BENCHMARKING INTERNATIONAL STUDENTS’ TUITION FEES:
PERSPECTIVES ON THE COMPETITIVE POSITION OF BC INSTITUTIONS

2013 BCCIE Summer Seminar
• The presentation was delivered by ICG on 24 June 2013 at the BCCIE Summer Seminar 2013 in Whistler, BC.

• The presentation shall be considered incomplete without oral clarification.

• The opinions expressed in this presentation are those of the authors alone.

• ICG makes no warranty regarding any claim or data presented in this presentation, and does not take any responsibility for any third party acting upon information contained in this presentation.
AGENDA

Housekeeping

Why International Tuition Fees Analysis Matters

Methodology of Tuition Fees Benchmarking

Perspectives on BC from the International Tuition-based Competition Database (ITBCD)

Competition Strategy for International Tuition Fees

Discussion
• The presentation section is scheduled to run for about 45 minutes.

• 20 minutes are dedicated for questions and discussion.

• ICG Presenters: Dr. Daniel J. Guhr, Robert W. Jackman.
AGENDA

Housekeeping

Why International Tuition Fees Analysis Matters

Methodology of Tuition Fees Benchmarking

Perspectives on BC from the International Tuition-based Competition Database (ITBCD)

Competition Strategy for International Tuition Fees

Discussion
• The total cost for international education participation has increased notably over the last two decades.

• At the upper range some bachelor’s degree programs now require an investment of close to CAD 300,000 for an international student.

• A number of higher education institutions have become dependent on international tuition fees revenue to drive their institutional budgets.

• At this scale of magnitude, institutions can no longer use traditional models to set tuition fees.

• Mispricing tuition fees can result in negative outcomes for institutions:
  • Lost revenue
  • Reduction of quality student intake
  • Damage to an institutional brand
  • Wrong signaling of institutional quality
• Alternative revenue sources have become a necessity for BC institutions.

• International student tuition fees and associated costs are now a multi-billion dollar economic stream in BC.

• Cuts to operational grants are pushing BC institutions into recruiting international students to address budget gaps.

• Tuition fees are part of a complex total cost portfolio that is impacting students in the Vancouver and Victoria metro areas.
AGENDA

Housekeeping

Why International Tuition Fees Analysis Matters

Methodology of Tuition Fees Benchmarking

Perspectives on BC from the International Tuition-based Competition Database (ITBCD)

Competition Strategy for International Tuition Fees

Discussion
• ICG’s International Tuition-based Competition Database (ITBCD) contains over 7,000 individually benchmarked programs.

• Data has been compiled for tuition fees, additional fees, and cost of living for all 7,000 programs.

• A core set of institutions on four continents (Asia, Australia, Europe, and North America) are included in the ITBCD.

• Currently ITBCD covers two kinds of higher education institutions:
  • Research universities
  • Art and Design institutions

• Individual tuition fees benchmarking following the ITBCD methodology is also undertaken for colleges, but not globally benchmarked.
• International tuition fees were captured from the perspective of an international student.

• All tuition fees sourced were retrieved from publicly available sources:
  • Websites
  • Academic Calendars
  • Viewbooks
  • Institutional staff

• Degree programs covered include:
  • Bachelor’s
  • Honors (Undergraduate)
  • Master’s

• Not currently systematically covered (delivery models diverge too much):
  • Diplomas and Credentials
  • PhD’s
  • JD’s
  • MD’s
## METHODOLOGY OF TUITION FEES BENCHMARKING

### Tuition Fees: Considerations

<table>
<thead>
<tr>
<th>Fees</th>
<th>Requirements</th>
<th>Fee Fluctuations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per Credit</td>
<td>Credits</td>
<td>Static</td>
</tr>
<tr>
<td>Per Unit</td>
<td>Units</td>
<td>Constant Rate</td>
</tr>
<tr>
<td>Per Term</td>
<td>Terms</td>
<td>Floating</td>
</tr>
<tr>
<td>Per Year</td>
<td>Years</td>
<td>Entry-exit guaranteed</td>
</tr>
<tr>
<td>Per Program</td>
<td></td>
<td>Cohort-based (constant)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cohort-based (floating)</td>
</tr>
</tbody>
</table>
• Cost of living is an area of an international student’s overall cost portfolio that institutions often overlook when setting tuition fees.

• Cost of living is often the highest portion of an international student’s budget.

• ITBCD covers two different methodologies for cost of living data:
  • Institutional Estimates
  • ICG’s Standard Model for International Living Expenses (SMILE)

• SMILE was created as an independent assessment tool, due to the fact that many institutions significantly underestimated cost of living in their official projections to international students.
• Rent/Housing – Expenses for on- and off-campus rent and utilities.

• Food

• Books – Expenses on books and stationery.

• Transport – Public transportation expenses.

• Communication – Ongoing expenses for using a phone and accessing the Internet and television services.

• Health Insurance

• Apparel – Expenses for clothing and shoes.

• Entertainment

• Travel – Estimated price of a return ticket from Beijing/Shanghai to the closest major airport to the institution’s location (annual).
• **ICG’s MIN-MAX approach**
  
  • Estimating cost of living ranges for today’s highly diverse and economically highly disparately resourced international student pool is subject to a high degree of uncertainty and variation.
  
  • To address this issue, ICG designed a MIN-MAX approach. Cost of living is thus calculated on the basis of the minimum (MIN) reasonable level of cost positions for the maximum (Max) number of (typical) students.

• **ICG’s Standard Model for International Living Expenses (SMILE)**
  
  • SMILE estimates the average on- and off-campus standard minimum expenses incurred by a student. The typical student referred to in this model would be living in shared accommodation and using public transportation.
  
  • In order to ensure consistency and reliability, the research is based on institutional data, external data, and a combination of both. Sources other than institutional data include national household expenditure surveys and search engines for housing and airfare.
• Additional Fees are any fees charged to international students, beyond tuition fees.

• Includes: Student service fees; technology fees; program fees; etc.

• The ability to levy additional fees varies by national jurisdiction and the type of higher education institution.

• Additional fees are often a hidden way institutions extract further revenue from international students.

• Additional fees are captured at a program level.
• In order to establish a strategic perspective on research universities’ market power and brand in relation to international tuition fees setting, ICG undertook a banding exercise.

• Research universities were segmented into eleven major bands through aggregated major international university rankings.

• Each band corresponds with a particular level of market power.

• Bands can be used to broadly segment markets for international research universities.
Bands

- **Band 1**: Top 9. Includes Harvard, Yale, Princeton, MIT, Stanford, Caltech, UC Berkeley, Oxford, Cambridge. These institutions are true global brands with multi-billion dollar endowments.

- **Band 2**: Top 25 (i.e. 10-25). Includes Columbia, UCLA, U Penn, Imperial College, etc. These institutions are academic powerhouses with global reach and typically 1 billion plus dollar endowments.

- **Band 3**: Top 50 (i.e. 26-50). Includes University College London, Carnegie Mellon, UBC, U Toronto, ETH Zurich, etc. Leading institution in their countries (but for the US and UK). Partially performing at the level of Band 1 and 2 institutions, international brand position, and endowments of hundreds of millions of dollars.

- **Band 4**: Top 100 (i.e. 51-100). Institutions with an international reach, and partial Band 2 strength – and reflects on the psychologically important threshold of 100. Includes ANU, Melbourne U, TU Munich, LMU Munich, U Zurich, King’s College, U Arizona, Leiden, etc. Often very limited endowments, and sometimes minimal endowments (if public flagship institution).

- **Band 5**: Top 200 (i.e. 101-200).

- **Band 6**: Top 300 (i.e. 201-300). This Band continues the 100 ranking step approach.

- **Band 7**: Top 400 (i.e. 301-400). Reflects the THES cut off.

- **Band 8**: Top 500 (i.e. 401-500). Reflects the ARWU cut off and the psychologically important threshold of 500.

- **Band 9**: Top ~750 (i.e. 501-750).

- **Band 10**: Top ~1000 (i.e. 751-1,000).

- **Band 11**: Any remaining university with ranking information.
• Banding clarity declines when moving down the ranking ladder. This is a reflection of the clear differentiation factors at the very top of rankings, and the much more amorphous nature of rankings differentiators starting around rank 100.

• Perceptions of rankings “users” matter. Since these include students, parents, secondary school principals, agents, scholarship bodies, faculty members, and so on, it is not possible to design a definitive roster of rankings perspectives.

• Instead, ICG’s banding methodology attempts to rationalize assumptions of the aforementioned stakeholders.
• In order to understand the full cost portfolio that international students face for a particular degree program, ICG created the concept of Total Cost of Degree Acquisition (TCODA).

• TCODA combines tuition fees, additional fees, and cost of living (from SMILE) data into one metric of cost.

• All costs have been converted to USD to facilitate comparisons.

• Using forward-looking modeling ICG can predict the TCODA for an international student over the life of a degree program.
• A range of technical calculations were conducted on the ITBCD.

• Static modeling of tuition fees, additional fees, and cost of living was mapped.

• Forward looking modeling of tuition fees, additional fees, cost of living and TCODA was conducted.

• A mapping of programs and institutions by market band was also conducted.
• Forward looking modeling for tuition fees was conducted using two possible methodologies.

• When an institution indicated a policy for future tuition fee increases, this policy was applied.

• When no policy was available (large majority of cases), historical tuition fees data was retrieved, using a three to five year sample.
  • The rate of change from this sample was then applied to future years.
• Forward looking modeling for additional fees and cost of living data was conducted using similar methodology.

• Historical inflation rates for the last 20 years were retrieved and used as a baseline for future increase of additional fees and cost of living.

• All three forward looking models (tuition fees, additional fees, and cost of living) were aggregated to create complete TCODA models.
AGENDA

Housekeeping

Why International Tuition Fees Analysis Matters

Methodology of Tuition Fees Benchmarking

Perspectives on BC from the International Tuition-based Competition Database (ITBCD)

Competition Strategy for International Tuition Fees

Discussion
Shorter academic years make BC institutions appear to be less costly

Source: ICG ITBCD.
2013 Academic Year Living Expenses: ICG's SMILE (CAD)

- Singapore
- Hong Kong
- Gainesville
- Newcastle
- Buffalo
- Vancouver
- Ottawa
- Toronto
- Surrey
- Victoria
- Wellington
- Dunedin
- Tilburg
- Wollongong
- Brisbane
- Perth
- Gold Coast
- Boston
- Melbourne
- Macquarie Park
- Sydney

Costs are notably higher than institutional estimates

Source: ICG ITBCD.
Many institutions systematically underestimate cost of living.

Source: ICG ITBCD.
Graduate programs pull down BC’s overall cost profile

Source: ICG ITBCD.
Tuition fees value proposition at the undergraduate level

Source: ICG ITBCD.
BC master’s degrees can be drastically underpriced

Source: ICG ITBCD.
Mid-point tuition fees cost for one of the most popular programs choices

Source: ICG ITBCD.
Total Cost of Degree Acquisition by Band (CAD) (2013-16): Bachelor of Commerce (BCom)

<table>
<thead>
<tr>
<th>Band 4</th>
<th>Singapore</th>
<th>Australia 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 5</td>
<td>Hong Kong</td>
<td>Australia 2</td>
</tr>
<tr>
<td>Band 6</td>
<td>New Zealand 1</td>
<td>Australia 3</td>
</tr>
<tr>
<td></td>
<td>United States 1</td>
<td>Simon Fraser University</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Australia 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>University of Victoria</td>
</tr>
<tr>
<td>Band 7</td>
<td>Canada 1</td>
<td>New Zealand 2</td>
</tr>
<tr>
<td></td>
<td>Australia 5</td>
<td>Australia 6</td>
</tr>
<tr>
<td></td>
<td>Australia 7</td>
<td>Canada 2</td>
</tr>
<tr>
<td></td>
<td>United States 2</td>
<td></td>
</tr>
<tr>
<td>Band 8</td>
<td>Australia 8</td>
<td>Australia 9</td>
</tr>
</tbody>
</table>

Total cost dynamics move BC institutions into high cost territory

Source: ICG ITBCD.
### Total International Student Tuition Fees (CAD) (2013-16): Master of Commerce (MCom)

<table>
<thead>
<tr>
<th>Country</th>
<th>Tuition Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States 1</td>
<td>20,000</td>
</tr>
<tr>
<td>New Zealand</td>
<td>20,000</td>
</tr>
<tr>
<td>UVic</td>
<td>23,000</td>
</tr>
<tr>
<td>Australia 1</td>
<td>33,000</td>
</tr>
<tr>
<td>Australia 2</td>
<td>35,000</td>
</tr>
<tr>
<td>United States 2</td>
<td>40,000</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>45,000</td>
</tr>
<tr>
<td>Netherlands</td>
<td>50,000</td>
</tr>
<tr>
<td>Australia 3</td>
<td>52,000</td>
</tr>
<tr>
<td>Australia 4</td>
<td>55,000</td>
</tr>
</tbody>
</table>

Source: ICG ITBCD.

Master’s level pricing tends to be at the low end…
Total Cost of Degree Acquisition by Band (CAD) (2013-16): Master of Commerce (MCom)

- Band 4: Australia 1
- Band 5: United States 1, Hong Kong
- Band 6: University of Victoria, Australia 2
- Band 7: Netherlands, New Zealand, United States 2, Australia 3, Australia 4

...resulting in a competitive underpricing

Source: ICG ITBCD.
UBC has priced its program properly; some institutions seem mis-priced

Source: ICG ITBCD.
2013 Academic Year International Student Tuition Fees (CAD): Master of Education

University of Northern British Columbia
University of Victoria
University of British Columbia
Simon Fraser University
Thompson Rivers University
Vancouver Island University
Royal Roads University

Is this a sustainable competitive pricing scenario?

Source: ICG ITBCD.
AGENDA

Housekeeping

Why International Tuition Fees Analysis Matters

Methodology of Tuition Fees Benchmarking

Perspectives on BC from the International Tuition-based Competition Database (ITBCD)

Competition Strategy for International Tuition Fees

Discussion
• Research on how tuition costs inform student choice is divided into two theories:
  • Human Capital Theory
  • Signaling Theory

• Cost vs. expected return is central to both theories. Students will pay for:
  • Economically valuable skills
  • An economically valuable brand

• Premium Pricing Theory demonstrates that brand drives market power.

• In the higher education sphere discrete market (brand) bands exist which correspond to pricing power.

• The ability of higher education institutions to exceed their market power is limited:
  • Exceeding a market band can result in a severe correction on the supply side.
• Retrieving and assessing international student tuition fees has evidenced a haphazard approach by many institutions presenting their tuition fees to international students.

• Opaqueness and complexity are the norm and not the exception in how fees are presented to students.

• Tuition fees presentation policy is often driven by internal institutional regulations and policies.
  • These policies are not conducive to presenting clear information to students.

• Institutions that present their fees in a clear, concise manner, stand to gain market share from competitor institutions who are overly complex.

• International students can be attracted through clear static and future looking cost knowledge.
• Tuition pricing theory dictates that institutions should consider three factors regarding the setting of international student fees:
  • A clear mapping of the expected value for students
  • A thorough understanding of brand power
  • An assessment of current and future market band(s)

• Research does not support the idea that raising costs alone will result in greater brand power.

• Students use cross sectional data to assess whether an institution provides the appropriate signal or skills in relation to cost.

• Deviating from an expected price setting model could have unintended (negative) consequences for an institution.
• Institutions can utilize game theory logic to understand basic tuition fees pricing dynamics within their particular market band.

• Understanding competitor actions and reactions to tuition fees pricing changes can ensure institutions do not price themselves outside their market band.

• Classic “tit for tat” game theory logic would indicate that as one competitor institution raises/lowers its tuition fees other within its market band will follow.

• However, repeated increases of tuition fees at moderate to extreme levels are likely to not be met with similar reactions from competitors and carry overpricing risk within the market band.
Discounting invokes many detrimental dynamics

Source: NACUBO.
Housekeeping

Why International Tuition Fees Analysis Matters

Methodology of Tuition Fees Benchmarking

Perspectives on BC from the International Tuition-based Competition Database (ITBCD)

Competition Strategy for International Tuition Fees

Discussion
Dr. Daniel J. Guhr  
Managing Director

Robert W. Jackman  
Analyst

Illuminate Consulting Group  
P.O. Box 262  
San Carlos, CA 94070  
USA

Phone  +1 619 295 9600  
Fax  +1 650 620 0080

E-mail  guhr@illuminategroup.com  
E-mail  jackman@illuminategroup.com  
Web  www.illuminategroup.com