Enrollment Management: Focus on Scheduling

Department Head Meeting
May 14, 2009

Overview

- Schedule of classes
- Definitions
- What should be considered when building a schedule?
- Measures
- The Process

General Strategies for Enrollment Management

- Information Systems
- Curriculum and Educational Programs
- Course Scheduling
- Student Services
- Student Recruitment and Relations with Schools
- Student Retention and Intervention
- Marketing

Focus for Today's Presentation

- Information Systems
- Curriculum and Educational Programs
- **Course Scheduling**
- Student Services
- Student Recruitment and Relations with Schools
- Student Retention and Intervention
- Marketing

Schedule of Classes

Goals for the Schedule

- Educationally viable
- Cost conscious
- Cost effective
- Schedule decisions are made on a rational informed basis

What is Enrollment Management?

- A process by which
  - Student enrollments & classes offered are coordinated to achieve
    - Maximum access for students
    - Success for students
      - Achieving objectives including transfer, degree and certificate completion
    - Efficient college operations

What is Enrollment Management?

- It is…..
  - An institutional commitment and an integral part of strategic planning
  - A clear articulation of institutional enrollment goals (well beyond sheer numbers)
  - A plan that aligns services and resources under the umbrella of a larger vision
  - A data-driven strategy
  - A living plan that is constantly changing as institutional needs change

What is Enrollment Management?

- It is NOT….
  - Just a quick fix to current enrollment problems
  - Just an enhanced admission or marketing operation
  - Just an explanation for enrollment related decisions (class cancellations, etc.)
  - Just a planning document that "sits on a shelf"

Who Should be Involved?

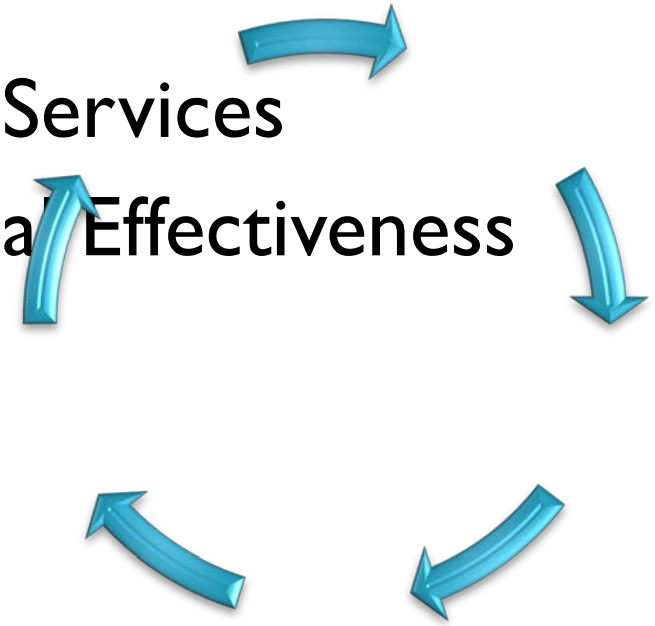
- At the institutional planning and implementation levels – EVERYONE.
  - A shared vision and acceptance of clearly articulated goals
  - Acceptance of well defined responsibilities for all members of the college community

Who Should be Involved?

- At the strategic level – key administrators and their management teams:
  - Executive VP, Academic Affairs
  - VP, Student Support Services
  - VP, Administrative Services
  - Associate VP, Instructional & Information Technology
  - Associate Dean, Institutional Effectiveness
  - Executive Director, Public Affairs & Marketing

Who Should be Involved?

- At the operational level
  - Faculty
  - Department Heads
  - School Dean
  - Office of Academic Services
  - Office of Institutional Effectiveness



What Information is Needed?

- Reliable historical enrollment, course offering and budget data
- Useful "what if" projection tools based upon these historical data
- Ability to actively monitor progress so that timely adjustments can be made
- Identification of key performance indicators
- Identification of benchmarks

Schedule of Classes

- Focus on academic and fiscal planning
- Central to community college mission
- Primary source of both institutional revenue and expenditures
- Must balance of academic needs and fiscal realities

Schedule Planning
Fiscal Considerations

- Size of the schedule - to grow or not to grow
  - Is growth funded?
  - How much growth can you afford?
    - Costs of additional faculty and staff
    - Impact of other projected expenditures
  - What is the capacity for growth?
    - Adequate facilities and resources for growth
    - Adequate number of faculty in targeted areas
    - Adequate student support services

Schedule Planning
Fiscal Considerations

- Size of the schedule – is a reduction necessary?
  - Is there a choice?
  - Can better efficiency/productivity address the problem?
  - Will changes have unintended long-term impact?

Schedule Planning
Meeting Student Needs

- Establish culture of basing recommendations & decisions on information rather than institutional "myths"
- Importance of good historical information regarding student demand patterns such as:
  - History of course offering size and distribution
  - Consider new growth areas
  - History of individual course offering experience/trends
    - Courses with largest enrollments
    - High demand courses – requests to enroll after class is full
    - Class section cancellations/additions during previous registration periods

Wait Analysis Report

- List of courses with high numbers of students on the wait list
- Analysis of the list, discounting students who enrolled via petition
- Analysis of how many more class offerings of the course might have been filled
- Trend line of wait list counts for the course
- Analysis by time of day and day of week

Demand Analysis Report

- Number of requests to enroll after the class filled
- Percentage of courses filled at three points in time
  - End of early registration
  - End of add/drop period
  - Census day

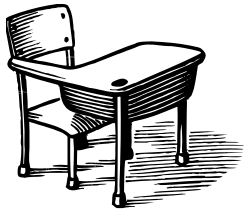
Definitions

Key Terms

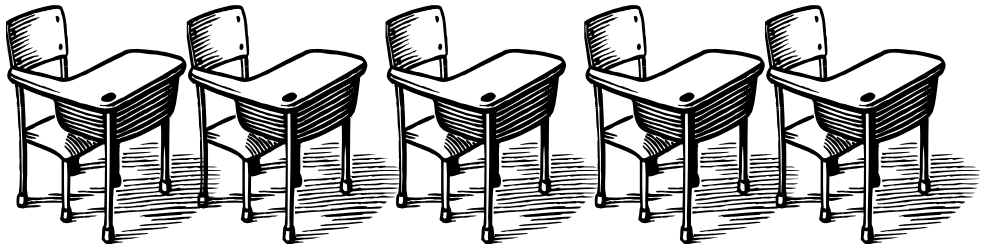
- Headcount versus total enrollments
- DSCH
- Positive Attendance
- FTES
  - Base versus growth FTES

Headcount versus Total Enrollments

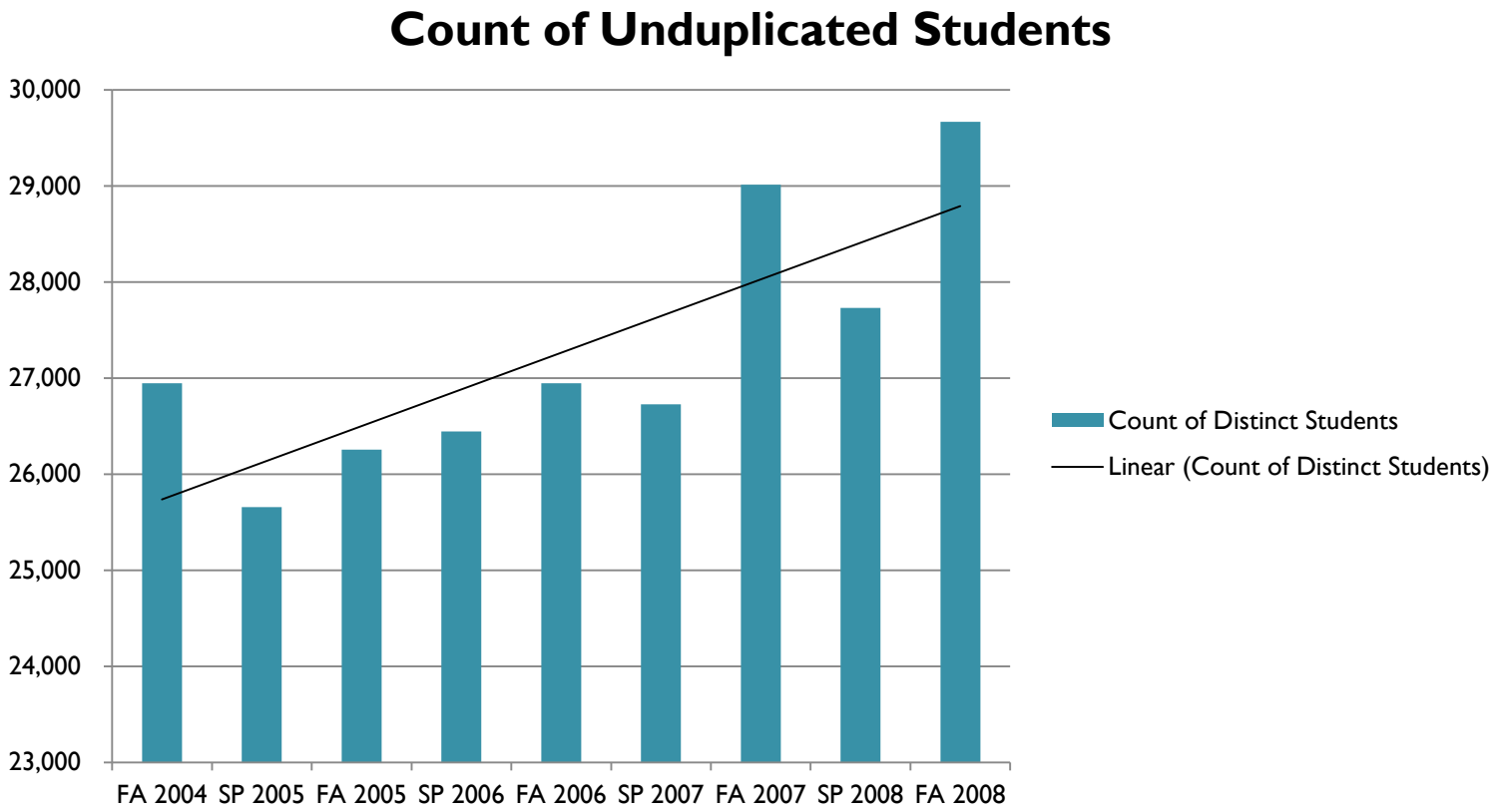
- Headcount (unduplicated students)
  - Unduplicated number of registered students



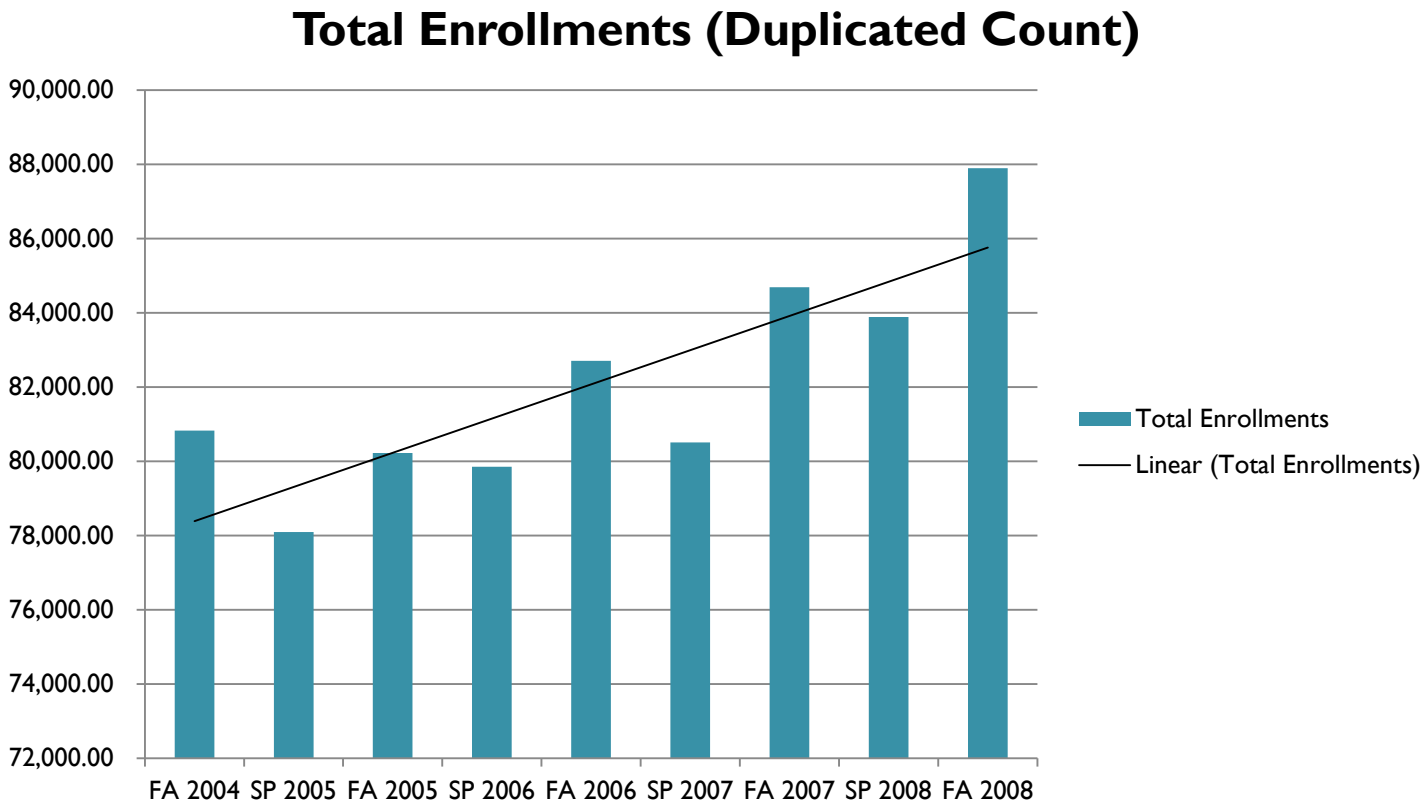
- Total Enrollments (duplicated students)
  - Sum of students by class college-wide



Headcount


Count of Unduplicated Students
30,000
29,000
28,000
27,000
26,000
25,000
24,000
23,000
FA 2004
SP 2005
FA 2005
SP 2006
FA 2006
SP 2007
FA 2007
SP 2008
FA 2008
Count of Distinct Students
Linear (Count of Distinct Students)

Total Enrollments



Basic Definitions - WSCH

- Weekly Student Contact Hours
  - Number of active students x number of hours of instruction each week
    - Number of active students taken on census day – Monday of the fourth week of the term
    - Number of instruction hours set in the catalog

History 10:

30 students x 3 hours per week = 90 WSCH

Basic Definitions - DSCH

- Daily Student Contact Hours (DSCH)
  - Number of active students
  - Number of hours for each meeting
  - Number of meetings
    - Number of active students taken on census day – varies by length of session
    - Number of hours for each meeting varies by session and day pattern
    - Number of meetings varies due to holidays

Basic Definitions - PSCH

- Positive Student Contact Hours (PSCH)
  - Sum of all instructional hours completed by all students in a class
  - Holidays are excluded

Basic Definitions - FTES

- Full-time Equivalent Students (FTES)
  - A unit of measurement used for the claim of public revenue support to California Community Colleges
    - Only resident students count
    - Nonresident students may count based on the nature of the class in which they are enrolled
  - Different formulas are applied based upon the nature of the attendance collection method for the class

Significance of the Number 525

- One FTES represents 525 class (contact) hours of student instruction
- The number 525, is derived from the fact that 175 days of instruction are required each year and a student attending three hours per day for 175 days will be in attendance 525 hours.

3hrs x 175 days = 525

Weekly Census FTES

FTES = (WSCH X 17.5)/525

History 10 (Tuesday & Thursday 8 -9:30)

28 students x 3 hours/week = 84 WSCH

84 x 17.5 / 525 = 2.8 FTES

Daily Census FTES

Total Contact Hours/ 525 = FTES

ESL 845AB (M-Th 8-11 am 9 weeks)

32 students x 3 hours/meeting = 96 DSCH

DSCH x 35 meetings = Total contact hours

96 x 35 /525 = 6.4 FTES

Positive Attendance FTES

FTES = Total Contact Hours/525

ESL 645 (M-Th 8-11 am 9 weeks)

25 students

108 hours of instruction – catalog sum of hours

2,178 actual hours of attendance

2,178 / 525 = 5.14 FTES

Independent Study FTES

- Independent Study
  - Classes in which the students are not in line of sight with the instructor
  - Weekly census or daily census procedures with a twist
- FTES Calculation
  - Number of active students x units of credit for the course x 17.5 divided by 525

Independent Study FTES

FTES = Total Hours/525

FD 73AD TBA 18 weeks

5 students x 3 units = 15 WSCH

WSCH x 17.5 = Total hours

15 x 17.5 / 525 = 0.5 FTES

Singles and Combinations

- Single
  - HIST 10 History/Early America
  - Class number72444
  - 20 students total

- Combo (two or more classes taught at the same time)
  - Counts as one section – add the students together
  - Class numbers 71234 and 74321
  - 23 students total

ENGL 801A College
English Skills 1
Class Number 71234
12 students

+

ENGL 801B College
English Skills 11
Class Number 74321
11 students

What should be considered when building a schedule?

Targets: Where Do They Come From?

- Executive Committee
  - Based on growth allowance from the Chancellor's Office
  - Considers base funding
    - Based on prior fiscal year funding
  - Target is slightly higher than base plus growth

Executive Summary

Period	Submitted 06-07 Resident	Submitted 07-08 Resident	Recalc 07-08**	4/06/09 P2 08-09 Resident	Growth in FTES (from 07-08 recalc)	% growth
FTES Generated in Summer 1 (July-Aug)		**1,474.03**	**1,473.96**	**874.36**		
Credit		1,246.71	1,246.64	657.84		
Non-credit		227.32	227.32	216.52		
FTES Generated in Fall ^	**9,118.41**	**9,260.22**	**9,260.36**	**9,371.82**	**111.46**	**1.20%**
Weekly Census	7,024.79	7,123.42	7,123.69	7,109.88	(13.81)	(0.002)
Daily Census, regular	1,191.99	1,305.77	1,305.77	1,516.54	210.77	0.161
Positive Attendance, non-credit	484.06	479.98	479.98	474.05	(5.93)	(0.012)
Positive Attendance, credit	364.70	297.42	297.42	219.36	(78.06)	(0.262)
IS (TW/Work Experience (CH)	36.14	37.73	37.60	39.07	1.47	0.039
IS (TW/Work Experience (DH)	16.73	15.90	15.90	12.93	(2.97)	(0.187)
FTES Generated in Spring	**8,961.54**	**9,238.08**	**9,242.66**	**9,449.67**	**207.01**	**2.24%**
Weekly Census	6,958.23	7,033.06	7,038.61	7,410.71	372.10	0.053
Daily Census, regular	1,302.27	1,430.62	1,429.65	1,775.13	345.48	0.242
Positive Attendance, non-credit	503.38	502.63	502.63	78.99	(423.65)	(0.843)
Positive Attendance, credit	143.16	219.17	219.17	124.89	(94.28)	(0.430)
IS (TW/Work Experience (CH)	40.53	40.33	40.33	38.20	(2.13)	(0.053)
IS (TW/Work Experience (DH)	13.97	12.27	12.27	21.77	9.50	0.774
Total for primary terms	18,079.95	18,498.30	18,503.02	18,821.49	318.47	1.72%
FTES Generated in Summer 2 (June)		**10.66**	**10.32**			
Daily Census, regular		10.66	10.32			
Positive Attendance, credit		0.00	0.00			
FTES Borrowed from "Swing Classes"		**1,592.23**	**1,475.64**			
Daily Census, regular		1,557.25	1,447.78			
Positive noncredit		34.98	27.86			
Subtotal		**21,575.22**	**21,462.94**			
Factoring		**66.24**	**66.22**			
Est. Total Reported on 320		**21,641.46**	**21,529.16**			

** Recalc submitted 10/30/08

Includes only positive attendance hours uploaded as of 4/06/09

Estimated need to borrow from summer 09 to reach base = 21,529.16 - (18,821.49 +874.36 + 518.22) = **1315.09** (assuming positive attendance totals for spring 09 the same as for spring 08)

Borrowing FTES

- Summer 1, Summer 2 or Swing
  - Instructional activity in July & August is denoted as Summer 1
  - Instructional activity that concludes in June is denoted as Summer 2
  - Census classes that begin in June, have a census date in June but conclude in July or August, may be placed in either year (Swing)

Measures

Efficiency/Productivity Measures

- Weekly Student Contact Hours per Full Time Equivalent Faculty (WSCH/FTEF)
  - Different FTEF Calculations according to what is being measured
    - Include only "in classroom" time – measure of class size efficiency
    - Include all compensated time (include release/reassigned time) of teaching faculty – measure of instructional budget
    - Most useful as internal measure over time

Efficiency/Productivity Measures

- Full Time Equivalent Students per Full Time Equivalent Faculty) (FTES/FTEF)
- Comparative annual faculty assigned hour use by department/discipline
- Comparison of faculty assigned hours and FTES
- Fill rates, percentage of available "seats"
- Classroom utilization studies
- "Break even" point in terms of FTES revenue vs direct instructional costs

Targets and Actual FTES

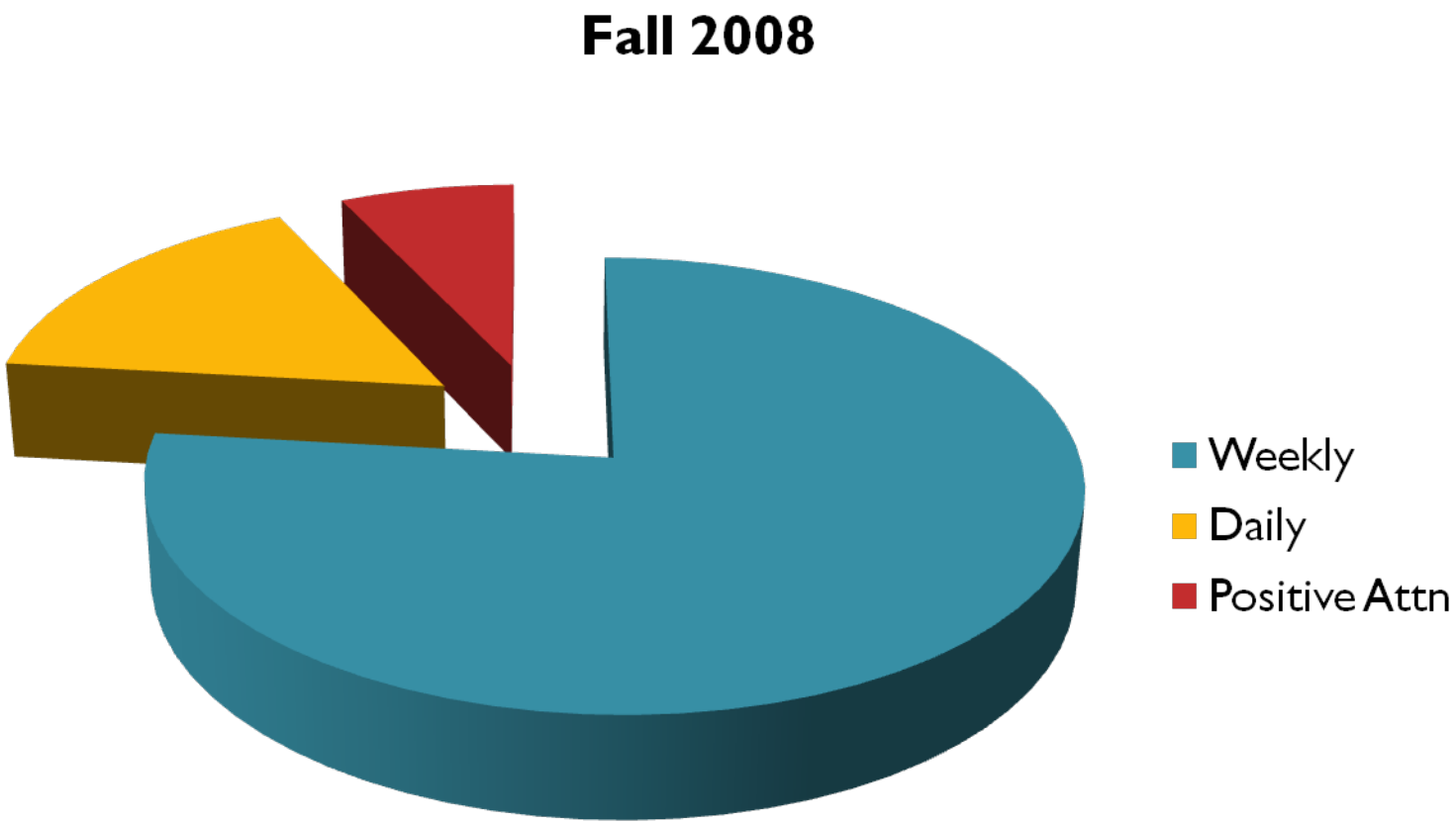
School	Target FA 2007	Actual FTES	Target FA 2008	Actual FTES
BUS SOCSCI	2,381.41	2,252.08	2,274.60	2,366.03
CREAT ARTS	1,660.76	1,662.08	1,678.71	1,767.35
HEALTH SCI	2,278.51	2,259.45	2,293.32	2,287.70
LANG ARTS	1,545.91	1,640.97	1,665.59	1,555.77
LEARN RES	162.10	185.99	187.85	152.86
PHYS EDUC	407.69	407.86	411.94	434.76
STU SERV	58.88	84.31	85.16	77.07
TRADE IND	7,00.97	670.67	677.38	701.46

How Did We Do?

School	Target FA 2007	Actual FTES	How We Did in 2007	Target FA 2008	Actual FTES	How We Did in 2008
BUS SOCSCI	2,381.41	2,252.08	-129.33	2,274.60	2,366.03	+91.43
CREAT ARTS	1,660.76	1,662.08	+1.32	1,678.71	1,767.35	+88.64
HEALTH SCI	2,278.51	2,259.45	+19.06	2,293.32	2,287.70	-5.62
LANG ARTS	1,545.91	1,640.97	+95.06	1,665.59	1,555.77	-109.82
LEARN RES	162.10	185.99	+23.89	187.85	152.86	-34.99
PHYS EDUC	407.69	407.86	+0.17	411.94	434.76	+22.82
STU SERV	58.88	84.31	+25.43*	85.16	77.07	-8.09
TRADE IND	700.97	670.67	-30.3	677.38	701.46	+24.08
TOTALS	9,196.23	9,163.41	+5.3	9,274.55	9,343.00	+68.45

*Curriculum change to COUNS 1
Note: Change between FA07 and FA08 to FTES calculation program

FTES by Attendance Type



Funding and FTES

Class Examples:	Class 1: A Credit Class	Class 2: An Enhanced Noncredit Class	Class 3: A Noncredit Class
Course Details	3 hrs lecture	3 hrs lecture	3 hours lecture
Number of Students	35	35	35
Attendance Method	Weekly	Positive Attn	Positive Attn
Funding Rate/FTES	$4,564.83	$3,232.07	$2,744.96
Total FTES	3.500	1.6491	0.3108
Total Revenue for Class	$15,977	$5,307	$853

What each class costs by pay type

Class Examples:	Class 1: A Credit Class	Class 2: An Enhanced Noncredit Class	Class 3: A Noncredit Class
Employee Pay Type	3 hrs lecture	3 hrs lecture	3 hours lecture
Regular Monthly	$9,095	$9,095	$9,095
Overload	$3,113	$3,113	$3,113
Part-time	$3,193	$3,193	$3,193
Summer Regular	$6,821	$6,821	$6,821
Total Revenue for Class	$15,977	$5,307	$853

Class Size Average

- How is it determined?
  - Sections divided by students enrolled

count of "single" sections +

count of "distinct" combinations

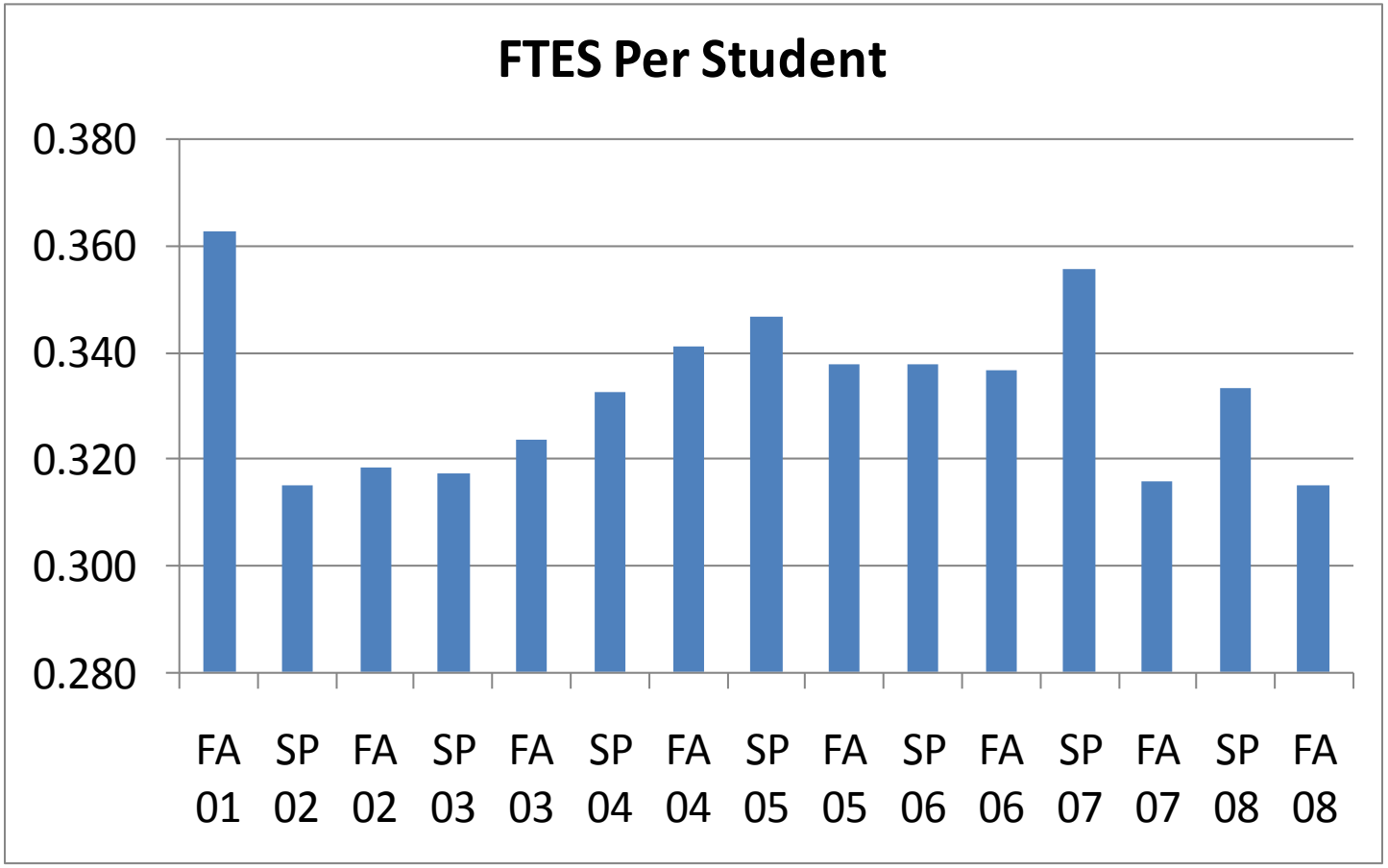
total students enrolled in courses

The Impact of One Student

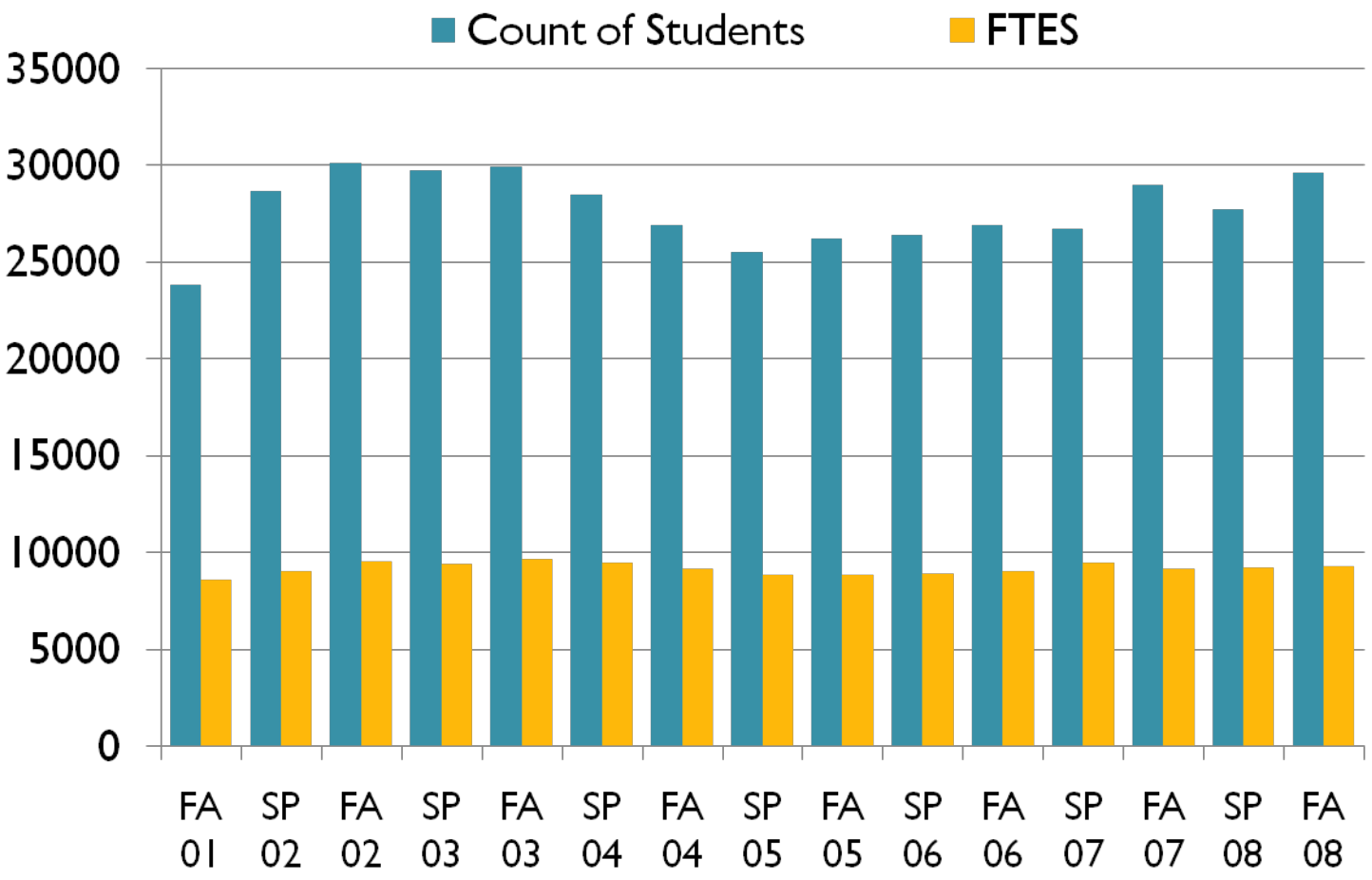
- Creative Arts
  - 24.6 class size average 508 classes
    - Drop 48 classes but retain overall enrollment = increase class size average to 26.7
    - 460 classes remain
  - Add one more student to each class = 107 FTES gain

FTES Per Student

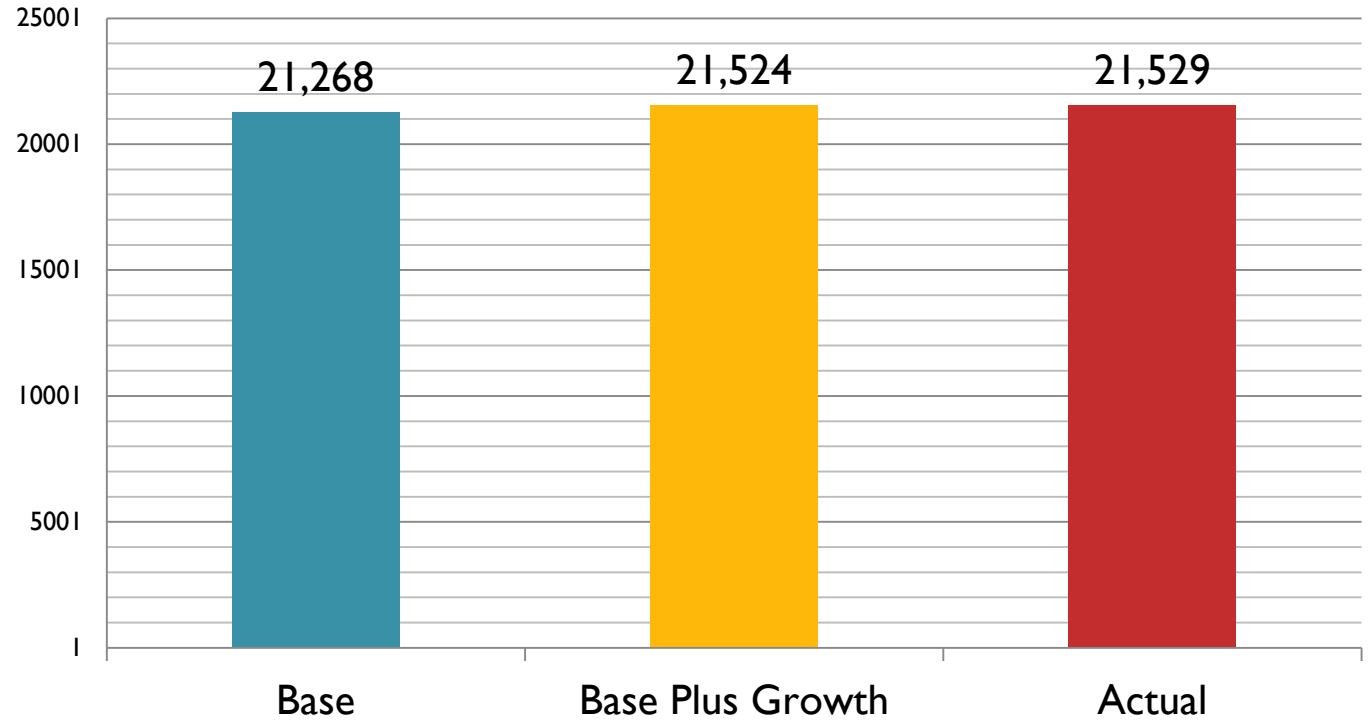
(How much FTES is generated by one student?)



Count of Students and FTES



2007-2008 FTES
Base, Growth and Actual



- 21,268.01 Base + 256.13 Growth = 21,524.14 FTES Cap
- 2007-2008 LBCC FTES = 21,529.16
- Unfunded FTES = 5.02

Classes with Less than 20 students

- Excluded from analysis
  - Sports teams
  - Forklift classes
  - Classes with an enrollment cap below 20 and sufficient enrollment
  - Classes in combined sets with more than 20 students
- Included in analysis
  - All other classes
  - Classes in combined sets with less than 20 students

Cost of Retaining Low Enrolled Classes

Fall 2007 expenses for classes retained under 20

Part Time	Overload	Total
$488,357	$91,971	$580,138

Fall 2008 expenses for classes retained under 20

Part Time	Overload	Total
$457,201	$119,947	$577,148

Enrollment Ranges

- Census Classes Only
  - Count of census class by enrollment category
  - Percentage of college total by school
  - Percentage of college total by enrollment range

Count of Census Classes by Enrollment Category

Fall 2008	< 20	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 59	60 to 67	68 to 95	> 96	Total Classes
BUS SOCSCI	49	37	64	74	78	108	52	28	5	8	17	520
CREAT ARTS	133	85	101	95	52	32	9	6	5	2	6	526
HEALTH SCI	110	25	40	43	77	64	39	21	6	31	7	463
LANG ARTS	91	63	123	89	22	2	1	0	0	0	0	391
LEARN RES	7	9	5	11	5	3	0	2	0	1	0	43
PHYS EDUC	58	26	25	7	11	5	3	5	0	2	1	143
STU SERV	1	2	5	5	8	15	3	4	1	1	0	45
TRADE IND	76	23	18	17	7	4	1	1	2	0	0	149
Total Classes	525	270	381	341	260	233	108	67	19	45	31	2280

Percentage of College Total by School

Fall 2008	< 20	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 59	60 to 67	68 to 95	> 96	Pct of College Total
BUS SOCSCI	9.3%	13.7%	16.8%	21.7%	30.0%	46.4%	48.1%	41.8%	26.3%	17.8%	54.8%	22.8%
CREAT ARTS	25.3%	31.5%	26.5%	27.9%	20.0%	13.7%	8.3%	9.0%	26.3%	4.4%	19.4%	23.1%
HEALTH SCI	21.0%	9.3%	10.5%	12.6%	29.6%	27.5%	36.1%	31.3%	31.6%	68.9%	22.6%	20.3%
LANG ARTS	17.3%	23.3%	32.3%	26.1%	8.5%	0.9%	0.9%	0.0%	0.0%	0.0%	0.0%	17.1%
LEARN RES	1.3%	3.3%	1.3%	3.2%	1.9%	1.3%	0.0%	3.0%	0.0%	2.2%	0.0%	1.9%
PHYS EDUC	11.0%	9.6%	6.6%	2.1%	4.2%	2.1%	2.8%	7.5%	0.0%	4.4%	3.2%	6.3%
STU SERV	0.2%	0.7%	1.3%	1.5%	3.1%	6.4%	2.8%	6.0%	5.3%	2.2%	0.0%	2.0%
TRADE IND	14.5%	8.5%	4.7%	5.0%	2.7%	1.7%	0.9%	1.5%	10.5%	0.0%	0.0%	6.5%

Percentage of College Total by Enrollment Range

	< 20	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 59	60 to 67	68 to 95	> 96
BUS SOCSCI	2.1%	1.6%	2.8%	3.2%	3.4%	4.7%	2.3%	1.2%	0.2%	0.4%	0.7%
CREAT ARTS	5.8%	3.7%	4.4%	4.2%	2.3%	1.4%	0.4%	0.3%	0.2%	0.1%	0.3%
HEALTH SCI	4.8%	1.1%	1.8%	1.9%	3.4%	2.8%	1.7%	0.9%	0.3%	1.4%	0.3%
LANG ARTS	4.0%	2.8%	5.4%	3.9%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
LEARN RES	0.3%	0.4%	0.2%	0.5%	0.2%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%
PHYS EDUC	2.5%	1.1%	1.1%	0.3%	0.5%	0.2%	0.1%	0.2%	0.0%	0.1%	0.0%
STU SERV	0.0%	0.1%	0.2%	0.2%	0.4%	0.7%	0.1%	0.2%	0.0%	0.0%	0.0%
TRADE IND	3.3%	1.0%	0.8%	0.7%	0.3%	0.2%	0.0%	0.0%	0.1%	0.0%	0.0%
Percent of College Total	23.0%	11.8%	16.7%	15.0%	11.4%	10.2%	4.7%	2.9%	0.8%	2.0%	1.4%

Performance Outcomes Fall 2008

	Success Rate	Retention Rate	Completion Rate
BUS SOCSCI	60.92%	73.30%	66.11%
CREAT ARTS	67.25%	78.28%	71.10%
HEALTH SCI	58.34%	74.60%	64.58%
LANGUAGE ARTS	62.72%	79.10%	66.35%
LEARN RES	63.51%	78.28%	64.21%
PE	74.85%	77.63%	76.00%
STU SERV	70.38%	82.12%	74.57%
TRADE IND	73.64%	81.48%	76.78%
College Average	63.36%	76.22%	67.92%

Success Rate: Divide the number of A, B, C, CR grade grades by total number of A,B,C,CR,D,F,IX,NC and W grades

Retention Rate: Divide the number of A,B,C,CR,D,F,IX, AND NC grades by total number of A,B,C,CR,D, F,IX,NC and W grades

Completion Rate: Divide the number of A,B,C,CR and D grades by total number of A,B,C,CR,D,F,IX,NC and W grades

Analysis of Fall 2008

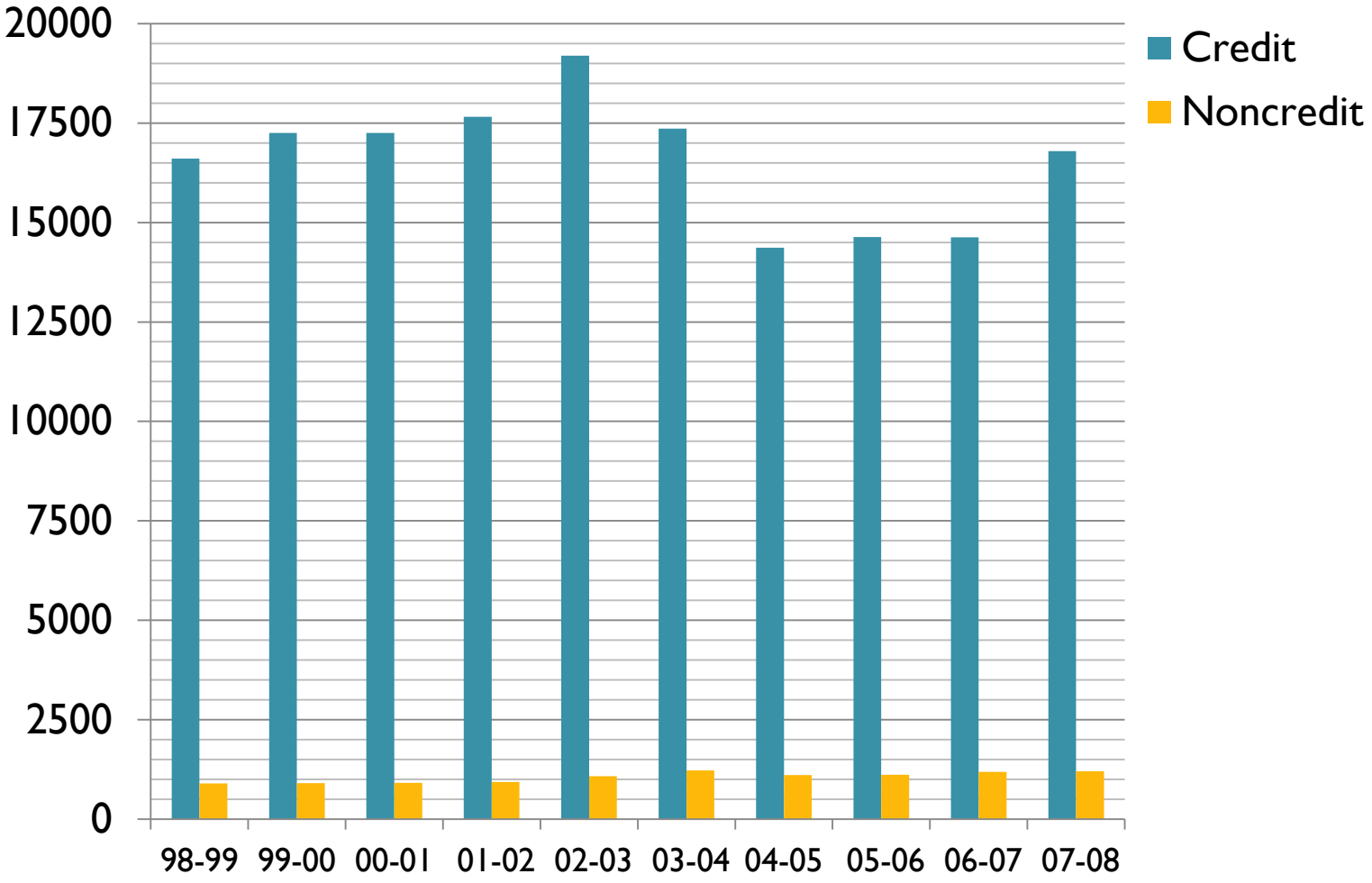
School	FTES	Class Size Average	WSCH/FTEF	Hourly Cost/FTES*
BUS SOCSCI	2,366.03	40.2	564.5	$1,047.63
CREAT ARTS	1,767.35	27.2	472.8	$1,115.32
HEALTH SCI	2,287.70	35.5	517.4	$1,105.30
LANG ARTS	1,555.77	24.8	363.8	$1,325.18
LEARN RES	152.86	29.7	548.4	$1,348.37
PE	434.76	24.3	407.4	$1,576.39
STU SERV	77.07	39.4	602.1	$805.42
TRADE IND	701.46	20.6	408.6	$1,304.37
College Totals	9,434.00	30.2	485.6	$1,203.50

*Ratio of Cost to FTES considers only hourly expenses and FTES

Fall 2008 FTES by Credit Status

School	Credit FTES	Noncredit FTES	Enhanced NC FTES	Total FTES
BUS SOCSCI	2330.88	50.50	0	2381.38
CREAT ARTS	1649.25	103.46	0	1752.71
HEALTH SCI	2257.79	31.99	0	2289.78
LANG ARTS	1355.64	2.14	197.57	1555.35
LEARN RES	73.60	40.68	38.58	152.86
PHYS EDUC	428.32	6.44	0	434.76
STU SERV	77.07	0	0	77.07
TRADE IND	698.11	0.77	0	698.88
Total	8870.66	235.98	236.15	9342.79

Credit vs. Non Credit FTES



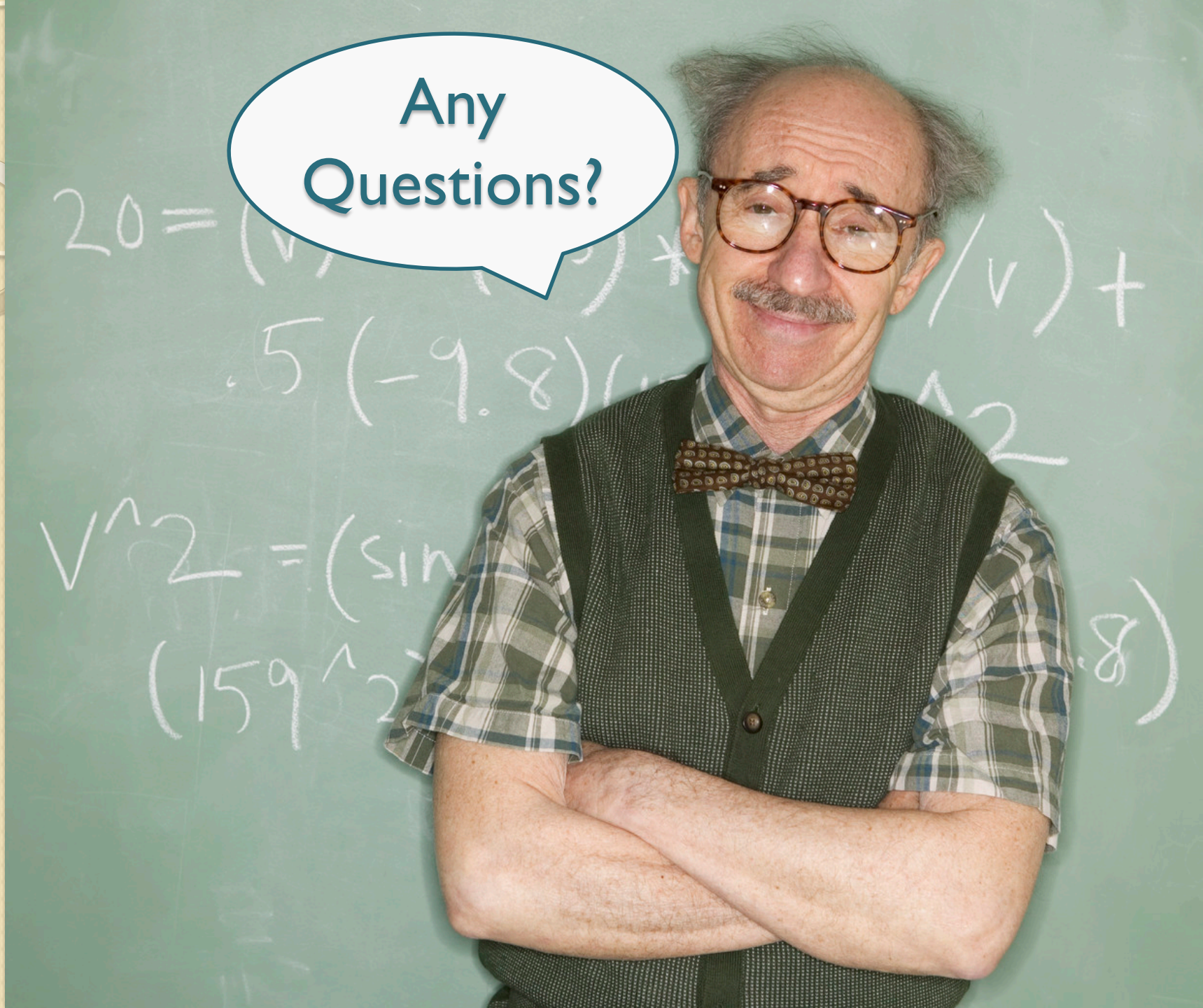
The Process

Process Considerations

- Schedule core classes in morning, evening, and weekends
- Graduation numbers for feeder high schools
- Adjusting for changes to environmental setting
- Improve student retention and success
- Minimize borrowing from summer
- Maximize use of facilities

Process Considerations Continued

- Achieve base during primary terms
- Schedule core sequential courses over a year
- Look at efficiencies by course
  - 100 students: 5 sections with 20 students or
  - 100 students: 4 sections with 25 students or
  - 100 students: 3 sections with 33 students
- Analyze enrollment patterns
- The schedule will be driven by student need


Any Questions?