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
Review

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

### Actionable Metrics

**Program Performance**

- WSCH
- WSCH/FTEF
- Fill Rate
- FTES
- Student Headcount
- Average enrollment per section
- Success/Retention
- Grades
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

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

Program Personnel

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

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

What is it
• 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.

Why is it important
• 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.

How is it calculated
• (No. of students at census) x (No. of hours of instruction)

Sensitivities and limitations
• Affected by class capacities (physical / technology limits); over enrollment.
• Higher number = more students = larger program -> more resource needs.

Fun Fact
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**

*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

---

**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

---

**WSCH/FTEF**

*A ratio*

*How is it calculated*
- Ratio of WSCH divided by FTEF

*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

**Examples**

\[ \text{WSCH/FTEF} = \left( \frac{\text{LHE}}{15} \right) \times \text{Enrollment at Census} \]

<table>
<thead>
<tr>
<th>Catalog Hours</th>
<th>LHE</th>
<th>Enrollment at Census</th>
<th>WSCH</th>
<th>FTEF</th>
<th>WSCH/FTEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td>20</td>
<td>60</td>
<td>0.20</td>
<td>300</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>25</td>
<td>75</td>
<td>0.20</td>
<td>375</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>30</td>
<td>90</td>
<td>0.20</td>
<td>450</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>35</td>
<td>105</td>
<td>0.20</td>
<td>525</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>40</td>
<td>120</td>
<td>0.20</td>
<td>600</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>45</td>
<td>135</td>
<td>0.20</td>
<td>675</td>
</tr>
</tbody>
</table>

**Example: regular 3 hour per week lecture only or lab only or lab/lec \( (1.5+1.0) \)**

<table>
<thead>
<tr>
<th>Catalog Hours</th>
<th>LHE</th>
<th>Enrollment at Census</th>
<th>WSCH</th>
<th>FTEF</th>
<th>WSCH/FTEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>4</td>
<td>30</td>
<td>60</td>
<td>0.27</td>
<td>150</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>35</td>
<td>90</td>
<td>0.27</td>
<td>225</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>40</td>
<td>120</td>
<td>0.27</td>
<td>300</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>45</td>
<td>150</td>
<td>0.27</td>
<td>375</td>
</tr>
</tbody>
</table>

**Example: regular 4 hour per week lecture only or lab only or lab/lec \( (1.0+3.0) \)**

<table>
<thead>
<tr>
<th>Catalog Hours</th>
<th>LHE</th>
<th>Enrollment at Census</th>
<th>WSCH</th>
<th>FTEF</th>
<th>WSCH/FTEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>5</td>
<td>20</td>
<td>100</td>
<td>0.33</td>
<td>300</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>25</td>
<td>125</td>
<td>0.33</td>
<td>375</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>30</td>
<td>150</td>
<td>0.33</td>
<td>450</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>35</td>
<td>175</td>
<td>0.33</td>
<td>525</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>40</td>
<td>200</td>
<td>0.33</td>
<td>600</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>45</td>
<td>225</td>
<td>0.33</td>
<td>675</td>
</tr>
</tbody>
</table>

**Example: regular 5 hour per week lecture only or lab only or lab/lec \( (1.5+3.5) \) - language classes**

<table>
<thead>
<tr>
<th>Catalog Hours</th>
<th>LHE</th>
<th>Enrollment at Census</th>
<th>WSCH</th>
<th>FTEF</th>
<th>WSCH/FTEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>5</td>
<td>20</td>
<td>100</td>
<td>0.33</td>
<td>300</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>25</td>
<td>125</td>
<td>0.33</td>
<td>375</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>30</td>
<td>150</td>
<td>0.33</td>
<td>450</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>35</td>
<td>175</td>
<td>0.33</td>
<td>525</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>40</td>
<td>200</td>
<td>0.33</td>
<td>600</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>45</td>
<td>225</td>
<td>0.33</td>
<td>675</td>
</tr>
</tbody>
</table>

**Examples: KINE 3 hour per week lab class with lab factor of 0.75**

<table>
<thead>
<tr>
<th>Catalog Hours</th>
<th>LHE</th>
<th>Enrollment at Census</th>
<th>WSCH</th>
<th>FTEF</th>
<th>WSCH/FTEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2.25</td>
<td>20</td>
<td>60</td>
<td>0.15</td>
<td>400</td>
</tr>
<tr>
<td>3</td>
<td>2.25</td>
<td>25</td>
<td>75</td>
<td>0.15</td>
<td>500</td>
</tr>
<tr>
<td>3</td>
<td>2.25</td>
<td>30</td>
<td>90</td>
<td>0.15</td>
<td>600</td>
</tr>
<tr>
<td>3</td>
<td>2.25</td>
<td>35</td>
<td>105</td>
<td>0.15</td>
<td>700</td>
</tr>
<tr>
<td>3</td>
<td>2.25</td>
<td>40</td>
<td>120</td>
<td>0.15</td>
<td>800</td>
</tr>
<tr>
<td>3</td>
<td>2.25</td>
<td>45</td>
<td>135</td>
<td>0.15</td>
<td>900</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Catalog Hours</th>
<th>LHE</th>
<th>Enrollment at Census</th>
<th>WSCH</th>
<th>FTEF</th>
<th>WSCH/FTEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>4.25</td>
<td>20</td>
<td>100</td>
<td>0.28</td>
<td>353</td>
</tr>
<tr>
<td>4</td>
<td>4.25</td>
<td>25</td>
<td>125</td>
<td>0.28</td>
<td>441</td>
</tr>
<tr>
<td>4</td>
<td>4.25</td>
<td>30</td>
<td>150</td>
<td>0.28</td>
<td>539</td>
</tr>
<tr>
<td>4</td>
<td>4.25</td>
<td>35</td>
<td>175</td>
<td>0.28</td>
<td>618</td>
</tr>
<tr>
<td>4</td>
<td>4.25</td>
<td>40</td>
<td>200</td>
<td>0.28</td>
<td>706</td>
</tr>
<tr>
<td>4</td>
<td>4.25</td>
<td>45</td>
<td>225</td>
<td>0.28</td>
<td>794</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Catalog Hours</th>
<th>LHE</th>
<th>Enrollment at Census</th>
<th>WSCH</th>
<th>FTEF</th>
<th>WSCH/FTEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>5.25</td>
<td>20</td>
<td>100</td>
<td>0.38</td>
<td>390</td>
</tr>
<tr>
<td>5</td>
<td>5.25</td>
<td>25</td>
<td>125</td>
<td>0.38</td>
<td>488</td>
</tr>
<tr>
<td>5</td>
<td>5.25</td>
<td>30</td>
<td>150</td>
<td>0.38</td>
<td>586</td>
</tr>
<tr>
<td>5</td>
<td>5.25</td>
<td>35</td>
<td>175</td>
<td>0.38</td>
<td>684</td>
</tr>
<tr>
<td>5</td>
<td>5.25</td>
<td>40</td>
<td>200</td>
<td>0.38</td>
<td>782</td>
</tr>
<tr>
<td>5</td>
<td>5.25</td>
<td>45</td>
<td>225</td>
<td>0.38</td>
<td>880</td>
</tr>
</tbody>
</table>

### 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
<table>
<thead>
<tr>
<th>FTEF FT/PT (w/o reassigned time)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How is it calculated</strong></td>
</tr>
<tr>
<td>• Full-time LHE (with reassigned time subtracted) divided by Part-time LHE</td>
</tr>
<tr>
<td>• More commonly, it is the part-time LHE divided by the total LHE in a program to get the “Percent Part-time”</td>
</tr>
<tr>
<td><strong>Sensitivities and limitations</strong></td>
</tr>
<tr>
<td>• Overload counts towards PT LHE</td>
</tr>
<tr>
<td>• If you have reassigned time in a program, you can generally expect that PT percent will be <strong>higher</strong> without reassigned time included in the calculation</td>
</tr>
</tbody>
</table>