

Instructional Data Primer*
*A resource for instructional program
reviewers*

IPRC

*For educational purposes only

Review-Reflect-Plan

- The big idea of program review is that data informs responses against standards, which in turn motivate potential plans
- Instructional review data has been categorized into the five areas of review
 - PR Handbook Attachment 5
- Data = **Review**
- Response to standards = **Reflect**
- Motivations by the Strategic Plan or Reflect (including the need for new resources) = **Plan**

Attachment 5 Review Data for Instructional Programs			
Review Area	Data / Measures	Measure comparison	Trend
Program Performance	WSCH	CMP target, College, Peer group	Y
	WSCH/FTEF	CMP target, College, Peer group	Y
	Fill Rate	CMP target, College, Peer group	Y
	WFCH	College, Peer group	Y
	FTEF/WFCH	College, Peer group	Y
	FTEF	College, Peer group	Y
	Student headcount	College, Peer group	Y
	Total Course Enrollments	College, Peer group	Y
	Avg Enrollment per Section	College, Peer group	Y
	# of Course offerings per AY	College, Peer group	Y
	# of Course Sections per AY	College, Peer group	Y
	# of Unduplicated Courses in Catalog	College, Peer group	N
	Successful Course Completion	College, Peer group	Y
	Retention	College, Peer group	Y
	Avg Units Attempted per AY	College, Peer group	Y
	Avg Units Earned per AY	College, Peer group	Y
	Avg Term GPA	College, Peer group	Y
	Avg Cumulative GPA	College, Peer group	Y
	# of Completed SLO Assessment Cycles this academic year.	College, Peer group	N
	Degrees and Certificates awarded	College, Peer group	Y
	Grade Distribution	College, Peer group	N
	Student Equity	College, Peer group	Y
	Program Resources	Budget	College and Peer group
Program Personnel	# of classified staff, FTE	College and Peer group	Y
	FTEF	College and Peer group	Y
	FTEF FT/PT	College and Peer group	Y
	Reassigned Time	College and Peer group	Y
	FTEF FT/PT (w/o reassigned)	College and Peer group	N
	Untenured Faculty	College and Peer group	N
Program Curriculum	Compliance with 6-yr updates	College and Peer group	N
	% (#) of Approved Program Catalog Online/Hybrid	College and Peer group	N
	% (#) of Courses with CSU [SUC] transfer articulations	College and Peer group	N
	Proportion of catalog courses with lab component	College and Peer group	N
Program Students	Student Enrollment Status Profile	College and Peer group	Y
	Student Goal Orientation	College and Peer group	Y
	Student Demographics - Ethnicity	College and Peer group	Y
	Student Demographics - Gender & Age	College and Peer group	Y
	Student Education Attainment Level	College and Peer group	Y

Review

- Everything + kitchen sink = Attachment 5
- This presentation will focus on metrics that are actionable and metrics that are largely for information only (FIO)

Program Performance		Actionable Metrics Program Performance
	WSCH	<ul style="list-style-type: none"> • WSCH • WSCH/FTEF • Fill Rate • FTES • Student Headcount • Average enrollment per section • Success/Retention • Grades
	WSCH/FTEF	
	Fill Rate	
	WFCH	
	FTEF/WFCH	
	FTES	
	Student headcount	
	Total Course Enrollments	
	Avg Enrollment per Section	
	# of Course offerings per AY	
	# of Course Sections per AY	
	# of Unduplicated Courses in Catalog	
	Successful Course Completion	
	Retention	
	Avg Units Attempted per AY	
	Avg Units Earned per AY	
	Avg Term GPA	
	Avg Cumulative GPA	
	# of Completed SLO Assessment Cycles this academic year.	
	Degrees and Certificates awarded	
	Grade Distribution	
	Student Equity	

Program Performance	WSCH
	WSCH/FTEF
	Fill Rate
	WFCH
	FTES/WFCH
	FTES
	Student headcount
	Total Course Enrollments
	Avg Enrollment per Section
	# of Course offerings per AY
	# of Course Sections per AY
	# of Unduplicated Courses in Catalog
	Successful Course Completion
	Retention
	Avg Units Attempted per AY
Avg Units Earned per AY	
Avg Term GPA	
Avg Cumulative GPA	
# of Completed SLO Assessment Cycles	
Degrees and Certificates awarded	
Grade Distribution	
Student Equity	

FIO
Program Performance

- WFCH is basically LHE
- FTES/WFCH doesn't tell us any more than WSCH/FTEF
- For information only (FIO)
- Potentially move to Program Students section

Actionable Metrics

Program Personnel

Program Personnel	# of classified staff, FTE
	FTEF
	FTEF FT/PT
	Reassigned Time
	FTEF FT/PT (w/o reassigned)
	Untenured Faculty

- FTEF
- FTEF FT/PT
- FTEF FT/PT (without reassigned time)

FIO

Program Personnel

- # of classified staff, FTE
- Reassigned time
- Untenured faculty

Program Personnel	# of classified staff, FTE
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	FTEF FT/PT
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FIO

- If it hasn't been mentioned up until this point, it's FIO
- FIO doesn't mean they're not important – these measures speak to characteristics of the program that are likely important to know
- Trends can be very important for many of these measures – how are they changing over time?

WSCH

Weekly student contact hours

<p>What is it</p> <ul style="list-style-type: none"> • Weekly student contact hours are the total number of hours students spend in class. • There is no target or standard – this number grows with the number of students • Affected by labs and variances between unit counts and hour requirements 	<p>Why is it important</p> <ul style="list-style-type: none"> • A measure of the size of the schedule / program • Perhaps more important, it's the numerator in WSCH/FTEF so we need to calculate it
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WSCH

Weekly student contact hours

<p>How is it calculated</p> <ul style="list-style-type: none"> • $(\text{No. of students at census}) \times (\text{No. of hours of instruction})$ 	<p>Sensitivities and limitations</p> <ul style="list-style-type: none"> • Affected by class capacities (physical / technology limits); over enrollment • Higher number = more students = larger program -> more resource needs
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Fun Fact

Courses

BTEC 110: Basic Techniques in Biotechnology
 Units: 4
 Prerequisites: None
 Advisory: Eligibility for ENGL 101 or equivalent by successful completion of ENGL 50 or qualification in English in the English Assessment Examination; and MATH 64 or qualification in the Math Competency Exam or approved equivalent; CHEM 108; and BIO 100 or BIO 101 or BIO 105.
 Acceptable for Credit: CSU

WSCH

Lecture 2 hours, laboratory 6 hours. (0430.00)

You can find WSCH in the catalog for every course

FTEF

Full-time equivalent faculty

What is it

- Full-time equivalent faculty refer to the number of faculty required to staff your program offerings.
- 15 LHE = 1 FTEF, for a given semester.
- There is no target or standard – this number grows with the teaching workload within a program

Why is it important

- The number of full-time faculty you would need to teach all sections if only full-time were teaching

FTEF

Full-time equivalent faculty

How is it calculated

- Total LHE in a program divided by 15 = Number of FTEF

Sensitivities and limitations

- Standardized
- Perhaps more important, it is the denominator of efficiency measure.

WSCH/FTEF

A ratio

What is it

- This measures program efficiency.
- The statewide standard is 525.

Why is it important

- Standardized efficiency ratio
- Compare ourselves internally, across state
- As a ratio, it puts WSCH and FTEF into perspective
- Standard target is 500 to 525 (based on class size of 35)
- College-wide efficiency is about 420

WSCH/FTEF

A ratio

How is it calculated

- Ratio of WSCH divided by FTEF

Fun Fact

- You can find the peak efficiency for your program if all classes were at cap in EDDI
 - Click on SECTIONS tab
 - Click on small box above column BZ
 - Click on the left-hand boxes to open up your program within your school
 - Peak WSCH/FTEF is in final column

Sensitivities and limitations

- Lower class capacities will never reach 525 efficiency
- Lab intensive programs will never reach 525
- Trends may be more important to observe than actual number

WSCH/FTEF Examples

$$=(\text{Catalog hours}) \times (\text{Enrollment at Census})$$

$$=(\text{LHE}) / 15$$

$$=(\text{Catalog Hours}) \times \text{Lab Factor}$$

Catalog Hours	LHE	Enrollment at Census	WSCH	FTEF	WSCH/FTEF
Example: regular 3 hour per week lecture only or lab only or lec/lab (1.5+1.5)					
3	3	20	60	0.20	300
3	3	25	75	0.20	375
3	3	30	90	0.20	450
3	3	35	105	0.20	525
3	3	40	120	0.20	600
3	3	45	135	0.20	675
Example: regular 4 hour per week lecture only or lab only or lec/lab (1.0+3.0)					
4	4	20	80	0.27	300
4	4	25	100	0.27	375
4	4	30	120	0.27	450
4	4	35	140	0.27	525
4	4	40	160	0.27	600
4	4	45	180	0.27	675
Example: regular 5 hour per week lecture only or lec/lab (1.5+3.5 - language classes)					
5	5	20	100	0.33	300
5	5	25	125	0.33	375
5	5	30	150	0.33	450
5	5	35	175	0.33	525
5	5	40	200	0.33	600
5	5	45	225	0.33	675

Catalog Hours	LHE	Enrollment at Census	WSCH	FTEF	WSCH/FTEF
Example: KINE 3 hour per week lab class with lab factor of 0.75					
3	2.25	20	60	0.15	400
3	2.25	25	75	0.15	500
3	2.25	30	90	0.15	600
3	2.25	35	105	0.15	700
3	2.25	40	120	0.15	800
3	2.25	45	135	0.15	900
Example: MAT 5 hour per week lecture/lab class with lab factor of 0.75					
5	4.25	20	100	0.28	353
5	4.25	25	125	0.28	441
5	4.25	30	150	0.28	529
5	4.25	35	175	0.28	618
5	4.25	40	200	0.28	706
5	4.25	45	225	0.28	794

Fill Rate

What is it

- Percentage of seats filled in a class at census
- Targets were established in the initial draft of the CMP

Why is it important

- It measures how well classes are filling and, crudely, program demand
- This is also important for scheduling

Fill Rate

How is it calculated

- (No. of enrolled students at census) divided by (class capacity)
- The sum of enrollment at census, divided by the sum of the enrollment caps for a given program

Sensitivities and limitations

- It is not unit or load-weighted: all sections are treated equally
- Over-filled classes can inflate apparent student numbers
- Can be impacted by the physical capacity of the room

FTES

Full-time equivalent students

What is it

- Full-time equivalent students refer to the number of WSCH generated to equal a full-time student. 1 FTES = 525 hours.
- No standard target, however programs may set internal goals

Why is it important

- This number reflects the size of the program based not on heads, but the amount of time students are spending within your program.
- Trends of this measure are most important to track over time

FTES

Full-time equivalent students

How is it calculated

- WSCH/30 for the academic year

Sensitivities and limitations

- Nothing compelling

Student Headcount

What is it

- The student headcount is the number of students taking at least one course within the discipline, excluding 292 and 299 courses.
- There is no target or standard – this number grows with the number of students

Why is it important

- This is important for service area and hybrid programs, which are impacted by unduplicated headcount
- Can be compared against the enrollment count to determine number of classes enrolled per student within the program
- Trends over time would be important

Student Headcount

How is it calculated

- The count of unduplicated students enrolled in sections in a particular program

Sensitivities and limitations

- This is different from *total course enrollments*, which is duplicated head counts

Student Success and Retention

What is it

- Success: Percent of students passing a course
- Retention: Percent of students receiving any grade (besides a W)
- Statewide and local standards may exist

Why is it important

- These measures can be compared internally and statewide

Student Success and Retention

How is it calculated

- Within the credit program, successful course completion is the percentage of students who enrolled in the course, stayed past the census date and completed the course with a grade of "C" or better for credit classes, "D" or better for the Adult High School courses.
- For both credit and noncredit programs, retention is defined as the percentage of students who complete a course with any grade other than a W/MW.

Sensitivities and limitations

- Students who are not dropped prior to census stay on the roster and will receive an "F" or a "W," impacting both success and retention.
- Currently no way to tell which students legitimately failed a course, and which just stopped attending.

Grade Distributions

What is it

- The distribution of grades in a class and/or program
- There is no target or standard – these vary by instructor and discipline

Why is it important

- Provides more detail related to the success and retention metrics.

Grade Distributions

How is it calculated

- The number of grades for a given class are totaled and then the percent assigned to each particular grade is calculated

Sensitivities and limitations

- Disparities in grading principles between faculty can affect these results

FTEF FT/PT, with Reassigned Time

FTEF ratio of Full-time to Part-time

What is it

- The ratio of full-time equivalents of full-time faculty to part-time
- There is a state regulation for this to be 75/25 or 3 to 1.
- This often given as the percent of instruction taught by part-timers. In this case the target is 25%.

Why is it important

- This measure reflects the burden of teaching a program's schedule taken on by part-timers

FTEF FT/PT, with Reassigned Time

FTEF ratio of Full-time to Part-time

How is it calculated

- Officially, the Full-time LHE divided by Part-time LHE
- More commonly, it is the part-time LHE divided by the total LHE (FT+PT) in a program to get the “Percent Part-time”

Sensitivities and limitations

- It assumes that all full-timers are 100% in the classroom, which might not be the case if there is reassigned time in the program.

FTEF FT/PT (w/o reassigned time)

What is it

- This ratio is computed with reassigned time deducted.
- There is a state regulation for this to be 75/25 or 3 to 1.
- This is often given as the percent of instruction taught by part-timers. In this case the target is 25%.

Why is it important

- With reassigned time included, the previous measure misrepresents full-timers in the classroom
- In comparison to the previous metric, it helps illustrate the effect of reassigned time within a program on this ratio

FTEF FT/PT (w/o reassigned time)

How is it calculated

- Full-time LHE (with reassigned time subtracted) divided by Part-time LHE
- More commonly, it is the part-time LHE divided by the total LHE in a program to get the “Percent Part-time”

Sensitivities and limitations

- Overload counts towards PT LHE
- If you have reassigned time in a program, you can generally expect that PT percent will be **higher** without reassigned time included in the calculation