**SIG-742**

**End Term Assignment**

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**Question 2.3.2:** Data Analysis: Utilize your data analytics skills to discover common patterns or trends from the report; Where possible, compare trends over multiple years, between institutions, or across different Indigenous strategy metrics.

**Answer 2.3.2:**

**Data Analytics: Key Patterns and Trends from the Indigenous Strategy Report**

Based on my analysis of the Universities Australia Indigenous Strategy Annual Report (May 2022), here are the significant patterns and trends:

**1. ENROLLMENT GROWTH vs COMPLETION GAP (Critical Disparity)**

**Strong Growth Pattern:**

* Indigenous enrolments increased **141.3%** from 2008-2020 (9,490 → 22,897 students)
* Annual growth rate: **7.6%** vs 4.3% for non-Indigenous students
* Share of total enrolments: 1.25% (2008) → 2.04% (2020)
* Moreover, while the growth % for Indigenous students in the last 3 years of available data have seen a healthy increase from ~4% to ~9%, the gap with non-indigenous has reduced from ~9% in 2016 to ~4% in 2020.

**Persistent Completion Gap:**

* 9-year completion rate: **49.4%** (Indigenous) vs **72.2%** (non-Indigenous) for 2012 cohort
* This **~23 percentage point gap** has remained relatively stable since 2005
* While Indigenous completion improved from 46.5% to 49.4%, the gap persists

**2. AGE-RELATED DISPARITIES (Structural Barrier)**

**Younger cohorts underrepresented:**

* Ages 15-19: Indigenous people are **1.6%** of applicants but **5.8%** of population
* Ages 20-24: **2.3%** of applicant’s vs **5.0%** of population
* This represents a **3-4x underrepresentation** in traditional university age groups

**Older cohorts overrepresented:**

* 36% of Indigenous applicants are 25+ years old vs 23% non-Indigenous
* Ages 40-64: Indigenous students are **3.6%** of applicants but only **2.4%** of population

**3. Course level**

* The growth in the enrolments in Non-award courses has been the highest(220% since 2008 till 2020).
* Others course levels like Post-graduate research and bachelor courses, along with Enabling courses have also seen modest growth of 141% during the same period.
* However, the share of undergraduate applications within the age-group 15-19 is falling behind significantly in Indigenous population compared to non-Indigenous. The difference in this age group is 15%.

**4. EMPLOYMENT OUTCOMES (Positive Counter-Narrative)**

**Indigenous graduates outperform:**

* Full-time employment (4 months post-graduation): **76.8%** Indigenous vs **68.8%** non-Indigenous undergraduates
* Postgraduate: **87.9%** Indigenous vs **84.9%** non-Indigenous
* Median salary advantage: Indigenous undergraduates earn **$65,800** vs **$62,000** (2018 graduates)

**5. FIELD OF STUDY CONCENTRATION**

**Indigenous students concentrate in:**

* Society & Culture: **32.2%** (vs 24.6% non-Indigenous)
* Health: **21.2%** (vs 19.4%)
* Education: **12.6%** (vs 10.1%)

**Underrepresented in:**

* Management & Commerce: **9.4%** (vs 15.4%)
* Natural/Physical Sciences: **5.5%** (vs 8.9%)
* Engineering: **2.6%** (vs 5.6%)

**Trend over time (2012-2021):**

* Health applications increased dramatically: 24% → **33.7%**
* Education, Management, Creative Arts all declined

**5. STAFF PIPELINE CRISIS (Systemic Weakness)**

**Academic staff growth but massive gap:**

* Indigenous academic staff: 282 (2005) → 619 (2021) = **119.5% increase**
* But only **1.17%** of all academic staff vs 3.1% population parity
* Need **1,071 additional academic staff** to reach parity

**Seniority gap:**

* Level A & B (junior): Indigenous **58.8%** vs non-Indigenous **47.6%**
* Level D+ (senior): Indigenous **22.6%** vs non-Indigenous **29.7%**

**Postgraduate pipeline inadequate:**

* Only **743** Indigenous PhD students enrolled (2020)
* Need additional **565** PhD students to reach population parity
* PhD completions: only **71** in 2020 (1.14% of total)

**6. ATTRITION IMPROVEMENT (Positive Trend)**

**Four-year attrition declining:**

* 2005 cohort: **25.8%** never returned
* 2016 cohort: **18.4%** never returned
* 2017 cohort: **20.4%** (slight uptick)

**Retention rates stable but low:**

* Indigenous: **72-77%** range (2008-2019)
* Non-Indigenous: **85-87%** range
* **~13 percentage point gap** persists

**7. GENDER PATTERNS**

**Strong female representation:**

* **72%** of Indigenous undergraduate applicants are female (vs 61% non-Indigenous)
* **64%** of Indigenous academic staff are female (vs 48% non-Indigenous)
* Even higher at senior levels: **67%** female at Level C

**8. COVID-19 RESPONSE (Adaptive Capacity)**

* **90%+** of universities provided Indigenous-specific student support
* **70%+** had specific staff initiatives
* **89%** tailored community engagement

**9. CULTURAL SAFETY GAPS**

**Training coverage:**

* Only **30%** provide cultural safety training to both staff and students
* Only **46%** have explicit anti-racism initiatives for Indigenous people
* Only **26%** formally recognize cultural load for both staff and students

**Question 2.3.3: Provide a clear and concise summary of the main patterns, trends, or correlations discovered from your analysis; Interpret what these findings reveal about the progress and challenges of Indigenous strategies in Australian universities.**

**Answer 2.3.3: Summary and Insights:**

**Key Insights:**

* Universities are succeeding at access but struggling with completion support.
* Indigenous students face barriers to university entry at traditional ages, suggesting secondary education or pathway issues.
* Care must be given to address higher participation by indigenous population towards the education at early age. At this age, the parents will have a significant say on the matters related to educational degree. So, campaigns targeting parents should help.
* When Indigenous students complete degrees, they achieve excellent outcomes—suggesting the value of supporting completion.
* Field concentration may reflect cultural preferences but also limits career diversity and may perpetuate occupational segregation.
* Without addressing the postgraduate pipeline, the academic staff gap will persist for decades.
* Progress in reducing attrition, but the gap remains significant and recent uptick is concerning.
* Indigenous women are leading university participation, but this may mask underrepresentation of Indigenous men. There sees to be requirement to have active encouragement towards indigenous male population towards education and course completion.
* Sector demonstrated capacity for targeted support during crisis—this infrastructure should be maintained post-pandemic.
* Despite policy commitments, implementation of cultural safety measures remains inconsistent across institutions.

**Summary:**

**Strengths:**

1. Strong enrolment growth trajectory
2. Declining attrition rates
3. Excellent graduate employment outcomes
4. Demonstrated crisis response capacity

**Critical Gaps:**

1. **Completion rates** remain 23 points below non-Indigenous students
2. **Young people** severely underrepresented in applications
3. **Academic pipeline** inadequate for future needs
4. **Cultural safety** implementation inconsistent
5. **Field diversity** limited, with high concentration in three areas

**Strategic Implication:** The sector is succeeding enrolment stage but failing at the completion stage. The most urgent priority should be completion support, followed by building the postgraduate/academic pipeline and diversifying field participation.