

Executive Report: Physics and Astronomy Bachelor Degree Financial Performance

Prepared for: Chief Financial Officer, Insights University **Subject:** Near-Breakeven Performance Analysis

Executive Summary

Physics and Astronomy Bachelor programs at Insights University are operating at near-breakeven, with a margin of only **\$102 per EFTSL** in 2024. This compares unfavorably to the sector benchmark of **\$4,812 per EFTSL**—a gap of approximately **\$4,700 per EFTSL**.

With 59.5 EFTSL enrolled, the total annual margin is just **\$6,093**, versus a sector-typical margin of **\$286,000** for programs of similar scale.

Financial Position Overview

Key Metrics (2024)

Metric	Insights University	Sector Benchmark	Variance
Margin per EFTSL	\$102	\$4,812	-\$4,710
Revenue per EFTSL	\$22,991	\$29,827	-\$6,836
Cost per EFTSL	\$22,888	\$25,015	-\$2,127
EFTSL	59.5	90.4	-30.9

While our costs per EFTSL are 8.5% below sector average, our revenue per EFTSL is **22.9% below sector**, creating the near-breakeven position.

Root Cause Analysis

1. Revenue Shortfall (\$6,836 per EFTSL below sector)

Our revenue per student is significantly below sector norms. This gap of \$6,836 per EFTSL represents approximately **\$407,000 in foregone annual revenue** at current enrollment levels.

Potential drivers:

- Lower domestic fee rates or Commonwealth funding allocation
- Different student mix (domestic/international/postgraduate)
- Limited fee-for-service or international premium revenue
- Revenue allocation methodology in the Pilbara model

2. Academic Staffing Inefficiency

EFTSL per Academic FTE: 19.0 (Insights) vs **22.5** (sector weighted mean)

Our academic staff are supporting 15.6% fewer students per FTE than sector peers. This translates to:

- 3.1 Academic FTE supporting 59.5 EFTSL
- Sector-efficient staffing would be **2.6 FTE** for this load
- Excess capacity of approximately **0.5 FTE** (~\$150,000 in academic salary costs)

Contributing factors:

- **Delivery Hours per EFTSL:** 37.9 hours (Insights) vs 48.9 hours (sector)—we deliver 23% fewer contact hours per student
- **Average Apportionment Efficiency Ratio:** 0.42 (Insights) vs 0.75 (sector)—our teaching units are running at 56% of sector efficiency

3. Disproportionate Non-Salary Costs

Non-Salary as% of Total Cost: 46.3% (Insights) vs **35.6%** (sector)

Our non-salary costs consume 10.7 percentage points more of our cost base than sector norms:

- **Non-Salary per EFTSL:** \$10,600 (Insights) vs \$8,914 (sector)
- **Excess non-salary spend:** ~\$1,686 per EFTSL or **\$100,000 annually**

This may reflect:

- Higher laboratory and equipment costs (inherent to Physics)
- Depreciation intensity (\$1,805 per EFTSL vs sector \$3,330—actually below sector)
- Facilities, consumables, or indirect cost allocation
- Fixed costs spread over smaller enrollment base

4. Scale Effects

At 59.5 EFTSL, we are operating **34% below** the sector mean of 90.4 EFTSL. Small-scale programs face:

- Higher fixed costs per student
- Difficulty achieving efficient class sizes
- Reduced bargaining power for equipment/resources
- Limited ability to share teaching resources across units

We offer **10 unit instances** (vs sector mean 29), with an apportionment efficiency ratio of 0.42, indicating significant under-enrollment in available teaching units.

Cost Structure Breakdown

Salary Distribution (2024)

Component	Insights	Sector	Assessment
Academic Salary%	34.3%	29.7%	+4.6pp above sector
Professional Salary%	19.4%	34.8%	-15.4pp below sector
Non-Salary%	46.3%	35.6%	+10.7pp above sector

Our cost structure is **academic-heavy and professional-light** compared to sector, with material non-salary intensity. The 34.3% academic salary percentage, combined with low student load per FTE, drives inefficiency.

Methodology Context

These results are derived using Pilbara's **Activity-Based Costing (ACE) methodology**, which allocates:

- **Resources** (finance, HR, space, timetabling) →
- **Activities** (teaching delivery, preparation, assessment, research) →
- **Products** (teaching units, programs, FOE outputs)

Benchmarks are calculated as **EFTSL-weighted sector means**, ensuring larger institutions and programs contribute proportionally to sector averages. Offshore, VET, and subsidiary activities are excluded for comparability.

Strategic Implications

The near-breakeven status of Physics and Astronomy reflects **structural challenges** rather than operational mismanagement:

1. **Revenue constraints** are the primary driver—without revenue uplift, the program cannot generate sustainable margins
2. **Academic efficiency** can be improved by 15-20%, potentially saving \$100-150K annually
3. **Non-salary intensity** is 30% above sector, warranting review of lab/equipment/facilities costs
4. **Scale is sub-optimal**—growth to 80-90 EFTSL would improve unit economics significantly

Without intervention, Physics and Astronomy will continue to operate at or near breakeven, requiring cross-subsidy from higher-margin programs.

Recommendations

Short-term (0-12 months):

1. Review revenue allocation methodology—ensure Physics receives appropriate share of Commonwealth and fee revenue
2. Optimize academic workload allocation—target 22+ EFTSL per Academic FTE
3. Audit non-salary cost drivers, particularly lab consumables, facilities, and equipment depreciation

Medium-term (1-2 years):

4. Improve unit enrollment efficiency—consolidate offerings or increase cohort sizes
5. Explore revenue enhancement through postgraduate programs, research linkages, or industry partnerships
6. Consider shared teaching arrangements with related disciplines (e.g., Chemistry, Engineering)

Long-term (2-3 years):

7. Evaluate strategic fit—if scale cannot be achieved, consider portfolio rationalization
 8. Develop a sustainable operating model targeting 10-15% margin (\$2,500+ per EFTSL)
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