These “how to do” program elements act as “scaffolds” for students’ further understanding of “why” such actions have a better likelihood of producing student success.

SFMP regularly reinforces these messages through discussion groups and multiple forms of mentoring. In this way, the “why” message generalizes into other strategies for succeeding as a student at the university – helping novices become advanced beginners and therefore increasing the likelihood of first-generation students college success.

### *Competent*

In the Dreyfus model, the competent individual has a set of contingency plans, “in this situation I will do A, but in this other situation I will do “B”, that allow her to deal with a much wider range of situations in a much more successful ,manner. Because of increased experience, the competent person can look at a situation and recognize the opportunities that are there and what goals can be realized? What issues must be addressed at this time in order to not have more serious problems in the future?

A long-term goal of Students First is to provide a structured support network for students to use during their first year on campus until they are proficient enough to develop their own personal set of strategies for navigating within the university. By exposing transitioning 1st generation students to time-tested university success strategies already developed and “test driven” by other 1st generation students SFMP is “importing” cultural capita in the form of mastery of the college student role. Students “learn how” to be a successful college students through viewing peer mentoring videos, reading the weekly tip sheets, brain-storming with other students in discussion groups, and interacting with program staff through the on-line discussion boards or in-person meetings.

These strategies for success then serve as decision rules for invoking one or another of a set of contingency plans, each appropriate for a particular range of situations. The end result is a greater likelihood of student success.

### *Summary*

Under-supported students benefit from having a “mentor” who can “translate” the expectations of the university for the new student. These more experienced mentors can help new 1st generation students identify useful campus resources and develop strategies for college success through the processes of importing social and cultural capital.

Mentoring works to promote success among under-supported students. Background-appropriate advising and mentoring have been shown to be effective in increasing first-generation student retention in the federally funded TRIO intervention program such as Student Success Services (SSS) or Educational Opportunity Program (EOP). Students in SSS/EOP programs show a 7% increase in retention compared to comparable freshmen receiving “regular” advising (Muraskin, 1997). However, substantial numbers of first-generation students aren’t admitted due to lack of space and receive little if any additional support. With only regular university advising, these students often face serious adjustment issues due to their lack of familiarity with higher education. This quest to find additional ways to support deserving but under prepared students, was a major part of the motivation behind starting SFMP.

## **Chapter III. The Students First Mentoring Program**

### **A. What is it?**

SFMP tries to address the issue of low degree completion and high dropout rates among low-income, 1st generation students. Students come into the university with differing degrees of preparedness. Traditional advising programs don’t address the deeper differences between the traditional model of a “student”, and the reality of those utilizing the higher educational system.

Following the logic of the 2 path model, SFMP proposes that there is more to promoting 1<sup>st</sup> generation persistence and academic success than is typically covered in

new student orientation. Students need information on “how the university works” and “which strategies work best for realizing college goals.” Within SFMP, we call these skills: knowing how to “navigate the university” or “act like a successful college student.” The goal of this mentoring program is to help 1st generation students acquire the full range of role related skills.

### Goals

SFMP is a yearlong mentoring program for new-to-campus 1st generation students—freshmen and recent community college transfers students during critical year of transition to university. Underlying SFMP is the idea that the university is a more overwhelming environment than students used to.

### Philosophy

SFMP mentoring activities take a variety of forms but the emphasis is always on strategies for “navigating” the university. A central theme of the program is that these students will make easier adjustment to university if they’re provided with opportunities to utilize expertise of already successful, 1<sup>st</sup> generation PSU students. SFMP staff are all 1st generation students and current PSU graduate students, many completed their undergraduate degrees at Portland State. SFMP’s long term goal is to provide structured support network for students to use during 1<sup>st</sup> year until they’re proficient enough to develop their own personal set of university navigation strategies

### 4 areas of program emphasis

The 4 areas of emphasis in the SFMP program are:

1. recognizing student adjustment issues,
2. identifying campus resources and using each appropriately,
3. developing strategies for dealing with issues,
4. connecting students to the campus and other students.

## **B. Description of project**

## Setting

Portland State University is located in downtown Portland, Oregon, and offers over 100 undergraduate, masters, and doctoral degrees, as well as graduate certificates and continuing education programs. Enrolling over 25,000 students annually, the university was established as Vanport Extension Center in 1946; became Portland State College in 1955; and was granted university status in 1969. PSU currently operates on the quarter system. Articulation agreements are maintained with four community colleges, Portland, Chemeketa, Clackamas and Mt. Hood Community Colleges.

## Participants

At PSU, student retention is a priority issue, as part of its mission “to educate students of diverse ages, ethnicities, and experiences.” Still, SFMP students’ demographic characteristics differed from those of the total PSU undergraduate student body.

*Compared to the total PSU undergraduate students:*

- **a higher percentage of SFMP students were women.** In 2005-2006, 66% of SFMP students were women compared to 54.5% of PSU undergrads. In 2006-2007, 77% of SFMP students were women compared to 54.8% of PSU undergrads. Similarly, in 2007-2008, % of SFMP students were women compared to 53.1% of PSU undergrads.

- **a higher percentage of SFMP students were from under-represented racial-ethnic groups.** In 2005-2006, almost 66% of PSU undergrads were White Non-Hispanic compared to 61% of SFMP students. In 2006-2007, 65.3% of PSU undergrads were White Non-Hispanic compared to 56% of SFMP students. In 2007-2008, 65.4% of PSU undergrads were White Non-Hispanic (European American) compared to % of SFMP students.

- **among under-represented racial-ethnic groups, more than twice as many SFMP students self-identified as Hispanic.** In 2005-2006, 9.4% of SFMP students were Hispanic compared to 4% of PSU undergrads. In 2006-2007, 12.1% of SFMP students were Hispanic compared to 4.3% of PSU undergrads.

Similarly, in 2007-2008, % of SFMP students were Hispanic compared to 4.8% of PSU undergrads.

### *First generation students at PSU*

Currently, there is only an incomplete picture of the percentage of first generation students enrolled at PSU because there is no single source of student information that provides information about parents' education from all students. Nevertheless, drawing from multiple sources, we can obtain an approximate idea of percentage of currently enrolled students who are first generation. Based on analysis of data from the 2005-2006, 2006 -2007, and 2007-2008 Prior Learning Survey, administered in Portland State University Freshman Inquiry (FRINQ) courses, approximately 48% of freshmen in each year's cohort were first-generation students. We do not have accurate information on the percentage of first generation undergraduate students who are sophomores, juniors, and seniors. It is possible that the percentage of first generation students among these upper classmen might actually be higher than among freshmen, because of the high proportion of PSU students who transfer from community colleges, where the average percentage of first generation students are appreciably higher (53% of all incoming students in 2 year colleges are first generation. Therefore, it is reasonable to suggest that at least 50% of PSU undergraduates are first generation students.

Even though the overall numbers might be incomplete, it is clear that there is a sizeable population of first generation students at PSU, and retention is a particularly critical problem for this population.

SFMP targets two new-to-campus groups of first-generation students:

- PSU students beginning their freshman year
- Students from area Community Colleges who are transferring to PSU

### *Transfer students*

We used feedback from 2005-2006 and 2006-2007 transfer students in SFMP to develop and refine program elements for eligible transfer students who are entering PSU. We have strengthened our ties to the community colleges that send transfer

student to PSU, as well as increasing our outreach to high schools around the state and local community organizations that work with our target population.

### *Students leaving SFMP*

65 students participated in the 2005-2006 SFMP. From the beginning of fall 2005 through the beginning of spring 2006 (over fall and winter quarters), six SFMP students left the program: two were placed in the PSU EOP program (did not count against retention) and 4 left school – two transferred to other colleges, one left before facing dismissal, and one did not provide a reason for why he left school.

104 students participated in the 2006-2007 SFMP program. From the beginning of Fall 2006 through the beginning of Spring 2007, 9 students left the program. 2 students were placed in the PSU EOP program (did not count against retention). Of the remaining 7 students, 4 transferred (3 to community colleges, 1 to another 4 year), one was dismissed by the university, one left for family reasons, and the final student did not provide a reason for why she left the university.

84 students participated in the 2007-2008 SFMP program. From the beginning of Fall 2007 through the beginning of Spring 2008, 7 students left the program. 3 students were placed in the PSU EOP program (did not count against retention). Of the remaining 4 students, one left for a career training program, one left for an internship opportunity, and two left without explanation during early Fall term prior to second meeting with mentor.

### Design

The FIPSE-funded SFMP utilizes a post-test-only control group design. Incoming low-income, first-generation freshman and recent community college transfer students who would qualify but aren't accepted to Portland State University's SSS/EOP program are randomly assigned to three study groups: 1) SFMP on-line plus in-person mentoring 2) SFMP on-line only mentoring; and 3) statistical control / comparison. There were more students in the comparison group than each SFMP group. In addition, EOP students and "All PSU students" serve as additional comparison groups. To determine the "stand alone" effectiveness of the on-line mentoring version of the program, an additional

comparison of the performance and persistence of those students with students from the SFMP on-line plus in-person mentoring group was conducted. . The statistical control group only received “standard” academic advising and did not have access to any of the mentoring program resources.

### Measures

Measures for the purpose of quantitative analysis include term-by-term and yearly rates for retention, number of credits completed and GPA from the PSU Banner Data warehouse system. Qualitative data is gathered through a satisfaction questionnaire and focus groups. (See appendix i for summary of methodology used in all analyses.)

### Criteria for participation

All students in the SFMP are both first-generation (neither parent had completed a 4 year university degree) and low-income (qualified for federal Pell Grant). SFMP provides participating students with a variety of resources that are designed to connect them with the wide range of available campus support services, while at the same time providing students with a set of time-tested strategies for dealing with specific university adjustment issues. We do not provide academic remediation support, advising, tutoring or access to dedicated computer labs that more extensive programs, like the federally-funded TRIO programs provide. Instead, we are trying to determine to what extent providing this limited range of support services, above and beyond normal academic advising, positively impacts low-income first generation students’ adjustment to the university, and therefore, academic success and retention.

### Delivery systems – on-line vs. on-line plus

During the initial recruitment of participants, students are randomly assigned to one of two groups: A. “on-line mentoring”, or B. “ on-line plus in-person mentoring”. Students either are matched with “mentor-advisors” and participate in a regular routine of weekly interaction (in-person or via phone/e-mail) with their mentor-advisor (group A) OR participate in an on-line version of the program

(group B). Both groups receive the same orientation, receive weekly college adjustment tips via the SFMP ListServ, have access to a SFMP discussion board where they can pose questions for the SFMP staff and have access to the program’s specialized resource website, and a peer-mentoring video library. Students from both groups participate in quarterly discussion groups.

*program elements*

<b>SFMP support resource</b>	<b>A. on-line</b>	<b>B. on-line + in-person</b>
<p><b>1. SFMP orientation:</b>  <i>a. New Student orientation: 2 hour interactive session includes group exercises with other mentees, introduction to the project’s resource website, on-line peer-mentoring video library, mentee orientation cards, and on-line discussion forums.</i></p> <p>b. Students entering in mid-year: two hours of one-on-one orientation with project staff person covering the same material</p>	<b>X</b>	<b>X</b>
<p><b>2. Mentee Orientation Cards:</b> A set of laminated double-sided “tip sheets” that students can keep in their notebooks. Provide tips for how students should conduct themselves in order to have a better chance of succeeding at college. The tip sheets each have a set of general pointers on one side, and a list of specific behaviors relating to each point on the back of that sheet. The sheets cover topics new students are almost certain to encounter including: “How to talk to a professor ,” “How to read a syllabus,” “Classroom behavior for success,” and “How to act on the first day of class.”</p>	<b>X</b>	<b>X</b>
<p><b>3. SFMP Resource Website:</b> This password-protected website fits on top of the regular Portland State Website in order to make locating key students services and navigating the university easier for SFMP participants. The SFMP website is organized in such a way as to group campus resources by the functions they perform, rather than departmental affiliation.</p>	<b>X</b>	<b>X</b>

<p>Each resource page is setup in the same manner with sub-pages detailing “what” the resource does, “where” it is located, “who” to talk to utilize this resource, and “how to use” (a 3 or 4 step script that explicitly spells out the actions the student needs to do to access that resource or support service).</p>		
<p><b>4. Peer-Mentoring Video Library:</b> Through the SFMP resource website, students can also access the on-line video library, a series of five peer-mentoring videos on crucial college adjustment issues:</p> <ol style="list-style-type: none"> <li>1. The importance of understanding faculty expectations</li> <li>2. The importance of understanding the syllabus</li> <li>3. Communication with professors</li> <li>4. Time-management issues</li> <li>5. The value and effective use of campus support resources</li> </ol> <p>In these videos, successful first-generation, low-income students serve as “voices of experience” sharing effective coping strategies for adjusting to the university. The video library is accessible 24 hours a day, seven days a week, and is accessible from anywhere that there is an internet connection.</p>	<p><b>X</b></p>	<p><b>X</b></p>
<p><b>5. Weekly Contact, Support, and Encouragement to Keep on Track.</b> Students have weekly contact with the Students First program from before the term begins. Students in the “on-line plus in-person “ group meet weekly in person or by phone or email with their assigned mentor, while students in the “on-line” mentoring group received a weekly message via a private ListServ. Students who work with a mentor set up a regular meeting day and time. Regardless of whether their contact is in-person, by phone or e-mail, in their regular meeting with their mentor they can get answers to specific questions or get clarification of how to proceed in uncertain situations. Students in on-line mentoring group can get answers to questions by sending an email to a designated address where a staff person will respond.</p>	<p><b>Via group ListServ</b></p>	<p><b>Via group ListServ as well as weekly contact with mentor</b></p>
<p><b>6. Tools for Student Success:</b> Each weekly contact includes the introduction of a specific</p>	<p><b>X</b></p>	<p><b>X</b></p>

<p>tool or exercise that will help the student organize her/his activities for the term, acquire new college life skills, anticipate up-coming issues, or connect to the campus community in different ways. Specific tools include: “how to take good notes,” “backwards planning,” “test taking tips,” “reading a syllabus,” “planning an ideal schedule,” “finding your advisor,” “connecting with campus groups,” and “setting both long-term and short-term goals.” Students assigned a mentor, go over these tools and exercises with their mentor as part of the weekly meeting. Students in the on-line mentoring group receive a “stand alone” version of the same exercises, set-up so that the student can follow the attached directions and utilize the tool on their own.</p>		
<p><b>7. Student Group Discussions.</b> During the sixth week of each quarter, SFMP students take part in a series of focus group discussions with other program participants from the same group (i.e. “on-line” or “on-line plus”). In these groups they discuss their most recent university experiences, brainstorm solutions to adjustment issues, ventilate feelings, and both receive and provide social support. Each group consists of ten to twelve students and is facilitated by a project staff person.</p>	<p><b>X</b></p>	<p><b>X</b></p>
<p><b>8, SFMP on-line Bulletin-Board:</b> Each group of SFMP students (i.e. “on-line” or “on-line plus”) has access to an on-line (i.e. WebCT) bulletin board where they can post questions about specific campus adjustment issues they are experiencing. SFMP program staff check the two bulletin boards daily and respond to posted questions, though other students within that group also can reply and post their own suggestions.</p>	<p><b>X</b></p>	<p><b>X</b></p>

Multi-media delivery of peer mentoring

With all the different elements of popular culture competing for individuals attention, regardless of the context, it is important to utilize multiple mediums in delivering mentoring resources if for no other reason than to keep the students your program serves engaged in the material. In the Social Psychological

literature on persuasion, face-to-face communication is viewed as usually more effective than mass media communication. That is why, for example, Presidential candidates crisscross the US during the final 48 hours of the campaign, they are trying to have as many face-to-face encounters with voters as possible.

Generally, the closer a communication comes to resembling a face-to-face encounter, the more persuasive it is. Therefore, if you cannot interact with someone in person, media that capture the “face-to-face” quality are preferred - i.e. TV

The effectiveness of a medium also depends upon the nature of the message. Print is the media of choice for complicated, detailed communication because it allows the recipients to take the information in at their own pace. For simpler messages and in general, TV or face-to-face is most persuasive.

SFMP utilizes multiple mediums for delivering mentoring resources: in-person, on-line, print, ListServ, video, and an interactive website.

#### *In-person mentoring*

One-half of each cohort of SFMP students are assigned a mentor in addition to receiving on-line mentoring support. SFMP students meet in person with their mentors at least three times a term, and receive weekly contact from the mentor either by telephone or, if that is not possible, by email.

#### *On-line mentoring*

One-half of each cohort of SFMP students receive all of their mentoring on-line. They receive a weekly email via the SFMP ListServ that points out important campus activities for that week, reminds them of deadlines, and share one or two SFMP tip sheets with them. Starting in 2006-2007, an on-line library of all SFMP tip sheets was established and made available to students through WebCt. The SFMP WebCt site has a calendar of PSU and community events, discussion boards where students can communicate with other students in the program, and post questions for SFMP staff. Program protocols emphasize staff responding within 24 hours of a posting.

## Print materials

SFMP utilizes print to deliver mentoring services in several different parts of the program. SFMP new student orientation involved providing students with a set of “scripts” in the form of laminated two sided sheets that students could keep in their notebooks designed to improve the students’ chances of enacting key components of the university student role successfully. Four different orientation card / scripts were developed: Communicating with Professors, Understanding the syllabus, Classroom behavior towards success, and How to act on the 1<sup>st</sup> day of class.

In addition, a *Community Resource Book* was developed during 2006-2007 as part of an effort to help students connect to the community beyond the campus. This book contains descriptions and contact information for a wide range of religious groups, community groups (many of whom target specific ethnic groups), sexual minority resources, and cultural associations.

## *ListSers*

The ListServ messages are sent weekly to all students in the program, with separate messages but the same content going to students in the On-line Mentoring only (OLM) and On-line plus in-person mentoring (OLM) groups. These messages are intentionally written in a conversational tone and encourage students to pay attention to important campus events, as well as connecting them to specific SFMP and PSU resources. Each week the same message is sent to the students on both the online, and the online plus ListSers.

## *SFMP tip sheets*

Over the two plus years of SFMP, we have developed a library of strategy resources containing useful tips to students on a range of pertinent college issues. Students have access to two levels of resources on WebCT – a *foundation* level tip sheet library and a *second tier* tip sheet library (NOTE: this is a separate site from the SFMP resource website.) Each week all students receive one or more foundation-level tip

sheets as part of the regular SFMP ListServ message. In addition, transfer students receive a second tier tip sheet every second week as part of a message on a separate ListServ. Mentors are then able to refer to specific tools from the project library when working with their mentees. For any given term, once a mentee tool has been sent out to the students, it is archived in a “Students First backpack” where it remains available to students for at least the remainder of the quarter.

The SFMP libraries currently contain 63 tip sheets -- 40 *foundation* level and 23 *second tier* tips sheets

#### Foundation tip sheets

- Alternative funding
- The Outdoor Program
- Appropriate E-mail usage w/ professors
- Procrastination
- Backward planning
- Reading for college
- Cheap textbooks
- Student Activities & Leadership
- Childcare
- Scavenger hunt
- Choosing a major
- Scholarships
- Community resources
- School supplies
- Computer labs
- Setting goals
- Dropping classes
- Skills Enhancement & Tutoring Center
- Email and on-line basics
- Stress management
- Financial aid -- general
- Student Health Services
- Financial aid 102
- Syllabi
- Getting your assignments right
- Test stress strategies
- Getting started at the University
- Test taking
- Helpful hints for organization
- Time management -- general
- Ideal schedule

- Time management -- 102
- Learning Styles
- Using a tutor
- Mapping your quarter
- Using valid internet sources
- Note taking
- Using the Women's Resource Center
- Organizing a study group
- Writing a college paper

## Second tier

- Co-admission 301
- Interviewing 302
- Commencement
- Job Fairs
- Conferences as professional development
- Job Fair Preparation
- Cornell Note-taking system
- Networking 301
- DARS
- Networking 302
- Dealing with pressure
- Professors' expectations
- Evaluating online resources
- Requesting letters of Reference
- Graduating: The process
- Selecting professors
- Graduate school 301
- Time management 302
- Graduate school 302
- Transfer transition class
- Interviewing 301
- Using library course reserves
- Using valid internet resources

In addition, the entire quarter's distribution schedule of tip sheets is planned in advance, and they are scheduled so that they arrive at the most opportune time of the term to promote student success. This also allows the mentors to have a prepared topic of discussion in weekly contacts. Here is the sample schedule for the Winter '07 term.

Week 0 *Mapping classes*  
Week 1 (a) *Syllabus* (b) *Goal Setting*  
Week 2 *Backward Planning*  
Week 3 *Meet your Professor*  
Week 4 (a) *Note taking* (b) *SETC*  
Week 5 *Exam Prep*  
Week 6 *Advisor Scavenger Hunt*  
Week 7 *SALP*  
Week 8 *Schedule Planning (for next term)*  
Week 9 (a) *Career Center* (a) *Choosing a Major*  
Week 10 (a) *Test Stress* (b) *Stress Management*

These tips sheet serve as scripts help first-generation students navigate the university. They make explicit, some of the specific elements of college student role behavior that would normally remain implicit. Instead of relying solely on information passed down from college-savvy family members as the source of this student role behavior that is critical for college success, SFMP provides students with simple strategies that have already been used successfully by other first-generation students in similar situations.

As mentioned before, tip sheets have been developed with differing levels of exposure to Higher Education in mind. However, true to the mission of SFMP, we make both sets of tips sheets available to all students. As new-to-campus, first generation students may have relatively greater or lesser amounts of knowledge on specific adjustment issues, Having access to both levels of tip sheets allows them start at a level that is most comfortable for them. For freshmen this allows them to get the more nuanced strategies if they master the general. And conversely, transfer students who might not have mastered the basics can refer to the foundation material as a refresher on the fundamentals of success in this new environment they find themselves. This is similar to process of role acquisition, where many times individuals initially learn how to enact role-related behavior, and then, only after the behavior is mastered, subsequently internalize the logic and values that underlie the choice of those action for a “typical” person in that role.

#### *SFMP Peer Mentoring Videos*

An initial series of five peer-mentoring videos were produced on college adjustment issues identified as critical to new first-generation student success:

1. The importance of understanding faculty expectations
2. The importance of understanding the syllabus
3. Communication with professors
4. Time-management issues
5. The value and effective use of campus support resources

In these videos, successful first-generation, low-income students serve as “voices of experience” discussing how they resolved own adjustment issues emphasizing effective coping strategies for adjusting to the university and “student role mastery”. Students from both SFMP groups are encouraged to watch the videos and try out the strategies proposed by the students in those videos. Graduate student mentor-advisors use the videos to help their advisees deal with specific adjustment issues..

A second set of seven transfer-student-specific videos were introduced for use by students in the 2007-2008 SFMP program. Four of the videos were about key differences between community college and the university (the university is bigger; the work is harder; it’s hard to understand professors’ expectations; and finding campus resources), and the other three focused on the importance of building university relationships (with advisors, faculty and other students) for transfer student success,

The peer-mentoring video library provides an appropriate peer-mentoring that is accessible 24 hours a day, seven days a week, and is accessible from anywhere that there is an internet connection.

### SFMP Resource Website

The SFMP interactive resource website is designed for the exclusive use of program participants. There are two basic areas within the website. The first is the peer-mentoring video library. The second involves resource linkages. Designed to “over-layer” the regular university webpage, the SFMP resource website is much more user friendly and enables program participants to identify, locate as well as effectively use campus resources. While the regular university website is organized based on the college and unit structure of the university, the

SFMP resource site was put together based on combining a series of cognitive maps linking a range of campus services, obtained from already successful first-generation PSU students.

Each resource site page in the website is set up the same way.

**What** does this resource provide?

**Who** do I contact?

**Where** is it located? (map)

**How** do I use this resource?

These linkages will allow mentor and their mentees to obtain detailed information applicable to the participants' special needs: such as study skills courses, the writing center, disability services, financial aid, work-study opportunities, health services, computer labs, student organizations, and social groups, to name a few.

Because most resource sites contain multiple pages of information, the "What, Who, Where and How" organization structure of the SFMP page "cues" students to focus on finding the important information at the site without being distracted by the volume of information.

### **C. Mentor training**

From the earliest design of the Students First Program, the importance of mentor training was a critical component for the Program's intended impact. Mentors would play a key role in supporting student success and their training required attention to multiple and complex understandings, skills, and attitudes. Curricular consultant Dr. Amy Driscoll worked closely with senior program staff to develop the SFMP curriculum and learning outcomes. This section of the final report describes both the curriculum and pedagogy of the training, analyzes changes in the training from year 1 to year 3, and makes recommendations for mentor training of first generation students.

## Curriculum and Pedagogy of Mentor Training

The curriculum of mentor training for the Students First Program was built on a multi-faceted theoretical foundation that included Dreyfus' "expertise model" (2005), the knowledge base of first generation students (Pascarella & Nora, 1996; Roberts & Rosenwald, 2001), an assets-based approach to mentoring (Rendon, 1998), and basic concepts of teaching and learning. It was important for mentors to have solid understandings in all of those areas before developing skills for mentoring first generation students in ways that promoted their success in higher education. The skills of mentoring included communication, problem solving, facilitation, and relationship building. The attitudinal intentions of the mentor training curriculum included empathic understanding of first generation students' transition from high school to college and their challenges and needs, as well as appreciation of the assets and strengths first generation students bring to college and to a diverse student population. The curriculum was designed to promote mentors who understood the complexity of their role with its limitations and power; that understanding was extended to developing a commitment to first generation students.

### *Mentor learning outcomes*

Mentor learning outcomes were developed to articulate the intentions of the mentor training and to guide the curriculum development for a one-week intensive training and ongoing training throughout the academic year. The primary learning outcomes were as follows:

1. Mentors will describe and evaluate the mentor role and the limitations of that role.
2. Mentors will explain the challenges, needs, and assets of first generation students, specifically in the context of Portland State University's diverse student population.
3. Mentors will describe the "expertise model" specifically as it applies to the Students First project for intervention and use the model with self-reflection.
4. Mentors will articulate the design of the Students First Program (SFP) intervention, the main program elements and their purposes, and the conceptual framework underlying the SFP.
5. Mentors will list and describe appropriate campus resources and processes for their use, as well as teach and empower students to use them.

In addition to the primary learning outcomes, an additional set of secondary outcomes were developed:

1. Mentors will describe the stages in transition from high school to college and be able to use the "stages of transition" model in mentoring approaches.
2. Mentors will use approaches to build community among first generation students.
3. Mentors will identify, assess, and prescribe appropriate student strategies for teaching and learning issues that have potential to cause

problems for first generation students (ex., vague grading criteria, unclear directions, etc.)

4. Mentors will explain and teach students about metacognition in ways that can improve their learning processes.
5. Mentors will design assets-based approaches for mentoring first generation students.

In planning the intensive one-week mentor training course, developers became

aware that additional learning outcomes were necessary and planned on-going training to address them. Those learning outcomes included the following:

1. Mentors will explain issues of diversity and facilitate discussions about diversity to promote awareness and approaches related to the diversity of first generation students.
2. Mentors will use varied approaches to address initial problems of new SFP students.
3. Mentors will teach and empower SFP students to direct advising to meet their needs and to structure their own learning supports (study groups, faculty consultation, etc.)
4. Mentors will accurately capture evaluation data, and appreciate the importance of prompt and accurate data to the success of SFP.

Once the curriculum was built around the primary and secondary learning outcomes, the training week was designed for high levels of interaction between mentors, and between trainers and mentors. The most prominent forms of

pedagogy (teaching and learning activities) were role plays, pair interviews, problem solving, simulation, reflection, group exercises, and practice sessions with feedback. The daily agendas were supported by a preparation assignment prior to each day's class. Those assignments consisted of both readings (attached) and reflection papers. The week also included visits to prominent campus resources (health center, library, etc.) and practice with videos, computer websites, and data collection. Integrated throughout the pedagogy was a consistent modeling of approaches that mentors could later use with their student mentees (*see appendix ii attached training schedule*).

The final component and a form of summary and reflection was the planning of an orientation session for the Students First Program. Mentors were able to use the insights and sensitivities gained from the week of training to develop orientation activities that integrated their understandings, skills, and appreciations related to first generation students, their transitions to college, the "expertise model," and assets-based approaches to their mentoring role.

#### *Adaptations to Mentor Training from Year One to Year Three*

The curricular content and mentor learning outcomes remained stable through the three years of the Students First Program (2006 - 2008). Significant changes were made in the pedagogy with an increase in role plays and practice sessions for problem solving, communicating, and general mentoring strategies. The scripts and scenarios were derived from each previous year's experiences of mentors and first generation students. There was greater specificity in the

content of mentoring and in application of the knowledge of first generation students and the “expertise model.” Data from each year’s sample of first generation students informed changes in the mentor training content and pedagogies so that mentors were able to solve “real” problems and conflicts, and to address “real” issues and challenges faced the previous year. They were also able to learn from the experiences of the previous year’s mentors and their issues, challenges and successes. Each year mentors re-planned their orientation for the Students First Program using the previous year’s feedback and data from the program.

#### *Recommendations for Mentor Training for First Generation Students*

Although the curricular content of the mentor training of the Students First Program was complex and required both intensive week-long sessions and ongoing training, all of the major topics were considered essential even after three years of program implementation. The practice of integrating some of the training with ongoing experience in the mentor role was considered effective and essential for program success.

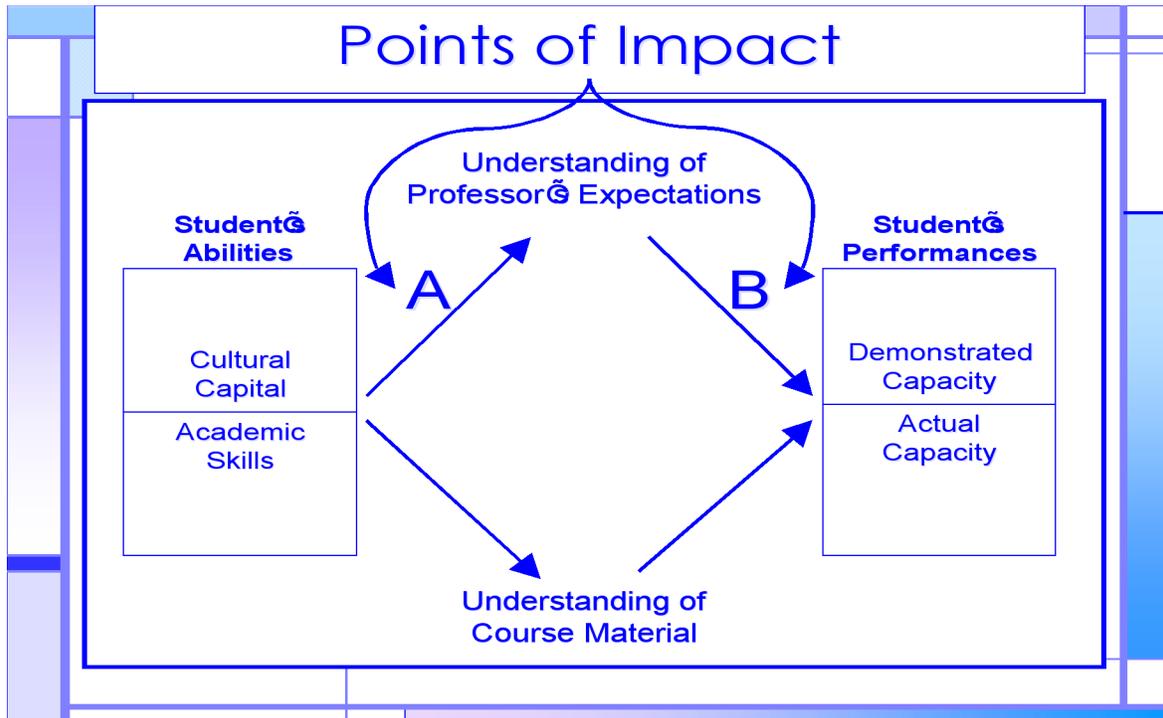
The expansion of experiential pedagogy in the training was also considered effective in preparing mentors for the realities of mentoring first generation students. Role playing exercises related to specific mentor job elements (e.g. doing a new student orientation) and practice sessions with mentoring strategies and problem solving remained essential for mentor success in the program.

When the assessment data from mentor training is examined for indications of training effectiveness, there is little direction from the data for changes in the training. One exception is the lower ratings for several learning outcomes. The data may be interpreted to mean that more attention needs to be directed to those outcomes, or different pedagogy used in the training, or that those outcomes require a longer time with experience and continued training. Future evaluations of the training could include qualitative data (interviews, focus group) to provide more direction for mentor training. There is, however, implications for mentor hiring in the data. Those mentors who pursued the position of mentor for reasons other than “a convenient job on campus” entered the training with a different set of interests, experiences, and commitments, and rated the training higher than those who did not.

#### **D. How SFMP impacts models of persistence and performance**

Returning to the previously mentioned models of persistence and academic performance we would next like to point out where SFMP mentoring activities fit into the two models.

SFMP and the two path model  
Figure #5 SFMP and the two-path model



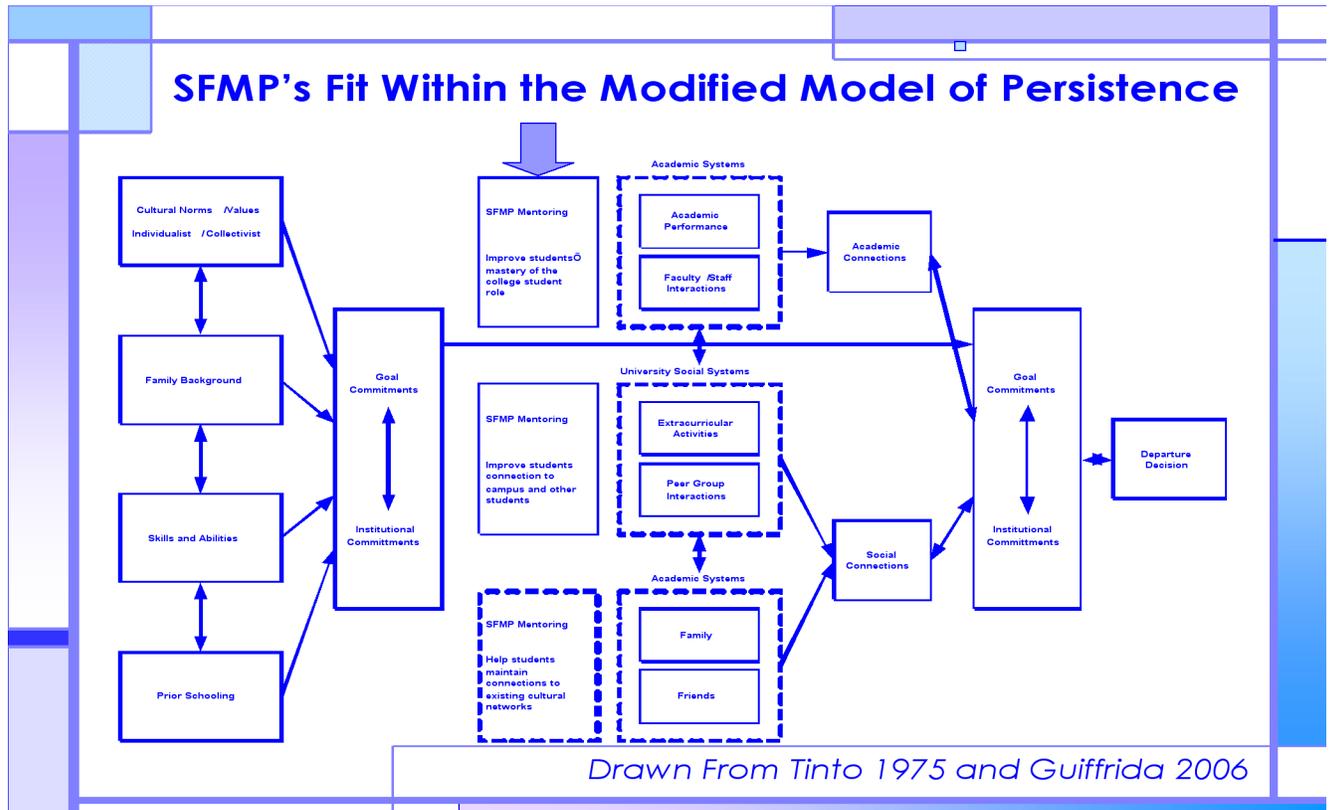
Where SFMP impacts two path model -- **point A.**

One way SFMP impacts 1<sup>st</sup> generation student success is by helping them correctly identify professors' expectations.

Where SFMP impacts two path model -- **point B.**

• A second way that SFMP helps students succeed is by showing them the best ways to go about meeting the professors' expectations.

Figure #6 SFMP and the Modified model of Persistence



### SFMP and Modified Persistence model

In the modified persistence model, a traditional student enters college with a relatively rich "package" of assets; her background leads her to expect to succeed. Family-based resources – i.e. her parents' ability to share knowledge of how college works -- increases likelihood she can "convert" her assets into behaviors that will meet faculty expectations and yield successful academic performance. When a 1st generation student enters college, not only are his assets not as "rich", but his background is less likely to assure him of success. His lack of family-based resources makes it difficult for him to convert his assets into behaviors that yield optimal results in regards to meeting professors' expectations and getting good grades.

*Where the SFMP mentoring activities fit into the modified Persistence model.*

The first place SFMP influences student connection to the university is on the path through the two social systems. In regards to the campus social system, SFMP focuses on connecting students to other students and campus groups (e.g. calendar, website, ListServ announcements). In the community social system, we initially tried to connect students to respective cultural communities through the use of the constantly growing community resource book.

The second place SFMP influences student connection to the university is on the path through the academic system: SFMP uses mentoring to “channel” students’ relatively limited set of assets into few “paths of action” already linked to college success. By doing this, SFMP increases the power of the student’s assets leading to greater likelihood of academic success at college – similar to how forcing water through nozzle of a hose increases its velocity.

We propose that all four SFMP areas of program emphasis work to connect students to the institution and subsequently improve retention. More specifically, “recognizing student adjustment issues,” “identifying and appropriately using resources,” and “developing strategies” all promote *academic connection* while “connecting students” promotes *social connection*.

## Summary

Building on theoretical models from Sociology and Education, the SFMP intervention being tested here is critically important. When first-generation students better understand faculty expectations and are able to appropriately employ different versions of student roles to meet these expectations, their grades should improve, along with the likelihood of their completing their degree program. By helping first-generation students to become role experts, the SFMP intervention reduces pre-existing differences in cultural capital and improves the chances of first-generation students succeeding at college.

## **IV. Results**

The results chapter is organized in the following manner. After a discussion of expected relationships among groups, the data on the relative effectiveness of delivery systems will be shared. This will be followed by separate sections of freshman student data and transfer student data. This will be followed by and evaluation of program satisfaction based upon SFMP student satisfaction and mentor training stratification data. The results chapter will conclude with a discussion of the college student expertise development data.

### **A. Expected Relationships**

Based on the literature, we would expect the group “all students” – whether they be freshmen or transfer students – to out-perform the SFMP, and EOP group students. In regards to the two mentoring programs, while EOP has a proven track record of success as a mentoring program, because of the more stringent income requirement and the fact that to be accepted in EOP students must have additional learning issues, we can only offer some tentative suggestions in regards to expected relationships. Because their program continue to support students as long as they are enrolled at PSU, EOP students may demonstrate higher retention rates, however the SFMP students may be more likely to demonstrate higher gpa and credits earned rates.

The Comparison group consists of first-generation students who are Pell-grant eligible and who either due to lack of information or choice are not participating in either of the two mentoring programs – EOP and SFMP. NOTE: As part of recruitment, SFMP tried to contact all PSU students who qualified for the program. Still, the difference for why comparison group students did not participate in a mentoring program is important in regards to predicting “expected relationships.” If these students did not know about the benefits of the different mentoring programs, than we would not expect them to perform up to the level of all PSU freshmen or the students in the two mentoring programs. If, however, comparison group students have chosen not to participate, the expected relationships are not as clear. If they chose not to participate because they could

not see the value of mentoring, then they are likely to demonstrate poorer performance than the other three groups. If, however, the choice not to participate is based on some other experiential factor – e.g. transferable work experience, age – then they may out-perform the mentored students in some situations.

**B. Comparative delivery systems – on-line vs. on-line plus in person mentoring**

One area of emphasis in SFMP is to test the relative effectiveness of two different methods of delivering mentoring services -- on-line vs. on-line plus in person mentoring. (For more information on these two delivery systems, see the section on program description). For these initial analyses all SFMP students – both freshmen and transfers – receiving mentoring for each delivery system are combined.

3 year summary  
 Both methods of delivering mentoring services – on-line only (OLM) and on-line plus in-person (OLMP) – produced comparable positive results in regards to yearly retention rates, average gpa, and average numbers completed successfully during the SFMP program-year. For both the 2005-2006 and 2006-2007 cohorts, these comparable positive effects persisted through the post-SFMP program participation year.

*Total OLM -- OLMP comparison*

NOTE: for each table, values in ***bold italics*** indicate data from time period when student received mentor services

***Retention***

*Table #1 OLM – OLMP retention 07-08 total cohort*

	<b>SFMP</b>			
	<i>On-line plus in-person mentoring</i>		<i>On-line mentoring only</i>	
	N	retention	N	retention
F 07	<b><i>38</i></b>	<b><i>100.0%</i></b>	<b><i>39</i></b>	<b><i>100.0%</i></b>
W 08	<b><i>37</i></b>	<b><i>93.0%</i></b>	<b><i>38</i></b>	<b><i>97.0%</i></b>
Sp 08	<b><i>35</i></b>	<b><i>87.5%</i></b>	<b><i>36</i></b>	<b><i>92.5%</i></b>

Table #2 OLM – OLMP retention 06-08 total cohort

	SFMP			
	On-line plus in-person mentoring		On-line mentoring only	
	N	retention	N	retention
F 06	<b>46</b>	<b>100.0%</b>	<b>41</b>	<b>100.0%</b>
W 07	<b>46</b>	<b>95.8%</b>	<b>43</b>	<b>93.5%</b>
Sp 07	<b>39</b>	<b>81.3%</b>	<b>41</b>	<b>85.4%</b>
F 07	36	70.6%	35	76.1%
W 08	36	70.6%	38	82.6%
Sp 08	34	66.7%	35	76.1%

Table #3 OLM – OLMP retention 05-07 total cohort

	SFMP			
	On-line plus in-person mentoring		On-line mentoring only	
	N	retention	N	retention
F 05	<b>36</b>	<b>100%</b>	<b>27</b>	<b>100%</b>
W 06	<b>31</b>	<b>83.8%</b>	<b>27</b>	<b>96.4%</b>
Sp 06	<b>32</b>	<b>86.5%</b>	<b>26</b>	<b>92.9%</b>
F 06	25	67.6%	19	67.9%
W 07	26	70.3%	21	75.0%
Sp 07	25	67.6%	18	64.3%

During the year of program participation, On-Line Mentoring only students from all three combined cohorts demonstrated slightly higher retention rates than the OLMP students from the same years. In regards of *persistence of effects*, the pattern of results was not as clear. In the year after program participation, 2006-2007 OLM students continued to exhibited greater retention rates than their OLMP counterparts; for the 2005-2006 cohort the trend reversed itself with OLMP students now demonstrating high retention rates by the end of their second year at PSU.

**Performance: GPA**

Table #4 OLM – OLMP GPA 07-08 total cohort

	SFMP	
	On-line plus in-person mentoring	On-line mentoring only
	Fall 07 N = 38	Fall 07 N =39
F 07	<b>3.11</b>	<b>2.92</b>
W 08	<b>3.04</b>	<b>2.87</b>
Sp 08	<b>3.12</b>	<b>2.88</b>
Ave 07-08	<b>3.09</b>	<b>2.89</b>

*Table #5 OLM – OLMP GPA 06-07 total cohort through 2007-2008*

	<b>SFMP</b>	
	<i>On-line plus in-person mentoring</i> Fall 06 N = 46	<i>On-line mentoring only</i> Fall 06 N =41
F 06	<b>3.12</b>	<b>2.96</b>
W 07	<b>3.03</b>	<b>2.99</b>
Sp 07	<b>3.16</b>	<b>2.93</b>
Ave 06-07	<b>3.09</b>	<b>2.96</b>
F 07	3.11	2.72
W 08	3.26	3.18
Sp 08	3.29	3.18
Ave 07-08	<b>3.28</b>	<b>3.03</b>

*Table #6 OLM – OLMP GPA 05-06 total cohort through 2006-2007*

	<b>SFMP</b>	
	<i>On-line plus in-person mentoring</i> Fall 05 N = 36	<i>On-line mentoring only</i> Fall 05 N =27
F 05	<b>2.83</b>	<b>2.98</b>
W 06	<b>2.85</b>	<b>2.74</b>
Sp 06	<b>3.03</b>	<b>2.77</b>
Ave 05-06	<b>2.90</b>	<b>2.83</b>
F 06	3.02	2.87
W 07	3.31	2.60
Sp 07	3.10	3.31
Ave 06-07	<b>3.14</b>	<b>2.94</b>

In a pattern that is the reverse of that of retention rates, OLMP students from all three combined cohorts demonstrated slightly higher yearly average gpa rates than the OLM students from the same years. For both the 2005-2006 and 2006-2007 cohorts, this trend continued in the year after program participation. Note that in for 2005-2006 and 2006-2007, both groups of students increased their yearly average gpas in the year following their SFMP participation.

***Performance: credits earned***

*Table #7 OLM – OLMP credits earned 07-08 total cohort*

	<b>SFMP</b>	
	<i>On-line plus in-person mentoring</i> Fall 07 N = 38	<i>On-line mentoring only</i> Fall 07 N =39
F 07	<b>10.71</b>	<b>12.74</b>
W 08	<b>10.92</b>	<b>12.37</b>
Sp 08	<b>10.57</b>	<b>11.58</b>
Ave 07-08	<b>32.22</b>	<b>36.75</b>

*Table #8 OLM – OLMP credits earned 06-07 total cohort for 06-08*

	<b>SFMP</b>	
	<i>On-line plus in-person mentoring</i> Fall 06 N = 46	<i>On-line mentoring only</i> Fall 06 N =41
F 06	<b>11.73</b>	<b>12.30</b>
W 07	<b>11.47</b>	<b>12.15</b>
Sp 07	<b>11.00</b>	<b>11.85</b>
Ave 06-07	<b>34.20</b>	<b>36.30</b>
F 07	11.44	10.86
W 08	12.78	11.39
Sp 08	12.71	11.69
Ave 07-08	<b>36.90</b>	<b>33.96</b>

*Table #9 OLM – OLMP credits earned 05-07 total cohort*

	<b>SFMP</b>	
	<i>On-line plus in-person mentoring</i> Fall 05 N = 36	<i>On-line mentoring only</i> Fall 05 N = 27
F 05	<b>12.00</b>	<b>12.86</b>
W 06	<b>12.16</b>	<b>11.96</b>
Sp 06	<b>13.13</b>	<b>11.05</b>
Ave 05-06	<b>37.21</b>	<b>35.87</b>
F 06	11.89	12.31
W 07	12.72	10.33
Sp 07	11.24	12.40
Ave 06-07	<b>35.89</b>	<b>34.84</b>

Academic progress – operationalized as number of credits earned per year – is strongly associated with degree completion. In the initial 2005-2006 cohort, the on-line plus in-person mentoring students earned almost 1 and ½ additional credits for the year. However on-line only mentoring students earned more credits in 2006-2007 (plus 2) and 2007-2008 (plus 4.5). The variation in the

pattern of results is interesting as additional support resources were added for the On-line only mentoring group starting in 2006-2007. In regards to the *persistence of effects*, in the year after program participation, the 2005-2006 and 2006-2007 OLMP students earned more credits than students from the OLM groups.

#### *summary of relative effectiveness of delivery system data*

Across the three cohorts, OLM students exhibited higher retention rates and OILMP higher average gpa's. The pattern of average yearly credits earned varied from one cohort to the next. While the pattern of which group earned higher scores varied depending upon the measure, none of the differences were significant. Both methods of delivery appear to work well when compared to each other, however, the question that remains is "how well do they compare with their respective comparison groups?" Therefore, in order to provide additional insight into the relative effectiveness of the two delivery systems, this data will be further divided into separate analyses for freshmen and transfer students. These analyses are including in the following separate "Freshmen" and "Transfer Student" sections.

### **B. Freshmen**

#### 3 year summary

##### *program year*

For all three cohorts of new-to-campus PSU freshmen, SFMP participation resulted in higher yearly retention rates, average gpa, and average number of credits completed successfully than students from the All Freshmen group. This goes against the expected between group relationship. In regards to a comparison with the Comparison Freshmen group, all three cohorts of SFMP participants earned higher yearly average gpa, and average yearly number credits completed successfully, and both the 2005-2006 and 2007-2008 cohorts demonstrated higher yearly retention rates, While the 2006-2007 and 2007-2008 cohorts of EOP students demonstrated higher retention scores, the SFMP freshmen's average gpa and credits earned rates continued to be consistently higher than the EOP freshmen's rate across all three years.

##### *persistence of effect*

For both cohorts of SFMP freshmen, their superior performance in regards to yearly retention rates, average gpa, and average number of credits completed

successfully, compared to the All Freshmen and Comparison Freshmen groups effects persisted through the year following SFMP participation, with one exception. The 2006-2007 All freshmen group earned “.07” credit more for the follow up year than SFMP students from the same cohort. The both cohorts of SFMP students continued to demonstrate higher yearly average gpa, and average number of credits completed successfully than EOP students in the year following SFMP participation.

It is clear that SFMP participation had a positive effect on freshmen retention, performance (gpa), and progress (credits earned) for students in all three cohorts, and that these positive effects still persisted at the end of a second, post program-participation year.

**Retention**

Table #10 freshmen retention 2007-2008

2007-2008	Comparison Groups				SFMP	
	All Freshmen N retention	Comp Freshmen N retention	EOP Freshmen N retention	Freshman N retention		
<b>F 07</b>	2617 100.0%	292 100.0%	<b>32 100.0%</b>	<b>42 100.0%</b>		
<b>W 08</b>	2375 90.8%	270 92.5%	<b>31 98.9%</b>	<b>44 93.2%</b>		
<b>Sp 08</b>	2217 84.7%	250 85.6%	<b>30 93.8%</b>	<b>44 88.6%</b>		

Table #11 freshmen retention 2006-2007

2006-07	Comparison Groups				SFMP	
	All Freshmen N retention	Comp Freshmen N retention	EOP Freshmen N retention	Freshman N retention		
<b>F 06</b>	2586 100.0%	260 100.0%	<b>21 100.0%</b>	<b>62 100.0%</b>		
<b>W 07</b>	2326 89.9%	236 90.8%	<b>20 95.2%</b>	<b>60 93.8%</b>		
<b>Sp 07</b>	2144 82.9%	224 86.2%	<b>20 95.2%</b>	<b>56 84.8%</b>		

NOTE: values in **bold italics** indicate data from time period when student received mentor services

Table #12: freshmen retention 2005-2006

2005-06	Comparison Groups				SFMP	
	All Freshmen N retention	Comp Freshmen N retention	EOP Freshmen N retention	Freshman N retention		
<b>F 05</b>	2445 100.0%	242 100.0%	<b>31 100.0%</b>	<b>50 100.0%</b>		
<b>W 06</b>	2180 89.2%	224 92.6%	<b>28 90.3%</b>	<b>48 94.1%</b>		
<b>Sp 06</b>	2008 82.1%	212 87.6%	<b>26 83.9%</b>	<b>46 90.2%</b>		

NOTE: values in ***bold italics*** indicate data from time period when student received mentor services

Contrary to the predicted relationship, SFMP students demonstrated higher first year retention rates than the “All PSU students” across all three cohorts – 2005-2006 (+8%), 2006-2007 (+2 %), 2007-2008 (+4%). EOP students also had higher retention rates than the “All PSU students” across all three cohorts. The SFMP freshmen had higher retention rates than the comparison freshmen group in 2005-2006 and 2007-2008, and the EOP students in 2005-2006.

*Persistence of effect*

Table #13 2005-06 freshmen Persistence in 2006-2007

2005 cohort in 6-08	Comparison Groups						SFMP	
	All Freshmen	Comp Freshmen	EOP Freshmen	Freshman				
	N retention	N retention	N retention	N retention	N	retention	N retention	
<b>F 05</b>	2445	100.0%	242	100.0%	<b>31</b>	<b>100.0%</b>	<b>50</b>	<b>100.0%</b>
<b>W 06</b>	2180	89.2%	224	92.6%	<b>28</b>	<b>90.3%</b>	<b>48</b>	<b>94.1%</b>
<b>Sp 06</b>	2008	82.1%	212	87.6%	<b>26</b>	<b>83.9%</b>	<b>46</b>	<b>90.2%</b>
<b>F 06</b>	1667	68.2%	161	66.5%	<b>25</b>	<b>80.6%</b>	34	66.7%
<b>W 07</b>	1581	64.7%	160	66.1%	<b>24</b>	<b>77.4%</b>	36	70.6%
<b>Sp 07</b>	1497	61.2%	152	62.8%	<b>23</b>	<b>74.2%</b>	33	64.7%
<b>F 07</b>	1379	56.7%	140	58.3%	<b>20</b>	<b>64.5%</b>	31	60.8%
<b>W 08</b>	1327	54.9%	132	55.7%	<b>24</b>	<b>77.4%</b>	30	58.8%
<b>Sp 08</b>	1282	53.3%	130	55.3%	<b>23</b>	<b>74.2%</b>	30	58.8%

Table #14 2006-07 freshmen Persistence in 2007-2008

2006 cohort in 07-08	Comparison Groups						SFMP	
	All Freshmen	Comp Freshmen	EOP Freshmen	Freshman				
	N retention	N retention	N retention	N retention	N	retention	N retention	
<b>F 06</b>	2586	100.0%	260	100.0%	<b>21</b>	<b>100.0%</b>	<b>62</b>	<b>100.0%</b>
<b>W 07</b>	2326	89.9%	236	90.8%	<b>20</b>	<b>95.2%</b>	<b>60</b>	<b>93.8%</b>
<b>Sp 07</b>	2144	82.9%	224	86.2%	<b>20</b>	<b>95.2%</b>	<b>56</b>	<b>84.8%</b>
<b>F 07</b>	1741	67.5%	174	66.9%	<b>18</b>	<b>85.7%</b>	47	71.2%
<b>W 08</b>	1652	64.0%	162	62.3%	<b>18</b>	<b>85.7%</b>	49	74.2%
<b>Sp 08</b>	1597	61.9%	153	61.2%	<b>17</b>	<b>81.0%</b>	48	72.7%

Examination of the retention persistence of effect data shows that the SFMP intervention continues to have a positive influence on retention in the years after

program participation. Comparing “All PSU students” and “SFMP students” groups in the 2005-2006 cohort, the SFMP advantage at the end of the program year (+8%), continues through the next two years after completing the program though the magnitude of the difference fluctuates (year 2: + 3.5 %; year 3: +5.5%).

Comparing the 2006-2007 cohort’s “All PSU students” and “SFMP students” groups, a 1.9% SFMP advantage in retention at the end of the participation year balloons into a 10.8% SFMP advantage at the end of students’ second year on campus. Even more interesting is that, when comparing SFMP and “comparison freshmen” groups from that same cohort a 1.4% SFMP *deficit* in retention rates at the end of the program year, turns into an 11.5% advantage at the end of the students’ second year.

**Performance: GPA**

Table #15: freshmen GPA 2007-2008

2007-2008	Comparison groups			SFMP
	All Freshmen Fall 07 n=2617	Comp Freshmen Fall 07 n=292	EOP Freshmen Fall 07 n=32	SFMP Freshman Fall 07 n=42
F 07	2.79	2.74	2.61	<b>2.94</b>
W 08	2.77	2.68	2.94	<b>2.89</b>
Sp 08	2.83	2.78	2.89	<b>2.82</b>
Ave 07-08	<b>2.78</b>	<b>2.72</b>	<b>2.81</b>	<b>2.88</b>

Table #16: freshmen GPA 2006-2007

2006-07	Comparison groups			SFMP
	All Freshmen Fall 06 n=2586	Comp Freshmen Fall 06 n=260	EOP Freshmen Fall 06 n=21	SFMP Freshman Fall 06 n=62
F 06	2.79	2.67	2.41	<b>3.04</b>
W 07	2.81	2.76	2.46	<b>2.87</b>
Sp 07	2.88	2.64	2.98	<b>3.06</b>
Ave 06-07	<b>2.83</b>	<b>2.69</b>	<b>2.62</b>	<b>2.99</b>

NOTE: values in ***bold italics*** indicate data from time period when student received mentor services

Table #17: freshmen GPA 2005-2006

2005-06	Comparison groups			SFMP
	All Freshmen Fall 05 n=2445	Comp Freshmen Fall 05 n=242	EOP Freshmen Fall 05 n=31	SFMP Freshman Fall 05 n=50
F 05	2.79	2.76	2.45	<b>2.89</b>
W 06	2.78	2.71	2.79	<b>2.79</b>
Sp 06	2.92	2.87	2.70	<b>2.84</b>
Ave 05-06	<b>2.83</b>	<b>2.78</b>	<b>2.65</b>	<b>2.84</b>

NOTE: values in **bold italics** indicate data from time period when student received mentor services

For students in all three SFMP cohort, the average yearly gpa values were superior to those of all the other three groups of students. In addition, SFMP students earned the highest Fall term gpas for all three cohorts. This is particularly important due to the tendency for first-generation students to be more likely to leave school during this first year on campus. Getting new-to-the-university students started with a solid Fall term gpa should increase the likelihood of them continuing through the year.

*Persistence of effect*

Table #18 freshman Academic Performance (GPA)persistence of effect

2005 cohort in 06-07	Comparison groups			SFMP
	All Freshmen Fall 05 n=2445	Comp Freshmen Fall 05 n=242	EOP Freshmen Fall 05 n=31	SFMP Freshmen Fall 05 n=50
F 05	2.79	2.76	2.45	<b>2.89</b>
W 06	2.78	2.71	2.79	<b>2.79</b>
Sp 06	2.92	2.87	2.70	<b>2.84</b>
Ave 05-06	<b>2.83</b>	<b>2.78</b>	<b>2.65</b>	<b>2.84</b>
F 06	2.84	2.74	2.85	<b>2.95</b>
W 07	2.94	2.93	2.95	<b>2.88</b>
Sp 07	3.04	2.90	2.92	<b>3.10</b>
Ave 06-07	<b>2.94</b>	<b>2.87</b>	<b>2.90</b>	<b>2.97</b>

Table #19 freshman Academic Performance (GPA)persistence of effect

2006 cohort in 07-08	Comparison groups			SFMP
	All Freshmen Fall 06 n=2445	Comp Freshmen Fall 06 n=242	EOP Freshmen Fall 06 n=31	SFMP Freshmen Fall 06 n=50
F 06	2.79	2.67	2.41	<b>3.04</b>
W 07	2.81	2.76	2.46	<b>2.87</b>
Sp 07	2.88	2.64	2.98	<b>3.06</b>
Ave 06-07	<b>2.83</b>	<b>2.69</b>	<b>2.62</b>	<b>2.99</b>
F 07	2.82	2.78	2.70	<b>2.82</b>
W 08	2.93	2.89	2.80	<b>3.24</b>
Sp 08	2.95	2.96	3.05	<b>3.17</b>
Ave 07-08	<b>2.90</b>	<b>2.88</b>	<b>2.85</b>	<b>3.08</b>

Both 2005-2006 and 2006-2007 SFMP students demonstrated superior yearly gpa performance compared to all three comparison groups in the year after their program participation ended.

**Performance: Credits earned**

Table #20: freshmen credits earned 2007-2008

2007-08	Comparison groups			SFMP
	All Freshmen Fall 07 n=2617	Comp Freshmen Fall 07 n=292	EOP Freshmen Fall 07 n=32	SFMP Freshman Fall 07 n=42
F 07	11.79	11.37	10.75	<b>12.91</b>
W 08	11.80	11.22	11.71	<b>12.46</b>
Sp 08	11.46	11.34	10.30	<b>11.82</b>
<b>07-08 total (3 quarter)</b>	<b>35.08</b>	<b>33.93</b>	<b>32.77</b>	<b>37.17</b>

Table #21 freshmen credits earned 2006-2007

2006-07	Comparison groups			SFMP
	All Freshmen Fall 06 n=2586	Comp Freshmen Fall 06 n=260	EOP Freshmen Fall 06 n=21	SFMP Freshman Fall 06 n=62
F 06	11.72	11.53	10.33	<b>12.77</b>
W 07	11.60	11.11	10.60	<b>12.03</b>
Sp 07	11.34	10.71	11.80	<b>12.39</b>
<b>06-07 total (3 quarter)</b>	<b>34.70</b>	<b>33.41</b>	<b>32.70</b>	<b>37.21</b>

Table #22: freshmen credits earned 2005-2006

2005-06	Comparison groups			SFMP
	All Freshmen Fall 05 n=2445	Comp Freshmen Fall 05 n=242	EOP Freshmen Fall 05 n=31	SFMP Freshman Fall 05 n=50
F 05	11.58	11.52	10.45	<b>12.25</b>
W 06	11.48	10.81	11.46	<b>12.06</b>
Sp 06	11.36	11.00	10.12	<b>12.13</b>
<b>05-06 total (3 quarters)</b>	<b>34.45</b>	<b>33.36</b>	<b>32.05</b>	<b>36.44</b>

NOTE: values in ***bold italics*** indicate data from time period when student received mentor services

“Number of credits successfully completed” during the freshmen year is a particularly important variable in predicting degree completion. Recent research from the Lumina Foundation and the National Center for Educational Statistics (Chen & Carroll 2005) show that the lower the number of credits completed during a student’s freshman year at college, the less likely that student was to complete any type of certificate or degree program.

SFMP freshmen in all three cohorts earned higher yearly average number of credits than students in all three comparison groups. SFMP students from each of the three cohorts also earned more credits each term than students in the three comparison groups. The SFMP students’ superior rates of credits earned, if maintained over an academic career, will directly translate into earlier degree completion. For example if their program year credit earning rate was continued, 2005-2006 SFMP freshmen would complete a 180 credit PSU Bachelor’s degree in one less term than ‘All Freshmen” group students and two less terms than the EOP and Comparison freshmen group students.

*Persistence of effect*

*Table #23 : freshmen Progress (Credits earned)persistence of effect*

2005 cohort in 06-07	Comparison groups			SFMP
	All Freshmen Fall 05 n=2445	Comp Freshmen Fall 05 n=242	EOP Freshmen Fall 05 n=31	SFMP Freshman Fall 05 n=50
F 06	11.60	11.66	<b>11.56</b>	<b>12.09</b>
W 07	11.57	11.53	<b>11.29</b>	<b>11.53</b>
Sp 07	11.36	11.45	<b>12.04</b>	<b>11.42</b>
<b>06-07 total (3 quarters)</b>	<b>34.54</b>	<b>34.63</b>	<b>34.88</b>	<b>35.14</b>

*Table #24 : freshmen Progress (Credits earned)persistence of effect*

2006 cohort in 07-08	Comparison groups			SFMP
	All Freshmen Fall 06 n=2445	Comp Freshmen Fall 06 n=242	EOP Freshmen Fall 06 n=31	SFMP Freshman Fall 06 n=50
F 07	11.73	11.26	<b>12.55</b>	<b>11.02</b>
W 08	11.90	11.65	<b>12.06</b>	<b>12.65</b>
Sp 08	11.54	11.61	<b>10.18</b>	<b>12.44</b>
<b>07-08 total (3 quarters)</b>	<b>35.17</b>	<b>34.52</b>	<b>34.79</b>	<b>35.10</b>

Interestingly, while the 2005-2006 cohort of SFMP students continued to earn more credits in the year following program participation than students in the three comparison groups, the difference was not as great as all three comparison groups raised their yearly rates of credit earned. Similarly, the 2006-2007 SFMP students earned more credits than either the EOP or comparison g freshmen groups, but the All PSU freshmen actually earned .07 of a credit more for than at year.

Freshmen and comparative delivery systems

*3 year summary relative effectiveness of delivery systems program year*

Dividing SFMP students into two groups – online only mentoring (OLM) and on-line plus in-person mentoring (OLMP) – allowed a closer examination of the

relative effectiveness of the two methods of delivering service. In regards to retention, all three cohorts of OLM students exhibited higher retention rates than the All Freshmen group students, while two of three cohorts of OLMP did the same. In regards to average yearly gpas, all three cohorts of OLMP students demonstrated higher average yearly gpas than the All freshmen students, while only the 2006-20007 OLM students did the same. And both OLM and OLMP in all three cohorts demonstrated higher yearly average number of credits successfully completed than All freshmen students did. It is clear that both forms of delivering mentoring services are effective during the year students participate in the program.

*persistence of effect*

For both cohorts of SFMP freshmen with available persistence data (2005-2006 and 2006-2007), their superior performance effects compared to the All Freshmen group persisted through the year following SFMP participation. For example, both cohorts of OLM SFMP students outperformed the All freshmen students in regards to retention while only the did. Similarly, both cohorts of OLMP SFMP students earned higher yearly average gpas than the All freshmen group students while only OLM did. The one exception had to do with the persistence of effects in regards to yearly average number of credits successfully completed. While for both cohorts, the two groups of SFMP students outperformed All freshmen students during the program year, in the year after participation only the OLMP SFMP students completed a higher number of credits in both cohorts; OLM students out-performed the All freshmen students in one year but not the other.

*comparing the two modes of delivery*

While there were slight differences in regards to a between-group comparison of the performance of the two modes of delivering mentoring support, the pattern of differences varied from measure to measure. Overall the differences between the two delivery methods did not appear to be significant.

NOTE: For these analyses, only the “All Freshmen” scores are presented for comparison.

**Freshmen Retention**

Table #25: OLM – OLMP comparison freshmen retention 2007-2008

2007-2008	All Freshmen		SFMP Freshmen			
	N	retention	On-line plus in-person mentoring		On-line mentoring only	
	N	retention	N	retention	N	retention
F 07	2617	100.0%	<b>16</b>	<b>100.0%</b>	<b>26</b>	<b>100.0%</b>
W 08	2375	90.8%	<b>16</b>	<b>88.9%</b>	<b>25</b>	<b>96.0%</b>
Sp 08	2217	84.7%	<b>16</b>	<b>88.9%</b>	<b>23</b>	<b>88.5%</b>

NOTE: values in **bold italics** indicate data from time period when student received mentor services

Table #26: OLM – OLMP comparison freshmen retention 2006-2007

2006-2007	All Freshmen		SFMP Freshmen			
			On-line plus in-person mentoring		On-line mentoring only	
	N	retention	N	retention	N	retention
F 06	2581	100.0%	<b>35</b>	<b>100.0%</b>	<b>27</b>	<b>100.0%</b>
W 07	2322	90.0%	<b>33</b>	<b>89.2%</b>	<b>27</b>	<b>100.0%</b>
Sp 07	2140	82.9%	<b>30</b>	<b>78.9%</b>	<b>26</b>	<b>92.9%</b>

Table #27: OLM – OLMP comparison freshmen retention 2005-2006

2005-2006	All Freshmen		SFMP Freshmen			
			On-line plus in-person mentoring		On-line mentoring only	
	N	retention	N	retention	N	retention
F 05	2445	100.0%	<b>28</b>	<b>100.0%</b>	<b>22</b>	<b>100.0%</b>
W 06	2180	89.2%	<b>25</b>	<b>89.3%</b>	<b>23</b>	<b>100.0%</b>
Sp 06	2008	82.1%	<b>24</b>	<b>85.7%</b>	<b>22</b>	<b>95.7%</b>

The earlier analysis (table # ) established that, for students in all three cohorts, SFMP students demonstrated higher retention rates than students from the “All PSU freshmen” groups. Note that after being divided by mode of delivery, the on-line mentoring only (OLM) SFMP group continued to out-perform the “All freshmen” group across all three cohorts, while the on-line plus in-person mentoring (OLMP) out-performed the “All freshmen” group in 2005-2006 and 2007-2008 but not in 2006-2007.

*Persistence of effect*

Table #28: OLM – OLMP comparison freshmen retention 05-06 cohort through 06-07

2005-2007	All Freshmen		SFMP Freshmen			
			On-line plus in-person mentoring		On-line mentoring only	
	N	retention	N	retention	N	retention
F 05	2445	100.0%	<b>28</b>	<b>100.0%</b>	<b>22</b>	<b>100.0%</b>
W 06	2180	89.2%	<b>25</b>	<b>89.3%</b>	<b>23</b>	<b>100.0%</b>
Sp 06	2008	82.1%	<b>24</b>	<b>85.7%</b>	<b>22</b>	<b>95.7%</b>
F 06	1666	68.2%	18	64.3%	16	69.6%
W 07	1580	64.7%	18	64.3%	18	78.3%
Sp 07	1496	61.3%	17	60.7%	16	69.6%

Table #29: OLM – OLMP comparison freshmen retention 2006-2008

2006-2008	All Freshmen		SFMP Freshmen			
	N	retention	On-line plus in-person mentoring		On-line mentoring only	
	N	retention	N	retention	N	retention
F 06	2581	100.0%	<b>35</b>	<b>100.0%</b>	<b>27</b>	<b>100.0%</b>
W 07	2322	90.0%	<b>33</b>	<b>89.2%</b>	<b>27</b>	<b>100.0%</b>
Sp 07	2140	82.9%	<b>30</b>	<b>78.9%</b>	<b>26</b>	<b>92.9%</b>
F 07	1741	67.5%	25	65.8%	22	78.6%
W 08	1652	64.0%	25	65.8%	24	85.6%
Sp 08	1596	61.9%	25	65.8%	23	82.1%

NOTE: values in **bold italics** indicate data from time period when student received mentor services

During both the 2005-2006 and 2006-2007 SFMP participation years, both groups of SFMP freshmen demonstrated higher retention rates than the “All freshmen” group. Looking at the *persistence of effect* data, the pattern varied between cohorts. In the year after program participation, the on-line mentoring group of 2005-2006 SFMP students continued to out-perform the “All Freshmen” group but the on-line plus in-person group did not. For SFMP students in the 2006-2007 cohort, both groups out-performed the “All Freshmen” group. Interestingly, in the year following program participation for both the 2005-2006 and 2006-2007, the on-line only mentoring group students strongly out-performed their OLMP counterparts (2005-2006: +8.9%; 2006-2007: 16.3%).

When the three years’ retention data are considered together, it is clear that both the on-line and the on-line plus in-person mentoring approaches are effective for the freshman participants, as, during the SFMP participation year, both conditions in both cohorts were retained at higher rates than the “all freshmen” group. In addition, this effect strongly persisted for the OLM group students across both cohorts. The fact that positive effects persisted beyond the program year is strong evidence that the SFMP program of on-line delivery of mentoring support is an effective way of positively impacting first generation student retention and academic success.

performance: GPA

Table #30: OLM – OLMP comparison freshmen GPA 2007-2008

2007-2008	All Freshmen	SFMP Freshmen	
		On-line plus in-person mentoring Fall 07 N = 16	On-line mentoring only Fall 07 N = 26
F 07	2.79	<b>3.20</b>	<b>2.78</b>
W 08	2.77	<b>3.19</b>	<b>2.70</b>
Sp 08	2.83	<b>2.78</b>	<b>2.71</b>
Ave 07-08	<b>2.78</b>	<b>3.06</b>	<b>2.73</b>

Table #31: OLM – OLMP comparison freshmen GPA 2006-2007

2006-2007	All Freshmen	SFMP Freshmen	
		On-line plus in-person mentoring Fall 06 N = 35	On-line mentoring only Fall 06 N = 28
F 06	2.79	<b>3.07</b>	<b>2.99</b>
W 07	2.81	<b>2.83</b>	<b>2.91</b>
Sp 07	2.88	<b>3.09</b>	<b>3.01</b>
Ave 06-07	<b>2.83</b>	<b>3.00</b>	<b>2.97</b>

Table #32: OLM – OLMP comparison freshmen GPA 2005-2006

2005-2006	All Freshmen	SFMP Freshmen	
		On-line plus in-person mentoring Fall 05 N =28	On-line mentoring only Fall 05 N =22
F 05	2.79	<b>2.83</b>	<b>2.97</b>
W 06	2.78	<b>2.85</b>	<b>2.74</b>
Sp 06	2.92	<b>3.03</b>	<b>2.64</b>
Ave 05-06	<b>2.83</b>	<b>2.90</b>	<b>2.78</b>

Across all three cohorts, OLMP SFMP students earned higher yearly average gpas than students from the All freshmen group. Only in 2006-2007 did the OLM SFMP students earned a higher yearly average gpa than the All freshmen group students. It is appears that the on-line plus in-person mentoring treatment is positively associated with slightly higher average yearly gpas, but the the differences in yearly gpas between the two groups of SFMP freshmen do not seem to be significant.

*persistence of effect*

For both the 2005-2006 and 2006-2007 cohorts of SFMP students, the program-year pattern of relative rankings among the groups continued in the year AFTER students completed the SFMP program.

Table #33: OLM – OLMP comparison freshmen GPA 05-06 cohort through 06-07

2005-2006	All Freshmen	SFMP Freshmen	
		On-line plus in-person mentoring Fall 05 N =28	On-line mentoring only Fall 05 N =22
F 05	2.79	<b>2.83</b>	<b>2.97</b>
W 06	2.78	<b>2.85</b>	<b>2.74</b>
Sp 06	2.92	<b>3.03</b>	<b>2.64</b>
Ave 05-06	<b>2.83</b>	<b>2.90</b>	<b>2.78</b>
F 06	2.84	3.02	2.87
W 07	2.94	3.31	2.46
Sp 07	3.04	3.10	3.11
Ave 06-07	<b>2.94</b>	<b>3.14</b>	<b>2.81</b>

Table #34: OLM – OLMP comparison freshmen GPA 06-07 cohort through 07-08

2006-2008	All Freshmen	SFMP Freshmen	
		On-line plus in-person mentoring Fall 06 N = 35	On-line mentoring only Fall 06 N = 28
F 06	2.79	<b>3.07</b>	<b>2.99</b>
W 07	2.81	<b>2.83</b>	<b>2.91</b>
Sp 07	2.88	<b>3.09</b>	<b>3.01</b>
Ave 06-07	<b>2.83</b>	<b>3.00</b>	<b>2.97</b>
F 07	2.82	3.07	2.68
W 08	2.93	3.20	3.29
Sp 08	2.95	3.21	3.12
Ave 07-08	<b>2.90</b>	<b>3.16</b>	<b>3.04</b>

For the two groups of 2005-2006 SFMP students, this same pattern of relative rankings among the groups continued in the year AFTER students completed the program. OLMP SFMP students continued to earn higher yearly gpas than the All Freshmen group students, while OLM SFMP students earned slightly lower yearly gpas. Looking at persistence of effect data for the 2006-2007 cohort, both OLM and OLMP SFMP students earned higher yearly average gpas than students in the All freshmen group.

From examining three years worth of data, it is clear that both SFMP mentoring delivery approaches were successful for promoting freshmen gpa.

Performance: # credits earned  
*program year*

Table #35: OLM – OLMP comparison freshmen credits earned 2007-2008

2007-2008	All Freshmen	SFMP Freshmen	
	Fall 07 N = 2617	<i>On-line plus in-person mentoring</i> Fall 07 N =16	<i>On-line mentoring only</i> Fall 07 N =26
F 07	11.79	<b>11.88</b>	<b>12.69</b>
W 08	11.80	<b>12.19</b>	<b>12.64</b>
Sp 08	11.46	<b>11.44</b>	<b>12.17</b>
2007-08 total credits	<b>35.08</b>	<b>35.51</b>	<b>37.53</b>

NOTE: values in ***bold italics*** indicate data from time period when student received mentor services

Table #36: OLM – OLMP comparison freshmen credits earned 2006-2007

2006-2007	All Freshmen	SFMP Freshmen	
	Fall 06 N = 2586	<i>On-line plus in-person mentoring</i> Fall 06 N =35	<i>On-line mentoring only</i> Fall 06 N =28
F 06	11.74	<b>13.14</b>	<b>12.30</b>
W 07	11.62	<b>11.94</b>	<b>12.15</b>
Sp 07	11.36	<b>12.87</b>	<b>11.85</b>
2006-07 total credits	<b>34.72</b>	<b>37.95</b>	<b>36.30</b>

Table #37: OLM – OLMP comparison freshmen credits earned 2005-2006

2005-2006	All Freshmen	SFMP Freshmen	
	Fall 05 N = 2445	<i>On-line plus in-person mentoring</i> Fall 05 N = 28	<i>On-line mentoring only</i> Fall 05 N =22
F 05	11.58	<b>12.00</b>	<b>12.86</b>
W 06	11.48	<b>12.16</b>	<b>11.96</b>
Sp 06	11.36	<b>13.13</b>	<b>11.05</b>
2005-06 total credits	<b>34.45</b>	<b>37.29</b>	<b>35.87</b>

For all three cohorts, both SFMP groups demonstrated superior yearly average “credits earned” rates than the All freshmen group. There was not a consistent “between SFMP groups” pattern of superior results, with the 2005-2006 and

2006-2007 OLMP and the 2007-2008 OLM group students successfully completing comparatively more credits over that program year.

*persistence of effects*

Table #38: OLM – OLMP comparison freshmen credits earned 05-06 cohort through 06-07

2005-2006	All Freshmen	SFMP Freshmen	
		On-line plus in-person mentoring Fall 05 N = 28	On-line mentoring only Fall 05 N =22
	Fall 05 N = 2445		
F 05	11.58	<b>12.00</b>	<b>12.86</b>
W 06	11.48	<b>12.16</b>	<b>11.96</b>
Sp 06	11.36	<b>13.13</b>	<b>11.05</b>
2005-06 total credits	<b>34.45</b>	<b>37.29</b>	<b>35.87</b>
F 06	11.59	11.89	12.31
W 07	11.57	12.72	10.33
Sp 07	11.36	11.24	11.62
2006-07 total credits	<b>34.54</b>	<b>35.89</b>	<b>34.84</b>

Table #39 : OLM – OLMP comparison freshmen credits earned 06-07 cohort through 07-08

2006-2008	All Freshmen	SFMP Freshmen	
		On-line plus in-person mentoring Fall 06 N =35	On-line mentoring only Fall 06 N =28
	Fall 06 N = 2586		
F 06	11.74	<b>13.14</b>	<b>12.30</b>
W 07	11.62	<b>11.94</b>	<b>12.15</b>
Sp 07	11.36	<b>12.87</b>	<b>11.85</b>
2006-07 total credits	<b>34.72</b>	<b>37.95</b>	<b>36.30</b>
F 07	11.73	11.88	10.64
W 08	11.90	12.76	11.29
Sp 08	11.54	12.60	12.26
2007-08 total credits	<b>35.17</b>	<b>37.23</b>	<b>34.23</b>

In regard to persistence of effects, for the 2005-2006 cohort, while both SFMP groups out-performed the All freshmen group during the program participation year, in the year following SFMP participation – 2006-2007 – only the OLMP SFMP group outperformed the “all freshmen group.” This change appears to be due to a Fall 2007 dip in OLM SFMP students’ average number of credits earned rather than a major improvement by the All Freshmen group students.

Summary revisited: During the three separate program years, students from both SFMP groups of consistently exceeded the predicted relationship by out-performing the All freshmen group students across all three dimensions of student success – retention, performance (gpa) and progress (credits completed). Looking at the comparison between the two SFMP groups, on-line only mentoring (OLM) students demonstrated higher retention rates in all three cohorts, the OLMP earned higher yearly average gpas in all three cohorts, and the higher yearly average numbers of credits successfully completed varied from one cohort to the other. The effectiveness of both modes of delivering mentoring for promoting retention and academic success was clearly established for SFMP freshmen in all three cohorts.

### **C. transfer students**

3 year summary. Note: the small number of students in the 2005-2006 cohort SFMP transfer student groups suggests that care must be taken when interpreting that year's performance results.

#### *program year*

For transfer students, SFMP participation positively impacted academic performance and resulted in higher average gpa compared to all three comparison groups for all three cohorts. The patterns for yearly retention rates, and yearly average credits completed successfully are not as consistent.

In regards to retention, SFMP transfer students exhibited the higher retention rates than students from all three comparison groups in 2007-2008, but actually had the lowest retention rates of all four groups in both 2005-2006 (85.7%) and 2006-2007 (81.3%). In regards to credits earned, for the 2007-2008 and 2006-2007 cohort, SFMP students had the lowest yearly average for earned credits of all four groups, while the 05-06 SFMP students had higher credit rates than the EOP and Comparison transfer students groups and were within .3 credits of the All transfer group's score during the participation year.

#### *persistence of effects*

In regards to retention data, the 2005-2006 SFMP transfer group students went from having the lowest retention rate at the end of the program year to the second highest among the four groups by the end of the post-SFMP program year, trailing only the EOP transfer students. Note: the consistently high retention scores for EOP students may reflect the continuous support they receive from their program. For the 2006-2007 cohort, the SFMP transfer students had the lowest retention rate at the end of the program year and at the end of the post-SFMP program year. Note: the SFMP students went from having

the highest retention rate of the four groups at the end of Winter term in post-SFMP program year to the lowest rate by Spring term of that same year.

In regards to performance (gpa) data, the 2006-2007 cohort's SFMP transfer students, who had the highest average yearly gpa at the end of the program year, maintained their relative superior average yearly gpa in their post-program year. However the 2005-2006 cohort's SFMP transfer students went from having the highest average yearly gpa at the end of the program year to the lowest average yearly gpa at the end of the post-program year.

It was in regards to the progress (credits completed) rates the both cohorts of SFMP transfer students showed the greatest relative improvement, in regards to the other three groups, from the end of the program year to the end of the post-program year. The 2005-2006 cohort SFMP transfer students went from demonstrating the second highest average yearly number of credits completed rate at the end of the program year to the highest rate at the end of the post-program year. The 2006-2007 cohort SFMP transfer students did even better, moving from the lowest average yearly number of credits completed rate at the end of the program year to the highest rate at the end of the post-program year.

The relatively low number of transfer students in the initial SFMP cohort and the absence of fully-developed transfer student-focused program materials until the middle of the 2006-2007 program year makes it harder to interpret the SFMP data with the same certainty as can be done regarding the program's effects on freshmen. While the retention rates for all groups of transfer students in this study are relatively high, it still appears the SFMP more strongly impacts transfer students' academic performance – gpa and yearly average number of credits completed – then retention.

## Retention

Table #40: transfer student retention 2007-2008

2007-08	Comparison Groups						SFMP	
	All N	Transfer retention	Comp N	Transfer retention	EOP N	Transfer retention	Transfer N	Transfer retention
<b>F 07</b>	3498	100.0%	444	100.00%	<b>16</b>	<b>100.0%</b>	<b>35</b>	<b>100.0%</b>
<b>W 08</b>	3230	92.3%	414	93.2%	<b>13</b>	<b>81.3%</b>	<b>34</b>	<b>97.0 %</b>
<b>Sp 08</b>	3067	87.7%	397	89.4%	<b>12</b>	<b>75.0%</b>	<b>32</b>	<b>91.4%</b>

Table #41: transfer student retention 2006-2007

2006-07	Comparison Groups						SFMP	
	All N	Transfer retention	Comp N	Transfer retention	EOP N	Transfer retention	Transfer N	Transfer retention
<b>F 06</b>	3169	100.0%	416	100.00%	<b>71</b>	<b>100.0%</b>	<b>25</b>	<b>100.0%</b>
<b>W 07</b>	2925	92.3%	388	93.27%	<b>67</b>	<b>94.4%</b>	<b>29</b>	<b>100.0 %</b>
<b>Sp 07</b>	2785	88.4%	371	89.18%	<b>66</b>	<b>93.0%</b>	<b>26</b>	<b>81.3%</b>

NOTE: The change in W07 “N” for SFMP reflects 4 students joining the program during Fall term.

Table #42: transfer student retention 2005-2006

2005-06	Comparison Groups						SFMP	
	All N	Transfer retention	Comp N	Transfer retention	EOP N	Transfer retention	Transfer N	retention
<b>F 05</b>	3106	100.0%	447	100.00%	<b>84</b>	<b>100.0%</b>	<b>13</b>	<b>100.0%</b>
<b>W 06</b>	2884	92.9%	423	94.63%	<b>79</b>	<b>97.5%</b>	<b>12</b>	<b>85.7%</b>
<b>Sp 06</b>	2749	88.8%	402	89.93%	<b>73</b>	<b>93.6%</b>	<b>12</b>	<b>85.7%</b>

There is not a clear pattern of one group dominating the other three in the transfer student retention data. While the 2007-2008 cohort’s SFMP transfer students demonstrated a higher retention rate than the All transfer, comparison transfer, and EOP transfer groups, the 2005-2006 and 2006-2007 cohorts’ SFMP transfer students actually had the lowest relative retention rate of the four groups. The superior retention rate for the 2007-2008 SFMP transfer students should be seen as an encouraging sign, as it was not until the middle of the 2006-2007 program year that fully-developed transfer student-focused program materials were available for SFMP students.

*Persistence of effect retention*

Table #43 transfer student retention 05-06 cohort through 06-07

2005 cohort in 06-07	Comparison Groups						SFMP	
	All N	Transfer retention	Comp N	Transfer retention	EOP N	Transfer retention	Transfer N	retention
<b>F 05</b>	3106	100.0%	447	100.00%	<b>84</b>	<b>100.0%</b>	<b>13</b>	<b>100.0%</b>
<b>W 06</b>	2884	92.9%	423	94.63%	<b>79</b>	<b>97.5%</b>	<b>12</b>	<b>85.7%</b>
<b>Sp 06</b>	2749	88.8%	402	89.93%	<b>73</b>	<b>93.6%</b>	<b>12</b>	<b>85.7%</b>
<b>F 06</b>	2273	80.1%	333	74.50%	<b>51</b>	<b>81.0%</b>	10	71.4%
<b>W 07</b>	2077	76.3%	309	69.13%	<b>48</b>	<b>76.2%</b>	11	78.6%
<b>Sp 07</b>	1916	73.8%	287	64.21%	<b>50</b>	<b>80.6%</b>	10	76.9%

Table #44: transfer student retention 06-07 cohort through 07-08

2006-07	Comparison Groups						SFMP	
	All N	Transfer retention	Comp N	Transfer retention	EOP N	Transfer retention	Transfer N	retention
<b>F 06</b>	3169	100.0%	416	100.0%	<b>71</b>	<b>100.0%</b>	<b>25</b>	<b>100.0%</b>
<b>W 07</b>	2925	92.3%	388	93.3%	<b>67</b>	<b>94.4%</b>	<b>29</b>	<b>100.0%</b>
<b>Sp 07</b>	2785	88.4%	371	89.2%	<b>66</b>	<b>93.0%</b>	<b>26</b>	<b>81.3%</b>
<b>F 07</b>	2292	76.1%	310	78.7%	<b>49</b>	<b>77.8%</b>	24	77.4%
<b>W 08</b>	2097	75.3%	281	73.4%	<b>41</b>	<b>71.9%</b>	25	80.6%
<b>Sp 08</b>	1914	71.6%	261	70.7%	<b>40</b>	<b>71.4%</b>	21	67.7%

While the 2005-2006 cohort of SFMP transfer students lagged behind the other three groups during the participation year, by Spring term 2007 - -three terms after completing the SFMP program -- the SFMP transfer students had caught up and passed the retention rates for the 'All Transfer' and the Comparison transfer student groups. Due to the small number of cases of 2005-2006 SFMP Transfer students, caution must be taken in concluding these differences in retention scores are due to program effects rather than random variance.

The persistence of effect retention data for 2006-2007 cohort shows a similar pattern. The SFMP transfer students had the relatively lowest retention rate of the four groups at the end of the SFMP program, yet by the end of Winter term in the post-program year, the SFMP students actually had the highest retention rate of the four groups. Because the SFMP transfer group was the smallest of the four being studied, the departure of several students during Spring term produced a dramatic drop in relative retention rate from highest to lowest in one term.

Performance: gpa

Table #45: transfer student GPA 2007-2008

2007-08	Comparison groups			SFMP
	All Transfer Fall 07 n=3498	Comp Transfer Fall 07 n=444	EOP Transfer Fall 07 n=16	SFMP Transfer Fall 07 n=35
F 07	3.05	2.92	<b>2.68</b>	<b>3.11</b>
W 08	3.12	3.05	<b>3.04</b>	<b>3.03</b>
Sp 08	3.16	3.12	<b>2.88</b>	<b>3.31</b>
Ave 07-08	<b>3.11</b>	<b>3.03</b>	<b>2.85</b>	<b>3.15</b>

Table #46: transfer student GPA 2006-2007

2006-07	Comparison groups			SFMP
	All Transfer Fall 06 n=3107	Comp Transfer Fall 06 n=416	EOP Transfer Fall 06 n=71	SFMP Transfer Fall 06 n=25
F 06	3.02	2.89	<b>2.70</b>	<b>3.05</b>
W 07	3.04	2.88	<b>2.85</b>	<b>3.29</b>
Sp 07	3.10	2.98	<b>3.01</b>	<b>3.12</b>
Ave 06-07	<b>3.05</b>	<b>2.83</b>	<b>2.85</b>	<b>3.18</b>

Table #47: transfer student GPA 2005-2006

2005-06	Comparison groups			SFMP
	All Transfer Fall 05 n=3106	Comp Transfer Fall 05 n=447	EOP Transfer Fall 05 n=84	SFMP Transfer Fall 05 n=13
F 05	3.02	3.03	<b>2.79</b>	<b>3.22</b>
W 06	3.10	3.04	<b>3.07</b>	<b>3.40</b>
Sp 06	3.12	3.11	<b>2.97</b>	<b>3.02</b>
Ave 05-06	3.08	<b>3.06</b>	<b>2.94</b>	<b>3.21</b>

In a pattern similar to that found in the freshmen data, for all three cohorts, SFMP transfer students demonstrated the highest yearly average gpa of all the four groups. The consistency in SFMP transfer students' average yearly gpa across the three cohorts (3.21, 3.18, 3.15) as well as the relative stability of scores across cohorts for the All Transfer and EOP transfer student groups suggest these differences in academic performance scores are due to program effects rather than random variance.

*persistence of effect  
performance (gpa)*

Table #48 transfer Academic Performance (GPA) 05-06 cohort through 06-07

2005-07	Comparison groups			SFMP
	All Transfer Fall 05 n=3106	Comp Transfer Fall 05 n=447	EOP Trans Fall 05 n=84	SFMP Transfer Fall 05 n=13
F 05	3.02	3.03	<b>2.79</b>	<b>3.22</b>
W 06	3.10	3.04	<b>3.07</b>	<b>3.40</b>
Sp 06	3.12	3.11	<b>2.97</b>	<b>3.02</b>
Ave 05-06	<b>3.08</b>	<b>3.06</b>	<b>2.94</b>	<b>3.21</b>
F 06	3.08	3.05	<b>2.69</b>	2.56
W 07	3.10	3.02	<b>2.76</b>	3.02
Sp 07	3.13	2.99	<b>2.89</b>	2.60
Ave 06-07	<b>3.10</b>	<b>3.02</b>	<b>2.78</b>	<b>2.73</b>

Table #49 transfer Academic Performance (GPA) 06-07 cohort through 07-08

2006-08	Comparison groups		SFMP	
	All Transfer Fall 06 n=3107	Comp Transfer Fall 06 n=416	EOP Transfer Fall 06 n=71	SFMP Transfer Fall 06 n=25
F 06	3.02	2.89	<b>2.70</b>	<b>3.05</b>
W 07	3.04	2.88	<b>2.85</b>	<b>3.29</b>
Sp 07	3.10	2.98	<b>3.01</b>	<b>3.12</b>
Ave 06-07	<b>3.05</b>	<b>2.83</b>	<b>2.85</b>	<b>3.18</b>
F 07	3.03	3.05	2.86	3.11
W 08	3.09	3.16	2.93	3.17
Sp 08	3.10	3.12	2.79	3.39
Ave 06-08	<b>3.07</b>	<b>3.11</b>	<b>2.86</b>	<b>3.26</b>

In regard to the persistence of effect on gpa data , the 2006-2007 cohort's SFMP transfer students who had the highest yearly average gpa than the students in the other three groups at the end of the program, maintained that relative advantage at the end of the year following SFMP participation. For the 2005-2006 cohort's SFMP transfer students, that pattern was reversed. The SFMP transfer who demonstrated the highest yearly average gpa at the end of the program year actually ended up with the relatively lowest rate at the end of the post-program. Because of the relatively small number of SFMP transfer students in the 2005-2006 cohort, care must be taken in interpreting patterns in the data as solely reflecting program effects.

*persistence of effect*

Performance: # credits earned

Table #50: transfer student credits earned 2007-2008

2007-08	Comparison		groups		SFMP	
	All Transfer Fall 07 n=3498	Comp Transfer Fall 07 n=444	EOP Transfer Fall 07 n=16	SFMP Transfer Fall 07 n=35		
F 07	11.97	11.34	<b>10.69</b>	<b>10.34</b>		
W 08	11.93	11.59	<b>11.62</b>	<b>10.68</b>		
Sp 08	11.67	11.34	<b>10.25</b>	<b>10.13</b>		
<b>07-08 total (3 quarter)</b>	<b>35.58</b>	<b>34.26</b>	<b>32.58</b>	<b>31.14</b>		

Table #51: transfer student credits earned 2006-2007

2006-07	Comparison		groups	SFMP
	All Transfer Fall 06 n=3107	Comp Transfer Fall 06 n=416	EOP Transfer Fall 06 n=71	SFMP Transfer Fall 06 n=25
F 06	11.83	11.33	<b>10.73</b>	<b>10.32</b>
W 07	11.62	10.99	<b>10.93</b>	<b>10.24</b>
Sp 07	11.30	11.37	<b>11.17</b>	<b>9.73</b>
<b>06-07 total (3 quarter)</b>	<b>34.79</b>	<b>33.14</b>	<b>32.81</b>	<b>30.30</b>

Table #52: transfer student credits earned 2005-2006

2005-06	Comparison groups			SFMP
	All Transfer Fall 05 n=3106	Comp Transfer Fall 05 n=447	EOP Transfer Fall 05 n=84	SFMP Transfer Fall 05 n=13
F 05	11.97	11.78	<b>10.96</b>	<b>11.80</b>
W 06	11.81	11.61	<b>10.04</b>	<b>11.83</b>
Sp 06	11.61	11.31	<b>10.16</b>	<b>11.58</b>
<b>05-06 total (3 quarters)</b>	<b>35.5</b>	<b>34.73</b>	<b>31.04</b>	<b>35.21</b>

While the initial research on the impact “average number of credits successfully completed” during a student’s first year on degree completion has focused on freshmen, there is still a question as to whether number of credits completed in the first year on campus is also an import determinant of transfer student success. It is difficult to confirm or contradict this point based solely on data from this study.

While the All transfer, Comparison transfer and EOP transfer groups’ scores remain very consistent cross all three cohorts, there is a noticeable year to year difference in average number of credits earned for the SFMP students. Both the 2006-2007 and 2007-2008 cohort’s SFMP transfer students had the lowest yearly average for earned credits while the 05-06 SFMP students exhibited the second highest relative score and were within .3 credits of the All transfer score for the participation year.

*persistence of effect  
progress (credits earned)*

Table #53 : transfer Progress (Credits earned) 05-06 cohort through 06-07

2005 cohort in 06-07	Comparison groups			SFMP
	All Transfer Fall 05 n=3106	Comp Transfer Fall 05 n=447	EOP Transfer Fall 05 n=84	SFMP Transfer Fall 05 n=13
F 05	11.97	11.78	<b>10.96</b>	<b>11.80</b>
W 06	11.81	11.61	<b>10.04</b>	<b>11.83</b>
Sp 06	11.61	11.31	<b>10.16</b>	<b>11.58</b>
<b>05-06 total (3 quarters)</b>	<b>35.50</b>	<b>34.73</b>	<b>31.04</b>	<b>35.21</b>
F 06	11.58	11.39	<b>9.18</b>	11.80
W 07	11.61	11.11	<b>9.83</b>	11.91
Sp 07	11.11	10.69	<b>9.06</b>	11.70
<b>06-07 total (3 quarters)</b>	<b>34.30</b>	<b>33.23</b>	<b>28.05</b>	<b>35.41</b>

Table #54 : transfer Progress (Credits earned) 06-07 cohort through 07-08

2006 cohort in 07-08	Comparison groups			SFMP
	All Transfer Fall 06 n=3107	Comp Transfer Fall 06 n=416	EOP Transfer Fall 06 n=71	SFMP Transfer Fall 06 n=25
F 06	11.83	11.33	<b>10.73</b>	<b>10.32</b>
W 07	11.62	10.99	<b>10.93</b>	<b>10.24</b>
Sp 07	11.30	11.37	<b>11.17</b>	<b>9.73</b>
<b>06-07 total (3 quarters)</b>	<b>34.79</b>	<b>33.14</b>	<b>32.81</b>	<b>30.30</b>
F 07	11.07	10.77	<b>9.83</b>	11.33
W 08	10.97	10.69	<b>10.10</b>	10.88
Sp 08	10.27	10.00	<b>9.36</b>	11.69
<b>07-08 total (3 quarters)</b>	<b>32.37</b>	<b>31.50</b>	<b>29.28</b>	<b>33.18</b>

SFMP transfer students from both the 2005-2006 and 2007-2008 cohorts demonstrated improved relative yearly average credits earned rates from the end of the program year to the end of the post-program year. The 2006-2007 cohort's SFMP transfer students went from the lowest to the highest relative rate, and the 2005-2006 cohort's SFMP transfer students went from second highest relative rate to the top ranking.

## *Transfer Students and comparative delivery systems*

### *3 year summary relative effectiveness of delivery systems program year*

Dividing SFMP transfer students into two groups – online only mentoring (OLM) and on-line plus in-person mentoring (OLMP) – similar to the way the freshmen data was arranged, allowed a closer examination of the relative effectiveness of the two methods of delivering mentoring support.

In regards to retention, all three cohorts of OLM students exhibited higher retention rates than the All Freshmen group students, while two of three cohorts of OLMP did the same. In regards to average yearly gpas, all three cohorts of OLMP students demonstrated higher average yearly gpas than the All freshmen students, while only the 2006-2007 OLM students did the same. And both OLM and OLMP in all three cohorts demonstrated higher yearly average number of credits successfully completed than All freshmen students did. It is clear that both forms of delivering mentoring services are effective during the year students participate in the program.

### *persistence of effect*

Two cohorts of transfer students had available persistence data (2005-2006 and 2006-2007). For both cohorts, in regards to persistence of effect on retention, their pattern of relative performance compared to the All Transfer group from the program year persisted through the year following SFMP participation: for the 2005-2006 cohort, the OLMP SFMP group students demonstrated the highest rate, and for 2006-2007, the All transfer group students did the same. As noted earlier, SFMP participation was associated with higher yearly average gpas for students in all three cohorts. Interestingly, when the SFMP students were divided into OLM and OLMP groups, there was no clear pattern of one SFMP group consistently outperforming the other in terms of average yearly gpa. Such was not the case in regards to the persistence of effect on yearly average credits earned data. In a dramatic turnaround, for both cohorts, the OLMP group students went from exhibiting the lowest relative average yearly number of credits earned at the end of the program year to having the highest rate at the end of the post program-participation year.

### *comparing the two modes of delivery*

While there were slight differences in regards to a between-group comparison of the performance of the two modes of delivering mentoring support, the pattern of differences varied from measure to measure. Similar to the results patterns found among the freshmen, the overall differences between the two delivery methods did not appear to be significant.

NOTE: For these analyses, only the “All Transfer” scores are presented for comparison.

**transfer Retention**

Table #55: OLM – OLMP comparison transfer retention 2007-2008

2007-2008	All Transfer		SFMP Transfer			
			On-line plus in-person mentoring		On-line mentoring only	
	N	retention	N	retention	N	retention
F 07	3498	100.0%	<b>22</b>	<b>100.0%</b>	<b>13</b>	<b>100.0%</b>
W 08	3230	92.3%	<b>21</b>	<b>95.0%</b>	<b>13</b>	<b>100.0%</b>
Sp 08	3067	87.7%	<b>19</b>	<b>86.4%</b>	<b>13</b>	<b>100.0%</b>

Table #56: OLM – OLMP comparison transfer retention 2006-2007

2006-2007	All Transfer		SFMP Transfer			
			On-line plus in-person mentoring		On-line mentoring only	
	N	retention	N	retention	N	retention
F 06	3169	100.0%	<b>11</b>	<b>100.0%</b>	<b>14</b>	<b>100.0%</b>
W 07	2925	92.4%	<b>13</b>	<b>100.0%</b>	<b>16</b>	<b>100.0%</b>
Sp 07	2785	88.4%	<b>11</b>	<b>78.6%</b>	<b>15</b>	<b>83.3%</b>

Table #57: OLM – OLMP comparison transfer retention 2005-2006

2005-2006	All Transfer		SFMP Transfer			
			On-line plus in-person mentoring		On-line mentoring only	
	N	retention	N	retention	N	retention
F 05	3106	100.0%	<b>8</b>	<b>100.0%</b>	<b>5</b>	<b>100.0%</b>
W 06	2884	92.9%	<b>8</b>	<b>88.9%</b>	<b>4</b>	<b>80.0%</b>
Sp 06	2749	88.5%	<b>8</b>	<b>88.9%</b>	<b>4</b>	<b>80.0%</b>

There was considerable variation in retention results once SFMP students were divided into two groups. For 2007-2008, where originally the SFMP transfer demonstrated a higher retention rate than students from any of the other three groups, it turns out that only the SFMP on-line only mentoring group (OLM) students demonstrated a higher relative retention rate than the All transfer student group. This pattern was flipped for the 2005-2006 cohort, where initially SFMP transfer students exhibited the lowest retention rate of the four groups. Yet when the SFMP transfer students were split into two groups based on mode of delivery mentoring support, it turned out the on-line plus in-person mentoring (OLMP) group students actually had a higher retention rate than the All transfer group students. And finally, for the 2006-2007 cohort, the SFMP transfer students' relative lowest retention rate remained for both SFMP groups after they were split based on mode of delivering service.

*persistence of effect*

Table #58 OLM – OLMP comparison transfer retention 05-06 cohort in 06-07

2005-2006	All Transfer		SFMP Transfer			
	N	retention	On-line plus in-person mentoring		On-line mentoring only	
	N	retention	N	retention	N	retention
F 05	3106	100.0%	<b>8</b>	<b>100.0%</b>	<b>5</b>	<b>100.0%</b>
W 06	2884	92.9%	<b>8</b>	<b>88.9%</b>	<b>4</b>	<b>80.0%</b>
Sp 06	2749	88.5%	<b>8</b>	<b>88.9%</b>	<b>4</b>	<b>80.0%</b>
F 06	2292	79.7%	<b>7</b>	<b>77.8%</b>	<b>3</b>	<b>60.0%</b>
W 07	2077	79.0%	<b>8</b>	<b>88.9%</b>	<b>3</b>	<b>60.0%</b>
Sp 07	1916	76.4%	<b>8</b>	<b>88.9%</b>	<b>2</b>	<b>50.0%</b>

Table #59: OLM – OLMP comparison transfer retention 06-07 cohort through 07-08

2006-2008	All Transfer		SFMP Transfer			
	N	retention	On-line plus in-person mentoring		On-line mentoring only	
	N	retention	N	retention	N	retention
F 06	3169	100.0%	<b>11</b>	<b>100.0%</b>	<b>14</b>	<b>100.0%</b>
W 07	2925	92.4%	<b>13</b>	<b>100.0%</b>	<b>16</b>	<b>100.0%</b>
Sp 07	2785	88.4%	<b>11</b>	<b>78.6%</b>	<b>15</b>	<b>83.3%</b>
F 07	2292	76.1%	11	78.6%	13	72.2%
W 08	2097	75.3%	11	84.6%*	14	77.8%
Sp 08	1914	71.6%	9	69.2%	12	66.7%

- *one student graduated and one “stop-out” returned*

In regards to persistence of effects on retention data, the patterns of relative ranking in terms of retention rates continued for both the 2005-2006 and 2006-2007 cohorts. For the 2005-2006 cohort’s SFMP transfer students, the OLMP students relative advantage over the All transfer group student remained at the end of the post-program participation year. And for the 2006-2007 cohort, the pattern of lower relative retention rates for both SFMP groups compared to the All transfer group at the end of the program year, continued through the end of the post-program year. As noted earlier, because of the small number of cases per cell in the analyses of different cohort’s SFMP transfer student groups, care

must be taken in interpreting these results as due to programs effects rather than random error.

performance: GPA

Table #60: OLM – OLMP comparison transfer GPA 2007-2008

2007-2008	All Transfer	SFMP Transfer	
		On-line plus in-person mentoring Fall 07 N = 22	On-line mentoring only Fall 07 N = 13
F 07	3.05	<b>3.04</b>	<b>3.22</b>
W 08	3.12	<b>2.93</b>	<b>3.19</b>
Sp 08	3.16	<b>3.23</b>	<b>3.17</b>
Ave 07-08	<b>3.11</b>	<b>3.06</b>	<b>3.19</b>

Table #61: OLM – OLMP comparison transfer GPA 2006-2007

2006-2007	All Transfer	SFMP Transfer	
		On-line plus in-person mentoring Fall 06 N = 11	On-line mentoring only Fall 06 N = 14
F 06	3.02	<b>3.25</b>	<b>2.89</b>
W 07	3.04	<b>3.50</b>	<b>3.12</b>
Sp 07	3.10	<b>3.45</b>	<b>2.89</b>
Ave 06-07	<b>3.05</b>	<b>3.40</b>	<b>2.97</b>

Table #62: OLM – OLMP comparison transfer GPA 2005-2006

2005-2006	All Transfer	SFMP Transfer	
		On-line plus in-person mentoring Fall 05 N = 8	On-line mentoring only Fall 05 N = 5
F 05	3.02	<b>3.38</b>	<b>2.96</b>
W 06	3.10	<b>3.35</b>	<b>3.51</b>
Sp 06	3.12	<b>2.76</b>	<b>3.54</b>
Ave 05-06	<b>3.08</b>	<b>3.16</b>	<b>3.37</b>

While for all three cohorts, SFMP transfer group students demonstrated higher yearly average gpas than students from any of the other three groups, when the SFMP students are divided by mode of delivery of services, it seems that different SFMP subgroups contributed to that overall effects in differing amount in different years. For example in the 2005-2006 cohort, both OLM and OLMP group students earned higher yearly average gpas than the All transfer group students. For the 2006-2007 cohort, OLMP SFMP students had a much higher

average yearly gpa rate than that of the OLM SFMP students and the All transfer group students, and for the 2007-2008 that pattern switched with the OLM SFMP students having the highest relative yearly average gpa rate. Participating in SFMP seems to positively impact transfer student average yearly gpa, though one method of delivering services seems to be as effective as the other in bringing this about.

*persistence of effect*

*Table #63: OLM – OLMP comparison transfer GPA 05-06 cohort in 07-08*

2005-2006	All Transfer	SFMP Transfer	
		On-line plus in-person mentoring Fall 05 N =8	On-line mentoring only Fall 05 N =5
F 05	3.02	<b>3.38</b>	<b>2.96</b>
W 06	3.10	<b>3.35</b>	<b>3.51</b>
Sp 06	3.12	<b>2.76</b>	<b>3.54</b>
Ave 05-06	<b>3.08</b>	<b>3.16</b>	<b>3.37</b>
F 06	3.08	2.61	2.43
W 07	3.10	3.26	2.38
Sp 07	3.13	2.86	1.60
Ave 06-07	<b>3.10</b>	<b>2.91</b>	<b>2.13</b>

*Table #64: OLM – OLMP comparison transfer GPA 06-07 cohort in 07-08*

2006-2008	All Transfer	SFMP Transfer	
		On-line plus in-person mentoring Fall 06 N = 11	On-line mentoring only Fall 06 N = 14
F 06	3.02	<b>3.25</b>	<b>2.89</b>
W 07	3.04	<b>3.50</b>	<b>3.12</b>
Sp 07	3.10	<b>3.45</b>	<b>2.89</b>
Ave 06-07	<b>3.05</b>	<b>3.40</b>	<b>2.97</b>
F 07	3.03	3.48	2.81
W 08	3.09	3.40	2.99
Sp 08	3.10	3.51	3.29
Ave 07-08	<b>3.07</b>	<b>3.46</b>	<b>3.02</b>

Note: In regards to the 2005-2006 cohort, the dramatic drop in OLM SFMP students' performance for the year post participation may be due to a combination of students graduating and exceptionally poor performance by one of only three remaining transfer students. For the 2006-2007 cohort, both SFMP groups' demonstrated higher yearly average gpa rates than the All transfer group

during the program participation year. In the year following SFMP participation – 2007-2008 – the SFMP on-line only mentoring group showed the highest rate, followed by “all transfer,” and then the SFMP on-line plus in-person mentoring group.

Performance: # credits earned

Table #65 OLM – OLMP comparison transfer credits earned: 2007-2008

2007-2008	All Transfer	SFMP Transfer	
	Fall 07 N = 3498	On-line plus in- person mentoring Fall 07 N =22	On-line mentoring only Fall 07 N =13
F 07	11.96	<b>9.68</b>	<b>11.46</b>
W 08	11.93	<b>10.33</b>	<b>11.39</b>
Sp 08	11.67	<b>9.84</b>	<b>10.54</b>
2007-08 total credits	<b>35.58</b>	<b>28.35</b>	<b>33.39</b>

NOTE: values in **bold italics** indicate data from time period when student received mentor services

Table #66 OLM – OLMP comparison transfer credits earned: 2006-2007

2006-2007	All Transfer	SFMP Transfer	
	Fall 06 N = 2586	On-line plus in- person mentoring Fall 06 N =11	On-line mentoring only Fall 06 N =14
F 06	11.84	<b>9.91</b>	<b>10.64</b>
W 07	11.62	<b>10.15</b>	<b>10.31</b>
Sp 07	11.30	<b>10.00</b>	<b>9.53</b>
2006-07 total credits	<b>34.76</b>	<b>30.06</b>	<b>30.47</b>

Table #67 OLM – OLMP comparison transfer credits earned 2005-2006

2005-2006	All Transfer	SFMP Transfer	
	Fall 05 N = 2445	On-line plus in- person mentoring Fall 05 N = 8	On-line mentoring only Fall 05 N =5
F 05	11.97	11.88	<b>11.60</b>
W 06	11.81	11.75	<b>12.00</b>
Sp 06	11.61	11.25	<b>12.25</b>
2005-06 total credits	<b>35.50</b>	<b>34.88</b>	<b>35.85</b>

Consistent with the earlier analyses (tables # & # ), for the 2006-2007 and 2007-2008 cohorts, both SFMP groups demonstrated lower yearly average credits earned rates than the All transfer student group. Interestingly, for the 2005-2006 cohort, the All transfer student group had a higher average yearly credits earned

rate than the total group of SFMP students. However, when the SFMP were divided into two groups, the on-line only mentoring (OLM) group students now out-performed the All transfer group students.

*persistence of effect*

Table #68 OLM – OLMP comparison transfer credits earned 2005-2007

2005-2006	All Transfer	SFMP Transfer	
		On-line plus in-person mentoring Fall 05 N = 8	On-line mentoring only Fall 05 N =5
	Fall 05 N = 2445		
F 05	11.97	11.88	<b>11.60</b>
W 06	11.81	11.75	<b>12.00</b>
Sp 06	11.61	11.25	<b>12.25</b>
2005-06 total credits	<b>35.50</b>	<b>34.88</b>	<b>35.85</b>
F 06	11.58	11.71	12.00
W 07	11.79	12.88	9.33
Sp 07	11.49	12.13	10.00
2006-2007 total credits	<b>34.86</b>	<b>36.72</b>	<b>31.33</b>

Table #69 OLM – OLMP comparison transfer credits earned: 2006-2008

2006-2008	All Transfer	SFMP Transfer	
		On-line plus in-person mentoring Fall 06 N =11	On-line mentoring only Fall 06 N =14
	Fall 06 N = 2586		
F 06	11.84	<b>9.91</b>	<b>10.64</b>
W 07	11.62	<b>10.15</b>	<b>10.31</b>
Sp 07	11.30	<b>10.00</b>	<b>9.53</b>
2006-07 total credits	<b>34.76</b>	<b>30.06</b>	<b>30.47</b>
F 07	11.33	12.09	10.69
W 08	11.45	12.18	9.86
Sp 08	10.91	13.00	10.58
2007-08 total credits	<b>32.27</b>	<b>37.17</b>	<b>31.08</b>

NOTE: values in **bold italics** indicate data from time period when student received mentor services

For both cohorts, by the end of the post program-participation year, the OLMP group students demonstrated the highest yearly average credits earned rate. For the 2005-2006 cohort, during the SFMP participation year, the SFMP on-line only mentoring group demonstrated the highest average yearly “credits earned” rate, followed by “all transfers,” and the SFMP on-line “plus in-person mentoring group students. In the year following SFMP participation, the two SFMP groups switched places and now the on-line plus in-person mentoring group had the

highest rate. Because of the small number of cases in the 2005-2006 cohort SFMP transfer groups, care must be taken in interpreting these results as due to program effects rather than random error.

Dividing the 2006-2007 cohort SFMP students into two groups helps understand an interesting finding in the earlier persistence of effect data. In table # , the total SFMP group students went from the lowest relative yearly average credits earned rate among the four study groups during the year of program-participation to the highest rate amongst the four at the end of the post-participation year. Table # shows that this tremendous improvement in rate of credits earned was actually driven by only one of the two SFMP groups of students – the on-line plus in-person mentoring (OLMP) students – whose average yearly rate of number of credits earned jumped more than 7 credits in a single year.

### ***Transfer Summary revisited***

Across the three cohorts, the mixed patterns of SFMP transfer student results – superior average yearly gpas, but unexpectedly lower retention and credits earned rates – suggest that transfer students may benefit from support resources that focus more on their specific issues rather than the more general “navigating the university” SFMP resources of the 2005-2006 and 2006-2007 programs year. The 2007-2008 cohort results suggest some improvement from the earlier cohorts, with SFMP transfer students demonstrating the highest retention and yearly average gpa. The persistence of effect on yearly average credits earned data for both the 2005-2006 and 2006-2007 cohorts is additional evidence of the positive effects of SFMP participation. Even though they had shown relatively lower yearly average credits earned rate during the program year, SFMP group students from both cohorts exhibited the highest yearly average credits earned rate by the end of their second year on campus.

In regards to the relative effectiveness of mode of service delivery, for transfer students and new freshmen, both forms of delivering mentor services appeared to be effective. For the small number of transfer students in the 2005-2006 cohort, it was clear that having a personal mentor seemed to make a

difference. However, for freshmen from both cohorts, just being in a mentoring program with this focus proved to be beneficial.

#### D. Student satisfaction

To gain some insights into students level of satisfaction with their time in the SFMP program, the next tables present two sets of summaries – i.e. individual cohort, and across-cohort-- of questions from the anonymous, student satisfaction survey that is completed on-line at the end of the program.

##### *cohort satisfaction*

Table #70 2005-2006 SFMP Student Satisfaction Survey Data (All scores based on a 7 point Likert scale with “7” = strongly agree)

Satisfaction survey question	All SFMP	On-line plus in-person mentoring	On-line only mentoring
<b>orientation</b>			
<b>Overall, I am satisfied with the orientation I received with SFMP</b>	<b>5.8 n= 28</b>	<b>5.7 n= 20</b>	<b>5.9 n=8</b>
<b>Resource web-site</b>			
<b>Overall, I am satisfied with the resource web site</b>	<b>5.4 n= 27</b>	<b>5.5 n= 19</b>	<b>5.0 n=8</b>
<b>Peer-mentoring videos</b>			
<b>Overall, I am satisfied with the peer-mentoring videos.</b>	<b>5.3 n= 27</b>	<b>5.2 n= 20</b>	<b>5.7 n=7</b>
<b>Student discussion groups</b>			
<b>I participated in a SFMP discussion group</b>	<b>75% n= 22</b>	<b>75% n= 16</b>	<b>75% n=6</b>
<b>I was satisfied with participating in the SFMP discussion group.</b>	<b>6.5 n= 20</b>	<b>6.3 n= 14</b>	<b>6.7 n= 6</b>
<b>Personal in-person mentor</b>			
<b>Overall, I am satisfied with my experiences working with my personal mentor..</b>		<b>6.2 n= 21</b>	
<b>Summary evaluation of SFMP</b>			

<b>The SFMP was helpful to me in making the adjustment to PSU</b>	<b>5.4 n= 29</b>	<b>5.7 n= 21</b>	<b>4.8 n= 8</b>
<b>I would recommend this program to students like me who are entering the university.</b>	<b>5.9 n= 29</b>	<b>6.1 n= 21</b>	<b>5.4 n= 8</b>
<b>Overall, I am satisfied with my experiences with the SFMP.</b>	<b>5.9 n= 29</b>	<b>6.1 n= 21</b>	<b>5.5 n= 8</b>

Table #71 2006-2007 SFMP Student Satisfaction Survey Data (All scores based on a 7 point Likert scale with "7" = strongly agree)

<b>Satisfaction survey question</b>	<b>All SFMP</b>	<b>On-line plus in-person mentoring</b>	<b>On-line only mentoring</b>
<b><i>orientation</i></b>			
<b>Overall, I am satisfied with the orientation I received with SFMP</b>	<b>6.3 n= 33</b>	<b>6.2 n= 26</b>	<b>6.4 n=7</b>
<b>Resource web-site</b>			
<b>Overall, I am satisfied with the resource web site</b>	<b>6.0 n= 33</b>	<b>5.9 n= 26</b>	<b>6.3 n=7</b>
<b>Peer-mentoring videos</b>			
<b>Overall, I am satisfied with the peer-mentoring videos.</b>	<b>5.2 n= 28</b>	<b>5.2 n= 22</b>	<b>5.2 n=6</b>
<b>Student discussion groups</b>			
<b>I participated in a SFMP discussion group</b>	<b>70% n= 23</b>	<b>69.2% n= 18</b>	<b>71.4% n=5</b>
<b>I was satisfied with participating in the SFMP discussion group.</b>	<b>6.7 n= 23</b>	<b>6.7 n= 18</b>	<b>7.0 n= 5</b>
<b>Personal in-person mentor</b>			
<b>Overall, I am satisfied with my experiences working with my personal mentor..</b>		<b>6.0 n= 25</b>	
<b>Summary evaluation of SFMP</b>			
<b>The SFMP was helpful to me in making the adjustment to PSU</b>	<b>5.7 n= 33</b>	<b>5.6 n= 26</b>	<b>5.9 n= 7</b>
<b>I would recommend this program to students like me who are entering the university.</b>	<b>6.4 n= 33</b>	<b>6.5 n= 26</b>	<b>6.3 n= 7</b>
<b>Overall, I am satisfied with my</b>	<b>6.3</b>	<b>6.2</b>	<b>6.6</b>

<b>experiences with the SFMP.</b>	<b>n= 33</b>	<b>n= 26</b>	<b>n= 7</b>
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Table #72 2007-2008 SFMP Student Satisfaction Survey Data (All scores based on a 7 point Likert scale with "7" = strongly agree)

<b>Satisfaction survey question</b>	<b>All SFMP</b>	<b>On-line plus in-person mentoring</b>	<b>On-line only mentoring</b>
<b><i>orientation</i></b>			
<b>Overall, I am satisfied with the orientation I received with SFMP</b>	<b>6.5 n=43</b>	<b>6.6 n=26</b>	<b>6.3 n=17</b>
<b>Resource web-site</b>			
<b>Overall, I am satisfied with the resource web site</b>	<b>6.1 n= 43</b>	<b>6.2 n= 26</b>	<b>5.9 n=17</b>
<b>Peer-mentoring videos</b>			
<b>Overall, I am satisfied with the peer-mentoring videos.</b>	<b>5.6 n= 43</b>	<b>6.0 n= 26</b>	<b>5.0 n=17</b>
<b>Student discussion groups</b>			
<b>I participated in a SFMP discussion group</b>	<b>77% n= 33</b>	<b>73% n= 19</b>	<b>82% n=14</b>
<b>I was satisfied with participating in the SFMP discussion group.</b>	<b>6.3 n= 33</b>	<b>6.4 n= 19</b>	<b>6.2 n= 14</b>
<b>Personal in-person mentor</b>			
<b>Overall, I am satisfied with my experiences working with my personal mentor.</b>		<b>6.5 n= 23</b>	
<b>Summary evaluation of SFMP</b>			
<b>The SFMP was helpful to me in making the adjustment to PSU</b>	<b>6.1 n= 40</b>	<b>6.2 n= 23</b>	<b>6.0 n= 17</b>
<b>I would recommend this program to students like me who are entering the university.</b>	<b>6.6 n= 40</b>	<b>6.7 n= 23</b>	<b>6.5 n= 17</b>
<b>Overall, I am satisfied with my experiences with the SFMP.</b>	<b>6.5 n= 40</b>	<b>6.5 n= 23</b>	<b>6.4 n= 17</b>

*summary of cohort satisfaction data*

For each of the three program years, “All SFMP students,” “on-line plus in person mentoring,” and “On-line mentoring only” students were highly satisfied with all aspects of participating in the program, with only 2005-6 on-line mentoring only students reporting a single satisfaction score below 5.0 (on a 7 point Likert scale). It is clear that students for all three cohorts valued the time they spent in the SFMP program.

*comparison of satisfaction scores by group across cohorts*

Additional insights into degree of program satisfaction can be gained by comparing the different groups across the three cohorts.

*All SFMP students*

Table # 73 2005-2008 summary All SFMP Student Satisfaction Survey Data (All scores based on a 7 point Likert scale with “7” = strongly agree)

<b>Satisfaction survey question</b>	<b>All SFMP 05-06</b>	<b>All SFMP 06-07</b>	<b>All SFMP 07-08</b>
<b><i>orientation</i></b>			
<b>Overall, I am satisfied with the orientation I received with SFMP</b>	<b>5.8 n= 28</b>	<b>6.3 n= 33</b>	<b>6.5 n=43</b>
<b>Resource web-site</b>			
<b>Overall, I am satisfied with the resource web site</b>	<b>5.4 n= 27</b>	<b>6.0 n= 33</b>	<b>6.1 n= 43</b>
<b>Peer-mentoring videos</b>			
<b>Overall, I am satisfied with the peer- mentoring videos.</b>	<b>5.3 n= 27</b>	<b>5.2 n= 28</b>	<b>5.6 n= 43</b>
<b>Student discussion groups</b>			
<b>I participated in a SFMP discussion group</b>	<b>75% n= 22</b>	<b>70% n= 23</b>	<b>77% n= 33</b>
<b>I was satisfied with participating in the SFMP discussion group.</b>	<b>6.5 n= 20</b>	<b>6.7 n= 23</b>	<b>6.3 n= 33</b>
<b>Personal in-person mentor</b>			
<b>Overall, I am satisfied with my experiences working with my personal mentor.</b>	<b>6.2 n= 21</b>	<b>6.0 n= 25</b>	<b>6.5 n= 23</b>

<b>Summary evaluation of SFMP</b>			
<b>The SFMP was helpful to me in making the adjustment to PSU</b>	<b>5.4</b> n= 29	<b>5.7</b> n= 33	<b>6.1</b> n= 40
<b>I would recommend this program to students like me who are entering the university.</b>	<b>5.9</b> n= 29	<b>6.4</b> n= 33	<b>6.6</b> n= 40
<b>Overall, I am satisfied with my experiences with the SFMP.</b>	<b>5.9</b> n= 29	<b>6.3</b> n= 33	<b>6.5</b> n= 40

Comparing “All SFMP” students across cohorts, satisfaction scores consistently increased for 5 of the 8 evaluation measures. Particularly interesting are the consistent improvement in satisfaction scores for the three summary evaluation questions.

“All SFMP” Students

- were highly satisfied with participating in SFMP(05-6: **5.9** / 06-7: **6.3**/ 07-8: **6.5**).
- would highly recommend SFMP to student from similar background (05-6:**5.9** / 06-7: **6.4**/ 07-8: **6.6**), and
- saw SFMP as helpful in adjusting to PSU (05-6:**5.4** / 06-7: **5.7**/ 07-8: **6.1**).

The fact that both the 2006-2007 and 2007-8 cohorts showed noticeable improvement in ratings from 2005-2006 for satisfaction with the Orientation and the resource website deserves further explanation. The improvement in Orientation satisfaction probably reflects the refinement of the SFMP orientation protocols and the greater availability of program materials at the actual time of orientation. The improvement in satisfaction with the resource website probably reflects the same issue – the website was only available on a limited basis in the beginning of the 2005-6 program year due to IT issues. For the three satisfaction questions that did not follow the “consistent improvement over cohorts over time” pattern, the level of satisfaction with the videos was favorable and constant (5.3/ 5.2 / 5.6) while satisfaction in regards to working with a personal mentor (6.2/6.0/6.5) and discussion (6.5 /6.7/ 6.3) were consistently highly rated.

*on-line plus in-person mentoring*

Examining the “on-line plus in-person mentoring” groups of SFMP students across the three cohorts provides additional information on this group’s contribution to overall student satisfaction scores.

Table #74 2005-2008 summary on-line plus in-person mentoring SFMP Student Satisfaction Survey Data (All scores based on a 7 point Likert scale with “7” = strongly agree)

<b>Satisfaction survey question</b>	<b>On-line plus in-person mentoring 05-06</b>	<b>On-line plus in-person mentoring 06-07</b>	<b>On-line plus in-person mentoring 07-08</b>
<b><i>orientation</i></b>			
<b>Overall, I am satisfied with the orientation I received with SFMP</b>	<b>5.7 n= 20</b>	<b>6.2 n= 26</b>	<b>6.6 n=26</b>
<b>Resource web-site</b>			
<b>Overall, I am satisfied with the resource web site</b>	<b>5.5 n= 19</b>	<b>5.9 n= 26</b>	<b>6.2 n= 26</b>
<b>Peer-mentoring videos</b>			
<b>Overall, I am satisfied with the peer-mentoring videos.</b>	<b>5.2 n= 20</b>	<b>5.2 n= 22</b>	<b>6.0 n= 26</b>
<b>Student discussion groups</b>			
<b>I participated in a SFMP discussion group</b>	<b>75% n= 16</b>	<b>69.2% n= 18</b>	<b>73% n= 19</b>
<b>I was satisfied with participating in the SFMP discussion group.</b>	<b>6.3 n= 14</b>	<b>6.7 n= 18</b>	<b>6.4 n= 19</b>
<b>Personal in-person mentor</b>			
<b>Overall, I am satisfied with my experiences working with my personal mentor.</b>	<b>6.2 n= 21</b>	<b>6.0 n= 25</b>	<b>6.5 n= 23</b>
<b>Summary evaluation of SFMP</b>			
<b>The SFMP was helpful to me in making the adjustment to PSU</b>	<b>5.7 n= 21</b>	<b>5.6 n= 26</b>	<b>6.2 n= 23</b>
<b>I would recommend this program to students like me who are entering the university.</b>	<b>6.1 n= 21</b>	<b>6.5 n= 26</b>	<b>6.7 n= 23</b>

<b>Overall, I am satisfied with my experiences with the SFMP.</b>	<b>6.1 n= 21</b>	<b>6.2 n= 26</b>	<b>6.5 n= 23</b>
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Similar to the earlier data on “All SFMP” students, when “on-line plus in-person mentoring” students are compared across cohorts, satisfaction scores consistently increased for 4 of the 8 evaluation measures. Note the consistently high levels of satisfaction with working with a personal mentor across the three cohorts (e.g. 6.2, 6.0, 6.5).

*on-line only mentoring*

Table #75 2005-2008 summary On-line mentoring only SFMP Student Satisfaction Survey Data (All scores based on a 7 point Likert scale with “7” = strongly agree)

<b>Satisfaction survey question</b>	<b>On-line only mentoring 05-06</b>	<b>On-line only mentoring 06-07</b>	<b>On-line only mentoring 07-08</b>
<b><i>orientation</i></b>			
<b>Overall, I am satisfied with the orientation I received with SFMP</b>	<b>5.9 n=8</b>	<b>6.4 n=7</b>	<b>6.3 n=17</b>
<b>Resource web-site</b>			
<b>Overall, I am satisfied with the resource web site</b>	<b>5.0 n=8</b>	<b>6.3 n=7</b>	<b>5.9 n=17</b>
<b>Peer-mentoring videos</b>			
<b>Overall, I am satisfied with the peer-mentoring videos.</b>	<b>5.7 n=7</b>	<b>5.2 n=6</b>	<b>5.0 n=17</b>
<b>Student discussion groups</b>			
<b>I participated in a SFMP discussion group</b>	<b>75% n=6</b>	<b>71.4% n=5</b>	<b>82% n=14</b>
<b>I was satisfied with participating in the SFMP discussion group.</b>	<b>6.7 n= 6</b>	<b>7.0 n= 5</b>	<b>6.2 n= 14</b>
<b>Personal in-person mentor</b>			
<b>Overall, I am satisfied with my experiences working with my personal mentor.</b>			

<b>Summary evaluation of SFMP</b>			
<b>The SFMP was helpful to me in making the adjustment to PSU</b>	<b>4.8 n= 8</b>	<b>5.9 n= 7</b>	<b>6.0 n= 17</b>
<b>I would recommend this program to students like me who are entering the university.</b>	<b>5.4 n= 8</b>	<b>6.3 n= 7</b>	<b>6.5 n= 17</b>
<b>Overall, I am satisfied with my experiences with the SFMP.</b>	<b>5.5 n= 8</b>	<b>6.6 n= 7</b>	<b>6.4 n= 17</b>

While both 2006-7 and 2007-2008 on-line only mentoring group scores were superior to the 2005-2006 cohort scores, the pattern of consistent improvement over time was not as clear for these students. Interestingly, the evaluation of peer-mentoring videos actually went down over the three cohorts. This may reflect the heavier reliance on the videos by students in the 2005-2006 cohort as additional program elements – like the on-line discussion boards and library of tip sheets were not in place at the beginning of the program. This may also account for the significant score improvement for both 2006-2007 and 2007-2008 on-line only mentoring students in regards to the “overall satisfaction with SFM” question. The 2006-2007 and 2007-2008 on-line only mentoring student cohorts clearly found the program more useful, even though the initial cohort of students rated all elements of the program favorably.

*issues with satisfaction survey data*

Two issues must be noted in regards to the satisfaction data. First, the overall (All SFMP students) response rate is lower than desired: 46% for 2005-2006, 36% for 2006-2007, and 55% for 2007-2008. Second, the percentage of students in the on-line only mentoring group who completed the surveys was lower for all three cohorts of SFMP students: (2005-2006) OLMP 58% OLM 30%; (2006-2007) OLMP 57% OLM 17%; and (2007-2008) OLMP 68% OLM 44%. Because these are anonymous on-line surveys, it is not possible to target specific individuals who have not completed the survey before students leave campus at the end of the year. However, after the decrease in satisfaction survey completion rates for both groups in 2006-2007 cohort , a more aggressive

approach to reminding students about the importance of completing these surveys was adopted in 2007-2008. For mentored students, the SFMP mentors started having students complete the survey at the end of the exit interview session; and on-line only mentoring students received a series of prompts about the importance of completing the satisfaction survey starting three weeks before the end of the term. The improvement in scores for both groups in 2007-2008 is evidence this approach seemed to work.

(see appendix iii for student satisfaction survey)

### **E. Mentor Training Satisfaction**

The Students First Mentoring Program 's Mentor Training Satisfaction survey was administered at the end of mentor training immediately before school began, and at the end of the program year. Mentors used a self-selected numeric code so that their multiple surveys could be linked together by the evaluator, while still maintaining mentor anonymity. The evaluator discusses the mentors' evaluation of their training in a narrative for each cohort.

2005-2006

In June 2006, four program mentors completed the same survey that they had completed at the beginning of Fall and Winter semester, all as a way of monitoring their level of satisfaction with SFMP mentor training. Looking across all the surveys, two individuals rated their satisfaction at level 6.0-6.2, while the other two rated their satisfaction at 5.4. Compared to prior surveys, two mentors continued to show growing satisfaction while the other two actually declined slightly in their satisfaction ratings.

Across all four, there was agreement at a high level of satisfaction on item 2 (prepared to use and navigate the resources website) and item 4 (prepared to recognize and respond to the challenges and needs of the first-generation students in this program). There was also agreement across all four that the lowest ranked item was item 5 (prepared to help students use program-based scripts).

Other than those three items where all shared a similar level of satisfaction, the respondents clustered in two pairs, with one pair being moderately satisfied and the other pair highly satisfied with mentor training. The less satisfied group gave the lowest rating to item 3 (prepared to use peer-mentoring videos).

Open comments reinforced that two mentors found the training more helpful and felt more confident in their skills and role than the other two. Defining the mentor role and knowing useful resources were mentioned as most helpful. As in prior surveys one respondent in particular felt there was no value added in the training.

Revisions to evaluation of mentor satisfaction in 06-07 will include interviews which will be extremely helpful in understanding the differences in mentor experiences and expectations regarding training and should lead to improvements to ensure a more consistent level of satisfaction with their preparation. It would also be interesting to see how the student participants rate their mentor's preparation as compared to the mentor's satisfaction with training (which infers a level of confidence in their skills to perform well as a mentor).

#### 2006-2007

The purpose of this evaluation is to measure the level of mentor satisfaction with their training program and their resulting sense of preparedness to fulfill their assigned roles in the Students First Mentoring Program (SFMP). The evaluation is designed to measure what aspects of mentor training generate mentor satisfaction and what aspects may need improvement.

In 05-06, the evaluation used a survey instrument with questions with responses on a 1-7point scale with 1 being lowest, and open-ended comments. The survey was given to the group three times during the year, and while respondents could not be identified each used a code on their survey so that individual patterns of experience over they academic year could be tracked. The 05-06 mentors clustered in pairs with two mentors showing growing satisfaction and confidence, while two others remained moderately satisfied or declined on a

few factors. To help enrich our understanding of these different reactions, it was decided in 06-07 to continue using the same survey instrument, administered three times, and to add a one-time individual interview with the evaluator. The purpose of the interviews was to explore potential differences in experience, motivation, or attitudes especially regarding the value of a program that mentors first-generation students and their views of the role of mentors. The interviews were conducted mid-year at the time of the 2<sup>nd</sup> survey administration. In 06-07 there were five mentors responding to all aspects of the evaluation. This evaluation is based on both survey and interview data.

The 06-07 mentor cohort began the year with an average overall satisfaction rating of 5.85 compared to the prior year's group rating of 5.7. Initial expressions of satisfaction or concern with specific factors were similar as well. Highest rates of satisfaction were with item 2 (prepared to use and navigate the resources website) and item 4 (prepared to recognize and respond to the challenges and needs of the first-generation students in this program). The lowest initial level of satisfaction for both 05-06 and the 06-07 was item 3 (prepared to use the peer-mentoring videos). In 06-07, item 3 was rated at 4.6. These mentors also gave comparatively low satisfaction ratings to items 5 (prepared to help students use program-based scripts) and 6 (prepared to use the mentor session log form) with ratings of 5.4.

Through the second and third survey applications in 06-07, the mentors gradually progressed by the end of the year to an average overall satisfaction rating of 6.2. Ratings improved for all factors for all of the mentors, although one mentor advanced in satisfaction a very small amount. More on this difference will be given later in the discussion of interview data. By the end of the year, items 6 (prepared to use the mentor session log form) and item 4 (prepared to recognize and respond to the challenges and needs of first-generation students in this program) made the greatest gains in satisfaction ratings.

The open-ended comments on each of the three surveys explains much of the progress on item 4 which started high and went higher in the satisfaction ratings. Mentors were excited about working with first generation students and

felt their mentor training program helped them see how different the experiences of the students they would be mentoring might be from the experiences of more traditional students. By mid-year they were realizing that mentoring first generation students was both more challenging and more rewarding than they anticipated. At the end of the year, they reflected back on their initial mentor training and cited the value of the in-depth exposure to literature on first generation students and on mentoring strategies in increasing their confidence and effectiveness.

Written comments also explain the change improvement in ratings for item 6 (prepared to use the mentor session log form) and item 5 (prepared to use program-based scripts). Mid-year and end-of-year survey responses reveal that mentors felt they had gained an understanding of the value of these resource strategies in practice.

Item 3 (prepared to use the peer-mentoring videos) started and ended at the lowest level of satisfaction. Interestingly mentors had no comments on mentoring videos in survey open questions or in interviews. This issue may have a simple explanation but certainly warrants some attention from program leaders. The rating, while technically the lowest, hovers just above or below 5.0 which is not tragic and may reflect nothing more than level of interest or involvement on the part of the mentors.

Interviews with these students allowed for a more nuanced perspective on how different background experiences, motivations, and personalities can create significant differences within such a small cohort of mentors. Mentors had different reasons for deciding to apply for the mentor program. All were very proud and felt it was an achievement to have been selected. Three had prior mentoring experience and entered knowing that for them this was a rewarding role to play. The other two saw it more as a convenient job on campus and at least somewhat relevant to their career interests. One interviewee, the one who changed the least in survey responses over the year, expressed some modest reservations about the concept of providing mentoring to first generation students as opposed to all students. This person and two others admitted they were

nervous at the start and felt the scripts in particular were very helpful in facilitating interactions. “Sometimes it is hard to get our students to talk about their concerns.”

The steady rise in satisfaction ratings over the course of the year was clearly explained by the mentors as the acquisition of practical experience, peer observation and learning through direct experience. Most confessed at the beginning of the year that they had some fears about working with first generation students in terms of communications skills and confidence in using program tools. Thus, the training time invested in practicing scripts, reading articles that taught them about student characteristics, and having experienced program leaders were all cited as important factors that contributed significantly to their level of satisfaction with the mentor training program.

Most of the mentors learned about the program from prior year mentors, and would recommend it to other fellow students but only if they thought the new person would be seriously interested in being a loyal and consistent mentor to their mentee students. The mentors’ sense of pride comes in part from an expressed commitment to not let their mentee students down, although sometimes they feel that a few mentees don’t take good advantage of the program and hold up their side of the bargain. Mentors reported that mentees that followed all the aspects of the support that the program offered had made gains in learning how to organize their academic work and navigate the university better. For themselves, mentors reported gains in confidence, communications skills, and time management. In a busy, commuter university they also appreciated the camaraderie enjoyed through the mentor cohort and the program leaders.

As to program improvements mentors would suggest, they expressed some concern about the amount of time required by the program but at the same time they recognized it was the time given to training, team meetings, and interactions with mentees that produces the benefits for all participants. They also suggested some greater flexibility or individuality in the schedule of

meetings and interactions with mentees and that some mentor training components might be done online and then discussed or practiced in person.

## 2007-2008

The 07-08 mentor cohort included some repeat mentors from prior years. However, to preserve their anonymous identity in the evaluation process, the students may or may not have used the same code as prior years. Experience among one or more of the group could explain the overall higher levels of satisfaction revealed in this year's data. After all, some respondents had chose to return to the program which suggests they were satisfied with the experience. But this is a testable question through the analysis of the evaluation data.

So as in the two prior evaluations, the data collection and analysis will focus on the experiences of the 07-08 cohort. In 07-08 there were four mentors. Mentors completed the same survey used throughout the evaluation and at the same three intervals during the year. (Note that because the evaluator was overseas during 07-08, individual interviews with mentors were not possible.)

The entering level of satisfaction for this cohort was the highest of all three cohorts with an average satisfaction rating of 6.25. In the first survey, the mentor responses clustered into two groups with similar satisfaction levels, although with some differences regarding the rating of specific factors. The highest overall rating went to item 6 (prepared to use the mentor session log form) with a perfect rating of 7 from all respondents, and it remained high throughout the year. Since learning to use a log form seems logically to be something mentors could master quickly and use routinely one might consider that with at least some experienced mentors in the mix, satisfaction levels regarding the log form may not be very revealing.

The next two factors with the highest satisfaction ratings were item 1 (prepared to fulfill the SFMP program goals) and item 2 (prepared to use and navigate the resources website). The lowest rated item in the first survey was item 7 (know how to find and access a range of campus resources to meet mentee needs). The open comment responses may explain this low rating. In

their comments, one mentor said he/she did not know PSU resources well; several others highlighted that they relied on peers and computer resources. So in the mentor group, learning from each other and online information was mentioned more often as a source of ideas and assistance than PSU resources.

Other open comments on the first survey indicated high satisfaction with the orientation, the program-based scripts, access to leaders and peers, and the clarity of duties, expectations and schedules. Some concerns were expressed that had not come up in prior surveys including a concern that mentees might be hard to get to know or that they might not like working with their mentor. Two other comments focused on concerns about confidence with computer programs such as WebCT.

The 07-08 mid-year survey results show a drop in satisfaction for two mentors – these two were the pair that reported higher satisfaction levels in the initial survey. The pair that were both lower in the first survey showed an increase in the second survey. Item 3 (prepared to use the peer-mentoring videos) received a lower rating from three respondents, one of them dropping their rating from 7 to 4. The two who reported a reduced level of satisfaction also lowered their ratings for item 4 (prepared to recognize and respond to the challenges and needs of first generation students), and item 5 (prepared to help students use program-based scripts).

Compared to data from earlier years, this set of mentors, at least at mid-year, focused on their own issues and support needs. Open comments focused on their development as mentors and strategies for getting ideas – picking up skills at staff meetings, getting value from team feedback, bouncing ideas off each other, “constant support a huge help.” Only one student talked about the value of the program’s focus groups with students and how “our” students (meaning mentees) are starting to “open up.”

In the end-of-year survey, the four mentors had all leveled out a positive level of satisfaction with an overall rating of 6.5. Other than the now infamous item 3 regarding videos, all factors showed a high level of satisfaction. Open comments were still rather self-regarding among the mentors and focused on the

value of having experienced mentors in the mix of their cohort, of their growth in communication skills and of awareness of literature and resources about student learning and diverse student needs. One comment, obviously from an experienced mentor said that this year allowed her/him “to do more in depth” with the mentees. Mentors agreed that the articles on first generation students gave “a nice foundation” to their work.

Throughout the program, mentors have stressed in their comments the value place on access to SFMP project leaders who offer advice and on learning from their peers through reflection and idea exchange. Now in the third year, the addition of one or more mentors with prior experience as an SFMP mentor seems to also have raised the satisfaction level and sense of preparation among mentors. In addition, the program leaders have used evaluation data to make improvements in mentor training each year so one would expect satisfaction to have improved.

As the mentor program moves forward the program leaders may well want to revise some factors in the satisfaction survey to reflect some of the things the evaluation has revealed around mentor fears and nervousness early in the year, and greater confidence and sense of concern for mentees that emerges later in the year. This year’s evaluation highlights that levels of satisfaction with mentoring training will be greatly affected by the degree to which the program focuses on recruiting new mentors each year, having a mix of new and experienced, or emphasizes experience more in mentor selection.

### Three year summary of mentor training satisfaction data

This evaluation focused on the levels of satisfaction among SFMP mentors regarding training and support provided to them over three program years. There are three components to this Final Summary report: 1) a review of the pattern of satisfaction across the years; 2) interpretation of the results as a guide to improving the mentor experience and thereby the overall impact of the program on mentees; and 3) suggestions for future evaluation and monitoring strategies.

Challenges in this evaluation included the small number of mentors and their turnover. In such a situation, one must be cautious about drawing too much meaning from apparent outliers or potentially individualistic perspectives. However, there are also advantages to a small group in that the few who served more than one year provided a valuable indication of the progressive development of mentor skills over time and the influence this has on new mentor training and services to mentees.

Each year there were 4-5 mentors and each cohort completed the same survey three times – at the start of the year, mid-year, and at year’s end. In Year 2, the evaluator conducted individual interviews with the mentors at mid-year. Because the focus of the evaluation was on mentor satisfaction with training, the measurable indicators were derived from aspects of the training program and components of the mentoring strategy (services provided to mentees). The fundamental evaluation questions being: did the mentors feel prepared to perform well as mentors in the context of this program and what aspects of the training were most/least beneficial in creating a sense of preparedness? Findings informed revisions to the training design each year and this report will make recommendations for sustained practices based going forward as PSU implements the program more widely.

### Trends Across the Years

New mentors demonstrated a palpable level of fear and nervousness in their responses on the first occasion of taking the training satisfaction survey. Full of anticipation, their written comments revealed they were wondering how to reach mentees, how to start a conversation, how to find the right resources. In the training program, which is described elsewhere in the final grant report, mentors learned to use the program’s resource website, peer-mentoring videos, the online mentor session log form, and they practiced using program-based “scripts” to illustrate mentoring situations. The evaluation survey asked them to indicate their level of satisfaction with their training in these areas as well as overall sense of preparedness regarding meeting the goals of the program and the needs of student mentees. The mix of experienced and new mentors changed more between years 1 and 2 than between years 2 and 3, so by the third year respondents were experienced and this is reflected in their responses.

Each year, almost all the mentors reported a high level of satisfaction with training meant to help them feel prepared to use the resources website. This suggests both that the website was well-designed and that student mentors were confident about their skills for using web-based resources for learning and communication. The second factor to be rated as highly satisfactory in the first two years was regarding their level of preparedness to respond to the challenges and needs of the students (mentees). By the third year, the mentors reported a higher level of preparedness to meet the overall program goals which may logically reflect the growing experience as well as improvements in the training itself. In particular, mentor ratings and comments each year highlighted a growing sense of understanding in the mentors about the challenges of first generation students and the importance of the program's objectives – to help these students succeed. With one exception, mentors revealed they felt they were meeting an important need, making a difference, and they felt a “duty” to mentees and to their fellow mentors. The training strategies that shared readings and data about first generation students were important to achieving this outcome as well as evidence of the benefit to mentees.

The factors that were rated at lower levels of satisfaction are also revealing of growth and development in the training design and mentor experience. In the first year and second years, mentors expressed lower levels of satisfaction with training meant to prepare them to use scripts and videos, and in the second year, preparation to use log forms also got a slightly lower rating. (In each of these years, there was also a single (different) respondent who seemed generally skeptical of the value of training in general, and in a small group this did influence overall ratings. I suspect this explains the rating for the log book which s/he may have found not very useful.) The reported level of preparation to use scripts changed dramatically at the end of the second and in the third year as mentors “got it” and discovered that scripts helped them break the ice with mentees and gave them ideas for handling particular situations. Preparation to use the peer-mentoring videos as rated at a lower level than other factors straight through the program. No comments were provided in surveys to explain this and when raised in the interview, nothing specific was offered, so the evaluation can only report that students either don't like the videos for some reason or don't understand how to work

them into the interactions with mentees. This is a clear area for reflection and improvement or change.

Survey comments and interviews revealed a great deal about the mentors' motivations, expectations, reservations, and sense of benefit. Early on their concerns were with confidence – learning to approach another student, build a mentoring relationship, find a way to encourage natural conversation and offer help and guidance to someone you did not know well. Over the years, training with scripts, rehearsing and role playing, and supporting lots of interaction and discussion among the mentor members as a team contributed greatly to increasing confidence. After the first year, when they expressed a need for specific strategies to start conversations or respond to the “day-to-day needs” of mentees, scripts emerged as valuable tools to help model practical ways to close the gap between mentor and mentee, especially when they came from very different backgrounds.

The mentors reported beneficial improvements in their communication skills that would be valuable in other ways. The way they talked about how their work as a mentor had conferred benefits on them was also revealing of their motivation for becoming a mentor. With one exception, student mentors talked about the value and importance of their work and a sense they were making a difference. The exception was a mentor who questioned the equity of giving some students extra support and advice; this person's initial interest in the job was the convenience of a campus-based job that involved mostly conversational activities. Other mentors felt a convenience factor as well, but this was balanced with their own gains in communication skills and other experiences relevant to their career plans, as well as the satisfaction of helping others. For the most part, mentors liked their mentees and “learning about how different first generation students can be” was challenging and interesting to them.

Interview responses identified a concern about time management and the level of time commitment to the program. While most mentors saw the value of training, they acknowledged it took a lot of time. The time given to team meetings was highly valued as several commented that their participation as a mentor in SFMP created a spirit of camaraderie in an otherwise commuter student environment where personal connections can be hard to establish. Having access to each other and to team leaders

was both essential to their confidence as mentors but also seen as a direct benefit in providing a peer network for their own learning experience. Mentors expressed strongly that they wanted more independence in managing the schedule of meetings and interactions with mentees and that the rigid schedule seemed awkward at times. However, as evaluator, I note that this desire for greater self-management emerged in the last half of the second year of mentoring and note that this suggests that some experience and confidence is required before flexibility and self-management can be introduced.

In the final year, survey data reported a lower level of satisfaction with their preparedness to find and access campus resources to meet the needs of student mentees. Several comments say this is a primary reason the mentor team meetings are highly valued because they allow mentors to compare strategies for working within the university structure. This difficulty in finding resources and information is not explained by any comments, save one from one mentor who said s/he was not yet familiar with PSU resources and organizational structure. In training, the program should be certain to avoid assuming that advanced students are confident in working with the system. Sustained attention to resources and policies may be helpful. I wonder if the mentors, as they gain experience, may also develop a valuable level of expertise in seeing the flaws and deficiencies in student support resources and services. It may be useful for the university to consider tapping into this lived experience of students taking on an explicit role that requires them to use and assess university services for students.

#### Improving SFMP based on Evaluation Findings

The evaluation of SFMP has produced some specific areas of strength that must be maintained and some areas for potential improvement. While a few of the mentors were motivated by a desire to help others, most saw participation as some combination of convenient, rewarding, and relevant to their own needs for learning, skill development, affiliation, and career preparation. The passion to helping other students and sense of palpable benefit to themselves emerged over time as did their appreciation for their relationships with the peer mentor team and SFMP leaders. These students came to discover they did something special that was good for others and for themselves. Their

own development over time tells us which elements of program management and mentor training are most associated with mentor preparedness and confidence.

In particular, as the program goes forward in whatever way the University plans to continue or expand it, the model clearly works best with a combination of experienced and new mentors. In the first year one mentor had prior experience and this was valued by the others; the positive effect of experience was obvious by the third year. In effect, the program is producing peer mentors within the community of peer mentors! Corollary to this is the importance of time for mentor team meetings, adequate access to SFMP leaders, and quick ways for just-in-time communications to exchange ideas. In interviewing, selection, and retention of mentors, the program's leaders should aim for a strategic mix of experienced and new mentors so there is an ongoing balance. Perhaps in future years it will be possible to bring some mentees into the peer mentor pool. In the selection and retention of mentors, intentional attention to student motivation for taking on a mentoring role is essential.

The evaluation revealed growth in confidence and communication skills over time. New mentor training seems to be most successful for its focus on communication skills and understanding of first generation student needs and issues. The need to acknowledge and monitor levels of fear and nervousness among new mentors will be aided by a mix of experienced mentors. Script rehearsals and role playing, while not always immediately valued by new mentors, was increasingly valued in each year's cohort as the mentors discovered the value of practice and rehearsal. This suggests that the program should be persistent in practicing scripts and scenarios no matter how experienced the mentors. While the peer-mentoring videos were meant to contribute to this development of communication skills and mentoring strategies in diverse situations, the comparatively low rating for the use of videos is a bit of a mystery and bears some further reflection and exploration by program leaders. Peer mentors in this evaluation gave much greater value to the opportunity for live practice and conversation among the mentoring team to develop and exchange mentoring strategies and techniques.

If the overall level of experience is sustained at a robust level in the future, it may be possible for SFMP leaders to consider introducing some degrees of flexibility in allowing mentor self-management of meetings and communications with mentees.

However, I advise caution because once that door to flexibility is opened, the experience of individual mentees may begin to vary and weaken the focus on consistency and quality that this grant program has attended to so effectively. As they gain experience, mentors may believe they can be more self-managed but mentees are so diverse and complex, new challenges and issues will arise constantly and specific structures do contribute to quality, consistency, and beneficial outcomes.

#### Future Evaluation Approaches

When this evaluation began, I wondered if surveying a small cohort three times a year would produce redundancies or survey fatigue. Perhaps because the instrument is short and specific, and because SFMP leaders so clearly support the mentors in their roles (creating a high level of trust), the survey has been successful in revealing patterns of effectiveness, areas of emerging need, and opportunities for improvement. As the program goes forward, the findings of this study should continue to provide ongoing monitoring of mentor experiences that will inform further improvements as students and needs evolve. Clearly, this evaluation reveals that a rigorous selection and retention strategy is essential to ensure participation by individuals with clear motivations and expectations for benefits to themselves and to the mentees. A pattern of using the survey at the beginning and end of the year should provide sufficient data to monitor program and student changes over time. A mid-year individual interview with each mentor would be useful to discern any individual revelations or challenges, which can then be evaluated for relevance to the overall program design.

This evaluator did not have a role in the evaluation of mentee satisfaction with the SFMP experience and therefore, I don't know if data was collected from mentees regarding their satisfaction with their mentors. This evaluation was focused specifically on mentor satisfaction with their own training and preparation and some data emerged regarding their sense of confidence in working with mentees and the management of mentor-mentee relationships. It would be good, if it is not in place already, to gather comparable data from mentees that would identify areas where mentor skills and training might be improved. In other words, some new things may be learned from asking mentees about their satisfaction with the training of mentors.

## **F. College student expertise development**

Expertise development among SFMP students was captured through a longitudinal analysis of focus group data with three measurement points. SFMP students participated in assessment focus groups in the 5<sup>th</sup> and 6<sup>th</sup> weeks of Fall, Winter, and Spring terms. During 2005-2006, eleven total focus groups were conducted – four in Fall 2005, four in Winter 2006, and three in Spring 2006. In 2006-2007, fourteen focus groups were conducted – five in Fall 2006, Four in Winter 2007, and five in Spring 2007. Between 4 and 9 students participated in each focus group.

Analytic hierarchy, described by Ritchie and Lewis (2003), refers to the ordered, iterative process through which rigorous analysis of qualitative research must go. In the initial steps that move a study from raw data into the beginnings of theme formulation, it is important to keep the words, and thus the voice of the participants. For this reason, detailed transcripts of the focus groups were made for use with AtlasTI, a qualitative computer software tool. Initial coding was done based on predetermined codes taken from the interview guide and additional codes were added as they emerged during the data analysis. Particular attention was paid to patterns and themes relating to three areas of student expertise explicitly emphasized in SFMP: knowledge of adjustment issues, awareness of campus resources, and articulation of strategies for addressing adjustment issues. In regards to the dimension *knowledge of adjustment issues*, greater expertise would be indicated by the ability to articulate a greater number and wider range of issues, as well as the ability to articulate some of subtler nuances of an issue. For the dimension *awareness of campus resources*, greater expertise would be indicated by the ability to articulate a greater number of resources, the ability to describe in finer detail what can be accomplished using a specific resource, unprompted awareness of and experience in using SFMP program resources, and personal stories of using a resource. In regards to the dimension *articulation of strategies for addressing adjustment issues*, greater expertise would be indicated by the ability to articulate strategies for dealing with

specific rather than general issues, ability to articulate higher-likelihood of success strategies (ones recognized by student as having a good chance of succeeding), ability to articulate strategies promoted in SFMP program.

#### Expertise development

Based on the Dreyfus and Dreyfus model of expertise development (2005), *novice* students would be expected to have limited and, at best, general knowledge of student adjustment issues. Their awareness of campus resources would also be more limited and more likely to include stories of not knowing about resources or not knowing how to use resources. Articulation of a limited array of strategies primarily in the form of context-free rules would also be expected, along with a greater likelihood of acknowledging that a particular strategy being used is probably not very likely to succeed, but not know what else to do. If students' levels of expertise increased to the level of *advanced beginners*, then we would expect to see experience-based maxims to replace the novices' context-free rules.

#### *Awareness of adjustment issues*

Students' discussions of adjustment issues became more nuanced and specific as they progressed from Fall term to Spring term. Fall term students' adjustment issues were very general and centered around not understanding the way the university worked: don't know how to approach professor; can't understand expectations and does not articulate (paraphrased by moderator); don't know how to get involved; do not understand how university works (e.g., location of classes); and does not understand how to schedule classes. By Spring term, students, articulated a greater range of adjustment issues, and many issues were presented in much finer detail, obviously because students had had experience dealing with more specific versions of adjustment issues in different situations. Themes included: variations in professors' availability; flexibility of office hours: unclear expectations for specific assignment; dealing with financial aid – how to get application in early; advising – which kind of advising works best; now recognizes need to be able adjust to professors' different styles; goes from finding resources on campus – computer labs – to finding which ones are open at a

particular time; and getting schedule made when classes times clash – scheduling for year-long sequences.

*Knowledge of campus resources and how to use them appropriately*

Students' knowledge of what campus resources are available, and how to use them appropriately, increased as they progressed from Fall term to Spring term. Fall term students acknowledged that when they started at PSU they were not very aware of campus resources. Several explicitly mentioned not knowing where to go to get questions answered. Sometimes, even when they mentioned a specific resource, like the PSU website or the Student Health and Counseling Center (SHAC), it was to acknowledge they really did not know to make appropriate use of that service. Although Fall students did not spontaneously name SFMP program materials as "campus resources," upon prompting, several students described the SFMP website as "helpful" and spoke in some length about the usefulness of the peer-mentoring videos. "The one about the syllabus was really good, that one I thought was so helpful, especially if you're viewing it before class, it was so helpful."

By Spring term, SFMP students talked about campus resources in several noticeably different ways. First, when they talked about resources they linked to specific student adjustment issues: using career center website to get a job, checking out ratePSU.com to learn about a professor in advance of a class, and who to talk to in order to get the right advising. "I think the best advising I have found is either a professor I've gotten close to, or you (SFMP) guys, or the advising within the majors, I don't find general advising very helpful. This student discusses making a choice about how to get good advising based on her experience with four different sources for PSU advising – a professor with whom the student had gotten close, a SFMP mentor, an advisor from a major and general advising. Instead of context-free rules of the novice, this is a clear example of a maxim – a rule based on experience with the domain of expertise – which is a characteristic of a person who is now operating on the advanced beginner level of the Dreyfus model.

Further evidence of increased student expertise was the non-solicited mention of a SFMP program resource, the SFMP resource website, which was also linked to a

specific issue, finding an open computer lab. “(regarding computer labs) it seems like they’re hidden throughout the campus, but I know on the Student’s First website they have all of them listed...”

A second way that Spring term students’ discussions of campus resources differed from Fall term students’ had to do with the much greater detail about what could be done with specific resources, such as the PSU library.

#### *Articulation of strategies for addressing adjustment issues*

The third aspect of student expertise had to do with students’ ability to articulate strategies for addressing adjustment issues. The first noticeable difference between Fall term and Spring term students’ discussions of strategies had to do with level of specificity of strategy. Fall term students’ strategies tend to be very general and were connected to very broad issues. In contrast to those of Fall students, Spring term students’ strategies tended to be very specific and tied to specific issues like dealing with financial aid, professors’ office hours, and the university’s bureaucracy. Once again, the Spring term students’ strategies were based upon their actual experiences as college students, rather than the more general, almost “context-free” rules utilized by Fall term students.

### **V. Conclusions**

The Students First Mentoring Program is an intervention that uses a range of mentoring activities to share strategies for “being successful college students” with new-to-the-university, first-generation, low-income college students with the goal of promoting academic success, progress, and retention/persistence. Through expertise development mentoring, SFMP builds up freshmen and new transfer students’ educational foundation by providing useful information about “what to do in order to succeed at the university, “insights into the culture of higher education, and tips on how to become “more expert” students. In this report we have focused on three areas of outcomes: effects of program participation on freshmen, effects of program participation on transfer students, and the relative effectiveness of two different modes of delivering mentoring services.

### **Effect of participation on freshmen**

Student First/expertise development mentoring positively impacts first generation, low-income freshmen's transition to and success at Portland State University. First, expertise- development mentoring positively impacts mentees' academic performance and progress DURING the year of program participation. Second, these effects continue to positively impact mentees' academic performance and progress AFTER students complete the one-year SFMP program. Third, improved academic performance and progress lead to higher rates of retention/persistence during program year.

### **Effect of participation on transfer students**

NOTE: SFMP was originally designed as an intervention focusing on first-generation freshmen and their university adjustment issues. After consulting with the FIPSE program officer, enrollment in SFMP was extended to a limited number of transfer students in 2005-2006. In 2006-2007 the number of transfer students enrolled in SFMP increased. The information and feedback we got from these students during this test year informed the creation of resources that specifically focused on transfer student adjustment issues. A full implementation of these new, and targeted resources were only made available for the 2007-2008 cohort of students.

Expertise development mentoring impacts first generation, low-income transfer students' transition to and success at Portland State University, though the pattern of effects is not as clear as with freshmen. First, expertise-development mentoring positively impacts mentees' academic performance DURING the year of program participation for both the 2005-2006 and 2006-2007 cohorts. The impact of "Students First" mentoring on mentees' academic progress DURING the year of program participation is mixed, with a positive effect one year but not the other. Second, in a similar manner, SFMP effects

persist and continue to positively impact mentees' academic performance AFTER students complete the program. The impact of "Students First" mentoring on mentees' academic progress AFTER the year of program participation is mixed, with a positive effect one year but not the other. Third, although academic performance improved, the mixed results in regards to progress did NOT produce higher rates of persistence during program year.

### **Relative effectiveness of different modes of delivering mentoring services**

Both methods of delivering mentoring services – on-line only (OLM) and on-line plus in-person (OLMP) – produced comparable positive results in regards to yearly retention rates, average gpa, and average numbers completed successfully. For the 2005-2006 cohort, these positive effects persisted beyond the initial SFMP participation year. It is clear that WHAT "Students first" mentoring information is provided is more important than HOW that information is delivered.

### **Connection to theoretical models**

The foundation for the development of what we are referring to as "expertise development" mentoring can be linked to Sociological models of role acquisition and mastery, specifically the Differentiated Model (Collier 2000,2001; Collier & Morgan 2007), focusing on the importance of developing student role mastery. In this case, appropriate student role-related interaction strategies develop in regard to seeking out and using campus resources, and establishing mentoring/advising relationships. This approach will lend itself to the development of interventions that result in students having more "successful" interactions within the university, and as a result, improve retention rates. The differentiated model suggests that first-generation freshmen academic success is closely linked to the acquisition of specific behaviors and skills that promote a student's successful navigation of the first year of college. In the SFMP intervention, new first-generation students receive assistance in recognizing and responding appropriately to the demands of the university (i.e. "boosting chances of surviving the university") through "imported" cultural capital in the form of knowledge

about what is appropriate from mentors. In addition, mentees receive on-going training in developing their own skills and strategies for dealing with college adjustment issues (i.e. "increasing individual level of cultural capital") through learning how to enact specific skills associated with the "appropriate " version of the college student role.

Understanding how to help first-generation students compensate for the advantage that children from more-educated families bring to college is one way to improve retention and degree completion rates. Examining the relative effectiveness of different approaches to helping students "successfully deal with college" (stay in school, get better grades, understand what is expected) is still an under-examined area. By improving first generation students' level of role mastery, SFMP contributes to the creation of a more level playing field in the "game" of college success.

### **Implications**

Overall, this project advances knowledge related to first-generation low-income student adjustment issues applicable to a broad range of advising strategies at universities and colleges across the nation. The SFMP intervention is designed to reinforce and build on the orientation to the university that students on most campuses receive in their initial advising sessions. This project explores whether adding role-mastery skills and "selected resource utilization skills" through expertise-development mentoring to regular advising, resulting in a coordinated program of student support can be effective in promoting first-generation student success at the university. The Students First intervention is designed to move first-generation students along the continuum of college student role expertise by providing them with a socialization setting for learning an appropriate version of the college student role and using it successfully.

This research also has practical implications for first generation students. When these students have a greater sense of self-perceived control over academic outcomes, they exhibit improved academic performance and develop higher self-expectations for educational success (Smith, Walter, & Hoey, 1992). Many of the students who do fine in the freshman year, "slump" the second year and drop out. This "sophomore slump" (Coburn & Treeger, 2003) has been linked to a shift in attention and resources between years and has important implications for the proposed study. On many campuses, new

students are purposively integrated into the campus through structured classes and orientation activities. But when the second year comes for these students, they have a more difficult time adjusting. The SFMP provides students with the skills to be "agents in their own education."

Finally, this research has implications for access and educational equity. Because higher education is the prime vehicle for promoting social mobility, universities and colleges have a responsibility to do as much as they can to promote students' success, progress and persistence. Yet many times there is an assumption that either all incoming students already understand the culture of the university, particularly professors' expectations in regards to what constitutes appropriate student work, or that they know who to talk to in order to acquire that information. First generation students must deal with two related issues. First, they are not aware of "what they don't know." You cannot get help if you do not know the right questions to ask. Second, even when they recognize their knowledge deficits, many times their support networks do not contain people who can share the needed information with them. Coordinated efforts to link students to available college support resources and to reveal formerly implicit aspects of higher education can improve first-generation student success and persistence. Expertise development mentoring programs, like SFMP, are a step in the right direction.

- Adelman, C. 2006. *The Toolbox Revisited: Paths to Degree Completion from High School through College*, Washington D.C. :U.S. Department of Education
- A Shared Agenda: A Leadership Challenge to Improve College Access and Success*. 2004. Pathways to College Network: The Education Resource Institute (TERI). Boston, MA: Pathways to College Network Clearinghouse. [www.pathwaystocollege.com](http://www.pathwaystocollege.com)
- American College Testing, 2001, February: "national college dropout and graduation rates, 1999" <http://www.act.org/news>
- Baker, Wayne and Faulkner, Robert 1991. "Role as resource in the hollywood film industry." *American Journal of Sociology*, 97: 279-309
- Bourdieu, Pierre. 1973. "Cultural Reproduction and Social Reproduction." Pp. 71-112 in *Knowledge, Education and Cultural Change*, edited by R. Brown. London: Tavistock.
- , 1984. *Distinction: A Social Critique of the Judgment of Taste*. Cambridge, MA: Harvard University Press.
- , 1986. The forms of capital. In *Handbook of theory and Research for the Sociology of Education*, ed. J.G. Richardson, 241-58. New York: Greenwood Press.
- , 1989. *La noblesse d'Etat: Grande corps et grandes ecoles*, Paris: Editions de Minuit.
- Burke, P. 1991 "Identity Processes and Social Stress," *American Sociological Review*, 56, pp. 836-849
- Callero, Peter L. 1994 "From role-play to role-using: Understanding roles as resources." *Social Psychology Quarterly*, 57: 228-243.
- Chen, X. and Carroll 2005. *First-Generation Students in Postsecondary Education: A Look at Their College Transcripts*, Postsecondary Education Descriptive Analysis Report, U.S. Department of Education Institute of Education Sciences NCES 2005-171
- Choy, S. P. 2001. *Students Whose Parents Did Not Go To College: Postsecondary Access, Persistence, and Attainment* (NCES 2001-126). Washington, DC: U.S. Department of Education, National Center for Education Statistics
- Coburn, Karen L. and Treger, Madge L. 2003. *Letting Go* New York: HarperCollins Publishers.
- Collier, Peter J. 2000. "The effects of completing a capstone course on student identity." *Sociology of Education*. 73, pp. 285-299.
- 2001. "The differentiated model of role identity acquisition." *Symbolic Interaction*. Vol. 24, No. 2, pp. 217-235.
- Collier, Peter J. and Morgan, David L. 2003. "Is that paper really due today? Understanding Differences in first-generation and traditional college students' understandings of faculty members' class-related expectations," *Proceedings of 2003 Hawaii International Conference on Education*, University of Hawaii-West, Oahu, Hawaii
- 2007, "Is That Paper Really Due Today? Differences in First-Generation and Traditional College Students' Understandings of Faculty Members' Class-Related Expectations," *Higher Education* on-line at: [www.springerlink.com/index/570787222g5u4163.pdf](http://www.springerlink.com/index/570787222g5u4163.pdf) print: *forthcoming*

- Consortium for Student Retention Data Exchange, 1999. *Executive Summary 1998-1999 CSRDE report: The retention and graduation rates in 269 colleges and universities*. Norman, OK: Center for Institutional Data Exchange and Analysis, University of Oklahoma
- Delgado Bernal, D. 2002. Learning and living: Pedagogies of the home. *International Journal of Qualitative Studies in Education*, 14(5), 623–639.
- Dreyfus, Herbert and Stuart Dreyfus. 2005. "Peripheral Vision: Expertise in Real World Contexts." *Organizational Studies* 26:779-792.
- Engle, J. 2007. Postsecondary access and success for first-generation college students. *American Academic* 3:25-48.
- Gonzalez, K. P. 2000. Campus culture and the experiences of Chicano students in a predominantly White university. *Urban Education*, 37(2) 193–218.
- Guiffrida, D. A. 2005. To break away or strengthen ties to home: A complex question for African American students attending a predominantly White institution. *Equity and Excellence in Education*, 38(1), 49–60.
- 2006, "Toward a Cultural Advancement of Tinto's Theory," *The Review of Higher Education*, Vol. 29(4), pp. 451-472
- Haring, M. J. 1999. The Case for a conceptual Base for Minority Mentoring Programs. *Peabody Journal of Education*, V. 74, No. 2 Mentoring Underrepresented Students in Higher Education, pp. 5-14.
- Hurtado, Sylvia and D.B. Carter 1997. "Effects of college transition and perceptions of the campus racial climate on Latino college students' sense of belonging." *Sociology of Education*, 70, 324-345
- Jackson, A. P., & Smith, S. A. 2001. Postsecondary transitions among Navajo Indians. *Journal of American Indian Education*, 40(2), 28–47
- Jacobi, , M. 1991. "Mentoring and Undergraduate Academic Success: A Literature Review," *Review of Educational Research*, Vol. 61(4), pp. 505-532
- Johnson, C.S. 1989 "Mentoring program" in M.L. Upcraft & J.N. Gardner (Eds.), *The Freshman Year Experience* (pp. 118-128). San Francisco: Jossey-Bass.
- Lamont, Michelle and Lareau, Annette. 1988. "Cultural Capital: Allusions, Gaps, and Glissandos in Recent Theoretical Developments." *Sociological Theory* 6:153-168.
- Levin , M. and Levin, J. 1991 "A critical examination of academic retention programs for at-risk minority students. *Journal of College Student Development*, 32, 324-334
- Miller, H. and Spence, S. 2007. *Lessons Learned: Places – and faces – that foster student success*, Lumina Foundation for Education, Indianapolis, IN
- Muraskin, Lana 1997. "'Best practices' in student support services: A study of five exemplary sites." U.S. Department of Education, Planning and Education Service.
- Nakkula, M.J. and Harris, J.T. 2005. "Assessments of Mentoring Relationships",in *Handbook of Mentoring Youth*, David L DuBois and Michael J Karcher (eds.), Sage Publications, Thousand Oaks Ca, 2005
- Pascarella, E. T., Pierson, C. T., Wolniak, G. C., & Terenzini, P. T. 2004. "First-generation college students." *Journal of Higher Education*, 75: 249-284.
- Pascarella, E. T., Pierson, C. T., Wolniak, G. C., & Terenzini, P. T. 2003. "Experiences

- and outcomes of first-generation students in community colleges. *Journal of College Student Development*, 44(3): 420-429.
- Pike, G. R. & Kuh, G. D. 2005. "First- and second-generation college students: A comparison of their engagement and intellectual development." *Journal of Higher Education*, 76: 276-300.
- Postsecondary Education Opportunity, 2006. <<http://www.postsecondary.org>> "Family Income and Higher Education Opportunity, 1970 to 2005," Issue #174 December (pg 1-11)
- Portland State University Registration & Records:  
[http://www.pdx.edu/registration/academic\\_standing.html](http://www.pdx.edu/registration/academic_standing.html)
- Rendon, L. 1994. "Validating culturally diverse students: towards a new model of learning and student development," *Innovative Higher Education*, 19(1), 23-32.
- Rosas, M., & Hamrick, F. A. 2002. Postsecondary enrollment and academic decision making: Family influences on women college students of Mexican descent. *Equity and Excellence in Education*, 35(1), 59–69.
- Saenz, V., Hurtado, S., Barrera, D., Wolf D. & Yeung, F. 2007. *First in My Family: A Profile of First-Generation college Students at four-year Institutions Since 1971*, Foundation for Independent Higher Education, Los Angeles, Ca.
- Smith. B. 2007. "Accessing Social Capital through the Academic Mentoring Process," *Equity & Excellence in Education*, 40: pp. 36–46.
- Smith, J. B., Walter, T. L., & Hoey G. 1992. "Support programs and student self-efficacy: Do first-year students know when they need help?" *Journal of The Freshman Year Experience*, 4(2), 41-67.
- Striplin, Jenny J. 1999. *Facilitating Transfer for First-Generation Community College Students* (ERIC ED430627). ERIC Digest, June. [www.eric.ed.gov](http://www.eric.ed.gov).
- Swidler, Anne. 1986. "Culture in Action: Symbols and Strategies." *American Sociological Review* 51:273-286.
- Terenzini, P.T., Springer, L. , Yaeger, P., Pascarella, E. and Nora, A. 1996. "First-generation college students: characteristics, experiences, and cognitive development," *Research in Higher Education* 37(1) 1996
- Thayer, Paul B. 2000. *Retention of Students from First Generation and Low Income Backgrounds* (ERIC ED446633). Opportunity Outlook (May), 2-8.
- Tierney, W.G. 1999. Models of minority college-going and retention: Cultural integrity versus cultural suicide, *Journal of Negro Education*, 68(1), 80-91.
- Tinto, V., 1975. "Dropout from higher education: A theoretical synthesis of recent research." *Review of Educational Research*, 45, 89-125
- 1987. *Leaving College: Rethinking the Causes and Cures for Student Attrition*. Chicago: University of Chicago Press.
  - 1993. *Leaving College: Rethinking the Causes and Cures for Student Attrition* (2nd ed.) Chicago: University of Chicago Press.
- Tym, C., McMillion, R., Barone, S., & Webster, J. 2005. *First-generation college students: A literature review*. Texas Guaranteed Student Loan Corporation. Retrieved October 23, 2007, from website:  
[http://www.tgslc.org/pdf/first\\_generation.pdf](http://www.tgslc.org/pdf/first_generation.pdf)

- Vargas, Joel H. 2004. *College Knowledge: Addressing Information Barriers to College*. Boston, MA: College Access Services: The Education Resources Institute (TERI).
- Walker, S.C. and Taub, D.J., 2001. "Variables correlated with satisfaction with a mentoring relationship in first-year college students and their mentors." *Journal of The Freshman Year Experience and Students in Transition*, 13(1), 47-67.
- Wallace, D., & Abel, R. 1997. *Clearing a path for success: Deconstructing borders in higher education through undergraduate mentoring*. Paper presented at the Annual Meeting of the Association for the Study of Higher Education, Albuquerque, NM (ERIC Document Reproduction Service No. ED 415 812.)
- York-Anderson, D.C. and Bowman, S.L., 1991. "Assessing the college knowledge of 1st and 2nd generation college students." *Journal of College Student Development* 32(2) 116-122.

Appendix i  
Students First Mentoring Project Methodology

DECISION RULES FOR COHORT SELECTION & ANALYSIS LOGIC

The Students First Mentoring Project analysis of student performance and persistence utilizes the Portland State University Data Warehouse. The students were selected by and information compiled with the use of Hummingbird Bi-Query. This document details the decision rules employed in defining cohort membership, what constitutes persistence, full-time status, first-generation student status, as well as class standing (e.g. freshmen or transfer student). It also details the basic calculation rules and logic decisions that were used to complete the current analysis.

SFMP (S1 & S2)

***Program identifier***

S1 identifies students in the 2005-2006 SFMP cohort; similarly, S2 is the identifier for students in the 2006-2007 cohort. Students who withdrew by request from the SFMP program within one week of the start of the first term are not included in this analysis. (2 students in S1, and 1 student in S2)

***Adding students to program***

Students admitted into SFMP during Winter and Spring terms of the program year were included in the analysis from the term of their admittance to the program. The base number of SFMP students was adjusted to reflect these additions.

***Students leaving***

The base number of students was only reduced in the case of a student being admitted to EOP and thus leaving our program. (0 students in S1, and ----- in S2). Other students leaving our program for any reason (switching to another school, terminating their education, moving out of state etc.) were all treated as “non-retained.” With co-admission policies in place that allow students to take classes at PSU and local community colleges simultaneously, it is possible that some students we are identifying as “non-retained” may still be actively pursuing their educations. Including those students in this analysis would require additional time and resources, and falls outside the scope of this report.

***SFMP Participant Characteristics***

***First-generation student status***

All SFMP participants are first generation students.

***Low-income status***

All SFMP participants qualify for the national needs based Pell grant.

***Full-time status***

In order to participate in SFMP, students must be considered “full time” – I.e. registered for at 9 or more credits. SFMP students are strongly urged to enroll for twelve credits a term.

***Freshman status***

Any student who joined SFMP with 44 credits (PSU or valid transfer) or less was considered to have freshman status.

***Transfer students status***

Any student, who joined SFMP with more than 44 credits AND had transferred to PSU within the preceding 4 consecutive terms, was considered to have transfer status.

***Comparison groups***

Following are the logic criteria for the selection and analysis of all of the comparison groups against which the students of SFMP are measured. Each table identifies the specific criteria used to determine membership in that group. Following each table is an explanation of specific decision points for each group.

NOTE: Only the unique characteristics will be discussed for each comparison group.

***Comparison student groups***

FRESHMAN STUDENT COMPARISON GROUP (C1 & C2)

**COMP**

Characteristic	Attribute	Table	DBase	Selector
1 <sup>st</sup> Generation	LEGACY CODE	SORZBIO	FA	1
Low Income	RNVAND0_PELL_AWARD	RNVAND0	FA	>0
Full Time	INST REG HOURS	Past Reg Sum	SIS	>8
Freshman	CLASS	Past Reg Sum	SIS	FR
Quarter	TERM_CODE	Past Reg Sum	SIS	200504 or 200604
Diversity Scholarship	COMMENT CODE	Comment Codes	SIS	EAP
Graduated	GRAD DATE	Degree	SIS	(All)

***Selecting a comparison group cohort***

All of these selection criteria were applied to the first quarter of the analysis of the comparison cohort (200504 for C1 and 200604 for C2) in order to identify and maintain a single set of students to follow throughout their educational career at PSU.

***First-generation student status***

“First generation status” is a voluntary field on both the FAFSA and PSU registration forms. Because the percentage of total students who opted to fill out this field of the form was greater on the FAFSA data than that from the PSU registration data, and the two different databases are not interrelated, we chose to select the larger group in order to capture as many of these students as possible.

### ***Low-income status***

“Low Income status” was determined based on whether the student qualified for the national needs based Pell grant. The field used, RNVAND0\_PELL\_AWARD, lists the amount that the student was granted. By selecting all students who were granted more than \$0 we were able to be sure that all students in the comparison cohort met, at the least, federal low income status.

### ***Full-time status***

In order to be considered full time, a student was required to be registered for at 9 or more credits. This decision matches the federal financial aid distinction between half-time and full time ([http://studentaid.ed.gov/students/attachments/siteresources/FundingEduBeyondHighSchool\\_0708.pdf](http://studentaid.ed.gov/students/attachments/siteresources/FundingEduBeyondHighSchool_0708.pdf)) and the PSU definition of a half-time student as taking between 6 and 8 credits (<http://pdx.edu/finaid/disbursement.html>). This distinction is important for the initial selection criteria of all groups because full-time student status is a requirement of both SFMP and EOP. It is, however, not required that a student maintain this level of credits per term to be considered beyond the first

### ***Freshman status***

There are multiple fields available to define Freshman status. CLASS is used for this selection because there were fewer optional variables (FR, SO, JR, SR, and GR) and was thus more easily replicable. Our group selections were run using all different variable options and we found that the total counts matched.

### ***Term code***

It is important in the cohort selection that the TERM\_CODE be chosen from the Table in which the lowest level of requested data is desired. Because the information on CLASS and LEGACY different tables, the TERM\_CODE was selected from each specific table as well. PSU term codes follow the logic of yyyyqq where yyyy= calendar year and qq=quarter (i.e. 200504 = Fall of 2005 and 200701 = Winter of 2007)

### ***Filtering out students from other programs***

Students participating in either the SFMP or EOP programs, or students who were awarded Diversity Scholarships were deselected from this comparison group in order to specifically focus on the comparison of unsupported students to those who participated in this year-long intervention.

Because the Diversity Scholarship is awarded to a similar population as both EOP and SFMP and receive considerable help and financial assistance, we chose to remove them from the Comparison groups. It is the goal of this study to see the impact of students who participate in an intervention compared to those who do not have any support in their transitional years.

### ***Accounting for students who graduate during study***

In order to reduce the potential for error in the retention rates, we ran each of the final selection groups against this field and removed any student from the

denominator in calculations for any quarter after their graduation date. Without this consideration, students who graduated during the period they were being studied would appear to have dropped out of school.

TRANSFER STUDENT COMPARISON GROUP (T1 & T2)

**TRANS**

Characteristic	Field	Table	Database	Selector
*Transfer Student	GPA_TYPE	GPA	SIS	T or I
*Not Freshmen	GPA_HOURS	GPA	SIS	>44 TRANSFER
*New to PSU	GPA_HOURS	GPA		<44 AT PSU
**Freshman				

\* Unique rows to this cohort

\*\* Characteristic omitted from original selection criteria

***Transfer students status***

Transfer students were selected by replacing the selection criteria of FR (freshman) with GPA\_TYPE of T in the GPA table, and selecting those students with less than 44 TOT\_REG\_HOURS (credits from PSU) to identify newly transferred students only. While this could, admittedly, include some students who come to PSU from a Community College and then return either full-time or as a co-admitted student to the community college, we believe that the experience at PSU can be seen in the numbers that are gathered in these data. By tracking a consistent cohort over time we will also be able to account for students who eventually return to PSU.

***Number of transfer credits***

Another potential bias in this selection criteria is that there is considerable variance in pre-PSU experiences. In order to select a cohort with a meaningful number of participants we include students transferring credits from any school (including both 4-year schools and community colleges). We are also only considering students who are transferring between 44 and 134 credits. Our assumption is that students with less than 44 transfer credits will still be facing many of the same transition issues as other freshmen based on their high school experience of “doing student” while students with more than 44 credits will have internalized an understanding of “student” based on their experience at the school from which they are transferring. The upper limit of 134 reflects those who are within one year of graduating.

These finer aspects of the transfer student experience do deserve a closer examination. But, for the purposes of this study, analyzing the difference at the higher level of “transfer student” is sufficient.

***Educational Opportunity Program Students***

EOP (E1 & E2)

## EOP

Characteristic	Field	Table	Database	Selector
*EOP	COMMENT_CODE	Comment	FIS	EP1
**1 <sup>st</sup> Generation				
**Low Income				
**Full Time				

\* Unique rows to this cohort

\*\* Characteristic omitted from original selection criteria

The EOP cohort was selected by selecting the value EP1 from the COMMENT\_CODE table of the SIS database, and removing the criteria for values indicating “Freshman” of “transfer student” status. The variables of 1<sup>st</sup> Generation, Low Income, and Full-Time were not needed as these are already requirements for participation in the EOP program.

### ***“All Students” groups***

ALL (A1 & A2)

## All

Characteristic	Field	Table	Database	Selector
**1 <sup>st</sup> Generation	Legacy		FA	1
**Low Income				
**Full Time				

\* Unique rows to this cohort

\*\* Characteristic omitted from original selection criteria

### ***Fall “All Student” cohort criteria***

In order to see the largest comparison group against which the effects of our research can be compared, the “All” cohort includes all freshman students at PSU as of the beginning of the cohort year regardless of 1<sup>st</sup> generation, income, or transfer status. This group will necessarily include all those students who participate in either SFMP or EOP. To select the “Freshman All student” group, again we use “FR” value from the CLASS table in the SIS database. Because we are only considering the Class status as of the first quarter in question, note that there will be both entering students as well as students on the cusp of becoming sophomores. This decision was made to be consistent with participation criteria for SFMP. Transfer students were selected by replacing the selection criteria of FR (freshman) with GPA\_TYPE of T in the GPA table, and selecting those students with less than 44 TOT\_REG\_HOURS (credits from PSU) to identify newly transferred students only.

### ***Analysis of the data***

The comparison student lists for Q1 were used and re-run through the data collection query as a continuous cohort. Students were considered retained if they registered for any classes in a given quarter regardless of the type of class (for GPA credit or

Pass/NoPass). In the case of a student registering for Graduate level credits, the HOURS\_ATTEMPTED, HOURS\_EARNED, and GPA\_HOURS of each set of credits were added and a weighted average GPA was calculated to reduce two rows of data to one, avoiding the total counts being skewed by multiple rows of data for one student.

The only groups for whom the analysis did not follow the above procedures were the SFMP and EOP groups. Because it is important to compare the impact of participating in a year of intervention, retention for these groups was determined to additionally include continued participation in the program in question. In cases where a student was not retained in either program but did remain at PSU it will be noted as a footnote on retention figures.

### ***Decimals***

All output variables EXCEPT GPA – hours attempted, hours earned, attempted/earned ratio, persistence – are reported at ONE decimal place (e.g. 89.9%). GPA is reported in the customary two decimal place format (e.g. 3.19)

### ***Weighted Averaging***

Because the number of students in any of the SFMP and comparison groups rarely remained the same from one term to the next, it was necessary to use “weighted averaging” to establish program-year average rates for key out-put variables

### ***Data Cleaning***

Some preliminary data cleaning was conducted before these analyses were run.

- removed from both retention and analysis for any quarter all students who attempted “0” credits and earned “0” credits (this would happen in the instance where a student was accepted to the university but did not register for, or start any classes)
- removed from both Base number of students and analysis, records for students who graduated for any subsequent quarters that they attended PSU taking either post-bac or graduate credits. This was done so as to not negatively affect retention for group.
- students who “attempted” more than “0” credits were counted in retention numbers regardless of what kind or how many credits they completed. It was only if they completed “0” gpa hours that their “0” gpa was removed from the total average.

## 2005-2006 MENTOR TRAINING

### DAY 1 “Think like a learner”

#### Preparation: Write an autobiography of self as a learner

- 8:30 - 9:00 a.m. Breakfast
- 9:00 – 10:30 a.m. Introductions, Pair Interviews, Development of Group Profile  
Analysis of Major Themes of Group
- 10:30 – 12:00 Understanding the Expertise Model  
For each level of model: description and examples, self  
analysis, and processing activities (described below)
- Level Novice – posters of needs, assets, supports, qualities  
of novice
- Level Advanced Beginners – skits/pantomimes/poems of  
“painful moments”
- Level Competent – Develop want ad for competent learner
- 12:00 – 12:30 LUNCH
- 12:30 – 2:00 Resource exploration walk and processing
- 2:00 – 2:30 Preview of next day: Do you think that first generation  
students develop through the expertise model? How can we  
support them? Assign reading for next day.
- 2:45 – 3:45 Technical skills – exploring web resources
- 3:45 – 4:30 Reflective processing/Assessment  
Reflect on the day – What did you experience as a learner?  
Develop a group profile of each level of the expertise model\*  
(review/synthesis process)

\*Materials to be prepared for the mentor resource handbook

## DIRECTIONS FOR FIRST DAY LEARNING ACTIVITIES

### 1. Directions for the autobiography as a learner

Write a brief autobiography describing your progression as a learner. Start with your earliest memories of learning –When? Where? What were you learning? Create images or scenes of those learning experiences. Work your way through childhood, teen years, and current experiences. Don't limit yourself to school-based learning. Consider family, friends, employers, organizations/clubs, etc. This does not have to be a scholarly essay –feel free to use phrases, words, drawings, whatever will portray you as a learner.

### 2. Pair Interviews

Conduct an interview of another member of our training group. Use your questions to develop a profile of your partner as a LEARNER. Possible questions include:

- What was your most exciting-effective-successful learning experience?
- What was your worst-miserable-least effective learning experience?
- Where do you need to go when you want to learn something?
- What kind of supports do you need for your learning?
- If you were to describe yourself as a learner, what qualities would you use in your description?
- Has your learning style or approach changed over the years?
- What emotions do you feel when you have to learn something new?
- What emotions do you feel when you have learned something new?

### 3. Development of a Group Profile and Theme Analysis

As each member of the training is introduced, key themes of the introduction will be recorded on flip chart paper. When a similar theme is mentioned a check mark will be placed next to the theme already on the paper.

After introductions, the group will review the themes and analyze them for the most common themes and create a group profile.

### 4. Poster Development for Novice Level Learners

Using large poster paper, small groups or pairs will create representations of novice learners. The posters will reflect the assets, needs, supports, and qualities of novice learners. Possible representations may be cartoons, cut out collages, words, images, 3 dimensional pictures, etc. MATERIALS NEEDED!

5. Skits/pantomimes/poems of the Advanced Beginner Level Learner

Consider the Advanced Beginner Level Learner and what they experience as they learn, what they need, what they feel, and how they process. Develop a brief skit or pantomime or poem with a partner to present to the group. Group members will be asked to reflect on the insights from each presentation with group processing/recording of the ideas.

6. Develop of “Want Ad” for Competent Learner

Each member is asked to create a “want ad” for a Competent Level Learner – place the descriptions of a competent learner in varied professional or non-professional contexts. For example, a Competent Level Learner plumber, lawyer, or department store manager. The ads will be shared with the group to prompt review and discussion of the competent learner level.

DAY 2 “Walking in the shoes of first generation learners”

Preparation: Read article(s) about first generation learners. Reflect on the previous day’s question – Do you think that first generation learners develop through the expertise model?

8:30 – 9:00 Refreshments

9:00 – 9:30 Shared reflections on readings and question.

9:30 – 11:00 Processing descriptions of first generation learners in terms of the categories of Assets, Issues, Transitions, and Challenges (Needs) in pairs  
Consider what strategies first generation students will need to be successful in relation to each category\*

11:00 – 12:00 Understanding first generation students through prose, poetry, and digital stories

12:00 – 12:30 LUNCH

12:30 – 2:00 Resource Exploration Walk and Processing

2:00 – 2:30 Preview of Day 3 – With all of the information about first generation learners in mind, write a prescription for your role as mentor to support the students\*

2:45 – 3:45 Exploring technical skills

3:45 – 4:30 Reflection/Assessment

Report card for PSU – Supporting First Generation Students\*

\*Materials to be prepared for the mentor resource handbook

## DIRECTIONS FOR LEARNING ACTIVITIES

### 1. Processing Descriptions of First Generation Learners

Chart paper for each category of descriptions (assets, transitions, issues, challenges) will be placed around the room. Partners will be assigned one of the categories. They will brainstorm the category for five minutes – explaining, describing, listing, questioning, and summarizing. Then the partners will move clockwise around the room to the next chart and category. They will add to the ideas of the previous group. After the partners have moved through the set of four categories, they return to their original place and review the entire description.

### 2. Developing Strategies for Success

Upon completion of the previous activity, partners will be asked to attach a list of strategies to each category—strategies that first generation learners will need to be successful as learners. Depending on time and energy, partners may move through the categories and suggest strategies for each category or just one or two.

### 3. Prescriptions for Mentors to Support First Generation Learners

After reviewing the charts of descriptions and strategies created during the morning session, each mentor will create a prescription for themselves as mentors for supporting first generation learners. Write those prescriptions like a medical prescription with recommendations for daily doses, occasional doses, symptoms to watch for or avoid, etc.

### 4. Report Card for Portland State University as a Support for First Generation Learners

Using the information created in the morning, create categories of support for first generation learners. Using those categories, rate PSU's support. For example, a category might be Opportunity for

Processing Transitions and the rating might be B because the campus provides a “welcome back” conversation at the end of a break.

### DAY 3 “Becoming a mentor”

Preparation: Read article(s) on mentoring

8:30 – 9:00 Refreshments

9:00 – 9:15 Continuum of mentor expertise

9:15 – 10:00 Pair interviews – “pair/share” interview data  
Develop group profile of mentor assets and challenges

10:00 – 10:15 Finding connections within the mentor group for matching assets with challenges

10:15 – 11:30 Role plays of scenarios of mentoring first generation students using categories of information from previous day and group profile of assets and challenges

11:30 – 12:00 A day as an effective mentor – drawing posters of ideal days - group sharing

12:00 – 12:30 LUNCH

12:30 – 2:00 Resource Exploration Walk and Processing

2:00 – 2:30 Brainstorm “your greatest fears, dreaded issues, problems of worry, etc.”  
Assign – pack a bag of mentor supplies for your new role.

2:45 – 3:45 Technical skills – utilizing website

3:45 – 4:30 Reflect on your day as a mentor learner – locate self on expertise continuum, what influenced growth and change, continuing needs

### DAY 4 “Mentoring in context”

Preparation: Pack mentor bag with supplies for new role

8:30 – 9:00 Refreshments

- 9:00 – 10:15 Presentation on Conceptual foundations of intervention, Project goals and intentions, design, and roles of project staff
- 10:15 – 11:15 Limitations of Mentors Recognizing Boundaries – Why/Why Not?
- 11:15-12:30 Unpacking Our Mentor Bags – Lunch
- 12:30-2:00 Resource Exploration
- 2:00-2:30 Coming Attractions – Advice for Orientation of Mentees- Identifying Potential Problems
- BREAK
- 2:45-3:30 Technical skills
- 3:30-4:30 Processing – Resources to respond to potential problems, needs, issues

DAY 5 Are we ready? Are we mentors yet?

Preparation: Literature on mentoring issues for review by mentors

- 8:30-9:00 Refreshments
- 9:00-11:00 Consider Potential Problems and Work with Consultant on Approaches
- 11:00-12:00 Synthesis of Guidelines for Mentoring (ASSESSMENT)
- 12:00-1:00 LUNCH And RELAXATION
- 1:00-2:30 Resource – Mentor Office (practice entering data on forms)
- 2:30-3:30 Quiet Review and Reflection – Self Assessment (ASSESSMENT)
- Autobiographies, Continua, Group Profile, Charts/posters, Want ads, etc.  
Return to Training Outcomes and self assess
- 3:30-4:15 Planning/Design of Mentee Orientation

Advice/suggestions from Mentors (ASSESSMENT)

4:15-4:30 Review and rate daily schedules for effective and ineffective training activities (ASSESSMENT)

4:30 CELEBRATION

# **MENTOR TRAINING 2006-2007**

Mon., Sept 11<sup>th</sup>

## **Team building (self as learner) (10:45 – 12 noon)**

Pair Interviews using the following Probes

Describe yourself as a learner...what have been your best and most memorable learning experiences...what kind of environment works best for you to learn...what kind of learning or learning situations offer the most challenge...what are your learning strengths???

Using the interview information, the individuals introduce their partner using the learner descriptions. Capture key words from the introductions on big sheets of paper labeled 1. "descriptions of best learning experiences," 2. "supportive learning environments," 3. "challenging learning situations," and 4. "our group's learning strengths." We will use the sheets in the afternoon for team building.

## **Team building (1:00 – 2:00 p.m.)**

Using the large sheets from the morning, have the mentors develop implications for working with the mentees/first generation students. Ex., How will the group's learning strengths help the group's ability to mentor? Or How will the challenging learning situations promote sensitivity for mentee's learning challenges?

## **Reflection (3:45 – 4:30 p.m.)**

Ask mentors to write for about 10-15 minutes on the following:

"If you were a first generation student who signed up for a mentor and was listening to our group today, what would comfort you? What would worry you?"

Tuesday, September 12<sup>th</sup>

## **Discuss 1<sup>st</sup> generation article (9:00 – 9:30 p.m.)**

Describe and make a list (large sheets) of the key ideas from the article on the following:

Expectations of what first generation students might encounter at PSU?

Coping or success strategies of first generation students who are successful in universities or colleges?

## **Team building (9:30 – 11:00 a.m.)**

Ask individuals to write lists in response to the following:

Reflecting on the list from the article on first generation students (above) and considering yesterday's end of the day reflection, list what you bring to the program as a mentor on post-its (give each mentor a different color).

Make a second list of what we as a mentor community bring to respond to first generation students on larger post-its.

Have everyone place their post-its on the key idea sheets from the morning session, showing responses to the "expectations of encounters" and "success strategies".

### **Preview/Reflection (4:00-4:30 p.m.)**

Reflect on one mentoring challenge you perceive as particularly related to your own strengths and limitations.

Wednesday, September 13<sup>th</sup>

### **Discuss article – Education (not sure which article this is) (9:00 – 9:30 a.m.)**

### **Team building (9:30 – 11:00 a.m.)**

Begin by brainstorming with the whole group – What if this happens? What if my mentee...? What if I...? Develop on a sheet or chalkboard a huge list of What If's.

Encourage real brainstorming –really create every possible scenario.

Then assign each pair one of the worst What If's, have them come up with all possible ways of coping, strategies, logistics, and to do's for that situation, and give each pair a different color marker. After about five minutes of listing those, ask each pair to prioritize their ideas with a 1., 2., 3. for the best idea (1.), next best idea (2.), etc. After five minutes, ask the pairs to exchange lists, and keep their original marker. The directions for the pairs are to review the ideas of the previous group, add more ideas, and then prioritize again, either agreeing with the previous pair or disagreeing. You can repeat this process until all pairs have reviewed all lists, or until momentum runs out, or you're out of time.

Leave a little time to reflect on what happened. What did you notice? What if you had handled those What If's all by yourself? Or had to respond on the spot?

### **Reflection (3:15-4:30 p.m.)**

Reflect on the following: at this point, what's shakey for you about your mentor role? What's left from your anticipations of the training? What more would be helpful to you?  
What worries are left? Questions?

I would have these written for about 15 minutes. Then I would ask the group to share...those who are willing. I would listen well for planning the next two days, and I would collect the writing.

Thursday, September 14<sup>th</sup>

### **Discuss article (9:00-9:30 a.m.)**

Begin a discussion of the article with "Can you identify with the stories or have you known friends who have had similar experiences?"  
What do those stories mean for your mentoring role?

### **Take home Reflection**

Ask mentors to write on the following:

What has changed or expanded for you this week in terms of your ideas and expectations of first generation students?

What has changed or expanded for you in terms of your ideas and expectations of mentoring and the mentor role?

What has changed or expanded for you in terms of the concept of college success?

NOTE: Those reflections will be a good source of assessment data.

Friday, September 15<sup>th</sup>

RANDOM IDEAS:

Have mentors share their transformations from the reflection (take home) from the previous day.

What else can we do to support you as a community of mentors?

What do you expect of us (Project leaders)?

Here's what we expect of you as mentors?

One last idea – if you can fit it in. On the first day, take five minutes and have each mentor write a definition of mentor, a definition of first generation student, and a definition of college success. Place the writings in envelopes, one for each mentor and labeled with their names. At the end of the training, have mentors write definitions again. Then each mentor opens his/her envelope and compares his/her definitions and writes once more about the change (another great form of assessment). You two should try it too.

## Appendix iii

### SFMP Student satisfaction survey

#### Introduction

We 'd like to ask you some questions about your experiences ... Then we would like you to answer the following questions on a scale from 1 to 7 with "1" be the lowest score and "7" being the highest score.

#### Orientation

Take a minute to think about your experiences at the SFMP orientation session before Fall term, then tell us how much you AGREE with each of the following statements.

1. The orientation gave me a good sense of what the SFMP was all about.

A horizontal line with seven vertical tick marks. Below each tick mark is a circled number from 1 to 7, representing a Likert scale.

2. The orientation provided a useful introduction to the SFMP website

A horizontal line with seven vertical tick marks. Below each tick mark is a circled number from 1 to 7, representing a Likert scale.

3. The orientation provided a useful introduction to the peer-mentoring videos

A horizontal line with seven vertical tick marks. Below each tick mark is a circled number from 1 to 7, representing a Likert scale.

Overall,

4. I am satisfied with the orientation I received with SFMP

A horizontal line with seven vertical tick marks. Below each tick mark is a circled number from 1 to 7, representing a Likert scale.

#### Resource website

Take a minute to think about your experiences using the SFMP resource website, , then tell us how much you AGREE with each of the following statements.

5. The resource website is visually interesting

1 2 3 4 5 6 7

6. The resource website is easy to use

1 2 3 4 5 6 7

7. The resource website is useful for identifying campus resources.

1 2 3 4 5 6 7

8. The resource website is useful for showing me how to use campus resources

1 2 3 4 5 6 7

Overall,

9. I am satisfied with the resource web site

1 2 3 4 5 6 7

Peer-mentoring videos

Take a minute to think about your experiences viewing the peer-mentoring videos at the SFMP resource website,, then tell us how much you AGREE with each of the following statements.

10. The peer-mentoring videos are visually interesting

1 2 3 4 5 6 7

11. The peer-mentors in the videos were believable.

1 2 3 4 5 6 7

12. The video topics were important for new students like me.

\_\_\_\_\_

①    ②    ③    ④    ⑤    ⑥    ⑦

13. The strategies offered by the mentors in the videos are useful for me.

\_\_\_\_\_

①    ②    ③    ④    ⑤    ⑥    ⑦

Overall,

14. I am satisfied with the peer-mentoring videos.

\_\_\_\_\_

①    ②    ③    ④    ⑤    ⑥    ⑦

### Student Discussion Groups

15. At this time, have you had the opportunity to participate in a SFMP discussion group?

**yes** \_\_\_    **no** \_\_\_

If you answered "**yes**," please complete the next section of questions. If you answered "**no**," skip to question # (fill in)

Take a minute to think about your experiences in a SFMP discussion group, then tell us how much you AGREE with each of the following statements.

16. It was interesting to talk to other students in the program about their experiences adjusting to PSU

\_\_\_\_\_

①    ②    ③    ④    ⑤    ⑥    ⑦

17. Everyone was encouraged to participate in the group discussion.

\_\_\_\_\_

①    ②    ③    ④    ⑤    ⑥    ⑦

18. It was helpful hearing how other students dealt with their adjustment issues .

\_\_\_\_\_

①    ②    ③    ④    ⑤    ⑥    ⑦

Overall,

19. I was satisfied with participating in the SFMP discussion group..

\_\_\_\_\_

①      ②      ③      ④      ⑤      ⑥      ⑦

**Personal Mentors**

(Only to be completed by those students with personal mentors)

Take a minute to think about your experiences with your personal mentor, then tell us how much you AGREE with each of the following statements.

20. It was helpful to talk each week with my personal mentor about my experiences adjusting to PSU

\_\_\_\_\_

①      ②      ③      ④      ⑤      ⑥      ⑦

21. My personal mentor helped me identify campus resources that helped with my adjustment to PSU .

\_\_\_\_\_

①      ②      ③      ④      ⑤      ⑥      ⑦

22. My personal mentor helped me practice how to use campus resources before I actually had to use them

\_\_\_\_\_

①      ②      ③      ④      ⑤      ⑥      ⑦

23. My personal mentor helped me set up a time management program .

\_\_\_\_\_

①      ②      ③      ④      ⑤      ⑥      ⑦

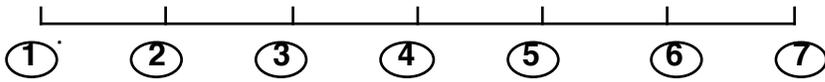
24. My personal mentor cared about me as a person.

\_\_\_\_\_

①      ②      ③      ④      ⑤      ⑥      ⑦

Overall,

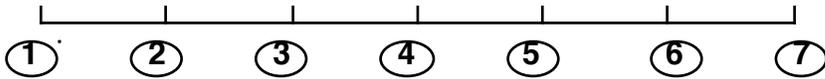
25. I am satisfied with my experiences working with my personal mentor..



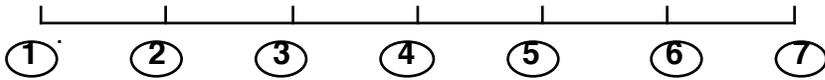
**Overall Program Evaluation**

Take a minute to think about all your experiences with the SFDMP this year, then tell us how much you AGREE with each of the following statements.

26. The SFMP was helpful to me in making the adjustment to PSU

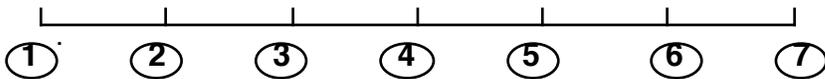


27. I would recommend this program to students like me who are entering the university.



Overall,

28. I am satisfied with my experiences with the SFMP.



29. In the box below, please make any suggestions that you might have on ways we might improve the SFMP in the future.