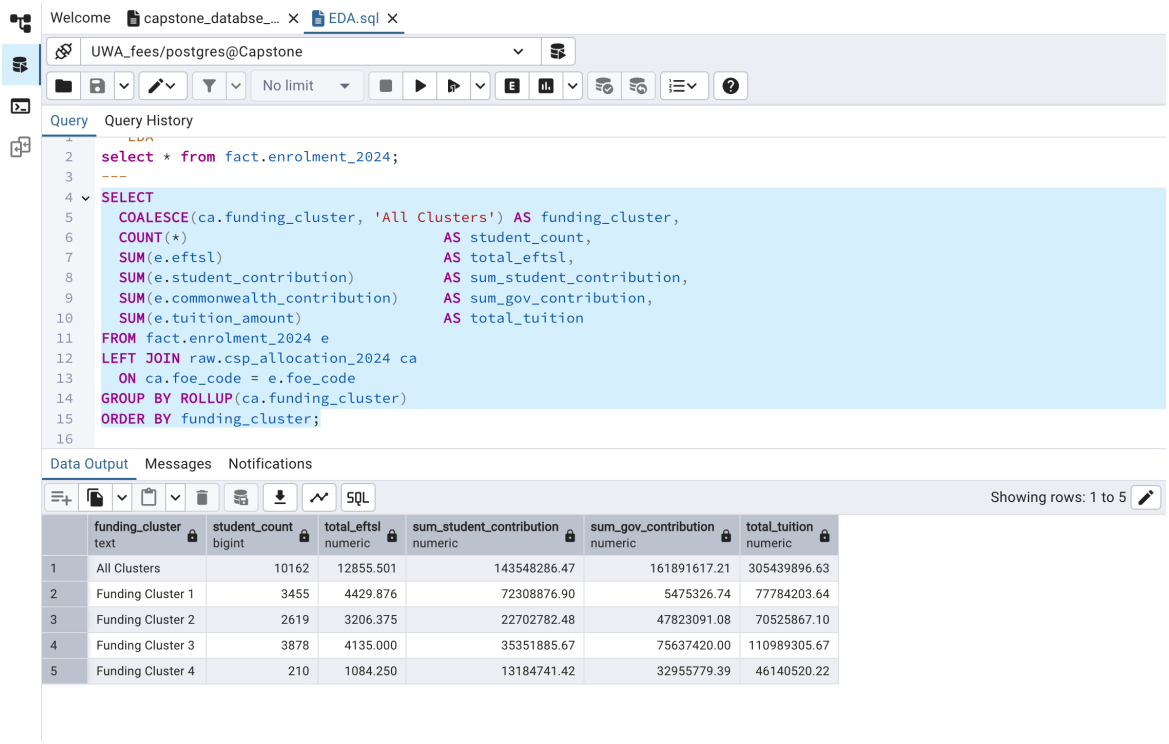
# Version 1.0 28th Sep edited by Fei

# Background research

## 1. Total EFTSL across all funding cluster

Record = 10162 and Total EFTSL= 12855.501




| | funding_cluster text | student_count bigint | total_eftsl numeric | sum_student_contribution numeric | sum_gov_contribution numeric | total_tuition numeric |
|---|---|---|---|---|---|---|
| 1 | All Clusters | 10162 | 12855.501 | 143548286.47 | 161891617.21 | 305439896.63 |
| 2 | Funding Cluster 1 | 3455 | 4429.876 | 72308876.90 | 5475326.74 | 77784203.64 |
| 3 | Funding Cluster 2 | 2619 | 3206.375 | 22702782.48 | 47823091.08 | 70525867.10 |
| 4 | Funding Cluster 3 | 3878 | 4135.000 | 35351885.67 | 75637420.00 | 110989305.67 |
| 5 | Funding Cluster 4 | 210 | 1084.250 | 13184741.42 | 32955779.39 | 46140520.22 |

# Student with special cases

Record = 366 and Total EFTSL= 691.375

```sql
--- checking the missing special case---

SELECT r.*
FROM raw.student_enrolments_2024 r
LEFT JOIN dim.foe d ON r.unit_primary_foe_code = d.foe_code
WHERE d.foe_code IS NULL;

--checking the missing special case with total eftsl --
SELECT
    COUNT(*) AS n_rows,
    SUM(r.eftsl_2024) AS total_eftsl
FROM raw.student_enrolments_2024 r
LEFT JOIN dim.foe d
    ON r.unit_primary_foe_code = d.foe_code
WHERE d.foe_code IS NULL;
```

Data Output | Messages | Notifications

Showing rows: 1 to 366 | Page No: 1 of 1

| | row_id [PK] bigint | course_type_broad_name text | funding_group_name text | unit_level text | unit_primary_foe_code text | unit_primary_foe_detailed_name text | unit_primary_foe_narrow_name text | unit_primary_ text |
|---|---|---|---|---|---|---|---|---|
| 1 | 29 | Undergraduate | Domestic - C'wealth Supported | 4 | 090701 | Psychology | Behavioural Science | Society And C |
| 2 | 42 | Undergraduate | Domestic - C'wealth Supported | 4 | 090701 | Psychology | Behavioural Science | Society And C |
| 3 | 43 | Undergraduate | Domestic - C'wealth Supported | 4 | 090701 | Psychology | Behavioural Science | Society And C |
| 4 | 44 | Undergraduate | Domestic - C'wealth Supported | 4 | 090701 | Psychology | Behavioural Science | Society And C |
| 5 | 51 | Undergraduate | Domestic - C'wealth Supported | 4 | 090701 | Psychology | Behavioural Science | Society And C |
| 6 | 93 | Undergraduate | Domestic - C'wealth Supported | 5 | 090501 | Social Work | Human Welfare Studies And Services | Society And C |
| 7 | 98 | Undergraduate | Domestic - C'wealth Supported | 4 | 090701 | Psychology | Behavioural Science | Society And C |
| 8 | 116 | Undergraduate | Domestic - C'wealth Supported | 4 | 090701 | Psychology | Behavioural Science | Society And C |
| 9 | 127 | Undergraduate | Domestic - C'wealth Supported | 4 | 090701 | Psychology | Behavioural Science | Society And C |
| 10 | 128 | Undergraduate | Domestic - C'wealth Supported | 4 | 090701 | Psychology | Behavioural Science | Society And C |

Total rows: 366 | Query complete 00:00:00.118 | LF | Ln 19, C

```sql
--checking the missing special case with total eftsl --
SELECT
    COUNT(*) AS n_rows,
    SUM(r.eftsl_2024) AS total_eftsl
FROM raw.student_enrolments_2024 r
LEFT JOIN dim.foe d
    ON r.unit_primary_foe_code = d.foe_code
WHERE d.foe_code IS NULL;


---checking the overload student ---
SELECT
  COUNT(*) AS student count over3,
```

Data Output | Messages | Notifications

| | n_rows bigint | total_eftsl numeric |
|---|---|---|
| 1 | 366 | 691.375 |

In summary:

**Total EFTSL= 12855.501+691.375=13546.88**

The record in 2024 financial report: Total EFTSL for CSP = 13548

**Student enrolments**

by broad course type

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Higher degree research | 2,113 | 2,004 | 1,947 | 1,894 | **1,803** |
| | 8.0% | 7.2% | 6.9% | 6.4% | **5.4%** |
| Postgraduate coursework | 8,054 | 8,322 | 8,223 | 8,740 | **10,974** |
| | 30.6% | 29.8% | 29.3% | 29.7% | **33.0%** |
| Undergraduate | 16,115 | 17,646 | 17,901 | 18,792 | **20,433** |
| | 61.3% | 63.1% | 63.8% | 63.9% | **61.5%** |
| **Grand total** | 26,282 | 27,972 | 28,071 | 29,426 | **33,210** |

***Notes:*** *Students enrolled in multiple courses are counted multiple times.*

**Student load EFTSL**

by funding source

| | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Domestic - commonwealth supported | 12,682 | 13,943 | 13,793 | 13,435 | **13,548** |
| | 67.8% | 70.6% | 70.5% | 66.0% | **59.7%** |
| Domestic - fee-paying | 721 | 614 | 608 | 632 | **616** |
| | 3.9% | 3.1% | 3.1% | 3.1% | **2.7%** |
| Domestic - non-award and others | 61 | 76 | 72 | 129 | **92** |
| | 0.3% | 0.4% | 0.4% | 0.6% | **0.4%** |
| Domestic – research training program | 881 | 926 | 880 | 763 | **749** |
| | 4.7% | 4.7% | 4.5% | 3.8% | **3.3%** |
| International - offshore | 60 | 43 | 24 | 11 | **7** |
| | 0.3% | 0.2% | 0.1% | 0.1% | **0.0%** |
| International - onshore | 4,091 | 3,975 | 4,057 | 5,317 | **7,650** |
| | 21.9% | 20.1% | 20.7% | 26.1% | **33.7%** |
| International - research training program | 222 | 181 | 126 | 57 | **33** |
| | 1.2% | 0.9% | 0.6% | 0.3% | **0.1%** |
| **Grand total** | 18,717 | 19,759 | 19,560 | 20,344 | **22,695** |

***Notes:*** *Non-award category includes unknown funding group. Discrepancies between the sums of component items and totals are due to rounding.*

# Let's go back to the total government contribution:

```sql
SELECT
  COALESCE(ca.funding_cluster, 'All Clusters') AS funding_cluster,
  COUNT(*)                                     AS student_count,
  SUM(e.eftsl)                                 AS total_eftsl,
  SUM(e.student_contribution)                  AS sum_student_contribution,
  SUM(e.commonwealth_contribution)             AS sum_gov_contribution,
  SUM(e.tuition_amount)                        AS total_tuition
FROM fact.enrolment_2024 e
LEFT JOIN raw.csp_allocation_2024 ca
  ON ca.foe_code = e.foe_code
GROUP BY ROLLUP(ca.funding_cluster)
ORDER BY funding_cluster;

--- checking the missing special case---

SELECT r.*
```

Data Output | Messages | Notifications

| | funding_cluster text | student_count bigint | total_eftsl numeric | sum_student_contribution numeric | sum_gov_contribution numeric | total_tuition numeric |
|---|---|---|---|---|---|---|
| 1 | All Clusters | 10162 | 12855.501 | 143548286.47 | 161891617.21 | 305439896.63 |
| 2 | Funding Cluster 1 | 3455 | 4429.876 | 72308876.90 | 5475326.74 | 77784203.64 |
| 3 | Funding Cluster 2 | 2619 | 3206.375 | 22702782.48 | 47823091.08 | 70525867.10 |
| 4 | Funding Cluster 3 | 3878 | 4135.000 | 35351885.67 | 75637420.00 | 110989305.67 |
| 5 | Funding Cluster 4 | 210 | 1084.250 | 13184741.42 | 32955779.39 | 46140520.22 |

- Total government contribution = 161891617.21

And in government official document:

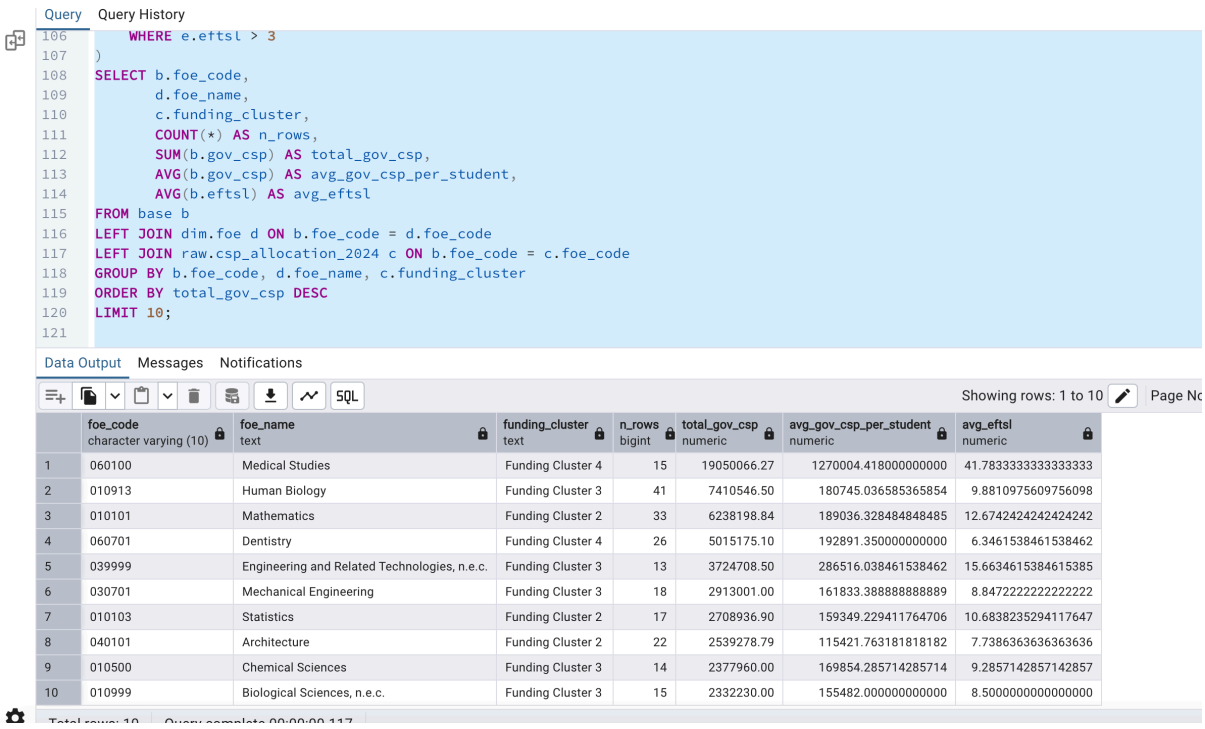
**Table 1: Summary of indicative maximum funding amounts**

| Funding | 2024 | 2025 |
|---|---|---|
| **1. Teaching** | | |
| Higher education courses (MBGA funding envelope) | $147,201,380 | $155,932,583 |

It’s quite close!

# How to Correctly Interpret 2024 UWA Student Data Table

Let’s break down in detail:



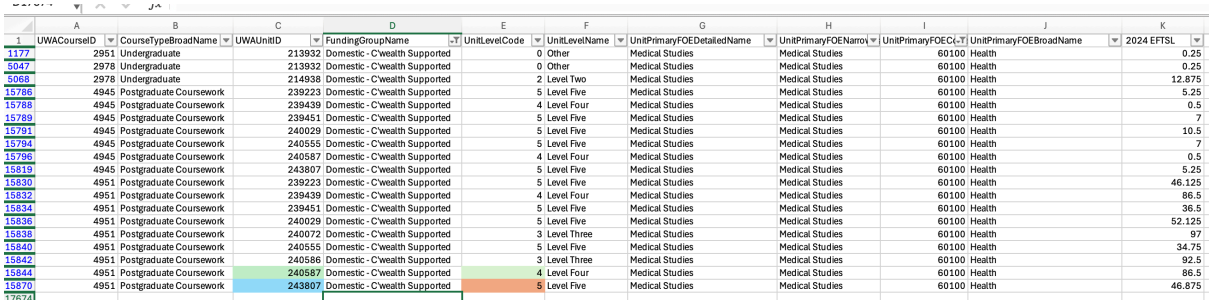
```
    WHERE e.eftsl > 3
)
SELECT b.foe_code,
       d.foe_name,
       c.funding_cluster,
       COUNT(*) AS n_rows,
       SUM(b.gov_csp) AS total_gov_csp,
       AVG(b.gov_csp) AS avg_gov_csp_per_student,
       AVG(b.eftsl) AS avg_eftsl
FROM base b
LEFT JOIN dim.foe d ON b.foe_code = d.foe_code
LEFT JOIN raw.csp_allocation_2024 c ON b.foe_code = c.foe_code
GROUP BY b.foe_code, d.foe_name, c.funding_cluster
ORDER BY total_gov_csp DESC
LIMIT 10;
```

Query | Query History

Data Output | Messages | Notifications

Showing rows: 1 to 10

| | foe_code character varying (10) | foe_name text | funding_cluster text | n_rows bigint | total_gov_csp numeric | avg_gov_csp_per_student numeric | avg_eftsl numeric |
|---|---|---|---|---|---|---|---|
| 1 | 060100 | Medical Studies | Funding Cluster 4 | 15 | 19050066.27 | 1270004.418000000000 | 41.7833333333333333 |
| 2 | 010913 | Human Biology | Funding Cluster 3 | 41 | 7410546.50 | 180745.036585365854 | 9.8810975609756098 |
| 3 | 010101 | Mathematics | Funding Cluster 2 | 33 | 6238198.84 | 189036.328484848485 | 12.6742424242424242 |
| 4 | 060701 | Dentistry | Funding Cluster 4 | 26 | 5015175.10 | 192891.350000000000 | 6.3461538461538462 |
| 5 | 039999 | Engineering and Related Technologies, n.e.c. | Funding Cluster 3 | 13 | 3724708.50 | 286516.038461538462 | 15.6634615384615385 |
| 6 | 030701 | Mechanical Engineering | Funding Cluster 3 | 18 | 2913001.00 | 161833.388888888889 | 8.8472222222222222 |
| 7 | 010103 | Statistics | Funding Cluster 2 | 17 | 2708936.90 | 159349.229411764706 | 10.6838235294117647 |
| 8 | 040101 | Architecture | Funding Cluster 2 | 22 | 2539278.79 | 115421.763181818182 | 7.7386363636363636 |
| 9 | 010500 | Chemical Sciences | Funding Cluster 3 | 14 | 2377960.00 | 169854.285714285714 | 9.2857142857142857 |
| 10 | 010999 | Biological Sciences, n.e.c. | Funding Cluster 3 | 15 | 2332230.00 | 155482.000000000000 | 8.5000000000000000 |



| | A | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | UWACourseID | CourseTypeBroadName | UWAUnitID | FundingGroupName | UnitLevelCode | UnitLevelName | UnitPrimaryFOEDetailedName | UnitPrimaryFOENarrow | UnitPrimaryFOEC | UnitPrimaryFOEBroadName | 2024 EFTSL |
| 1177 | 2951 | Undergraduate | 213932 | Domestic - C'wealth Supported | 0 | Other | Medical Studies | Medical Studies | 60100 | Health | 0.25 |
| 5047 | 2978 | Undergraduate | 213932 | Domestic - C'wealth Supported | 0 | Other | Medical Studies | Medical Studies | 60100 | Health | 0.25 |
| 5068 | 2978 | Undergraduate | 214938 | Domestic - C'wealth Supported | 2 | Level Two | Medical Studies | Medical Studies | 60100 | Health | 12.875 |
| 15786 | 4945 | Postgraduate Coursework | 239223 | Domestic - C'wealth Supported | 5 | Level Five | Medical Studies | Medical Studies | 60100 | Health | 5.25 |
| 15788 | 4945 | Postgraduate Coursework | 239439 | Domestic - C'wealth Supported | 4 | Level Four | Medical Studies | Medical Studies | 60100 | Health | 0.5 |
| 15789 | 4945 | Postgraduate Coursework | 239451 | Domestic - C'wealth Supported | 5 | Level Five | Medical Studies | Medical Studies | 60100 | Health | 7 |
| 15791 | 4945 | Postgraduate Coursework | 240029 | Domestic - C'wealth Supported | 5 | Level Five | Medical Studies | Medical Studies | 60100 | Health | 10.5 |
| 15794 | 4945 | Postgraduate Coursework | 240555 | Domestic - C'wealth Supported | 5 | Level Five | Medical Studies | Medical Studies | 60100 | Health | 7 |
| 15796 | 4945 | Postgraduate Coursework | 240587 | Domestic - C'wealth Supported | 4 | Level Four | Medical Studies | Medical Studies | 60100 | Health | 0.5 |
| 15819 | 4945 | Postgraduate Coursework | 243807 | Domestic - C'wealth Supported | 5 | Level Five | Medical Studies | Medical Studies | 60100 | Health | 5.25 |
| 15830 | 4951 | Postgraduate Coursework | 239223 | Domestic - C'wealth Supported | 5 | Level Five | Medical Studies | Medical Studies | 60100 | Health | 46.125 |
| 15832 | 4951 | Postgraduate Coursework | 239439 | Domestic - C'wealth Supported | 4 | Level Four | Medical Studies | Medical Studies | 60100 | Health | 86.5 |
| 15834 | 4951 | Postgraduate Coursework | 239451 | Domestic - C'wealth Supported | 5 | Level Five | Medical Studies | Medical Studies | 60100 | Health | 36.5 |
| 15836 | 4951 | Postgraduate Coursework | 240029 | Domestic - C'wealth Supported | 5 | Level Five | Medical Studies | Medical Studies | 60100 | Health | 52.125 |
| 15838 | 4951 | Postgraduate Coursework | 240072 | Domestic - C'wealth Supported | 3 | Level Three | Medical Studies | Medical Studies | 60100 | Health | 97 |
| 15840 | 4951 | Postgraduate Coursework | 240555 | Domestic - C'wealth Supported | 5 | Level Five | Medical Studies | Medical Studies | 60100 | Health | 34.75 |
| 15842 | 4951 | Postgraduate Coursework | 240586 | Domestic - C'wealth Supported | 3 | Level Three | Medical Studies | Medical Studies | 60100 | Health | 92.5 |
| 15844 | 4951 | Postgraduate Coursework | 240587 | Domestic - C'wealth Supported | 4 | Level Four | Medical Studies | Medical Studies | 60100 | Health | 86.5 |
| 15870 | 4951 | Postgraduate Coursework | 243807 | Domestic - C'wealth Supported | 5 | Level Five | Medical Studies | Medical Studies | 60100 | Health | 46.875 |
| 17674 | | | | | | | | | | | |

- This table is **not student-level data**.
- Each row represents a **combination of (UWACourseID × UWAUnitID × FOE Code × Level)**.
    - **UWACourseID** → the degree program (e.g., Bachelor of Medical Studies)
    - **UWAUnitID** → the unit/course (e.g., a Medical Studies unit)
    - **FOE Code** → field of education code
    - **UnitLevelCode/Name** → the unit level (e.g., Level 4, Level 5)

So, a single course may appear as dozens or even hundreds of students.

So that can explain why unit level code= 4 or 5 here

## 2. Why the same Unit has many rows

- A single unit can appear multiple times because:
    - It belongs to different degree programs (different UWACourseIDs).
    - It is split across different FOE codes.
    - It is separated by unit levels.

So: **1 Medical Studies unit ≠ 1 row**, it is broken into many rows.

## 3. What EFTSL means

- **EFTSL = Equivalent Full-Time Student Load**
- It does not represent headcount; it represents "student load."
    - 1 EFTSL ≈ one student's full-time study load for a year.
    - 0.25 EFTSL → could mean:
        - 2 students each at 12.5% load, or
        - more students splitting that load.

This means you **cannot directly interpret the row count as student numbers**, nor can you say "this row has 2 students."

## 4. How to calculate correctly

**total scale of a unit/discipline: SUM(EFTSL)**

Example:

- Medical Studies may only show ~15 rows in the dataset, but when you **SUM their EFTSL**, the total might be **hundreds or thousands**, which reflects the true scale.