Other Duties as Assigned: Turning Research into Results -Who's Responsibility is it Anyway?

California Partnership for Achieving Student Success www.calpass.org



★ <u>Question</u>: Is your institution an evidencebased, data-driven decision making institution?

★<u>Answer</u>: Sometimes...



★ <u>Question</u>: What happens when you put a group of faculty together from the same discipline in the same room?

★ <u>Answer</u>: They talk about what they do in the classroom...



★ <u>Question</u>: What happens when you give the faculty from the previous question data about their students?

★<u>Answer</u>: ?



★ <u>Question</u>: What happens when you give the faculty from the previous question data about their students?

★ Answer: They use it in their conversations to develop classroom interventions, drive grassroots policy changes at their schools, and make better decisions about helping students be successful at every level of education



# What is Cal-PASS?

- ★ Links primary, secondary and post-secondary institutions on a regional basis
- **★**Tracks students from one segment to the next
- Engages faculty across segments in instructional conversations
- Includes over 3,000 K-12 schools, community colleges, and universities throughout California



# How Does Cal-PASS Work?

**\***Convene regional educational institutions  $\star$  Agree to work together (MOU) **★**Collaborate with partner agencies ★ Submit FERPA compliant data  $\star$ Conduct research **\***Convene Professional Learning Councils  $\star$ Conduct more research ★Implement innovations  $\star$ Evaluate innovations  $\star$ Bring to scale





### **Cal-PASS Research**

- ★ Action Research Paradigm
  - ★ Faculty, administrators, and local researchers are active participants
  - $\star$  Iterative process to refine analysis
- ★ Common questions become standard reports or web based queries produced by Cal-PASS staff
- ★ Locally unique questions handled by local researchers with assistance from Cal-PASS staff



# Turning this...



Picture credit: Randy Aragon, Cal-PASS



# What Kinds of Data are Collected?

Anonymous student identifiers (personal information is removed or encrypted) Student file

**★** Demographic information

Course file

 $\star$  Course enrollments and grades

Student test file

\* STAR and California High School Exit Exam score Award file

★ Diplomas, degrees, certificates

**Optional files** 

**★** Information collected on interventions





#### High School to Community College English Transition

The data below are from students who attended one of several local high schools and the local community college. Data are available from 1999 thru 2006 for both the high schools and the community college. The table below may provide an indication of the degree of alignment between high school and college English curriculum. The table should be read row wise by selecting a high school English level and reading across that row to see what percent of those students took a given level of English in college English class attempts are lower level, 44% are equal level, 30% are higher level, and 2% switched between native and non-native English. Males were slightly more likely to progress upwards than females while Hispanic and African-American students were less likely to progress upwards than other ethnicities. Please note that the course categories have been assigned by research staff and will need to be verified by local faculty.



<sup>44</sup> Compared to the highest level passed in high school, 24% of students' first college English class attempts are lower level, 44% are equal level, 30% are higher level, and 2% switched between native and non-native English.<sup>93</sup>





#### **Course Transition Matrix**

The table below shows the math transition data at the course level. This table should be read row wise by selecting a high school math level and reading across that row to see what percent of those students took a given level of math in college at their first college math class. Courses have been grouped into broad categories and can be disaggregated upon request. It should be noted that students could have taken math courses at a school not within the data sharing consortium. In addition, there is some error associated with matching students between segments. These considerations suggest caution when interpreting the data.

	First math class attempted in community college										
		Basic Math	Pre-Alg	Beg Alg	Geo	Int Alg	Stats/ Finite	Precalc	Calc	Count	
Highest level of math in high school successfully completed	Basic Math	11%	14%	41%	1%	28%	5%	1%	0%	730	
	Pre-Alg		•	*					×	*	
	Beg Alg	11%	10%	42%	1%	29%	5%	2%	0%	1291	
	Geo	2%	3%	29%	2%	40%	9%	5%	1%	1758	
	Int Alg	1%	2%	14%	1%	47%	21%	13%	2%	5966	
	Stats/ Finite	0%	0%	3%	0%	27%	48%	19%	4%	238	
	Precalc	0%	0%	2%	0%	21%	38%	29%	10%	2485	
	Calc	0%	0%	0%	0%	4%	28%	21%	48%	585	
	Total	320	377	2232	101	4824	2743	1775	682	13054	

"Cell counts suppressed when cell size is less than 10

Red = transitioned down at least one level from high school to college Yellow = stayed at same level in college as in high school Green = transitioned up at least one level from high school to college



# **Benefits to Researchers**

Data on student performance

★ Before they come to your institution

 $\star$  After they leave your institution

Opportunity to utilize Cal-PASS research staff for student tracking research

★ We work for you and with you

Strengthen relationships between educational institutions in your area

★ P-16 Partnerships



### **Benefits to Researchers**

Help obtain and/or evaluate grants that involve student transitions

★ Finally, a way to track students at the unitary level of coursework

Help answer enrollment management questions

★Like reverse transfers...

Help reduce remediation

★ Use course-level data or CST results to predict placement/success

Provides an outlet for data and research to be used...

 $\star$ ...used to improve success at every level



### **Benefits to Researchers**

Opportunity to utilize Cal-PASS Professional Learning Councils (PLC's) as a platform for turning your local campus research into results

★PLC's are encouraged to seek and use information and data beyond what is available through the Cal-PASS database



Where the rubber meets the road... Cal-PASS Professional Learning Councils (PLC's)

★ Mathematics
★ EL
★ Science
★ English
★ Tech Prep/CTE
★ Counseling



# **PLC Development**

- \* Cal-PASS Regional Coordinator organizes a Faculty Kickoff
- ★ Divide into discipline-specific groups
- \* Review regionally specific standard Cal-PASS reports
- ★ Elect 2 co-chairs per PLC
- ★ Co-Chairs call monthly meetings where faculty discuss curriculum alignment, student success, student transitions, institutional policies, etc.

\* Note: Regional Coordinators, Co-Chairs, faculty participants are compensated for their time and efforts



# **PLC Functions**

- ★ PLC's develop research questions that speak to student transitions
- ★ Cal-PASS responds with research reports
- $\star$  Research is an iterative process
- \* PLC's use this research to develop interventions and innovations to improve student success
- ★ Cal-PASS research used to evaluate innovations
- ★ Note: PLC's can also be used as a platform for your local research reports



## Local Research Interests

- ★ Local researchers have the opportunity to submit Cal-PASS research requests
- ★ Local researchers can download Cal-PASS CSV files and do their own research
- ★ Local researchers can access standard queries from the <u>http://my.calpass.org</u> portal
- ★ Local researchers can rely on Cal-PASS staff/reports to fulfill relevant research requests about student transitions
- Local researchers can use PLCs as a platform for disseminating data



IDENTIFYING & REMOVING BARRIERS TO STUDENT SUCCESS
ome > Query Data > Student Headcount
This report shows counts of students who enrolled at two different institutions at specified times. For example, this query will display how many students enrolled at a high school in 2003-2004 enrolled in a partner college in Fall 2004. This query includes all educational segments.
Search Parameters
Begining Criteria
Segment: OK-12 OCommunity College District/Institution: Academic Year:
Ending Criteria
Segment: O Community College O University District/Institution: Academic Year:
Report Columns
Column #1: Column #2: Column #3:
Run Query
© 2008 CalPASS :: All rights reserved. Legal Information :: Privacy Policy :: Terms and Conditions

#### Innovation examples:

- \* Math Councils: Deconstructed K-12 math standards
- ★ EL Councils: Developed a summer bridge program from HS to CC
- $\star$  Science: Developed an Algebra I for Chem course.
- ★ Tech Prep: Automated HS to CC course articulation process
- ★ Counseling: Developing an evidence-based advising document to place students in HS science courses
- ★ English: Developed common curriculum area between HS, CC, and Univ.



#### How to Contact Cal-PASS Researchers

Terrence Willett, Director of Research <u>twillett@calpass.org</u> (831) 277-2690

> Brian Stern bstern@calpass.org (619) 495-8608

Nathan Pellegrin npellegrin@calpass.org (916) 933-3973

Eden Dahlstrom, Associate Director of Regional Collaboration

edahlstrom@calpass.org (530) 204-7129

www.calpass.org





#### Relationship between 9<sup>th</sup> Grade Algebra I and English CST's and 10<sup>th</sup> Grade Biology Achievement



Correlation between 9<sup>th</sup> grade CST and 10<sup>th</sup> grade biology is stronger for English (+0.44) than Algebra 1 (+0.32).

#### A Matter of Misalignment

According to a recent report issued by the Stanford University Bridge Project:

"...the coursework between high school and college is not connected; students graduate from high school under one set of standards and, three months later, are required to meet a whole new set of standards in college."



#### **PLC Activities:**

- ★ MATH:
  - ★ Working on reviewing standards
  - ★ Identify common strands in Algebra curriculum
  - ★ Deconstructing curriculum
    - ★ Algebra I and II completed
    - $\star$  Geometry currently in process
  - ★ Identifying exemplar practices
  - ★ All web-based access
- ★ EL:
  - ★ Summer Bridge Course
- **\star** SCIENCE:
  - ★ Algebra bridge course for chemistry students
  - ★ Creating guide for counselor to place students in science courses



#### **PLC Activities:**

#### ★ ENGLISH:

- ★ Developed common curriculum areas
- ★ Staff development training
- ★ Mentoring a High School
- ★ Integrating with current CSU expertise
- ★ Mirroring a CSU/CC CAN English 1 module
- ★ Cross segmental critical thinking module
- ★ TECH PREP:
  - ★ Electronic A&R transfer and upload
  - ★ Web Site developed
  - ★ Work with teachers



#### Level of first college English attempted by last high school English passed

Highest High School Course Successfully** C	First English Course Attempted at the Local Community College							
Title	CBEDS	Basic Writing	sic Pre-Coll College ting Comp Comp		Post-Coll Comp 1	Post-Coll Comp 2	Total	
ENGLISH 10	2101	*	45.3%	50.0%	*	0.0%	86	
ENGLISH 11	2105	6.0%	38.5%	53.0%	*	0.0%	117	
CP ENG 11	2105	0.0%	38.4%	57.6%	*	*	125	
HONORS ENG 11	2114	0.0%	*	82.0%	12.0%	*	50	
ENGLISH 12	2106	4.7%	35.9%	55.0%	3.3%	1.1%	825	
CP ENGLISH 12	2106	1.4%	34.3%	61.8%	2.0%	*	699	
AP LIT/COMP 12	2171	0.0%	8.3%	63.9%	16.7%	11.1%	108	
Total		59	679	1,173	73	26	2,010	

\* rates suppressed when cell size is less than 5 \*\*success indicates a grade of "C" or better **Gold** = course most frequently attempted

**Yellow** = cells with at least 10% of row population

# Math Articulation Matrix for Area High Schools 2002-2006

**Red** = attempted class in college lower than that already passed in high school Gold = attempted class in college equal to that already passed in high school Green = attempted class in college higher than that already passed in high school

		First math class attempted in community college									
		Basic Math	Pre- Alg	Beg Alg	Geo	Int Alg	Stats+	Pre- Calc	Calc	%	N
Max HS math with grade of C or better	Basic Math	10%	35%	34%	0%	14%	*	*	0%	100%	77
	Pre-Alg	0%	*	*	0%	0%	0%	*	0%	100%	6
	Beg Alg	6%	25%	46%	*	16%	4%	3%	*	100%	252
	Geo	2%	9%	32%	1%	37%	13%	5%	1%	100%	543
	Int Alg	1%	1%	13%	*	33%	33%	16%	3%	100%	645
	Stats+	0%	0%	0%	0%	*	*	28%	40%	100%	25
	Pre-Calc	*	0%	2%	*	9%	38%	31%	18%	100%	422
	Calc	0%	0%	0%	0%	*	33%	6%	59%	100%	118
	Total	38	148	413	12	514	501	283	179		2,088

Overall, 32% of students' first college math course attempts are lower than what they passed in high school while 27% are equal to what they passed in high school and 41% are higher level than what was passed in high school.

#### High School Science to Community College Biology Articulation



Highest Math Course Attempted in High School

The higher the math course taken in high school, the higher the success rates are in community college biology courses.

#### Success in Transfer-level Biology by Highest High School Math Completed with a Grade of C or Better



#### Success in Transfer-level Biology by Highest High School English Completed with a Grade of C or Better

