Public Centralized Higher Education Enrollment System (PCHEES) Reports: Explanation of discrepancies of head counts

The Washington State Public Centralized Higher Education Enrollment System (PCHEES) (https://pchees.ofm.wa.gov/) provides a set of summary term enrollment reports for authorized users. The summaries include head counts and full-time equivalents with options to categorize data by different variables, such as age, race, or Washington State county of origin.

Careful examination of subtotals and totals within the reports may show values that do not seem to sum correctly. This document is intended to explain why the sums may seem incorrect and how to interpret the summary values.

An example uses the term enrollment report 5.1 (Headcount of Students by Instruction Funding Source), generated using data from Central Washington University for Fall 2024-25. The data were selected for all funding sources and no redaction. In Figure 1, the data are presented with blurring to hide those cells that could have identifiable values.

Table 5.1 -- Headcount of Students by Instruction Funding Source

Central Washington University | Fall 2024 | Instruction Covered by All Funds (State Funds and Other Funds)

	Undergraduate Students										Graduate & Professional Students				TOTAL	
	Degree-Seeking Baccalaureate Students								Other		Total					
	Freshman		Sophomore		Junior		Senior						Graduate		Professional		Total			
	Heads	%	Heads	%	Heads	%	Heads	%	Heads	%	Heads	%	Heads	%	Heads	%	Heads	%	Heads	%
State-Funded Instruction	1,838	97.6	1,380	98.4	1,812	97.6	2,175	97.7	2,475	97.2	9,680	97.6	450	89.6	0	0.0	450	89.6	10,130	97.3
State Funds Appropriated to Course Provider	[illegible]																			
State-Funded 2&4 Year Partnerships	[illegible]																			
CWU & Edmonds Comm College Partnership	[illegible]																			
CWU & Pierce College Partnership	[illegible]																			
State-Funded HS Dual Enrollment Contracts	[illegible]																			
State-Funded Running Start Contracts	[illegible]																			
State-Funded College in High School Contracts	[illegible]																			
Non-State-Funded Instruction	229																			
No State Funds	229																			
Not State Funds Not Dual Enrollment	229																			
TOTAL	1,883	100.0	1,402	100.0	1,856	100.0	2,226	100.0	2,547	100.0	9,914	100.0	502	100.0	0	0.0	502	100.0	10,416	100.0

SOURCE: Data submitted to the Public Centralized Higher Education Enrollment System (PCHEES) after day 10 of the academic term specified in the report header. (Submission ID: S001, Submission Date: 10/11/2024 02:35 PM) This report document has not been scanned to identify and redact summary data that might accidentally disclose information about individual students. Do not distribute document in this non-redacted form to unauthorized individuals, agencies or organizations.

Figure 1: Example PCHEES report with blurring to hide identifiable values

The first column of headcounts for Freshmen includes top-level categories of "State-Funded Instruction" and "Non-State-Funded Instruction." The groups' respective total head counts are 1,838 (state funded) and 229 (non-state-funded), with a manually calculated sum of 1,838 + 229 = 2,067. However, the grand total on the report is shown as 1,883, which is lower than the calculated sum of the totals from the two groups.

This is confusing, particularly because for typical reports with stratified data summaries, readers expect that sub-category values should aggregate consistently into super-categories' sums. Those type of reports are based on stratification of individual record data into mutually exclusive and comprehensively exhaustive categories. This is not the case with some of the PCHEES head count data; not all categories are not mutually exclusive. This can be explained by Note 2 at the bottom of the report (Figure 2).

> 2. Student headcounts in this report are unduplicated headcounts that adjust for student co-enrollments at multiple institutions and at multiple campuses of the same institution. Accordingly, column subtotals and totals may be less than the sum of headcounts in individual column cells.

Figure 2: PCHEES report Note 2

This means that there may be students who are accounted for in *both* the state-funded and non-state-funded categories.

Consider a few scenarios shown in Table 1and how these would affect the reported totals.

Table 1: Different enrollment funding scenarios

Scenario	Effect on totals
Student enrolled in: • 1 or more state-funded courses • 0 non-state funded courses	+1 head count in each of: • total of state-funded instruction • grand total
Student enrolled in: • 0 state-funded courses • 1 or more non-state funded courses	+1 head count in each of: • total of non-state-funded instruction • grand total
Student enrolled in: • 1 or more state-funded courses • 1 or more non-state funded courses	+1 head count in each of: • total of state-funded instruction • total of non-state-funded instruction • grand total

If a student took one or more state-funded courses, they would be represented as a single head count in that category. Similarly, if a student took one or more non-state funded courses, they would be represented as a single head count in that category. However, they would be represented only as a single head count in the grand total

This can be demonstrated by viewing the detailed student data for a single student enrolled in three courses in one term. Table 2 shows that this student (id masked) enrolled in two courses that were state-funded, and one course that was not state-funded.

Table 2: Enrollment data for a single student in one term

academic_year	term	student_ID	course	section	funding_source	funding_source_description	funding_type	funding_type_description
202021	FL	--	SPM365	001	100	State Funds Appropriated to Course Provider	1	State-Funded Instruction
202021	FL	--	MGT380	A01	100	State Funds Appropriated to Course Provider	1	State-Funded Instruction
202021	FL	--	MATH100C	001	901	Not State Funds Not Dual Enrollment	2	Non-State-Funded Instruction

Therefore, this student would be represented once in the State-Funded Instruction category and once in the Non-State-Funded Instruction category. The student would be represented as only a single record in the grand total.

These kind of sums apply to other PCHEES reports. For example, single students may have multiple self-reported race identities. In that case, the student would be represented as one individual person in each of their respective race group categories, but only once in a grand total of head counts. Similarly, a student enrolled at more than one institution would account for one individual person at each institution, but only as a single person in the grand total.

For additional questions about PCHEES reports, contact the PCHEES Help Desk (PCHEES.Helpdesk@ofm.wa.gov).