RE-imagining Universities: Improving the Quality and Cost-effectiveness of Undergraduate Education in Ontario

Ian D. Clark

Presentation at Laurier RE-imagine Conference
The Role and Future of Universities in a Changing World
October 20, 2011
Global forces and international trends

- Globalization forces governments to focus on competitiveness (and fiscal sustainability)
- Universities are seen as instruments of state economic development
  - “knowledge society”
  - “innovation agenda”
  - “brain gain”
- Greater competition for best faculty and best students
- Rankings and performance measurement
Research universities and undergraduate teaching
Surprisingly (?) stable university revenues

Ontario universities’ CPI-adjusted annual $ per student has been relatively stable at about $13,000 ($2007) since the 1980s
Paradox of stable revenues and budget squeeze

• University inflation (4-5%) more than twice CPI inflation
  – Faculty compensation: across-the-board increases, progress through the ranks, market adjustments, benefits
  – Administrative compensation and non-salary costs (e.g., energy)
  – Cost pressures from competition: fundraising, student recruitment
• Teaching loads for full-time faculty have declined
  – across-the-board, and through special arrangements for research and administrative responsibilities
  – 4 one-semester courses per year is most common, down from about 6
• This cost-driven funding gap means more reliance every year on:
  – Larger class sizes
  – Part-time, teaching-only faculty to do a large and growing proportion of undergraduate teaching
The “enduring myth”

...that teaching effectiveness needs research productivity

The Relation Between Research Productivity and Teaching Effectiveness

Complementary, Antagonistic, or Independent Constructs?

The major responsibilities of academics in the modern university are teaching and research as well as, to lesser extents, administration and community service. Indeed, some (Crittenden, 1997) consider that one of the defining characteristics of a university is that all academics are expected to be active researchers and active teachers (while noting the rationale for teachers who are not expected to pursue research in non-University tertiary institutions). Senior academics often contend that this mutually reinforcing, symbiotic relation between teaching and research is what distinguished universities from other research and educational institutions (Neumann, 1992). Conventional wisdom—typically not based on empirical research—is that teaching and research are mutually supporting if not inseparable (Webster, 1986). Ideally, teaching effectiveness and research productivity are complementary. Much of the rationale for the existence of research universities is that these two activities are so mutually reinforcing that they must coexist in the same institutions. Marsh (1987), Hattie and Marsh (1996), Braxton (1996), and others, however, argue that plausible arguments can be made as to why teaching and research activities should be complementary, conflicting, or unrelated to each other.

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Conclusion

...need to focus on each, but almost independently
Calls for reform (Globe, October 12)

GLOBE EDITORIAL
Canadian universities must reform or perish

From Tuesday’s Globe and Mail
Published Monday, Oct. 10, 2011 7:30PM EDT
Last updated Tuesday, Oct. 11, 2011 12:15AM EDT

Canada has made a big bet on undergraduate education as the path to prosperity. We’ve opened our campuses and our wallets to produce one of the most educated populations in the world.

But the best educated? Look into classrooms, and it’s a troubling sight. Classes of 500 students or more taught by an emerging cohort of indentedured PhDs who carry a growing share of the teaching “burden” but have little hope of long-term employment. Professors who get “relief” from teaching obligations to pursue research. Classes and courses of study that prize particular academic disciplines rather than make the connections among disciplines that are so crucial to learning.

For students, it’s unacceptable; for taxpayers and families who spend tens of billions of dollars each year, it’s unsustainable.

The reformist wave that is transforming health-care delivery in Canada must now reach undergraduate education at our publicly funded institutions.

As former Ontario Undergraduate Student Alliance executive director Alexi White points out, it is curious that we require years of training for high school teachers, but not an hour of training for those teaching students just a year older. Governments should shift the per-student funding formula to hold back money until underperforming faculty members get remedial training in teaching. If you can’t explain it, you shouldn’t be allowed to teach it.

As long as students are guaranteed some small classes, we don’t need to abolish large classes. They can be great, as long as faculty get the time, technological tools and training to teach them well. That’s especially important now that the Internet has turned information into a commodity. Dumping information from a professor’s head onto a student’s notebook isn’t education.

There are lessons to be drawn from Britain, which has experimented with teaching training for faculty for decades and is considering making it mandatory. Academic Reform, a forthcoming book by Ian Clark and his collaborators, suggests the creation of new, undergraduate-focused universities. And to force universities’ hands, the authors suggest separating governments’ operating support for universities into two streams: a teaching grant and a research grant.

Many university leaders want change. They now have to steer their institutions, so good at producing new knowledge, to get smarter about their own affairs.

As a country, we have made some strides in making undergraduate education affordable, with government-funded scholarships, more public lending and private giving.

Now we must tackle the quality of that education. Let’s begin a reformist agenda and bring the values and practices of a liberal arts and science education to the masses – and create the kind of citizens and future workers essential to a free and democratic society.
Proposed reforms in system design and funding

- Teaching-oriented universities
  - Two-year academic credential
  - Three-year baccalaureate
  - Funding research and teaching separately
  - Incentives for teaching improvement
  - Encouraging teaching stream faculty
  - Better information collection and dissemination
Teaching-oriented universities (Star, October 15)

Ontario’s newly re-elected Liberal government has promised to create three new, leading-edge undergraduate campuses. Done right, these universities will be an opportunity to provide a higher-quality education for students at a more affordable cost.

The new campuses will be badly needed. Over the past decade, Ontario’s universities have made room for 50 per cent more undergraduate students. The main campuses of York and U of T now rank among the six largest campuses in Canada and the U.S. Both are fine institutions, but research has confirmed that big universities find it hard to provide the interaction between faculty and students that helps students succeed.

The number of students who want to attend university in the GTA is expected to grow by 30,000 to 50,000 or more by 2025. That’s in addition to the many students who will attend college or enter a skilled trade. Students know that higher education provides no guarantees, but it opens more doors than a high school diploma alone.

What might the new universities look like? Here are some features to look for.

Their mission should focus on student learning. They should aim to teach skills like critical thinking, problem-solving and effective communication. They should be held accountable for proving that students have actually learned these skills before graduating.

They should offer programs that meet emerging economic needs. The programs would include a mix of professional and general arts degrees, any of which would prepare graduates to enter the workplace or pursue graduate studies.

The faculty should focus on teaching. This is where the traditional university model falls short for many students. Faculty at traditional universities must spend as much time on research as on teaching. Typically, they teach only four one-semester courses a year. That’s why traditional universities need big lecture halls. That’s why some hire part-time faculty to do 50 per cent or more of their teaching.

In contrast, the typical workload for a professor at a teaching-oriented university might be 80 per cent teaching, 10 per cent research and 10 per cent service to the community. This means teaching eight one-semester courses per year. Classes are held 26 weeks per year, leaving the other 26 weeks for research, courses, service and recreation outreach and enhanced student learning.
# The financial case for teaching-oriented universities

Operating costs per baccalaureate student, campus with 10,000 students (2011 $)

<table>
<thead>
<tr>
<th></th>
<th><strong>Teaching-oriented university</strong></th>
<th><strong>Traditional university</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teaching and related</strong></td>
<td>$5,500</td>
<td>$9,100</td>
</tr>
<tr>
<td>(including academic administration, classroom support, clerical support, curriculum development, distance education)</td>
<td></td>
<td></td>
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<tr>
<td><strong>Academic services</strong></td>
<td>$2,200</td>
<td>$2,200</td>
</tr>
<tr>
<td>(including library, student services, recruitment, bursaries, and information technology)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Institutional services</strong></td>
<td>$2,200</td>
<td>$3,000*</td>
</tr>
<tr>
<td>(including administration, facilities, capital equipment, renovation, debt interest, and contribution to capital costs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$9,800</strong></td>
<td><strong>$14,200</strong></td>
</tr>
<tr>
<td><strong>Memoranda:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cumulative surplus/debt after seven years</td>
<td>$27 million surplus</td>
<td>$167 million debt</td>
</tr>
<tr>
<td>Annual undergraduate enrolments at maturity</td>
<td>10,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Student tuition per year</td>
<td>$5,300</td>
<td>$5,300</td>
</tr>
<tr>
<td>Average class size</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>Share of teaching performed by full-time faculty</td>
<td>70%</td>
<td>70%</td>
</tr>
<tr>
<td>Teaching load of full-time faculty (1-semester courses per year)</td>
<td>8</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: Numbers may not add due to rounding.

*Includes debt interest of $600.
Smaller classes, lower tuition...

Comparison of teaching-oriented university with traditional university (balanced budget scenarios)

<table>
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<th>Traditional university</th>
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<tr>
<td><strong>Strategy for reaching a balanced budget</strong></td>
<td>Preferred strategy: offer small classes and lower tuition for students</td>
<td>Alternative strategy: offer very low tuition and allow class sizes to increase</td>
</tr>
<tr>
<td>Cumulative surplus/debt after seven years</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Annual undergraduate enrolments at maturity</td>
<td>10,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Student tuition per year</td>
<td>$4,800</td>
<td>$2,900</td>
</tr>
<tr>
<td>Average class size</td>
<td>44</td>
<td>78</td>
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Better teaching quality...

- Classes will be smaller
- Curriculum will be designed around learning objectives (not around areas of faculty research interest)
- Faculty will be focussed on teaching and on research on teaching improvement
- Administration will be focussed on undergraduate education
Recruiting great faculty...

- Campus in the GTA
- Attractive working conditions
  - $4 \times 3 = 12$ hours per week in classroom for 26 weeks/year is demanding
  - but there are 26 more paid weeks in the year to prepare courses, mark exams, conduct research, take vacation and write books
- Supply and demand
  - 5 PhD holders in Ontario for every full-time faculty
  - 2,100 new PhD graduates and 1,400 PhDs coming to Ontario every year (4.4 times the 800 full-time faculty reaching retirement age)
  - Labour market for faculty in the US makes Ontario attractive
- Novelty and opportunity for innovation

AUCC membership criteria built into design
Recruiting great students...

- Campus in the GTA
- Graduate/professional school entrance requirements built into design
- Attention to teaching, small size and high faculty-student ratio are attractive to students and parents
- NSSE and CLA results will soon demonstrate the advantages
- Lower tuition
New teaching-oriented universities will...

- Provide better quality and more cost-effective undergraduate education with enough space to handle most of the 30,000 - 74,000 increased enrolment in the GTA over the next 15 years
- Through example and competitive pressure, encourage traditional universities to improve the quality and cost-effectiveness of their undergraduate education
  - Higher priority on teaching
  - Better control of costs
  - More teaching by full-time faculty, including more use of teaching-stream appointments

Thank you