Research on our STARS Learning Community:  
What We’ve Learned So Far

★ More STARS students are progressing through the Basic Skills sequence to transfer-level English and math courses than students in the comparison group.

★ Changes in the First Year Experience design for the second year cohorts have increased STARS student success in all classes.

★ See our RESEARCH INSERT starting on page 3 for the exciting details!

Smart Classrooms – So Many Ways to Teach!

Smart classrooms enhance student access to instructional technology, exposing them to a wider range of content, including internet-based resources and multimedia presentations. Learning materials can be presented to engage visual and auditory learners, and the technology can offer interactive opportunities for students to actively seek out information and display real-time problem solving processes in the classroom. Faculty are also able to bring campus resources into their classrooms through links to Cabrillo’s website and servers.

While all Watsonville Center classrooms have smart technology, few smart classrooms were available for basic skills courses in Aptos. Title V is changing that by upgrading rooms where basic skills math, English, and reading courses are scheduled. The Reading Center and Writing Center were also upgraded with smart technology for basic skills lab courses. Title V has funded six new smart classrooms so far, including three that came online this semester: 716, 512, and 1061.

NEW Learning Communities Center welcomes visitors!

Teaming up to realize a long-sought goal, Cabrillo learning communities now have one central location for students to learn more about all the learning community programs at the college—the Learning Communities Center (LCC) in room 501. Growing from a concept developed years ago as a resource and center for Basic Skills students, ACE and STARS staff work in the LCC and Student Interns staff the center Monday through Thursday, building on the power of peer advising to answer questions, provide information and offer referrals to help students figure out which programs may fit their needs.

Aptos LCC, Room 501:  
Phone: (831) 477-3340  
Mon-Thurs 10 am—3 pm  
Summer hours 10—1

Watsonville LCC office:  
Room A100  
Phone: (831) 786-4764  
Tu/Th 10 —12, Wed 11-2  
Summer hours TBA
The STARS First Year Experience is nearing the end of its second year and much of the feedback from our first two cohorts has focused on the transition to college and the impact of Summer Bridge. The 2010 STARS students attended a 4-week Summer Bridge designed to support them through the challenge of the transition to college. Here are some of the student voices:

**STARS taught me to never let certain obstacles get in the way of accomplishing my dreams.**

To reach for your goals, be a creator, be successful, think for yourself, and fight for what you want.

STARS students enter the fall semester with a full-time course load that includes math and English. After Summer Bridge, they face the reality of the transition to college; negotiating work, school, and family can be challenging. STARS student voices echo the reality of this transition and how first year programs can help support them:

**STARS has been super supportive. I really do not know if I would have made it in college on my own without them. They are a tremendous amount of help to us. They've helped me with books, getting to know our campus, the way college runs, and how the financial aid process works. STARS was a great guide.**

**STARS helped me register for the classes that I needed, and helped me with certain things I didn't know coming to Cabrillo as a freshman.**

**STARS program has been there for me when I needed them most. I went through a devastating situation and depressing moments where I felt like I wanted to drop my classes. Because of the STARS program and my counselor, I got my motivation and strength (ánimos) back.**

STARS is succeeding with student retention! Over 90% of the first two cohorts of students joining the STARS First Year Experience in summer continued to enroll in a full-time course load in the Spring semester of their first year.

At the end of their first year, students reflect back on their experience and the support they have received:

**STARS was a great way to just jump into college life without having to worry too much about everything all at one time.**

**The STARS program got me started in college, and made me more responsible for myself. They encouraged me to do my best and never give up.**

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**Student Spotlight: Reflection on my STARS Experience**

**Viridiana Murillo**  
STARS First Year Experience  
**Career Interest: Nursing**  

First semester (Fall 2010):  
Engl 100, Math 154, CG 54  

Currently taking (Spr. 2012):  
Bio 4, Comm 1 & 6, Kin 37, Psych 1, CG 205L  

Looking back to my first year, STARS helped ease the transition to Cabrillo by first allowing us into pre-enrolled classes - that was a major plus. There was no stressing about how to enroll in a class, whether I would get into the class or if I would even know who was in the class. STARS allowed us to get to know each other in the summer, which made me feel more comfortable to start college. Once we started, school wasn't as strange as it would have been, had I not joined STARS.

My second year was my first year alone without STARS, and truly, I was more than excited to start it. I had friends, I knew about all the resources that Cabrillo has and I knew how to enroll. I couldn’t have been more prepared!

To all the potential STARS students, if you picture your first day of college and you see yourself absolutely terrified and confused, standing in the middle of who knows where, wondering where you sign up for classes... let me advise you. Join the STARS program and I guarantee you will know exactly what to do for the rest of your stay at Cabrillo College.
Measuring success as progress through the basic skills sequence: STARS data focuses on students’ progression through the basic skills math and English sequence to measure success. Research (Grubb, Boner, Frankel, et. al., 2011) identifies three longitudinal measures that are better indicators of success than course success rates:

- Successful completion of a basic skills sequence
- Movement into transfer-level math and English
- Eligibility for transfer and/or graduation

The Transfer Velocity Project (TVP) identifies factors that impact students' rate of transfer: The STARS First Year Experience model (Summer Bridge, full-time enrollment in fall and spring, math and English each semester) address elements identified in the Transfer Velocity Project (Hayward, 2011—yes, that’s our Director of PRO, Craig Hayward!) that increase the odds of transfer for basic skills students:

- Summer enrollment \(\Rightarrow\) 47% increase in the odds of transfer
- Full-time enrollment \(\Rightarrow\) 31% increase
- Enrollment in math AND English each semester in first year \(\Rightarrow\) 33% increase

See more of the TVP key research project at http://pro.cabrillo.edu/pro/pro_reports/JARCC191.pdf!

Demographic profiles of STARS students, Years 1 & 2: The cohorts from the first two years of STARS students shared the following characteristics:

- Placed into basic skills math, English, and reading (more than 40% into the lowest levels)
- Recently graduated from high school where they were A, B, and C students
- Mostly Latino/a, first generation to attend college, and bilingual (more than 75% grew up speaking Spanish)

Establishing a comparison group for STARS: The comparison cohort for STARS was created using Propensity Score Matching (PSM) to select three comparison students for each STARS student, using gender, age, ethnicity, zip code, and math/English placement levels (see table at right).

English and math levels: While students selected for the Comparison Cohort were matched to students in STARS Cohort #1 based on English and math placement levels, the proportion of students at each level in the basic skills sequences were not exact. For both English and math, STARS has a slightly larger percentage of students starting at the lowest levels. This difference is greater at the math 100 levels: only 17% of STARS placed into Math-152 compared to 24% of the comparison cohort, and 31% of STARS placed into math 154 compared to only 25% of the comparison group.

Movement through the Basic Skills sequence: As the charts on the following pages show, STARS students are moving through the basic skills sequence at a higher rate than a comparable group of students attempting to move through the basic skills sequence on their own. The support that STARS provides seems to have positive results.

<table>
<thead>
<tr>
<th></th>
<th>STARS Cohort #1 (n = 58)</th>
<th>Comparison Cohort #1 (n = 174)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (avg)</td>
<td>19.1</td>
<td>19.1</td>
</tr>
<tr>
<td>Female</td>
<td>59%</td>
<td>53%</td>
</tr>
<tr>
<td>Male</td>
<td>41%</td>
<td>47%</td>
</tr>
<tr>
<td>Latino/a</td>
<td>86%</td>
<td>87%</td>
</tr>
<tr>
<td>South Co. SC</td>
<td>76%</td>
<td>70%</td>
</tr>
<tr>
<td>Math-254</td>
<td>52%</td>
<td>51%</td>
</tr>
<tr>
<td>Math-154</td>
<td>31%</td>
<td>25%</td>
</tr>
<tr>
<td>Math-152</td>
<td>17%</td>
<td>24%</td>
</tr>
<tr>
<td>Engl-255</td>
<td>52%</td>
<td>50%</td>
</tr>
<tr>
<td>Engl-100</td>
<td>48%</td>
<td>50%</td>
</tr>
</tbody>
</table>
Progression through basic skills English sequence: August 2010—January 2012

Starting ENGL-255: 2-levels below transfer-level (TL)

<table>
<thead>
<tr>
<th>STARS Cohort #1</th>
<th>Comparison Cohort #1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STARS Cohort #1</strong></td>
<td></td>
</tr>
<tr>
<td>10% Students still at ENGL-255 (No progress in English sequence)</td>
<td></td>
</tr>
<tr>
<td>43% Successfully completed ENGL-255 only</td>
<td></td>
</tr>
<tr>
<td>3% Successfully completed ENGL-100</td>
<td></td>
</tr>
<tr>
<td>44% Successfully completed ENGL-1A (TL)</td>
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</tbody>
</table>

54% of STARS ENGL-255 students successfully completed 2-or-more levels in the English sequence, compared to 31% of the Comparison ENGL-255 students.

Starting ENGL-100: 1-level below transfer-level (TL)

<table>
<thead>
<tr>
<th>STARS Cohort #1</th>
<th>Comparison Cohort #1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STARS Cohort #1</strong></td>
<td></td>
</tr>
<tr>
<td>50% Students still at ENGL-100 (No progress in English sequence)</td>
<td></td>
</tr>
<tr>
<td>32% Successfully completed ENGL-100 only</td>
<td></td>
</tr>
<tr>
<td>18% Successfully completed ENGL-1A (TL)</td>
<td></td>
</tr>
</tbody>
</table>

50% of STARS ENGL-100 students successfully completed transfer-level English, compared to 30% of the Comparison ENGL-100 students.
Progression through basic skills math sequence: August 2010—January 2012

Starting MATH-254: 3-levels below transfer-level (TL)

- **STARS Cohort #1**
  - 4% Students still at MATH-254 (No progress in math sequence)
  - 33% Successfully completed MATH-254 only
  - 23% Successfully completed MATH-154
  - 33% Successfully completed MATH-152

- **Comparison Cohort #1**
  - 3% Successfully completed MATH-254 only
  - 85% Successfully completed MATH-254.

33% of STARS MATH-254 students made NO progress in the math sequence, compared to 85% of the Comparison cohort. 63% of STARS MATH-254 students successfully completed 2-levels in the math sequence, compared to 12% of the Comparison MATH-254 students.

Starting MATH-154: 2-levels below transfer-level (TL)

- **STARS Cohort #1**
  - 5% Students still at MATH-154 (No progress in math sequence)
  - 11% Successfully completed MATH-154 only
  - 17% Successfully completed MATH-152
  - 67% Successfully completed transfer-level

- **Comparison Cohort #1**
  - 16% Successfully completed MATH-154 only
  - 56% Successfully completed transfer-level

While a smaller proportion of STARS MATH-154 students made progress in the math sequence compared to the Comparison Cohort, 11% of the STARS MATH-154 students successfully completed a transfer-level math course compared to 0% of the Comparison MATH-154 students.
Lessons Learned from 2010-2011

Although STARS students were progressing through the basic skills math and English sequences at a faster rate than comparable students who are not members of a learning community, the following changes were made for the Year 2 cohorts based on feedback and data from Year 1:

- No classes were scheduled to start at 8:00 a.m. (frequent tardies were a barrier to success)
- The semester load was decreased from 16 units to 12 (for basic skills students in their first year, math and English each semester is a significant load)
- A mid-day gap was scheduled between classes (to build in time to study and form a stronger cohort)
- An Early Alert System was instituted (to identify students early in the semester who are in jeopardy of failing, provide intervention and refer to appropriate campus resources)
- Math-254SI was increased from 4 to 6 units (providing additional time for review, examples and expanded explanation)
- Attendance at supplemental instruction (SI) was made mandatory and sessions were scheduled to fit STARS student needs rather than for a general majority of students in the class (increasing STARS attendance at SI, increasing success)

These changes resulted in a significant increase in STARS course success rates for Year 2 as compared to Year 1, as seen in the table below and the chart to the right.

<table>
<thead>
<tr>
<th>Course</th>
<th>Success Year 1 (fall)</th>
<th>Success Year 2 (fall)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math-254SI</td>
<td>63%</td>
<td>80%</td>
</tr>
<tr>
<td>English-255</td>
<td>53%</td>
<td>93%</td>
</tr>
<tr>
<td>Reading-255</td>
<td>72%</td>
<td>96%</td>
</tr>
</tbody>
</table>

Stay tuned for more data comparing Year 1 cohorts to Year 2 after spring 2012!
A new STEM Program (Science, Technology, Engineering and Math) was launched at Cabrillo this semester with Title III funding from the federal Department of Education to expand and centralize STEM facilities through a remodel of the 800 building. The new STEM Center will provide academic support, study space and hands-on labs for engineering, physics, computer science and networking.

The $4.3 million Hispanic Serving Institutions (HSI) grant funds a five-year program from October 2011 - September 2016. The STEM program seeks to increase the number of underrepresented Latino and low-income students in the STEM fields, although program services are available to all students. A hands-on experiential Summer Bridge will be offered to students pursuing STEM degrees, as well as academic support through tutoring, mentoring, academic workshops, and assistance with financial aid.

The STEM program actively collaborates with MESA (Math, Engineering and Science Achievement) and the PLC (Physics and Engineering Learning Center) and will focus on developing transfer agreements with regional four-year universities. For more information, contact Kelli Horner, STEM Coordinator at (831) 477-3235.

The Data Warehouse Project and SOFIA—PRO, IT and STARS Team Up!

STARS Title V, the Planning and Research Office (PRO), and Information Technology (IT) have teamed up to create a new faculty inquiry system where faculty can access real-time data to answer questions about student success.

SOFIA (Student Outcomes for Faculty Inquiry and Analysis) will be piloted starting with the Fall 2012 semester. Faculty will be able to look at summary data on the students in their classes and follow their success and persistence over time.

During flex workshops and focus groups over the last 2 years, faculty have identified which data would be helpful in looking at the success of their students, and the questions and priorities identified by faculty are guiding SOFIA development.

The SOFIA system will pull data from the new SQL Data Warehouse (DW) under development by IT. The timing of the two projects has been coordinated among STARS, PRO, and IT to maximize funding and training opportunities. Going far beyond the scope of SOFIA, the new DW will benefit all divisions within the college with a greatly improved data infrastructure.

As the SOFIA system comes online next year, faculty training will be available and our online faculty inquiry network, the CabrilloFIN, will serve as an ongoing resource to SOFIA users.

Reading Skills: The Key to Success in All Disciplines

Strengthening student reading skills are essential to college preparation for success. The Reading department is a key resource for basic skills students, working with the Title V project as an integral part of the STARS First Year Experience learning community and working with librarians to build the Great Little Books collection. This is a high-interest, low-difficulty selection available for checkout both in Watsonville and Aptos. Since last year, there has been a 48% increase in Aptos and 175% increase in Watsonville in circulation of the books in the collection, which will add titles each year of the grant.

STARS First Year Experience includes a cohort of students who take Reading 255 with English 255 to build a strong foundation for the transfer-level coursework they will take in two semesters. For the first STARS Summer Bridge cohort, an individual Reading lab class was developed in a lecture format to integrate academic and study skills with reading.

Overall, STARS students have expressed that taking reading alongside other courses has strengthened their academic performance. Similarly, faculty in the social sciences, humanities, and physical sciences (especially math) continue to stress the importance of strong reading skills as a predictor of success in their courses.
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E-mail: stars@cabrillo.edu

On Course resources can be found online through the Professional Development group on the CabrilloFIN (Faculty Inquiry Network). Join your colleagues during our Fall flex workshop to share your innovative teaching strategies!

The event was funded by Title V, with food costs covered by the California Basic Skills Initiative. An exchange program with Skyline College provided spaces at an On Course I training, allowing more to attend On Course II.

Momentum is building for On Course! At Cabrillo, 88 instructors have completed On Course I training and 19 have completed On Course II, the advanced workshop.

On Course materials are now available for instructor loans in the STARS Title V Faculty Library, Aptos Library, and the Watsonville ILC.

We welcome your feedback on our newsletter: www.surveymonkey.com/STARSnewsletter