



Leading to Action

Presentation at Education Trust Leading Indicators Meeting
Washington, D.C.

June 23-24, 2011

Edward Sullivan, Ph.D., Assistant VP for Institutional Research and Analytical Studies

Edgar Trotter, Ph.D., Associate VP for Undergraduate Programs (Acting)

California State University, Fullerton

- ▶ **Founded in 1957**
- ▶ **Carnegie Classification**
 - Master's Colleges and Universities (larger programs)
 - Large four-year, primarily nonresidential
 - High undergraduate
 - Medium full-time four-year, selective, higher transfer-in
- ▶ **Largest CSU campus enrollment Fall 2010 --- 35,590**



California State University, Fullerton

- ▶ **Fall 2004 First-time Full-time 6-yr graduation rate --- 51.4%**
- ▶ **One of five “Low net-price institutions with a graduation rate of at least 50 percent and at least 30 percent Pell enrollment”** based on data from The Education Trust. *Priced Out: How the Wrong Financial-Aid Policies Hurt Low-Income Students* (June 2011)
- ▶ **Fifth in the nation in terms of baccalaureate degrees awarded to minority students** based on data from the U.S. Department of Education. *Diverse Issues in Higher Education* (June 2010)
- ▶ **No. 1 in California and fifth in the nation among top colleges and universities awarding bachelor’s degrees to Hispanics** based on data from the U.S. Department of Education. *Hispanic Outlook in Higher Education* (May 2011)



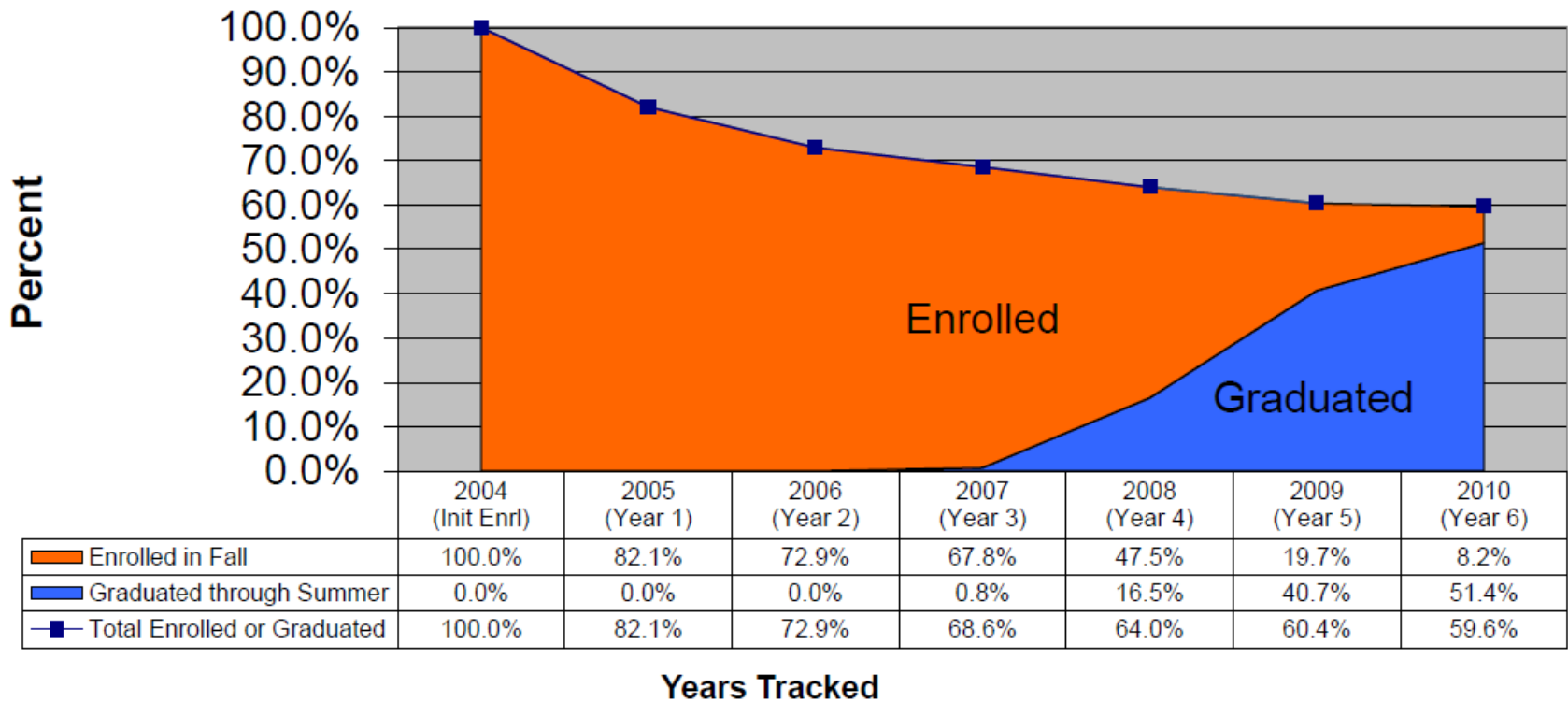
Campus Attrition Tracking

Identified need to address early attrition

Fall 2004 First-Time Full-Time Freshmen

Cohort Size: 3,542

Average SAT: 991 Average High School GPA: 3.23



Cohort Characteristics of Concern

Fall 2009 First-time Full-time Freshmen

- ▶ 51% needed math and/or English remediation in their first fall semester
 - 61% of URMs needed math and/or English remediation in their first fall semester

- ▶ 52% would be the first generation in their family to earn a college degree
 - 43% of URMs are in the first generation of their family to attend college
 - 29% of URMs have parents who attended but did not graduate from college

- ▶ 34% are Pell recipients
 - 46% of URMs are Pell recipients

Examined Pathways using Pivot Tables

Focused on Fall YR 2 return rates (1 year retention)

▶ URM and Non-URM

- Pell Status
- Remediation Status (English and math combined)
 - Math remediation status fall year 1
 - Benefits of Summer math remediation
- Academic quality
- Family education experiences
- First semester outcomes
- Registration behaviors
- College unit completion
- Other variables

CSU Early Start Program (Summer 2012)

Start remediation in summer before first semester of enrollment

- ▶ We have had a voluntary program similar to the CSU Early Start Program that we have run as part of our summer session
- ▶ As part of our leading indicators study we looked at potential benefits of Early Start on closing the achievement gap

Does Summer Math Remediation Provide an Advantage over Fall Math Remediation?

▶ Results

- **Students completing math remediation in the summer were retained into the spring of year 2 in rates comparable to students who did not have a remedial math requirement.**
 - Math course pass rate in fall year 1 may suggest a need for additional math instructional intervention
- **Students requiring math remediation in the fall of year 1 were far less likely to be retained into the fall or spring of year 2.**
 - 24% did not pass their remedial math course in fall of year 1
 - 88% did not complete 12 or more degree applicable units in fall of year 1

Discussed the Findings with the CSU Fullerton Graduation Rates Initiative Committee

- ▶ Policy issue emerged: remedial units do not provide credit/progress towards degree requirements
 - What might we do differently?
 - What disadvantages may be preventing the students from not remediating in the voluntary summer program?
 - What could be changed?
 - Are there underlying causes?

Policy Issues - Remedial Units do not Provide Credit/Progress Toward Degree Requirements

▶ Challenge

- Fall math remedial students represent
 - **24% of the first-time full-time cohort**
 - **35% of the URM cohort**
 - **16% of the non-URM cohort**

Policy Issues - Remedial Units do not Provide Credit/Progress Toward Degree Requirements

▶ Challenge

- Fall math remedial students
 - **Are retained at lower rates than non-remedial math students**
 - **Rarely complete 12 or more collegiate units in their first semester**
 - **11.5% of the group complete 12 or more collegiate units in their first semester**
 - **65% of the group completed twelve or more units when remedial courses are counted.**
 - **Less likely to pre-register for the spring 2010 semester**

Policy Issues - Remedial Units do not Provide Credit/Progress Toward Degree Requirements

▶ Challenge

- Fall math course pass rate for students needing fall remediation and students meeting math remediation by completing summer courses were lower than students without a remedial requirement

Policy Issues - Remedial Units do not Provide Credit/Progress Toward Degree Requirements

▶ Efforts

- **Supplemental instruction in math and sciences** (existing pilot likely to be institutionalized in 2011-12)
 - Peer (faculty trained students who have successfully completed the course) led discussion/problem solving sections to augment lecture/laboratory experiences
 - Expansion to remedial and college level general education math courses
- **Early Start Program (Summer 2012 CSU Mandate)**
 - Remedial students must begin addressing remediation needs in summer prior to entry.

Policy Issues - Remedial Units do not Provide Credit/Progress Toward Degree Requirements

▶ Efforts

◦ **Parent/student awareness (likely spring 2012)**

- Interventions at the point of entry level math and English testing and prior to orientation to increase awareness of the importance of proficiency testing and importance of completing remediation
 - Importance of testing in spring to meet remediation and get off to a strong first semester without being held for remediation
 - Pre-remedial course attempt workshops in early summer to ensure success in remedial courses taken in second part of summer.

Policy Issues - Remedial Units do not Provide Credit/Progress Toward Degree Requirements

▶ Efforts

◦ **Parent/student awareness (likely spring 2012)**

- Appropriate course loads to graduate in four, five , or six years.
 - First-time full-time URM more likely to be enrolled in lower unit load than non-URM in fall year 1
- Importance of pre-registering
 - Early sessions of student orientation for best possible scheduling
 - Future terms for greatest schedule flexibility and opportunities

Final Thoughts

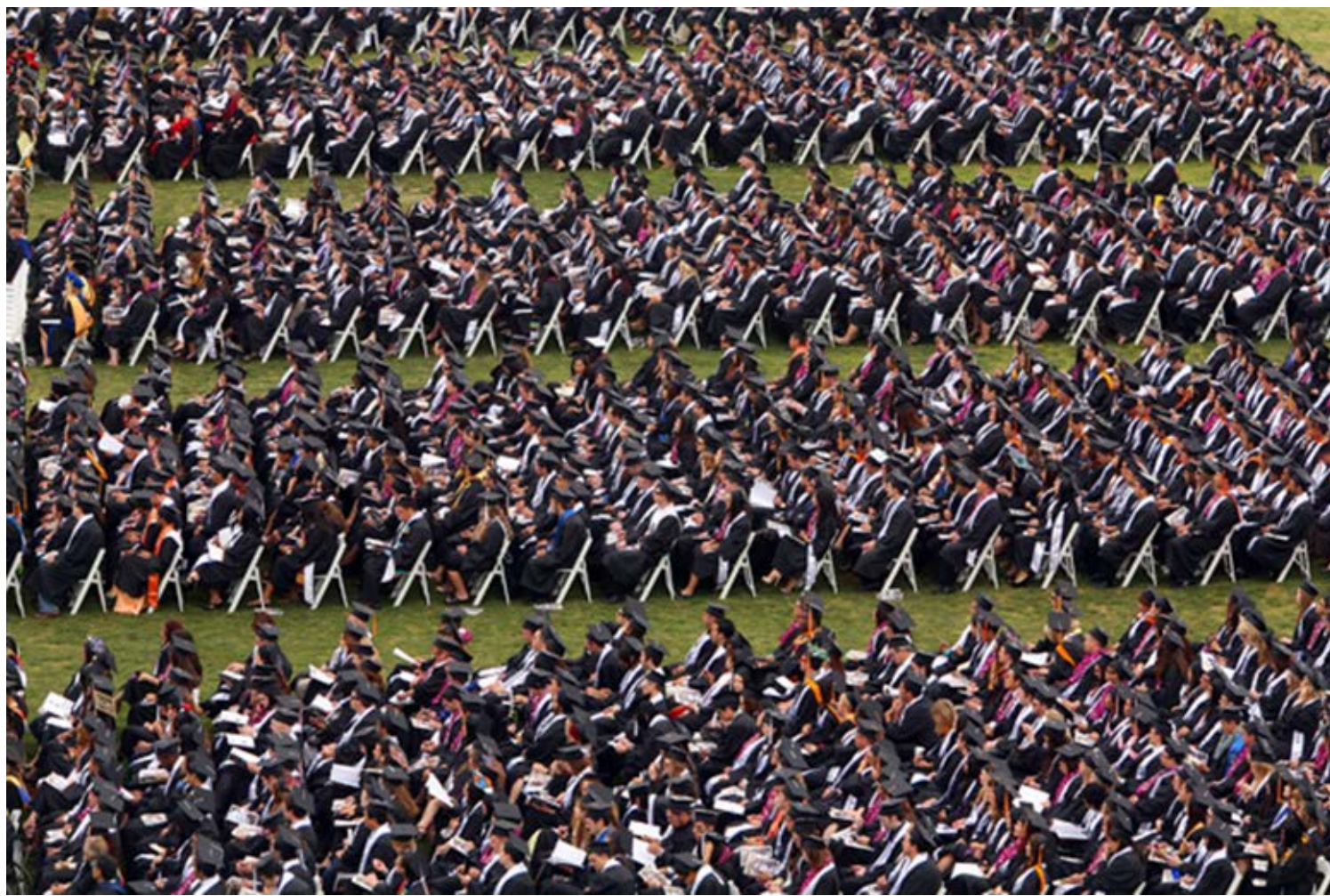
- ▶ Leading Indicators Model approach reveals true leading indicators are visible before first course is attempted at CSU Fullerton
 - Remedial need
 - Units earned/GE math completed/remediation completed
 - Parent Education
 - Units earned/GE math completed/remediation needed
 - Academic Quality (HS GPA/SAT)
 - Units earned/GE math Completed/remediation needed

Final Thoughts

- ▶ Existing Leading Indicators are a reflection of entering student quality and family experience in higher education
 - **Any efforts to close the gap must address the academic quality and family education experience differences between URM and non-URM students.**

	Cohort	Average HS GPA	Average SAT total	First Generation to Attend College	Good Standing after FA 2009	Retained FA yr 2 (1 Yr Rate)
Needed English and Math remediation	661	3.11	846	38%	75%	70.2%
Needed Math remediation	259	3.22	935	26%	83%	72.6%
Needed English remediation only	1,033	3.23	955	29%	81%	86.5%
No remediation required	1,892	3.35	1084	18%	88%	89.7%
Grand Total	3,845	3.27	999	25%	84%	84.4%

Questions?



Selected Data Tables

Fall 2009 First-Time Full-Time

	Cohort	Mean HS GPA	Mean SAT TOT
First-Time Full-Time Cohort	3,845	3.27	999
URM	1,612	3.23	948
Pell	743	3.23	916
Non-Pell	869	3.23	977
Non-URM	2,233	3.30	1036
Pell	546	3.26	1006
Non-Pell	1,687	3.31	1046

The SAT Total does not include the SAT writing scores

Fall 2009 First-Time Full-Time

	Cohort	First Generation To Attend College	Parent(s) Graduated College
First-Time Full-Time Cohort	3,845	25%	40%
URM	1,612	43%	21%
Pell	743	59%	8%
Non-Pell	869	29%	32%
Non-URM	2,233	12%	54%
Pell	546	29%	31%
Non-Pell	1,687	7%	62%

Fall 2009 First-Time Full-Time

	Cohort	Mean HS GPA	Mean SAT TOT
First-Time Full-Time Cohort	3,845	3.27	999
Needed English and Math remediation	661	3.11	846
Needed Math remediation	259	3.22	935
Needed English remediation only	1,033	3.23	955
No remediation required (includes students who completed remediation in summer 2009)	1,892	3.35	1084

The SAT Total does not include the SAT writing scores

Fall 2009 First-Time Full-Time

	Cohort	First Generation To Attend College	Parent(s) Graduated College
First-Time Full-Time Cohort	3,845	25%	40%
Needed English and Math remediation	661	38%	25%
Needed Math remediation	259	26%	33%
Needed English remediation only	1,033	29%	38%
No remediation required (includes students who completed remediation in summer 2009)	1,892	18%	48%

Retention Summaries

(FT Freshmen By Math Remediation Status entering FA YR 1)

Group	Original Cohort	Passed Attempted Math Course FA YR 1	Completed 12 or More College Units FA YR 1	SP YR 1	FA YR 2 (1 YR Rate)	SP YR 2
Met Math Remediation by EAP/SAT/ACT/AP prior to FA YR 1	1,769	87.1%	78.6%	96.9%	89.3%	88.2%
Met Math Remediation by Entry Level Mathematics Proficiency Test Score prior to FA YR 1	763	79.8%	68.5%	96.5%	87.4%	84.8%
Completed Math Remediation Requirement Summer prior to FA YR 1	393	75.8%	67.7%	95.7%	87.8%	86.5%
Needed Math Remediation FA YR 1	920	75.8%	11.5%	94.7%	70.9%	71.7%

Retention Summaries

(FT Freshmen Identified as Needing Math Remediation)

Group	Original Cohort	Passed Attempted Math Course FA YR 1	Completed 12 or More College Units FA YR 1	SP YR 1	FA YR 2 (1 YR Rate)	SP YR 2
Completed Math Remediation Requirement Summer prior to FA YR 1	393	75.8%	67.7%	95.7%	87.8%	86.5%
URM	180	76.8%	63.3%	97.2%	86.1%	86.1%
Non-URM	213	75.0%	71.4%	94.4%	89.2%	86.9%
Needed Math Remediation FA YR 1	920	75.8%	11.5%	94.7%	70.9%	71.7%
URM	559	75.4%	6.6%	95.2%	70.1%	70.8%
Non-URM	361	76.3%	19.1%	93.9%	72.0%	73.1%

Retention Summaries

(FT Freshmen Identified as Needing Math Remediation)

Group	Original Cohort	Passed Attempted Math Course FA YR 1	Completed 12 or More College Units FA YR 1	SP YR 1	FA YR 2 (1 YR Rate)	SP YR 2
Completed Math Remediation Requirement Summer prior to FA YR 1	393	75.8%	67.7%	95.7%	87.8%	86.5%
Pell	113	73.2%	54.0%	95.6%	83.2%	80.5%
Non-Pell	280	76.9%	73.2%	95.7%	89.6%	88.9%
Needed Math Remediation FA YR 1	920	75.8%	11.5%	94.7%	70.9%	71.7%
Pell	400	75.4%	7.5%	97.0%	71.8%	73.8%
Non-Pell	520	76.0%	14.6%	92.9%	70.2%	70.2%

Retention Summaries

(FT Freshmen Identified as Needing Math Remediation)

Group	Original Cohort	First semester GPA 1.0 or less	First Semester GPA 2.70 or better	Pre-register SP yr 1	Good Standing after FA 2009	Earned 12 units or more including remediation
Completed Math Remediation Requirement Summer prior to FA YR 1	393	3%	49%	94%	81%	83%
URM	180	3%	46%	94%	80%	81%
Non-URM	213	3%	52%	93%	82%	84%
Needed Math Remediation FA YR 1	920	9%	42%	85%	77%	65%
URM	559	10%	37%	86%	75%	62%
Non-URM	361	7%	50%	84%	80%	71%