

Profiles, Projections, and Stress Tests: Pathways to Institutional Effectiveness

Bob Cox

University of California, Los Angeles

California Association for Institutional Research

November 9, 2012 Anaheim

rcox@ponet.ucla.edu

CAIR Proposal Theme and Variations

- Mounting a program of 'stress tests' to prepare UCLA academic departments for anticipated instructional workload problems in 2013-14
- Currently implementing a pilot program in the Division of Life Sciences (first phase complete)
- **Work in progress;** lessons from the first phase
- Beginning with background on the 'stress test' concept and the circumstances in which it has become significant

Stress Tests in the News

- A term ripped from the headlines when the Fed tested big banks during the financial crisis
- Methods for identifying the risks to which banks would be exposed under alternative stressful economic conditions, and for identifying vulnerabilities
- Early identification of cases where backstopping or bailout assistance might be required
- Early warnings about cases bound for failure or, perhaps, 'too big to fail'
- **And a wake-up call to action for all concerned**

Stress Tests in an IR Context

- Assessing the capacity of academic units to adapt to challenges specified by alternative models of future conditions
- Most useful in uncertain times, times of crisis or rapid change
- Focused here on problems of maintaining quality and effectiveness in undergraduate instructional programs
- Stress tests combine IR skills used to prepare academic unit profiles with methods used to project future distributions of population and instructional workload

Stress Tests in Context at UCLA

- Stress tests mark the opening of a new stage in the academic planning process at UCLA
- Building upon collaborative efforts that have enabled the campus to target instructional resources allocation far more effectively
- This part of the story perhaps best told in flashbacks to CAIR 2009 and CAIR 2011
- But the main lesson from this phase is that the campus must rely on the departments to take the initiative in planning for changes in instructional workload delivery
- Stress tests, to be effective, should be developed in dialog with departments, mediated by the deans

Shaken & Stirred

Depressed Conditions and New Engagements for Institutional Research

Bob Cox – UCLA

with special guest

Van Novack – Cal State Long Beach

California Association for Institutional Research

November 20, 2009 Sacramento

Contact: rcox@ponet.ucla.edu

California's San Andreas Fault



Map copyright © 2006 David K. Lynch

2012



© 2009 Sony Pictures Digital Inc. All Rights Reserved.

Shaken - Summer 2008

- Financial news - cuts to academic unit budgets
- Enrollment news – projected 1,500 FTE over “budget”
- News from the Scheduling Office – cancelled classes
- News from Orientation – tight space at summer’s end
- **A Shocking Realization – For the first time in its history, UCLA could be at risk of entering a term in which there are too few seats offered in classes to meet aggregate demand**



Stirred - Summer 2008

- Step 1: Tapping into course scheduling system records of **seats offered** and seats filled in each and every undergraduate course on successive dates in advance of a future term
- A new data source for IR / Learning how to use it
- Step 2: Developing summary reports on the changing situation for campus leadership and detailed reports to managers responsible for course offerings
- Step 3: Projecting aggregate demand / Benchmarking proposed seat offerings against comparable past term seats offered and seats filled
- Managers use detailed reports to formulate temporary funding requests
- Funding distributed; most serious shortages and bottlenecks addressed

Seats Offered and Seats Filled in Undergraduate Primary Classes and Secondary Sections

Fall 2006 to Fall 2009 Third-Week Finals

Third Week Finals	Primary Classes				Headcount Enrollment	Per Capita Rates			Average Seats per Section			
	Seats Offered	Seats Filled	Seats Open	% Open		Seats Offered	Seats Filled	Seats Open	Sections Offered	Seats Offered	Seats Filled	Seats Open
Fall 2006	97,275	85,276	11,441	11.8	25,338	3.84	3.37	0.47	1,734	56.1	49.2	6.9
Fall 2007	98,130	86,474	11,656	11.9	25,780	3.81	3.35	0.45	1,661	59.1	52.1	7.0
Fall 2008	97,797	88,377	9,420	9.6	26,334	3.71	3.36	0.36	1,635	59.8	54.1	5.8
Fall 2009	98,118	89,298	8,820	9.0	26,442	3.71	3.38	0.33	1,570	62.5	56.9	5.6
Fall 2009 vs. Fall 2008	321	921			108				(65)		2.8	

Third Week Finals	Secondary Sections				Headcount Enrollment	Per Capita Rates			Average Seats per Section			
	Seats Offered	Seats Filled	Seats Open	% Open		Seats Offered	Seats Filled	Seats Open	Sections Offered	Seats Offered	Seats Filled	Seats Open
Fall 2006	54,856	50,642	4,229	7.7	25,338	2.16	2.00	0.17	2,267	24.2	22.3	1.9
Fall 2007	57,385	52,492	4,893	8.5	25,780	2.23	2.04	0.19	2,338	24.5	22.5	2.1
Fall 2008	58,413	54,593	3,820	6.5	26,334	2.22	2.07	0.15	2,353	24.8	23.2	1.6
Fall 2009	59,810	56,249	3,561	6.0	26,442	2.26	2.13	0.13	2,311	25.9	24.3	1.5
Fall 2009 vs. Fall 2008	1,397	1,656			108				(42)		1.1	

Excluded from the framework of this analysis are courses operating without fixed schedules or definite enrollment capacities -- such as independent study courses, most off-campus courses, Honors Contract courses numbered 89HC and 189HC, Student Research Program tutorials numbered 99, and all courses numbered 195 and above. Nursing and ROTC courses are also excluded.

**The Management of Undergraduate
Course Offerings and the Rise of
Future Course**

Bob Cox

UCLA Office of Analysis and Information Management

California Association for Institutional Research

November 11, 2011 Rohnert Park

2010-11 Earthquake Update

- Benchmarking for Bridge Funding
- Campus maintains performance levels
- Four-Year Grad Rate rises to 70%
- Minerva's Owl (sorry, no image)
- IR no longer stuck "In the Rumbleseat"
- Strong engagement in operations
- Critical role in planning and funding

Planned Growth PLUS!

- Planned for 5,250 new freshmen Fall 2011
- But SIRs show many more are coming
- Actually enrolled 5,825 (Fall 2010 +26%)
- Record number of Internationals (580)
- Record number of Cal Residents (4,800+)
- Expanded responsibilities for Orientation
- Identification of “**CRITICAL COURSES**”

March 2011 – UAIF

- **UCLA Today**

- Apr 05, 2011 By Cynthia Lee

- **Funds redirected to maintain high quality of undergraduate education**

- **UCLA's largest incoming freshman class** projected to enroll this fall, senior leaders have taken steps to ensure that there will be enough seats for first-year students in **critically needed lower-division courses**, including General Education courses; skill courses such as composition, foreign languages and quantitative reasoning; and preparation classes for impacted majors.
-
- Chancellor Gene Block and Executive Vice Chancellor and Provost Scott Waugh have decided to convert temporary resources, known as bridge funding, to a new pool of funds to meet key student enrollment needs in both core lower- and upper-division courses for all undergraduates to make sure they can graduate in a timely manner.
-
- This new resource, called the **Undergraduate Academic Incentive Funds**, will also be used to provide seed funding for innovative projects that can potentially increase the efficiency of courses and curricula. Last year, roughly \$7 million in bridge funding was distributed.
-
- "Maintaining a high-quality undergraduate program is one of our highest priorities and these funds will support that goal," Waugh said. **Undergraduate Academic Incentive Funds (UAIF)** will be allocated annually after deans of the College of Letters and Science submit their requests each year for funding of courses they feel are critical to undergraduate education. Requests for funding for this year's allocation are due by April 11.



Non-Res Enrollment Planning

- Non-Res Enrollment Workgroup (2009-10)
- Target Set: Add 2400 Non-Res by 2013-14
- From 9% to 18% of Enrolled Undergrads
- While maintaining Cal Resident access
- Non-Res Implementation Task Force
- Outreach /Services/Academic Programs
- Preparation for Innovation

“Information Flow” Subgroup

- Active Faculty Leadership
- IR hits the limit on looking backwards
- How else to look ahead and plan ahead?
- By making students part of the process
- By linking up existing assets...
 - The Tentative Schedule of Classes
 - My UCLA

Student View 8

- Future Course Planner – Several courses added

The screenshot shows a web interface for a student's course planner. At the top, there is a navigation bar with a 'My' logo and links for Features, WebMail, Quicklinks, Help, and Logout. The user's name, 'Hirning, John', is displayed on the right. Below the navigation bar, there is a header for 'FUTURE COURSE PLANNER FOR WINTER 2012' with tabs for SUMMER 2011, FALL 2011, WINTER 2012 (selected with a green checkmark), and SPRING 2012 (marked with a red exclamation point). A secondary navigation bar includes Plan, Search, Links, About, and URSA. A message states: 'You have not yet indicated the courses you wish to take in Spring 2012 (why?)'. The main section is titled 'Future Course Plan: Winter 2012' and contains instructions: 'Select up to five (5) courses from the tentative offerings below. Rank in order of preference by clicking on the up and down arrows. Click the (X) to remove a class from the list. Your choices (including your rankings) will help departments decide which courses are most important for you. MyUCLA saves your choices, and if the classes are offered, you can use the Class Optimizer in the Class Planner to find possible schedules in the upcoming term. You may come back and alter your course preferences through September 1 for Winter 2012 term.' Below this, there are two columns: 'Tentative Course Offerings' and 'Selected Courses'. The 'Tentative Course Offerings' column shows a dropdown menu set to 'MERCED' and a table with two rows of course offerings. The 'Selected Courses' column shows a list of five courses with their ranks, names, and status indicators (X, up arrow, down arrow).

[sample reboot.ini message text on paris]

FUTURE COURSE PLANNER FOR WINTER 2012 SUMMER 2011 FALL 2011 **WINTER 2012 ✓** SPRING 2012 !

Plan Search Links About URSA

- You have not yet indicated the courses you wish to take in [Spring 2012](#) (why?)

Future Course Plan: Winter 2012

Select up to five (5) courses from the tentative offerings below. Rank in order of preference by clicking on the up and down arrows. Click the (X) to remove a class from the list. Your choices (including your rankings) will help departments decide which courses are most important for you. MyUCLA saves your choices, and if the classes are offered, you can use the Class Optimizer in the Class Planner to find possible schedules in the upcoming term.

You may come back and alter your course preferences through September 1 for Winter 2012 term.

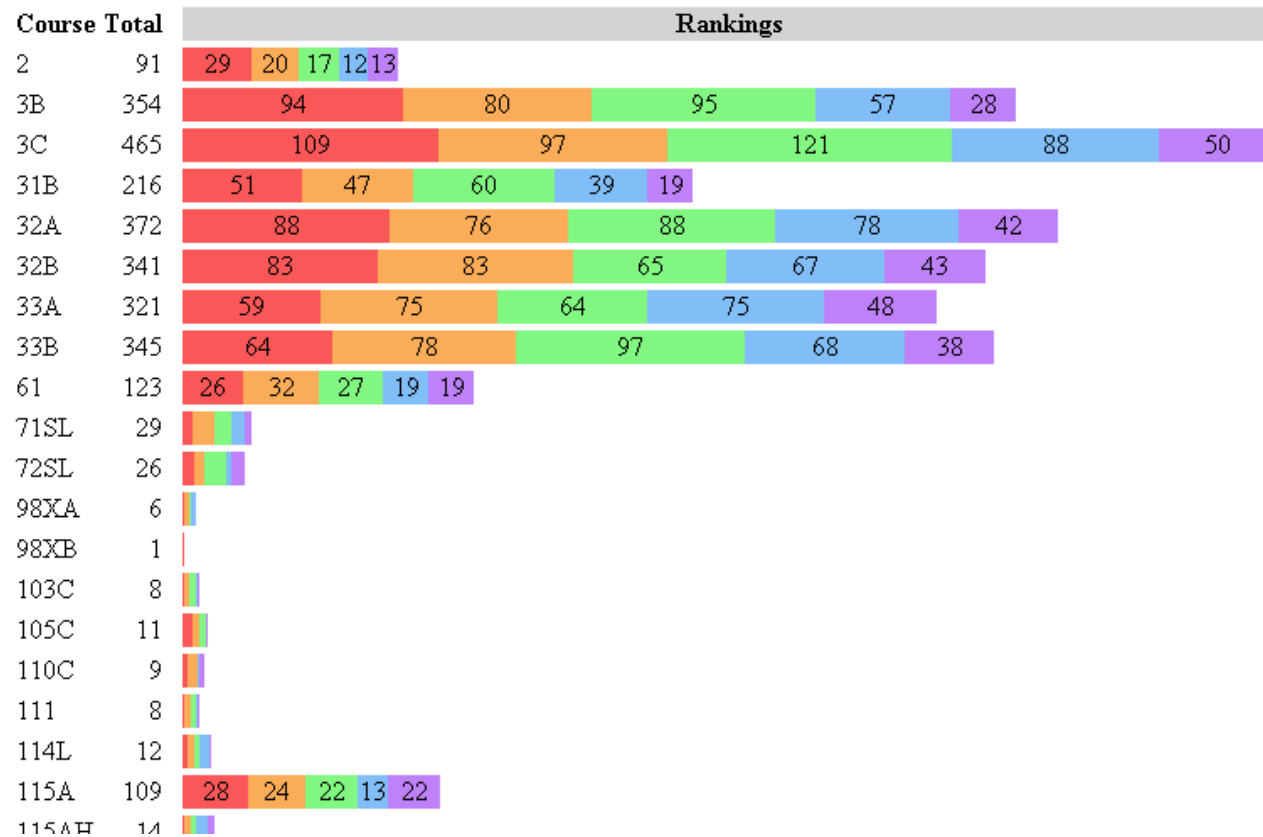
Tentative Course Offerings			Selected Courses	
MERCED			Rank	Course
1	AN N EA 130	X ▲ ▼	1	AN N EA 130 X ▲ ▼
2	CIVIC M194	X ▲ ▼	2	CIVIC M194 X ▲ ▼
3	NAV SCI 20B	X ▲ ▼	3	NAV SCI 20B X ▲ ▼
4	YIDDSH 102B	X ▲ ▼	4	YIDDSH 102B X ▲ ▼
5	UCM 10	X ▲ ▼	5	UCM 10 X ▲ ▼

Course	Course Title	
UCM 10	Visitor at UCM	add
UCM 20	Visitor from UCM	add

Staff View 2

- Sample Future Course Report
(legend will show color mappings: red – rank 1, orange – rank 2, etc.)

Course Plan Breakdown - MATH - 66F



New Analytical Support for Planning

- Future Course updates over the Summer
- Analysis of “response rates” by major, etc.
- Sorting out the implications
- Supplement, not substitution
- Circulating relevant materials
- To people making decisions on the ground



2012

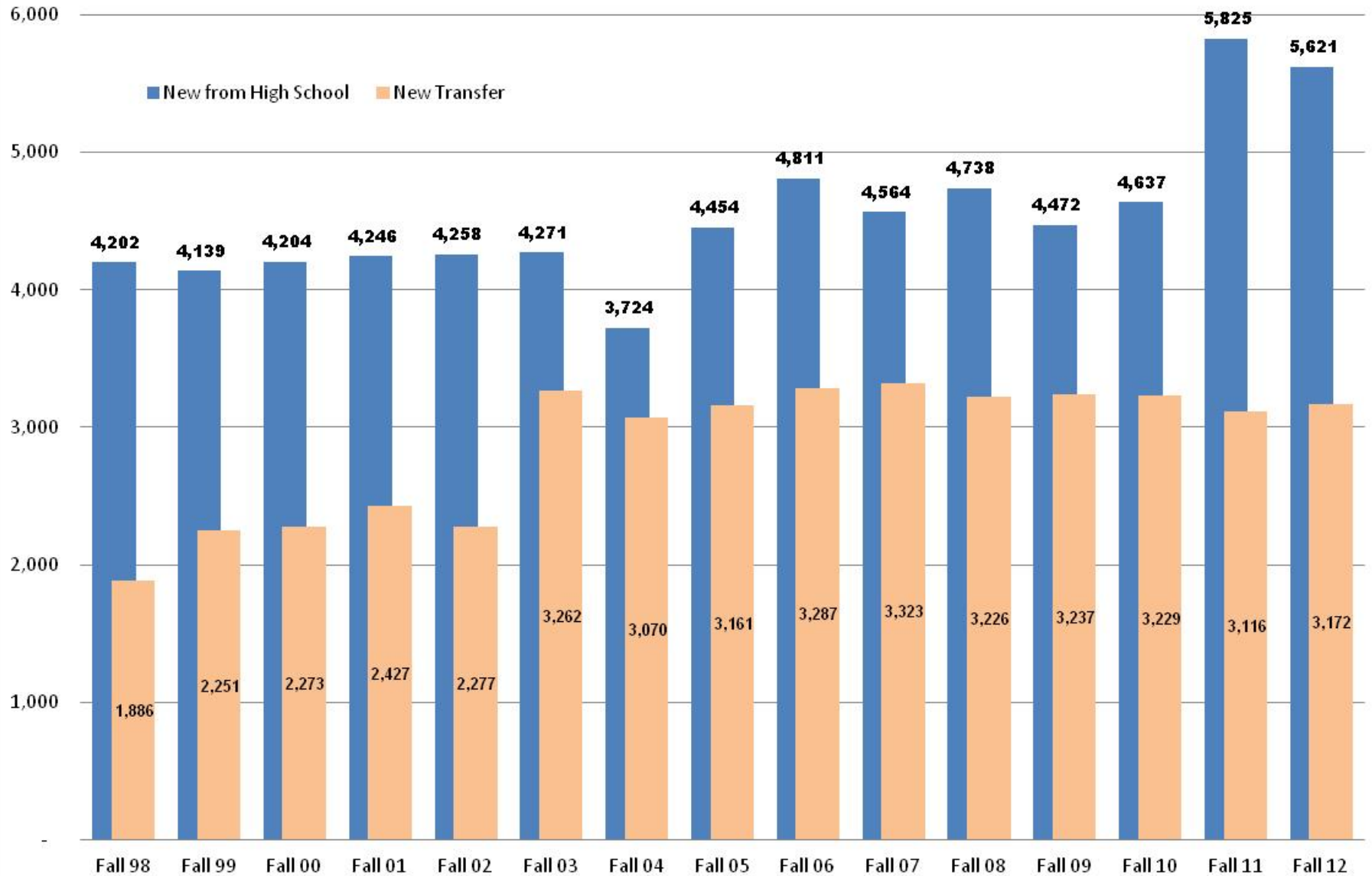


© 2009 Sony Pictures Digital Inc. All Rights Reserved.

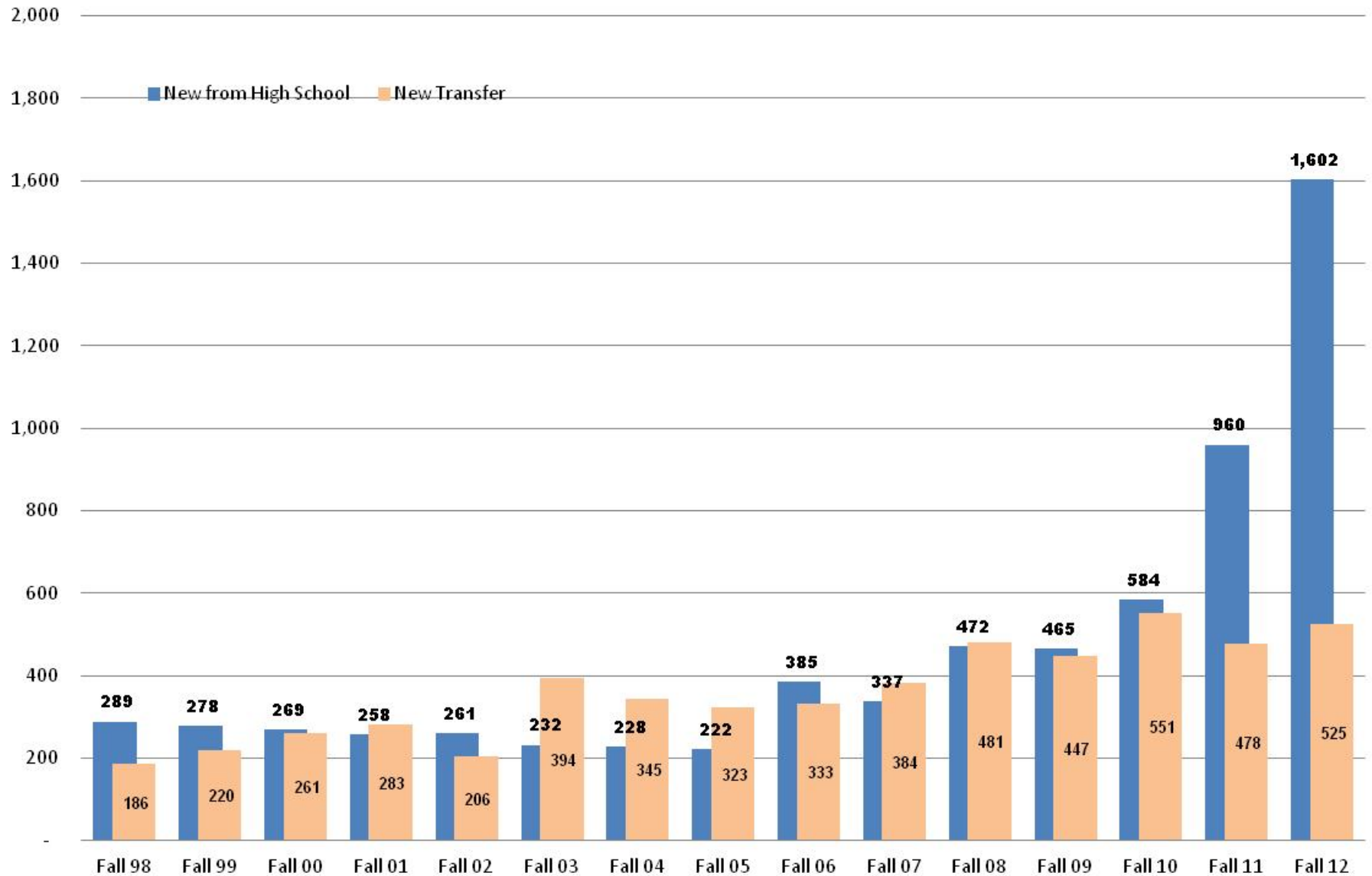
Planned Growth PLUS YET AGAIN!

- Planned for 5,425 new freshmen Fall 2012
- Actually enrolled 5,621 plus 3,172 transfers
- Record number of Internationals (992)
- Record number of Domestic Non-Res (610)
- Orientation manages 19,000+ seats in classes
- Expanded roster of **“CRITICAL COURSES”**

New Undergraduates at UCLA, Fall 1998 to Fall 2012



New Non-Resident Undergraduates at UCLA, Fall 1998 to Fall 2012



Apr 12, 2012 By UCLA Today staff

UCLA leaders commit funds to maintain high-quality undergraduate education

As state support for the University of California declines, campus leaders are making supplemental funding available to maintain UCLA's high-quality undergraduate education and provide the classroom seats needed to ensure that first-year students make timely progress to graduation.

Deans have submitted comprehensive proposals to utilize funding to be allocated by Chancellor Gene Block and Executive Vice Chancellor and Provost Scott Waugh in the next few weeks. While the exact amount to be allocated has not been determined, campus leaders last April made **\$16 million** available for use during the current academic year.

"We want to provide a sufficient number of courses and the right kinds of courses to enable undergraduates to move in a timely manner toward completing their degrees," Waugh said. "Maintaining a high-quality undergraduate education is one of our highest priorities."

The supplemental funding has allowed the campus to accommodate a larger-than-expected freshman class. Deans and department chairs are using the funding to hire the additional instructors and teaching assistants necessary to increase core course offerings in key fields, including General Education courses; skill courses such as composition, foreign languages and quantitative reasoning; and preparation classes for impacted majors.

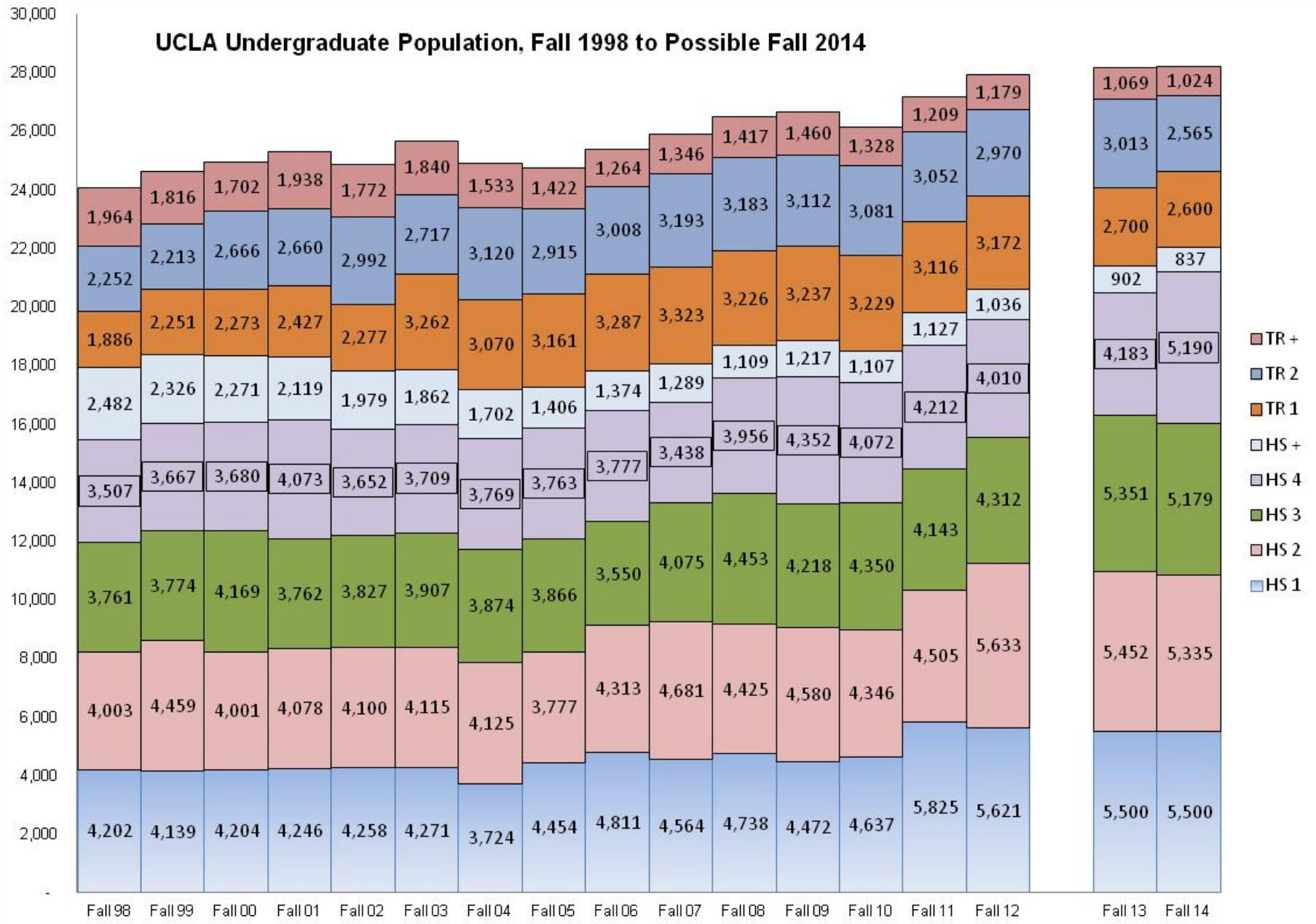
By paying close attention to course enrollment patterns, deans and department chairs regularly make adjustments to ensure that entering students have the courses they need and to facilitate the progress of continuing students. In recent years, careful attention to enrollment and course planning has helped students achieve the highest-ever four-year graduation rate in UCLA history.

"Approximately 91 percent of our freshman class now earns a bachelor's degree at UCLA. And of those who graduate, three-quarters (75 percent) graduate in four years or less, 21 percent graduate in five years and three percent graduate beyond the fifth year," Dean and Vice Provost of Undergraduate Education Judith Smith said. "Our goal is to increase the number of freshman students who graduate in four years and work more closely with those interested in the option of graduating in three years," she said, noting that timely graduation helps to ensure access for additional incoming freshmen.

As per-student state support for the University of California system has declined by about half over the past decade, the UC Board of Regents has increased tuition to help fill the gap with some of the revenue necessary to maintain academic excellence. But while some college campuses have had to drastically cut back on course offerings, UCLA has used careful planning and supplemental funding to meet important student enrollment needs.

"That doesn't mean that every student gets every course she or he wants at the time they want it," Smith said. "But it does mean that we have worked very hard to determine what classes are needed and to manage course enrollment so that students' needs are met."

UCLA Undergraduate Population, Fall 1998 to Possible Fall 2014



Stress Test Basic Building Blocks

- Analytical Operations at the Level of Courses and Classes
- Counts of Primary Classes and Secondary Sections
- Seats Offered
- Seats Filled (Course Enrollment) and Seats Open
- Average Primary and Secondary Enrollments per Student
- Average Enrollment per Primary Class and per Secondary Section
- Critical Ratios and Subsets (e.g. Percentage of Primary Classes with Secondary Sections)

**Seats Offered and Seats Filled in Undergraduate Primary Classes and Secondary Sections
Fall 2007 to Fall 2012 Third-Week Finals**

Third-Week Finals	Primary Classes					Seats per Capita			Seats per Section				% w/ sec
	Seats Offered	Seats Filled	Seats Open	% Open	Headcount Enrollment	Seats Offered	Seats Filled	Seats Open	Sections Offered	Seats Offered	Seats Filled	Seats Open	
Fall 2007	98,220	86,591	11,629	11.8	25,928	3.79	3.34	0.45	1,681	58.4	51.5	6.9	58.6
Fall 2008	98,009	88,609	9,400	9.6	26,536	3.69	3.34	0.35	1,642	59.7	54.0	5.7	59.9
Fall 2009	98,558	89,701	8,857	9.0	26,687	3.69	3.36	0.33	1,586	62.1	56.6	5.6	60.8
Fall 2010	97,751	87,643	10,108	10.3	26,162	3.74	3.35	0.39	1,547	63.2	56.7	6.5	61.9
Fall 2011	105,570	92,260	13,310	12.6	27,199	3.88	3.39	0.49	1,605	65.8	57.5	8.3	62.6
Fall 2012	109,755	95,453	14,302	13.0	27,941	3.93	3.42	0.51	1,640	66.9	58.2	8.7	65.5
vs. Fall 2011	4,185	3,193	992		742				35		0.7		

Third-Week Finals	Secondary Sections					Seats per Capita			Seats per Section			
	Seats Offered	Seats Filled	Seats Open	% Open	Headcount Enrollment	Seats Offered	Seats Filled	Seats Open	Sections Offered	Seats Offered	Seats Filled	Seats Open
Fall 2007	57,355	52,497	4,858	8.5	25,928	2.21	2.02	0.19	2,334	24.6	22.5	2.1
Fall 2008	58,381	54,635	3,746	6.4	26,536	2.20	2.06	0.14	2,352	24.8	23.2	1.6
Fall 2009	59,837	56,268	3,569	6.0	26,687	2.24	2.11	0.13	2,315	25.8	24.3	1.5
Fall 2010	59,751	55,981	3,770	6.3	26,162	2.28	2.14	0.14	2,276	26.3	24.6	1.7
Fall 2011	65,999	59,513	6,486	9.8	27,199	2.43	2.19	0.24	2,496	26.4	23.8	2.6
Fall 2012	70,975	64,393	6,582	9.3	27,941	2.54	2.30	0.24	2,648	26.8	24.3	2.5
vs. Fall 2011	4,976	4,880	96		742				152		0.5	

Excluded from the framework of this analysis are courses that operate without fixed schedules or definite enrollment capacities, such as independent study courses, off-campus courses, Honors Contract courses, SRP tutorials, and all courses numbered 195 and above. ROTC courses are also excluded.

Fall 2012 totals include three courses offering online classes.

Stress Test Building Blocks 2

- Measures Observed at Different Levels
 - Specific Courses, Subjects, Departments and Programs
 - Schools and Divisions, Campus Totals
 - Special Groups (e.g. General Education Courses).
 - Special Groups (e.g. Courses in Critical Sequences)
- Course Enrollments by Degree Program Link
 - Major, Minor, Division, Residual
- Course Enrollments by Student Cohort Type
 - HS 1 / HS 2 / HS 3 / HS 4 / HS + / TR 1 / TR 2 / TR +
- Course Histories Joined to Enrollment Projections
- Future Course Planner as a Short-Term Stress Monitor

**Undergraduate Student Enrollment in Undergraduate Courses at UCLA - Fall, Winter, and Spring 2011-12
with Percentage Distributions by Major/Minor/Division Link to Course Subject and by Cohort Type**

	Undergraduate Enrollment	% by				% by								
		Major	Minor	Divison	Other	HS 1	HS 2	HS 3	HS 4	HS 5	TR 1	TR 2	TR 3	
EE BIOL 0017	123	2	-	11	86	75	12	4	3	1	1	1	3	
EE BIOL 0019	130	18	-	37	45	68	14	3	4	2	3	5	2	
EE BIOL 0025	69	4	-	6	90	58	25	4	6	1	3	3	-	
EE BIOL 0097X	134	26	-	46	28	60	40	-	-	-	-	-	-	
EE BIOL 0099	97	51	-	30	20	7	23	34	12	-	11	11	1	
EE BIOL 0100	498	54	-	33	13	-	4	35	37	4	9	9	3	
EE BIOL 0100L	135	93	1	4	1	-	-	23	52	4	5	9	7	
EE BIOL 0103	51	78	4	12	6	-	-	18	43	10	8	14	8	
EE BIOL 0109	212	73	1	10	16	-	3	24	31	11	15	11	5	
EE BIOL 0109L	85	86	-	5	9	-	4	21	36	16	5	11	7	
EE BIOL 0110	53	79	-	19	2	-	-	13	51	9	4	17	6	
EE BIOL 0111	92	71	4	13	13	-	1	17	46	5	9	15	7	
EE BIOL 0116	203	82	-	3	15	-	1	31	40	3	6	14	4	
EE BIOL 0120	180	69	-	29	2	-	1	41	32	3	7	13	3	
EE BIOL 0121	98	54	-	36	10	-	-	19	31	11	9	24	5	
EE BIOL 0129	51	71	8	10	12	-	-	6	49	18	-	14	14	
EE BIOL 0135	60	40	-	45	15	2	-	43	35	3	5	8	3	
EE BIOL 0142	58	81	-	10	9	-	2	10	29	12	34	3	9	
EE BIOL 0151A	104	75	2	7	16	-	-	22	37	9	16	12	5	
EE BIOL 0155	78	71	4	13	13	3	9	38	23	1	17	3	6	
EE BIOL 0162	365	65	-	30	5	-	3	38	25	1	16	14	3	
EE BIOL 0162L	113	96	-	3	2	-	1	33	31	2	4	22	8	
EE BIOL 0175	60	85	-	10	7	-	5	37	30	3	8	13	3	
EE BIOL 0193	129	85	1	8	6	1	2	22	53	2	2	13	6	
EE BIOL 0194B	140	86	1	7	6	1	1	21	54	3	1	13	6	
EE BIOL 0199	85	78	1	11	11	1	-	20	56	5	1	9	7	
EE BIOL	3,999	66	2	18	15	8	5	25	35	5	8	11	4	

**Undergraduate Student Enrollment in Undergraduate Courses at UCLA - Fall, Winter, and Spring 2011-12
with Percentage Distributions by Major/Minor/Division Link to Course Subject and by Cohort Type**

	Undergraduate Enrollment	% by				% by							
		Major	Minor	Divison	Other	HS 1	HS 2	HS 3	HS 4	HS 5	TR 1	TR 2	TR 3
EE BIOL	3,999	66	2	18	15	8	5	25	35	5	8	11	4
MIMG	1,988	58	-	25	17	1	7	27	36	3	7	15	3
MCD BIO	2,715	44	-	35	21	12	9	21	31	3	6	15	3
NEUROSC	1,448	78	3	10	9	6	4	39	32	4	3	9	2
PHYSICI	3,901	56	-	14	30	16	8	25	35	4	3	7	3
PSYCH	15,070	78	1	7	14	9	13	21	20	2	16	16	3
LS CORE	9,574	-	-	68	32	19	48	15	3	1	10	2	1

	Undergraduate Enrollment	% by				% by							
		Major	Minor	Divison	Other	HS 1	HS 2	HS 3	HS 4	HS 5	TR 1	TR 2	TR 3
Humanities	46,331	27	4	11	58	18	17	15	15	3	14	14	4
Life Sciences	39,140	51	1	27	21	12	20	21	21	2	11	11	2
Physical Sciences	57,584	21	1	11	67	39	24	12	9	2	7	7	2
Social Sciences	64,403	53	3	15	29	15	14	17	16	3	17	15	4
UG Education	11,785	-	2	0	98	72	8	5	7	1	3	4	1
International Institute	1,540	40	13	4	43	4	15	21	27	3	12	14	2
Engineering	20,740	69	0	28	3	9	18	25	22	8	6	8	5
Arts	13,908	46	0	4	50	25	19	15	16	2	9	11	3
TFT	8,376	43	6	1	50	14	16	16	18	2	14	16	4
Nursing	1,186	96	-	-	4	9	9	38	26	5	4	8	1
All Others	12,110	-	13	0	87	9	16	19	24	3	11	14	4
UCLA	277,103	38	3	14	46	22	18	16	16	3	11	11	3

**EEB Undergraduate Majors by Cohort Type, Fall 2001 to Fall 2012
with a First-Order Estimate for Fall 2013**

	HS 1	HS 2	HS 3	HS 4	HS 5	TR 1	TR 2	TR 3	BIO
01F	350	313	208	150	93	73	76	46	1,309
02W	344	294	183	157	74	71	91	42	1,256
02S	332	275	166	145	62	77	88	42	1,187
02F	365	303	246	173	92	81	79	61	1,400
03W	354	297	229	157	72	82	82	61	1,334
03S	354	286	225	140	65	87	83	57	1,297
03F	387	350	258	217	91	114	78	58	1,553
04W	379	330	259	206	62	101	86	52	1,475
04S	375	291	244	199	55	105	80	47	1,396
04F	326	358	254	224	104	112	118	44	1,540
05W	328	350	257	220	75	105	101	49	1,485
05S	325	331	245	217	53	107	98	43	1,419
05F	493	271	275	232	95	122	106	73	1,667
06W	463	254	269	226	63	122	103	57	1,557
06S	446	232	255	218	55	119	103	41	1,469
06F	497	403	168	223	87	146	120	78	1,722
07W	479	348	166	227	53	131	125	48	1,577
07S	448	290	171	225	49	123	117	38	1,461
07F	373	389	231	154	83	108	125	61	1,524
08W	359	335	219	168	50	99	123	51	1,404
08S	333	293	212	163	36	87	114	35	1,273
08F	458	285	226	215	53	105	81	69	1,492
09W	434	235	213	213	41	94	80	54	1,364
09S	408	210	194	211	32	88	78	44	1,265
09F	432	355	169	183	95	97	81	46	1,458
10W	417	307	161	177	58	86	78	28	1,312
10S	386	240	145	163	40	77	76	25	1,152
10F	483	339	188	151	61	87	74	32	1,415
11W	462	300	192	147	37	72	73	16	1,299
11S	434	235	192	141	26	66	70	9	1,173
11F	511	384	208	205	54	87	61	32	1,542
12W	492	334	206	207	32	77	66	27	1,441
12S	454	278	219	199	27	78	69	22	1,346
12F	561	409	237	226	63	67	78	32	1,673
13W	540	357	235	230	35	59	83	28	1,567
13S	498	299	250	219	32	60	87	23	1,468
13F	561	448	257	258	68	67	60	39	1,758

**148 Courses Cited by 40+ Students in the Future Course Planner
as a 'Top Three' Selection for Winter 2013 - by Student Cohort Type**

**With FCP Selection Count Multiplied by the Inverse of the Cohort Type Response Rate
to Provide a First Order Estimate of Total 'Top Three' Demand for Each Course**

**Comparing 'Top Three' Future Course Planner
Estimated Demand for Winter 2013 to**

**Actual Enrollment by Quarter 2011-12 - 2nd Week Enrollment Fall 2012
and Stated Course Enrollment Capacities for Winter 2013 at October 16**

FCP Response >> COURSE	23% HS 1	43% HS 2	40% HS 3	36% HS +	28% TR 1	40% TR +	N/A GR	est. FCP Win 13	Fall 11	Win 12	Spr 12	Week 2 Fall 12	est. FCP Win 13	Capacity Win 13	vs. FCP Win 13
EE BIOL 116	-	2	45	70	4	33	9	163					163	180	17
LIFESCI 1	260	223	70	34	25	15	6	633	524	203	544	642	633	720	87
LIFESCI 2	106	343	30	3	50	10	-	542	632	658	720	642	542	648	106
LIFESCI 3	4	690	75	22	61	30	9	891	569	733	491	598	891	760	(131)
LIFESCI 4	-	209	223	20	90	40	3	585	488	520	488	542	585	576	(9)
LIFESCI 15	66	53	3	6	4	5	-	137	284	214	217	286	137	216	79
LIFESCI 0023L	-	219	45	3	22	8	-	297		309	285	329	297	-	(297)
MCD BIO 0165A	-	2	40	28	22	48	6	146	162	159			146	162	16
MIMG 102	-	2	43	101	7	15	3	171					171	300	129
MIMG 0185A	-	-	30	53	4	23	3	113	118	116		87	113	120	7
NEUROSC 0101B M	9	-	120	31	22	45	3	230		172			230	160	(70)
PHYS CI 5	70	46	13	31	4	8	-	172	420	412	416	420	172	418	246
PHYS CI 0111A	-	7	188	17	22	5	3	242		289			242	290	48
PHYS CI 167	-	2	53	171	4	45	-	275		364			275	350	75
PSYCH 10	154	55	5	8	-	5	-	227	638	541	513	682	227	450	223
PSYCH 0100A	48	253	18	11	32	3	3	368	478	244	303	499	368	250	(118)
PSYCH 0100B	9	200	93	6	248	10	3	569	239	319	253	279	569	210	(359)
PSYCH 110	4	21	115	64	25	53	-	282	200	192	188	154	282	160	(122)
PSYCH 115	-	14	78	48	47	30	3	220	105	294	183		220	200	(20)
PSYCH 0119E	-	7	13	95	18	30	-	163		120			163	50	(113)
PSYCH 0119Q	-	5	30	126	32	25	3	221		56			221	50	(171)
PSYCH 0120A	4	18	75	112	58	115	-	382	310	304	292		382	240	(142)
PSYCH 126	4	-	13	48	14	63	-	142	21	21	27	21	142	24	(118)
PSYCH 0127A	4	18	33	20	29	8	-	112	224	199	179	247	112	200	88
PSYCH 135	4	28	48	14	72	20	-	186	305	173	153	400	186	160	(26)
PSYCH 0136A	-	2	13	90	11	63	3	182	27	26	25		182	48	(134)
PSYCH 0137C	-	18	43	31	22	20	6	140		411	164		140	400	260

Lessons from Life Sciences

- Different Departments – Different Stress Points
- Psychology Dept. will be overwhelmed by a giant rising junior-year cohort seeking to enter the major
- Classroom space and availability of TAs at issue
- Familiar resource ratios thrown into disequilibrium
- Expansion of summer offerings might (or might not) help
- Other specialized Life Sciences departments likely to run up against limits on teaching lab space and pressures on major advising and staffing
- Questions about cadavers

The Road Ahead

- Preparing for second round and possible third round visits with Life Sciences departments before funding requests are submitted
- Seeking best arguments for supplementary funding next year along the lines used to justify UAIF funding
- Assistant Dean will develop a template for organizing departmental arguments
- Expansion of Stress Test planning effort to the other Divisions
- Integration of Stress Test efforts into the overall Strategic Planning Cycle
- Process thus far confirms the thesis that greater faculty involvement and departmental investment in the planning process will be essential in responding to challenges posed by the rising junior-year cohort in 2013-14

Profiles, Projections, and Stress Tests: Pathways to Institutional Effectiveness

Bob Cox

University of California, Los Angeles

California Association for Institutional Research

November 9, 2012 Anaheim

rcox@ponet.ucla.edu