

Performance Based Funding

METHODOLOGY AND PROCEDURES

Post-Graduation Metrics

(Percent Employed or Enrolled & Average Salary)

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STATE UNIVERSITY SYSTEM *of* FLORIDA
Board of Governors



Background

The Board of Governors included a post-graduation metric goal in its State University System 2012-2025 Strategic Plan that was approved in 2011. In 2013, the Board of Governors and the Florida Legislature created a Performance-Based Funding (PBF) model that included two post-graduation metrics within one year of graduation:

1. Percent of Bachelor's Graduates Enrolled or Employed Full-time in Florida
2. Median Wages of Bachelor's Graduates Employed Full-time

Starting in 2015, both metrics were expanded to include wages from anywhere in the nation¹.

1. Percent of Bachelor's Graduates Enrolled or Employed Full-time in the Nation
2. Median Wages of Bachelor's Graduates Employed Full-time

Starting in 2017, the wage threshold for metric one was increased to \$25,000.

1. Percent of Bachelor's Graduates Enrolled or Employed (Earning \$25,000+) in the Nation
2. Median Wages of Bachelor's Graduates Employed Full-time

In October of 2019, the Board approved revisions to the System's 2025 Strategic Plan, which revised the employment metric to include a \$30,000+ wage threshold. It is expected that the Budget committee will adopt the new wage threshold at the September 2020 meeting. If the Board approves this wage threshold change for the PBF metric, then the new metric will be reported in the 2021 Accountability Plans and used in the 2021 PBF model.

1. Percent of Bachelor's Graduates Enrolled or Employed (Earning \$30,000+) in the Nation
2. Median Wages of Bachelor's Graduates Employed Full-time

This document provides details on the methodology and procedures used by Board of Governors staff during the production of the post-graduation data that is reported in the annual Accountability Plans that are used in the current Performance-Based Funding model.

¹ Employment data only included states that voluntarily participated in a national data sharing exchange. During the initial years, the employment data included some notable exclusions – i.e., Georgia, Alabama. Each year, more states have joined this national data exchange. The 2021 Accountability Plans will include, for the first time, all 50 states plus the District of Columbia and Puerto Rico. The data for continuing enrollment has always included all states.



1. Defining the Post-Graduation Cohort

The State University System of Florida Board of Governors maintains a student unit record database titled the State University Database System (SUDS). This metric is based on the data that universities submit to the Board office as part of the Degrees Awarded table on the Degrees Awarded (SIFD) file submission.

- A. Board Office of Data & Analytics (ODA) staff query SUDS to identify all students who earned a bachelor's degree during the academic year – includes graduates from the summer, fall, spring terms. It is important to note that a small number of degrees are reported to SUDS after the degree was awarded – these are called 'late degrees'. In the SIFD submission, TERM_DEGREE_GRANT indicates when the degree was awarded and REPT_TIME_FRAME indicates when the institution reported that degree to SUDS. Degrees can be reported for previous terms, which is why each REPT_TIME_FRAME includes degrees from multiple TERM_DEGREE_GRANT. Therefore, the SIFD query that produces the post-graduation cohort utilizes a summer-to-summer window, based on REPT_TIME_FRAME to include late degrees reported on the last summer submission. The table below shows which terms are included for three years of degrees.

TERM DEG GRANT	REPT_TIME_FRAME									
	201805	201808	201901	201905	201908	202001	202005	202008	202101	202105
201805	2018-19									
201808										
201901										
201905				2019-20						
201908										
202001										
202005							2020-21			
202008										
202101										

- B. Starting with the 2021 Accountability Plans, ODA staff will use a new methodological step to select only the degree data from each person's max TERM_DEGREE_GRANT. This will eliminate duplicate records for people who earn bachelor's degrees in multiple terms within a year. As a result, each person will only have a single one-year window instead of multiple windows.
- C. These bachelor's recipients serve as a 'post-graduation cohort' that is used to track a specific group of students for the following year. The query's resulting dataset is comprised of one record per bachelor's recipient.
- Note: The number of rows reflects the headcount number of baccalaureates, which will not match published counts of degrees awarded because one student can earn multiple degrees. Note about duplicates: Students who receive a bachelor's degree from two separate SUS institutions during the same academic year are included in both institutions' cohorts.



2. Data Collection

The Board ODA staff collect enrollment and employment information about State University System of Florida students from three sources: the National Student Clearinghouse (NSC), the Florida Department of Economic Opportunity (DEO), and the State University System institutions.

A. Enrollment Data

1. Starting with the 2021 Accountability Plans, ODA staff will increase the data quality of the analysis by adding a new step to the enrollment match that only uses SUDS data for the post-graduation enrollment match within the SUS. The National Student Clearinghouse (NSC) will only be used for matching enrollment outside of the SUS. Anyone in the post-grad cohort who is not found enrolled in the SUS will be sent to the NSC. And, any records of SUS enrollment in the NSC will not be included.
2. ODA staff uploads student-level data to the NSC StudentTracker in a file that includes these eight columns: first, middle, last names, suffix, date of birth, school code, search date, and a requestor return field. It is important to note that social security numbers are not used during the NSC match process.
 - NSC requires that data be submitted to them in a particular format. For example, they require an YYYYMMDD date format from which they start the search for a particular individual – known as the Search Date. Since SUDS data only shows the term of graduation, ODA staff transformed the graduation date to the last day of the month of the degree term to serve as a start date for the post-graduate search. So, for those who graduated in the spring term, ODA use the date YYYY0531 (for May 31). Similarly, for the summer and fall terms, ODA uses the dates YYYY0831 (for August 31) and YYYY1231 (for December 31), respectively.
 - NSC staff match the students on four criteria (first, middle, last names, and date of birth) and add enrollment and graduation records to the original dataset that ODA staff provided to the NSC.
 - The continuing enrollment data from the NSC includes any enrollment the following year regardless of whether the enrollment was post-baccalaureate or not.
 - As a quality assurance step, ODA staff send an identical, yet separate, files to NSC for enrollment matching. If a discrepancy is found between the first and second returned results, then a third request will be sent before moving to the next step.
3. After the NSC match, ODA analyze the NSC records to determine whether the student had enrolled again anywhere in the United States within 14 months (or, 426 days) of the baccalaureate degree being awarded. This means the 'BEGIN DATE' must be less than 426 days after the 'SEARCH DATE'.
 - The data received from the NSC match typically contains multiple records per student. ODA staff remove duplicate records for the same student, so only one record per individual is retained.
4. ODA staff combine the enrollment data from SUDS and the NSC so that each person only has one row regardless of whether they were found enrolled or not. Individuals with an enrollment record within the one-year window are flagged (ENRL_Y1=1), and those without any qualifying enrollments records are flagged (ENRL_Y1=0). ODA then provides a file of all SSNs in the cohort with the ENRL_Y1 data, regardless if they were found enrolled or not, to the Florida Department of Economic Opportunity (DEO) for the employment match.



B. Employment Data

Employment data for post-graduation metrics comes from Florida's participation in the State Wage Interchange System (SWIS)² which is a data sharing agreement among individual State Unemployment Insurance Agencies (SUIAs) to share wage data for individuals whose employers pay Unemployment Insurance (UI). The Florida Department of Economic Opportunity (DEO) is able to access the UI wages in SWIS. The Board office has a data sharing agreement with DEO in which DEO provides aggregated data about the system's graduates to the Board Office of Data & Analytics (ODA). It is important to note that the SWIS agreement prohibits reporting individual level data, so the data that ODA receives from DEO is aggregated. This means that DEO is largely responsible for the analytics and quality assurance work for the employment data. As a result, Board staff's ability to respond to additional stakeholder questions about post-graduation metrics is significantly limited. The primary business rules for the employment data are as follows:

1. ODA provides DEO with the Social Security numbers needed for the PBF metrics and DEO finds all the associated wage records in SWIS. It is important to note that the UI employment data does not include individuals who are self-employed, temporarily employed, employed by a church or association of churches, employed by the military or federal government, or those without a valid Social Security number. Invalid SSNs include: alpha character, dash, asterisk, slash, null, starts with 000, 666 or 899+.
2. ODA provides DEO with the business rules for the match. Both of PBF's post-graduation metrics include wage data for only the first year after graduation. Tables 1-2 below shows how ODA aligns academic semesters and fiscal quarters. Students who graduate in the spring and summer semesters enter the workforce in the middle of a fiscal quarter, so these graduates are given a fifth fiscal quarter. To provide a specific example, the wages for the Spring 2018 graduates were based on data from the second fiscal quarter of 2019.

Table 1. Alignment of Academic Semesters and Fiscal Quarters

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
ACADEMIC SEMESTER SPRING				ACADEMIC SEMESTER SUMMER			ACADEMIC SEMESTER FALL				
1 st Fiscal Quarter JAN-MAR			2 nd Fiscal Quarter APR-JUN			3 rd Fiscal Quarter JUL-SEP		4 th Fiscal Quarter OCT-DEC			

Table 2. Graduating Term and Fiscal Quarters after Graduation

Graduating Term	FISCAL QUARTERS AFTER GRADUATION				
	1 st	2nd	3rd	4th	5 th
SUMMER	FQ-3	FQ-4	FQ-1	FQ-2	FQ-3
FALL	FQ-1	FQ-2	FQ-3	FQ-4	
SPRING	FQ-2	FQ-3	FQ-4	FQ-1	FQ-2

² SWIS replaced the Wage Record Interchange System version 2 (WRIS2) on January 1, 2020.



3. For the first metric (PBF#1), ODA also provides DEO with a 'wage threshold' higher than the 'full-time' threshold that represents the immediate added value of having a bachelor's degree. In 2019, the Board of Governors decided to raise the post-graduation wage threshold in the System's 2025 Strategic Plan to \$30,000³. If the Board's Budget committee decided to apply this change to the PBF metric, this change will be reported in the 2021 Accountability Plans and be used in the 2021 PBF model.
4. For the second metric (PBF#2), ODA provides DEO with a wage threshold that serves as a proxy for 'full-time' employment that is based on earning more than a full-time worker earning at least a minimum wage. For this metric, the annual minimum wage is calculated by multiplying the hourly minimum wage times 2,080 hours (52 weeks times 40 hours per week). This threshold is used in recognition that many graduates are both employed and continuing their education. Therefore, this metric only considers the wages from graduates who earned more than a full-time worker making minimum wage.

C. Additional Factors for PBF#1

DEO provides ODA with an aggregated report as defined in the joint data sharing agreement. ODA staff then add the following additional factors to the data for PBF#1 before finalizing. ODA does not adjust the DEO data for PBF#2.

1. The State University System of Florida has more than 10,000 students receiving military benefits annually. Board staff are not able to access employment wage records via the Defense Manpower Data Center (DMDC). To account for this important subgroup, ODA staff combine two following datasets with the DEO data:
 - The Data Request System (DRS) is used to officially request each university to self-report the number of ROTC Graduates who enter the military following graduation. For documentation and audit purposes, universities should use 'Certificates of Commission' records (for example, 'DD Form 1AF' or 'AF Form 133' in the Air Force), or the Defense Manpower Data Center (free batch file matching services), to serve as documentation for these headcounts.
 - ODA queries SUDS for the number of active duty members in the post-graduation cohort. These counts are appended to the employed counts and are counted in the numerator.
2. Board staff provide special consideration for New College of Florida due to the small size of their graduating cohorts. Board staff ask New College of Florida to provide a detailed list of the overseas scholarships for the students in the graduating cohort because they will not be included in the US enrollment or employment data.
3. Previously, ODA was able to access U.S. Office of Personnel Management (OPM) wage records for Federal civilian employees via the Federal Employment Data Exchange System (FEDES) pilot project sponsored by the U.S. Department of Labor and staffed by The Jacob France Institute at the University of Baltimore. However, federal entities decided to terminate access to this civilian federal data. After this data became unavailable, ODA decided to use the last FEDES data (from 2014-15) as a placeholder to hold the SUS institutions harmless from losing access to this information.

³ Board ODA staff analyzed the 2016 U.S. Census Bureau's Annual Social and Economic Supplement to the Current Population Survey (using a 2012 to 2014 three-year average) and found that the median personal income of a 25-29 year old full-time worker in Florida with a High School Diploma was \$25,000. In response to the August 2019 Strategic Planning Committee meeting, ODA staff revisited this analysis using more current (2015 to 2017) census data, which showed that median personal income of a 25-29-year-old full-time worker in Florida with a high school diploma had increased to \$28,000.



3. Data Analysis

ODA uses the following formula to calculate the 'Percent of Bachelor's Graduates Enrolled or Employed (Earning \$25,000+ or \$30,000+) in the Nation' (PPBF#1). The numerator and denominator for PBF#1 is comprised of the following components.

Numerator:

1. The unduplicated number of bachelor's recipients in the cohort found enrolled or employed in specific fiscal quarter one year after graduation with at least \$25,000 or \$30,000 in wages *plus*
2. The number of ROTC in the military *plus*
3. The number of active duty service members in the cohort *plus*
4. The number of OPM records last reported for each institution *plus*
5. The number of bachelor's recipients in the cohort with overseas scholarships (NCF only)

Denominator:

1. The total unduplicated number of bachelor's recipients in the cohort *minus*
2. The number of bachelor's recipients in the cohort with invalid SSNs who were not found enrolled during the first year. These students are removed from the denominator because it is not possible for them to be found in the wage data.

Again, ODA staff do not adjust the data received from DEO for PBF#2.