A Brief Guide to Definitions and Calculations for Enrollment, Faculty Workload, and Student Achievement Data

**Enrollment Data**

*Definition of student headcount.* Student headcount is an "unduplicated" count of students (quite literally, of student “heads”). An unduplicated student headcount is the actual number of individual students enrolled. Students may be enrolled in one or more courses in a term, but they are counted only once for the term.

*Definition of student enrollment.* Student enrollment is a ‘duplicated’ student number. Student enrollment is the total course count (i.e., the number of students enrolled in the number of courses) not the actual number of individual students. Students may be enrolled in more than one course in a term and would therefore be counted in each course (i.e., counted twice or more) for the term.

*Definition of Full-Time Equivalent Student (FTES).* FTES is a standardized measure of student enrollment at a department, division, or an institution. In a FTES, a student's actual course load is standardized against the normal (i.e., basic) course load. A FTES of 1.0 for ‘a student’ means that the student is equivalent to a full-time student, while an FTES of 0.5 for ‘a student’ means that the student is half-time. However, FTES represents neither student headcount nor student enrollment, but it is a conceptual measure of student enrollment. For example, FTES of 10.0 could mean 10 full-time students, but it also could refer to 20 half-time students (20 × 0.5 = 10.0) or five full-time students and 10 half-time students ([5 × 1.0] + [10 × 0.5] = 10.0). Thus, a FTES cannot be interpreted solely; rather it should be interpreted in the context with other FTES. For instance, we may say that FTES of a department in 2008 (FTES of 150.0) increased 50% by FTES of the department in 2007 (FTES of 100.0). The formula for the calculation of FTES can be expressed by the equation below:

\[
\text{FTES (Full-Time Equivalent Students)} = \frac{(\text{Census Day Enrollment} \times \text{Weekly Student Contact Hours} \times \text{Term Length Multiplier})}{525}.
\]

**Faculty Workload Data**

*Definition of Full-Time Instructor Equivalent (FTIE).* FTIE is a standardized measure of faculty workload at a department, division, or an institution. In a FTIE, a faculty member’s actual workload is standardized against the normal (i.e., basic) work load. A FTIE of 1.0 for ‘a faculty member’ means that the faculty member is equivalent to a full-time instructor, while an FTIE of 0.5 for ‘a faculty member’ means that the faculty member is half-time instructor. However, FTIE does not represent an actual number of faculty members, but it is a conceptual measure of faculty workload.
workload. For example, FTIE of 10.0 could mean 10 full-time instructors, but it also could refer to
20 half-time instructors (20 × 0.5 = 10.0) or five full-time instructors and 10 half-time instructors ([5 × 1.0] + [10 × 0.5] = 10.0). Thus, a FTIE cannot be interpreted solely; rather it should be
interpreted in the context with other FTIE. For instance, we may say that FTIE of a department in
2008 (FTIE of 300.0) increased 50% by FTIE of the department in 2007 (FTIE of 200.0). The
formula for the calculation of FTIE can be expressed by the equation below:

\[
\text{FTIE (Full-Time Equivalent Instructors)} = \frac{\text{Assignment workload hours} \times \text{Assigned number of weeks} \times 100}{100 \text{ percent weekly workload hours} \times \text{Total weeks in term}}
\]

**Definition of Weekly Student Contact Hours (WSCH).** WSCH represents a total number of
hours faculty contacted students weekly in a department, division, or an institution. Since WSCH is
calculated from a relationship between class enrollment and weekly hours for each class as well as
weekly hours vary class by class, a WSCH should be interpreted in the context with other WSCH
rather being interpreted solely. For example, we may say that WSCH of a department in 2008
(WSCH of 220.0) increased 10% by WSCH of the department in 2007 (WSCH of 200.0). The
formula for the calculation of WSCH can be expressed by the equation below:

\[
\text{WSCH (Weekly Student Contact Hours)} = \text{Class Enrollment} \times \text{Weekly Hours}
\]

**Definition of WSCH per FTIE.** WSCH per FTIE (WSCH/FTIE) represents a ratio of Weekly
Student Contact Hours to Full-Time Equivalent Instructors in a department, division, or an
institution. In a WSCH per FTIE, Weekly Student Contact Hours (WSCH) is divided by Full-Time
Equivalent Instructors (FTIE). WSCH per FTIE could be interpreted in terms of either cost-
efficiency or instructional quality. Increase in WSCH per FTIE in a department over years, for
example, WSCH/FTIE of 100.0 in 2007 to WSCH/FTIE of 200.0 in 2008, may demonstrate that
the cost-efficiency of the department with respect to faculty load has been improved. This is because
the weekly student contact hours of a full-time equivalent instructor in 2008 have doubled compared
to that in 2007. Conversely, decrease in WSCH per FTIE in a department over years may
demonstrate that the cost-efficiency of the department with respect to faculty load has been
decreased. The formula for the calculation of WSCH per FTIE can be expressed by the equation
below:

\[
\text{WSCH/FTIE} = \frac{\text{Weekly Student Contact Hours}}{\text{Full-Time Equivalent Instructors}}
\]

**Student Achievement Data**

**Definition of course success:** Successful course completion rate (course success rate) represents
the percent of students who have successfully completed courses out of total number of students
who attempted courses (i.e., enrolled in courses). The course success rate is calculated by dividing
the number of students who successfully completed courses (numerator, students with a valid grade
notation of “A,” “B,” “C,” or “CR (Credit)” in a course) by the total number of students who
attempted courses (denominator, students with a valid grade notation of “A,” “B,” “C,” “D,” “F,”
“CR (Credit),” “NC (No credit),” “FW (Withdrawn without permission and without having
achieved a finial passing grade),” “W (Withdrawn after last day to drop),” “MW (Military withdrawal)”
in a course) and multiplying by 100 to create percentage. This operational definition is consistent to
The RP Group’s definition, except for exclusion of a grade notation of “I (Incomplete)” from the
denominator and inclusion of “FW” and “MW” in the denominator. The notation of “I” was
excluded from the denominator because the notation acts as “XX (unknown)” for the calculation and tends to underestimate the success rate. The notations of “FW” and “MW” were included in the denominator since the two notations are equivalent to “W” in terms of their nature.

**Definition of course retention.** Course retention rate represents the percent of students who have been retained in courses out of total number of students who attempted courses (i.e., enrolled in courses). The course retention rate is calculated by dividing the number of students who have been retained in courses (numerator, students with a valid notation of “A,” “B,” “C,” “D,” “F,” “CR (Credit),” or “NC (No credit)” in a course) by the total number of students who attempted courses (denominator, students with a valid grade notation of “A,” “B,” “C,” “D,” “F,” “CR (Credit),” “NC (No credit),” “FW (Withdrawn without permission and without having achieved a final passing grade),” “W (Withdrew after last day to drop),” “MW (Military withdrawal)” in a course) and multiplying by 100 to create percentage. This operational definition is consistent to The RP Group’s definition, except for exclusion of a grade notation of “I (Incomplete)” from both the numerator and denominator and inclusion of “FW” and “MW” in the denominator. The notation of “I” was excluded from the numerator and denominator because the notation acts as “XX (unknown)” for the calculation and tends to overestimate the retention rate. The notations of “FW” and “MW” were included in the denominator since the two notations are equivalent to “W” in terms of their nature.

**Definition of term-to-term persistence.** Term-to-term persistence rate represents the percent of students who enrolled in the next term out of students who enrolled in the first term. The term-to-term persistence rate is calculated by dividing the number of students who enrolled in the next term (numerator, students with a valid grade notation of “A,” “B,” “C,” “D,” “F,” “CR (Credit),” “NC (No credit),” “FW (Withdrawn without permission and without having achieved a final passing grade),” “W (Withdrew after last day to drop),” or “MW (Military withdrawal)” in at least a course) by the number of students who enrolled in the first term (denominator, students with a valid grade notation of “A,” “B,” “C,” “D,” “F,” “CR (Credit),” “NC (No credit),” “FW (Withdrawn without permission and without having achieved a final passing grade),” “W (Withdrew after last day to drop),” or “MW (Military withdrawal)” in at least a course) and multiplying by 100 to create percentage. Same as the definitions of course success and course retention, this operational definition is consistent to The RP Group’s definition, except for exclusion of a grade notation of “I (Incomplete)” from both the numerator and denominator and inclusion of “FW” and “MW” in both the numerator and denominator.