

# Data Dictionary and Reporting Methodology

The Office of Institutional Research (IR) produces the campus's official statistics on students, faculty, and staff for many internal and external audiences. This document describes our reporting methodology for common campus metrics with the goal of promoting operational transparency. (Updated July 25, 2019)

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## Student Enrollment Measures

#### Headcount

Students are counted in the enrollment reports when they are enrolled in degree credits and have a census indicator at the end of the third week of a given term (i.e., third-week census). Students in the Joint Doctoral Program in Evolutionary Biology are an exception to this rule. They are counted as UCR students even though their credits are sometimes taken at San Diego State University, leaving them with 0 UCR degree credits in some terms.

## Report-specific notes:

- Enrollments: UCR: Students are counted only once and are unduplicated.
- **Enrollments: Programs:** Students are counted once for each major in which they are enrolled. Enrollments in this table will be greater than campus or college total enrollment.
- **Enrollments: Demographic:** Students are counted only once and are unduplicated. If the user selects a given college, the results will show the unique headcount of students in that college even if some of those students have double majors in the same college.

#### Student FTE

FTE stands for "full-time equivalent" and provides a standard for measuring students' enrollment intensity. The rules for when duplicated and unduplicated counting occurs are the same as for headcount. At the program level, when students have more than one major, their entire FTE value is credited to each program, just as their headcount is. FTE is not divided across majors.

#### Report-specific notes:

- Enrollments: UCR: Students are counted only once and are unduplicated.
- **Enrollments: Programs:** Students are counted once for each major in which they are enrolled. FTE in this table will be greater than campus or college total.
- Enrollments: Demographic: FTE not shown in this report.

Two methods of calculating FTE are used in IR reports:

#### **UCOP FTE**

UCOP defines FTE for budgeting purposes using the following rules (for more background, see <u>An</u> Enrollment Issues Handbook).

#### Undergraduates:

- FTE = Total units divided by 15 units
- Exceptions: FTE is always assumed to be 1.0 for students in the following programs:
  - Education Abroad
  - UC Washington Center
  - UC Sacramento Center



#### Graduates:

- FTE = Total units divided by 12 units
- Exceptions:
  - Education Credential: FTE = total units divided by 15 units
  - o MD students: FTE = 1
  - PhD students who have advanced to candidacy: FTE = 1
  - o PhD candidates enrolled for more than 9 quarters after advancing to candidacy: FTE = 0

#### Workload FTE

A UCR-specific measure, workload FTE is a simplified standard to approximate students' enrollment intensity and the amount of instructional effort needed to support the enrollment. This FTE method has fewer exceptions and is more directly tied to students' registered units. The only exception is the School of Medicine (SOM), which uses a different schedule structure than the rest of the campus and thus does not have the same ratio of credits to instructional time.

*Undergraduates:* FTE = total units divided by 15 units

Graduates: FTE = total units divided by 12 units

# 3-Quarter Average (3QA)

The 3-quarter average summarizes enrollment activity across the academic year. It is calculated by dividing the sum of fall, winter, and spring headcount (or FTE) by 3.

## Residency

Resident status is based on the student's tuition status of a given term. IR defines resident students as those paying in-state tuition fees because they are either California residents or are otherwise exempt from out-of-state fees. The latter group is broken out separately in some reports as nonresident tuition (NRT) exceptions, but those students are always included in the resident totals. Students paying out-of-state tuition are considered nonresident ("NRT Payers").

# Faculty and Staff Measures

IR defines employee category, headcount, and FTE for faculty and staff by examining all employees who were paid in the month of October for a particular year. Calculations are based only on the last pay date for each employee during the month. The data come from SuperDOPE and Human Resources Data Warehouse (HRDW)—campus data systems that track payroll and appointment information for all employees and are currently sourced from UCPath.



# **Employee Category**

IR assigns every employee appointment to a broad category based on an algorithm that evaluates the following UCPath/SuperDOPE payroll system concepts: (1) Job Code (JC); (2) Occupational Group (OG); and (3) Class Indicator (CI). JC is only used to differentiate between assistant, associate, and full professors. OG is used to categorize academic appointments. A combination of OG and CI is used to categorize non-academic appointments. The categories and general descriptions of the appointments included in each are listed below.

- 1. Academic Personnel are defined as those "engaged primarily in teaching, research, and public service and whose duties are closely related to the university's instructional and research functions" (UCOP Academic Personnel Definitions document APM-110)
  - a. **Instructional Faculty:** Appointments with faculty status that generally require at least some teaching. Extension instructors are not counted in this category.
    - Acting and Ladder Ranks Plus Lecturer with Security or Potential of Security of Employment (L(P)SOE): Appointments with security of employment, the realistic potential for security of employment, or past security of employment (e.g., recall appointments for recently retired tenured faculty)
      - 1. Full Professor
      - 2. Associate Professor
      - 3. Assistant Professor
      - 4. Lecturer with Security or Potential of Security of Employment (L(P)SOE)
    - ii. Other Instructional Faculty: Faculty without explicit security of employment
      - Clinical: Primarily School of Medicine (SOM) faculty. As in all other categories in this list, IR only counts those who are paid by the university directly. There are some SOM clinical faculty who donate their time or are paid through other channels and thus are not counted here.
      - 2. Lecturer: This includes any lecturer who is not L(P)SOE.
      - 3. Other: Includes visiting, adjunct, and in-residence professors as well as supervisors of teacher education and fieldwork coordinators.
  - b. **Non-Instructional Faculty:** This group includes all remaining academic appointments that are not considered instructional faculty. For example, student employees may receive an academic-related appointment (e.g., teaching assistant), but they do not have faculty status. Other academic appointments are sometimes held by employees who have instructional faculty status through another appointment (e.g., agronomists) or employees who are considered faculty but not instructional faculty (e.g., associate deans).
    - i. Student Appointments
      - Teaching Assistant/Associates: Teaching assistants generally teach non-credit discussion sections or labs that are supplemental to a credit-bearing course. Teaching associates generally are the primary instructor of record for a creditbearing course.



- 2. Medical Residents: Although these employees are not registered for classes in the traditional sense, they are still considered a type of student due to their ongoing practical education.
- 3. Research Assistants/Readers/Tutors: Research assistants typically engage in research only and do not have teaching responsibilities. Readers provide some services similar to teaching assistants for specific courses (e.g., grading papers) but are not given the full instructional responsibility of teaching assistants. Tutors typically provide learning assistance not tied to specific courses.
- ii. Other Academic Appointments: Many non-faculty appointments fall into this category, but the most common are agronomists (Cooperative Extension or Agricultural Experiment Station), librarians, academic program coordinators/directors, deans (primary, divisional, and associate), academic administrators, professional/post-doctoral researchers, continuing education specialists, and university extension teachers.
- 2. *Staff Personnel* are those whose appointments that do not fall under the definition of academic personnel.
  - a. **Executive/Management/Senior Professional:** CI values of SMG or MSP. Includes a wide variety of appointments such as vice chancellors, directors/managers, senior analysts/programmers/ engineers/specialists, staff physicians/psychologists/dentists, and head athletic coaches.
  - b. **Professional Support Staff:** CI value of PSS. Includes a wide variety of appointments such as student affairs officers, non-senior analysts/assistants, custodians, maintenance workers, police officers, food service workers, and lab assistants.

#### Headcount

UCR employees sometimes split their effort across multiple appointments which may even span multiple departments and organizations. Depending on the purpose, IR uses the following two methods to measure university headcount and avoid double-counting.

#### **UCR-Level Headcounts**

When counting unduplicated employees at the university level, IR relies on a list of appointment categories to determine in which category each employee should be counted. The appointments of each employee are sorted using the order below, and each person is assigned to the highest category in which he or she has FTE greater than zero. Every appointment falls into only one of these categories.

**Academic Appointments** 

- 1. Full Professor
- 2. Associate Professor
- Assistant Professor
- 4. L(P)SOE



- 5. Clinical Faculty
- 6. Visiting/Adjunct/Professor in Residence/Supervisor of Teacher Education/Fieldwork Coordinator
- 7. Agronomist (Cooperative Extension or Agricultural Experiment Station)
- 8. Academic Administrator
- 9. Lecturer
- 10. Non-Faculty Researcher (not including agronomists)
- 11. Postgraduate/Postdoctoral Researcher
- 12. Librarian
- 13. Other academic appointments not listed above and not including student appointments below
- 14. Teaching Assistant/Associate
- 15. Medical Resident
- 16. Research Assistant/Reader/Tutor

# Staff Appointments

- 17. Executive
- 18. Management/Senior Professional
- 19. Professional Support Staff

#### **Organization-Level Headcounts**

When counting unduplicated employees at the organization level, IR first assigns employees to their home department (as defined in an HRDW extract for that period) and then assigns them to the highest employee category in which they fall within that department (see above). Because some employees have multiple appointments, this can lead to results slightly different from the unduplicated UCR-level headcount.

# **Employee FTE**

Full-time equivalents for faculty and staff are based on all active appointments held. Those who hold appointments in multiple departments are fractionally allocated to the respective departments. In rare situations a person may have 0 FTE in their home department, which could lead to them being counted in headcount for the department but not in FTE. Department FTE sums to the university total, so there is no double-counting for multiple jobs. For reporting consistency, IR excludes a few pay categories that are not consistent with regular paid employee positions.

For biweekly employees, the FTE denominator is always 80 hours. For monthly employees, it is the full-time hours for October (usually between 160-184 hours). The FTE numerator for all employees is based on the hours worked that are reported in SuperDOPE, but we make exceptions for hours that appear to be incorrectly high or wages that appear to be too low (e.g., certain overtime work or shift differentials for hourly employees may be



excluded). We cap employee FTE at 1.5 (the equivalent of 60 hours per week) to avoid reporting outliers that may be due to unusual circumstances.

## Employee vs. Student Status

All employees who are enrolled in a class or who have a student employment appointment are counted as students. This is true even if that employee is, for example, a tenured faculty member who decided to enroll in a class. We flag even these unusual cases as students, because a primary purpose of flagging students is to avoid double counting people when doing combined counts of students and employees on campus at a given time.

# Demographic and Background Measures

## **Ethnicity**

UCR follows federal IPEDS and UC conventions for tracking and reporting ethnicity using students' self-reported identifications on the admission application. The current practices were first adopted in Fall 2010, and records on ethnicity from prior years are not exactly comparable. The IPEDS method also uses "International" or "Nonresident Alien" as part of its ethnicity classification; when a student fall in this category they are not reported under any of the specific ethnicity categories. International status is based on students' legal residence as determined by the university and is not self-reported. Students who identify as Hispanic or Latino are always reported under that category regardless of any other identifications they may have (aside from the international determination noted above). However, for students who report any other combination of ethnic identifications, they are listed under the "Two or More Races" category. The "Native Hawaiian or Pacific Islander" and "Two or More Races" categories did not exist before 2010, and therefore students who entered UCR before then may never have provided any information related to those statuses.

In some cases IR may have more detailed ethnic identification information, including nationality or country of identification, available in certain types of analyses.

# Underrepresented Minority (URM)

IR defines underrepresented minority as any student whose ethnicity is reported as Black/African American, Native American, or Hispanic/Latino.



# First Generation in College

First generation status is determined at the time of application for undergraduate freshmen and transfer students based on self-reported parental education. Students are considered to be first generation when neither parent has completed a 4-year college degree. In cases where parental education data is missing for both parents, students are not considered first generation.

#### Low Income

Students are defined as low income when their self-reported family income falls below the fee-waiver threshold set by the UC Office of the President (UCOP) for a particular year and family size. Dependent students are categorized based on their parents' income and independent students are categorized based on their own income. This is only applicable for undergraduate students.

# Pell Recipient

Students are defined as Pell recipients when they receive the need-based federal Pell grant for their entering term. This is only applicable for undergraduate students. Note that Pell status is not finalized until the following year when the full financial aid year is closed. The Pell percentages for the most recent year are thus subject to change by a small amount between the initial preliminary number and final number that replaces it one year later.

## **Graduation and Retention Rates**

#### Freshman Graduation Rates

The freshman graduation rate is measured for all first-time, full-time entering fall freshmen. Students are considered full-time if enrolled in 12 or more credits as of the census date in their entry term, consistent with federal standards. The rates are calculated based on whether a student earned a baccalaureate degree within 4, 5, or 6 years of their first fall term. For calculating the rates, the degree year runs from fall to summer (e.g., summer of the fourth year is the last graduation term within in the 4-year window).

#### Within-UCR

Students are included in the 4-, 5-, and 6-year graduation rates if they earned any baccalaureate degree from UCR within the time specified. This matches the federal IPEDS definition and is the version most commonly reported publicly.



## Within-College

Within-college graduation rates consider whether students earned their baccalaureate degree from the same college in which they started their first fall term. For example, students who started in the College of Humanities and Social Sciences (CHASS) and finished their degree in CHASS would be considered in both the numerator (graduated) and denominator (total incoming class for CHASS) for the CHASS graduation rate. Students who started in CHASS but finished their degree in College of Natural and Agricultural Sciences (CNAS) would not be included in the numerator of the graduation rate (did not graduate in CHASS) but would be counted in the denominator for the CHASS graduation rate. The only exception to this rule is when students graduate in Business after starting in CHASS in one of the following majors: Pre-Business (PRBS and BSPR) or Undeclared (HSUN). These majors are designed to facilitate a transition to from CHASS to Business, so students who make that transition and graduate are counted in the numerator for CHASS.

#### Within-Major

Within-major graduation rates consider whether students earned their baccalaureate degree in the same major in which they started their first fall term. For example, students who started in Biology and graduated with a degree in Biology would be counted in the numerator and denominator for this graduation rate. A student who started in Biology but graduated with a degree in Neuroscience would not be counted in the numerator (did not graduate in Biology) but would be counted in the denominator for the Biology graduation rate. Students with undeclared majors are excluded from within-major graduation rates.

# Reconciling Entering Major and Major Completions

IR reports outcomes for each major code as a separate group, but in some instances aggregates graduates where it makes sense. For example, if a student enters with a major indicating a bachelor's + master's program (4+1 program) in a given discipline, that student would be counted in the numerator and denominator even if the student eventually graduated in the bachelors-only version of the program. The same rule applies for students starting in a bachelors-only program who graduate in a 4+1. A full list of program aggregations is below.

Program	Major Codes
Business Administration BS	PRBS, BSPR, BSAD
Bioengineering BS	BIEN, BEBM
Electrical Engineering BS	ELEN, EEBM
Chemical Engineering BS	CHEN, CHBM
Computer Engineering BS	CEN, CNBM
Computer Science BS	CSBM, ENCS, CPSC, CS
Environmental Engineering BS	ENBM, ENEN
Mechanical Engineering BS	MCEN, MCBM
Environmental Science BS	ENSC, ENSF



Student Characteristics in Graduation Rates

IR reports outcomes by various student characteristics such as gender, race/ethnicity, financial aid status, and first generation. For the purpose of these reports, characteristics are determined from the first term the student enters the university and do not change. For example, students who received a Pell grant in their first term would be reported in that group regardless of whether they continued to receive Pell in future terms.

#### **Transfer Graduation Rates**

Transfer rates are reported for full-time, degree-seeking fall transfers. Students are considered full-time if they are enrolled in 12 or more credits in their entry term. It should be noted that because transfers are on an accelerated timeline compared to new freshmen, their retention and graduation timing overlaps much more so than for freshman entrants (see the Total Success Rate below). The rate calculation follows the same logic as described for freshmen, only for transfers it is typically calculated at 1, 2, 3, and 4 years. Transfer rates can be shown within UCR, within the college, or within the major.

#### **Graduate Graduation Rates**

Unlike at the undergraduate level, graduate student graduation rates are calculated based on whether students graduated with (1) the same major and (2) the same degree type in which they matriculated in their first term. For example, students who pick up a master's degree on the way to a PhD do not count toward a master's degree graduation rate, and those who enter as master's students but are later admitted to a PhD program do not count in the PhD rate. This is to keep the definition and membership of each type of cohort consistent. Because of these added criteria at the graduate level, IR does not calculate separate within-college or within-program graduation rates. Also unlike undergraduate cohorts, the starting headcount for graduate cohorts consists of all the entering graduate students in the same fiscal year (summer, fall, winter, and spring). Summer entrants are considered to have entered in fall when measuring their outcomes.

#### **Retention Rates**

Retention rate calculation methods closely mirror those used in graduation rates. A student is considered retained if they are counted in the enrollment census in the subsequent fall term, which is sometimes called "fall-to-fall" retention. The rates may be reported anytime from 1 year (all students) to 10 years (doctoral students). As with graduation rates, undergraduate retention can be tracked within UCR, within college, and within major, but the graduate level, a student is only considered retained if they remain in the same major and degree type.

Retention rates in later years are sometimes better understood in conjunction with the graduation rate; see the Total Success Rate below for a combined measure.



## **Total Success Rate**

IR defines total success rate as simply the sum of graduation and retention for a given entering cohort. This metric is a good indicator of overall cohort progress when both outcomes have significant numbers of students (e.g., second year for undergraduate transfers or the fifth year of a doctoral program). During these transitional years, retention and graduation in isolation may represent an incomplete picture of the overall performance of a cohort. The success rate is typically most informative for undergraduate transfers and graduate students.

# Degrees Awarded and Time to Degree

# **Degrees Awarded**

The degrees awarded report counts each major/degree combination awarded to graduates in a given IPEDS year. An IPEDS year spans from summer through spring. (Note that this calendar is different from the one used for graduation rates and time to degree, in which the year ends with summer.) The report counts each major separately, so a student earning a BS in math and biology would be counted once for math and once for biology.

# Time to Degree

Time to degree (TTD) measures the mean amount of time it took a student to graduate. We take graduates in a specific academic year and look backward for their appropriate entry points at UCR. For degree counting purposes, a year begins the fall term and ends in the summer. We define TTD along two dimensions: (1) time scale and (2) registration scale.

#### Time Scale

The most common method is to measure the total amount of time elapsed between a student's starting date and their degree date, regardless of any interruptions along the way. Because the academic calendar does not map perfectly to the calendar year, IR uses two methods to calculate the portion of a year each term represents.

- 1. **Academic year** calculations count fall, winter, and spring quarters each as one-third of a year with summer being treated as if it were spring.
- 2. **Calendar year** calculations count fall, winter, spring, and summer quarters each as one-quarter of a year.

Consider the example students below:

Student	Starting Term	Grad Term	Academic Year TTD	Calendar Year TTD
Α	Fall 2010	Summer 2014	4.00	4.00



В	Fall 2010	Spring 2014	4.00	3.75
С	Fall 2010	Fall 2014	4.33	4.25

Student A has the same time to degree in both methods, because summer graduation is treated the same as spring graduation in the academic year method. Student B has a shorter TTD in the calendar year method, because summer counts as .25 calendar years in that method, and Student B graduated before that last .25 years occurred. Student C's TTD in each method highlights the difference between counting a term as .25 years or .33 years.

## Registration Scale

An alternative method to reporting time to degree has been developed to account for interruptions in a student's studies. The registration method considers the cumulative duration of terms when the student was actively enrolled in courses as follows:

- 1. **Enrolled TTD** counts only those terms in which a student was taking classes at UCR.
- 2. **Elapsed TTD** counts all time between entry and graduation. This is the more common measure and is equivalent to that used in IPEDS and many external data sources.

Both methods can be used in conjunction with either of the time scales described above. Consider the example students below using the academic year approach:

Student	Starting Term	Grad Term	Terms Not Enrolled	Enrolled TTD	Elapsed TTD
Α	Fall 2010	Summer 2014	None	4.00	4.00
В	Fall 2010	Summer 2014	Winter 2011	3.67	4.00

Student A enrolled continuously in every fall, winter, and spring term between Fall 2010 and Summer 2014, so there was no difference between enrolled and elapsed TTD. Student B was not registered in Winter 2011, which counts as .33 years deducted from the total. Although Student B took a full 4 years in elapsed time, this student actually completed the degree in fewer enrolled terms than Student A.

#### Tracking Considerations

At the undergraduate level, degrees are not counted in rare cases when it is unclear when a student officially started at UCR. At the graduate level, we report only degrees earned with the major code on record as of the student's first graduate entry date. In other words, we do not calculate TTD for second graduate degrees earned in a different major nor for students who switched graduate programs. A PhD student earning a master's along the way would be counted among master's degrees and among PhD degrees if the master's major code was the same as the original PhD. Both the master's and PhD TTD would reference the same start date. If the master's major code was different from the PhD major code, then TTD would not be calculated for the PhD degree earned.