

# Policy Brief

The Forum Presents:

## Financing Higher Education

The National Association of State  
Budget Officers (NASBO) &  
The Jean-Luc Pepin Research Chair

October 16, 2015  
Ottawa, University of Ottawa



Social Sciences and Humanities  
Research Council of Canada

Conseil de recherches en  
sciences humaines du Canada



## **Problématique**

For generations, governments have been funding higher education from an input based approach (i.e. enrolment). However, a number of important drivers of change are pushing funding formulas toward the financing of outcomes rather than inputs (or even outputs). The National Association of State Budget Officers (NASBO) and the Jean-Luc Pepin Research Chair (JLP) at the University of Ottawa jointly convened a one-day symposium to explore the sources of change, performance-based mechanisms to fund higher education and the obstacles to implementation.

## **Recommendation**

That the government adopt outcome-based funding models to finance higher education institutions (HEIs) through differentiated institutional mandates. Drivers of change provide an opportunity to rethink and reform the funding model. To achieve outcome-based budgeting, institutions cannot be treated the same way. Put differently, equity does not imply equal treatment. While performance criteria will be used for funding allocations, they cannot be applied in a static fashion across institutions. Institutions must be allowed to differentiate themselves according to their distinct mandate so that they are evaluated based on their own areas of strength rather than their weaknesses.

Increased funding does not correlate with better outcomes. In the current environment of budget compressions, there is an opportunity for change. Differentiated institutional mandates can be used as a mechanism through which to align funding with the specific mandate of each HEI.

## **Background**

NASBO and JLP's one-day symposium was designed to foster dialogue, debate and comparative analysis of the opportunities and challenges of higher education funding and its outcomes. The workshop drew from the expertise of budget officials, university administrators, academics and public servants/analysts assembled at the University of Ottawa on Friday, October 16, under Chatham House Rules. General consensus among participants was achieved on the issues summarized in this brief without attribution.

Attempts to maximize the value of higher education while managing costs are no easy feats. The analogous discussions among universities in Canada and the United States provided important insights into the management and transformation/adaptation of our higher education institutions.

## Context – Drivers of Change

### Context - Drivers of Change

Universities have four principal sources of funds<sup>1</sup>:

- 1) Government grants
- 2) Tuition and other fees (e.g. ancillary revenues)
- 3) Benefactors' donations<sup>2</sup>
- 4) Patents, royalties, fees<sup>3</sup> and other grants (e.g. private funding)

As depicted in Figures 1 and 2, changes in HEIs revenues in Ontario indicate growing tuition fees and decreasing provincial subsidies between 2000-2001 and 2013-2014. While there has been a significant growth in investments, the sector can be volatile and represents less than 10% of all revenues and will not be further addressed in this brief.

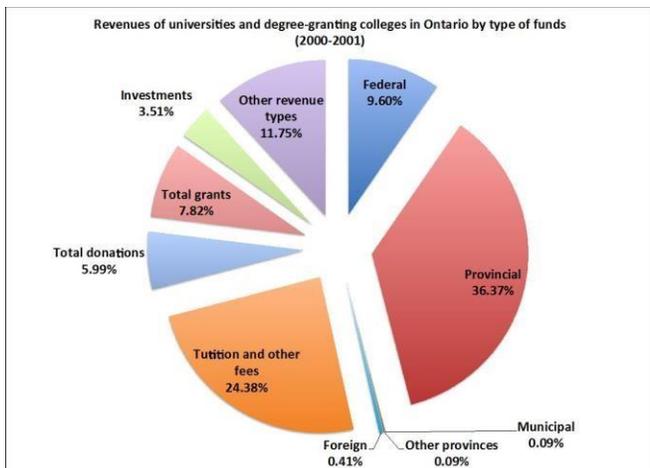


Figure 1: HEI revenues in Ontario 2000-2001. Source: Statistics Canada, Cansim Table 477-0058, "Financial information of universities and degree-granting colleges, revenues by type of funds."

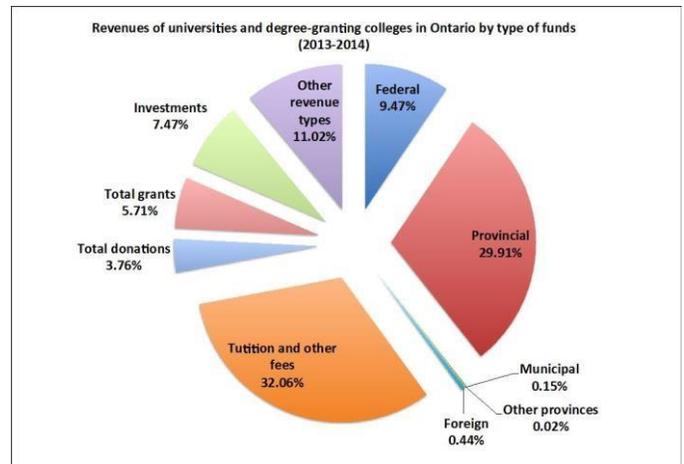


Figure 2: HEI revenues in Ontario 2013-2014. Source: Statistics Canada, Cansim Table 477-0058, "Financial information of universities and degree-granting colleges, revenues by type of funds."

<sup>1</sup> Funding sources are derived from Statistic Canada's "Financial information of universities and degree-granting colleges, revenues by type of funds," CANSIM table 477-0058.

<sup>2</sup> Noted for their outcomes, e.g. tuition bursary for students, funding campus infrastructure etc.

<sup>3</sup> When the HEI owns the intellectual property or when a portion of the earnings are reallocated to the HEI.

There is a squeeze on provincial funding due to budgetary compressions as depicted in Figures 1 and 2 with a decrease in provincial funding as an overall percentage of university revenues. By contrast, between 2000-2001 and 2013-2014, there was an over 200% increase in tuition fees paid by Ontario students and a 90% increase in funding from the Government of Ontario (see Figure 3). As demographic changes result

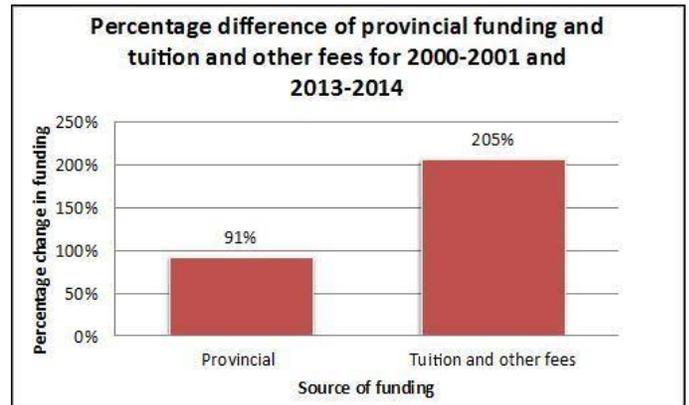


Figure 3: HEI revenues in Ontario 2000-2001. Source: Statistics Canada, Cansim Table 477-0058, "Financial information of universities and degree-granting colleges, revenues by type of funds."

in fewer students eligible to attend HEIs, these institutions may be faced with significant fiscal shortfalls if their funding models are not adjusted.

The government's fiscal environment is changing. There are fiscal pressures on the state brought upon by economic trends and an aging demographic, which translates into budget compressions for funding programs, including higher education.

Subsequently, students are becoming a larger contributor to university revenues through higher tuition fees. Operating grants however, have not risen in tandem. As students and their parents/guardians pay more, they expect concrete outcomes from their education, e.g. skills relevant to labour market, jobs etc. Benefactors' donations are premised on outcomes. Whether it is a building, a speaker series or a program, a benefactor expects a measurable result from their gift. The markets dictate revenues from patents, royalties and fees because consumers presumably will only pay for what benefits them, as would private enterprises looking to fund research and development in HEIs.

It appears that all of a HEI's principal sources of funding (with exception to that of government grants) are premised on measurable outcomes. With its fiscal pressures, the government should move toward outcome-based funding models. Opting for outcome-based models provides an opportunity to differentiate HEI's mandates to optimize performance. Furthermore, a lack of alignment between inputs, outputs and outcomes can result in a cross-subsidy whereby undergraduate tuition is funding graduate work without deliverable outcomes for undergraduate students. With differentiated mandates for HEIs, institutions would be required to clearly define their responsibilities and desired outcomes so that they are defining and demonstrating their mandate-specific goals, e.g. research and/or teaching.

One way to measure this performance is through the lenses of *context* (i.e. HEI's specific mandate), *inputs* (i.e. resources both human and financial), *outputs* (i.e.

research, teaching and advisory products) and *outcomes* (i.e. impact of efforts on student satisfaction and labour-market performance, as well as fulfillment of specific mandate). This approach is based on an evaluation framework developed by Page, Khan and Gaspard (2014) for the Organisation for Economic Cooperation and Development (OECD).<sup>4</sup>

Applying the evaluation framework to the higher education sector would test the organization against its own mandate-specific benchmarks as well as through comparisons with its peers in its mandate category. An institution's context will be defined through its mandate as well as its peer category (e.g. research and/or teaching focused institution, size). Inputs will be defined as the revenue sources of an institution, including but not limited to tuition fees, government grants, research grants, benefactors' donations, patents, fees and royalties. The institution's outputs include student access to education (and their completion rates), the value of education to students as well as the institution's contribution to society (e.g. job creation, innovation, community engagement). Finally, the institution's outcomes will be assessed based on results for students (the institution's primary stakeholder): discipline-specific knowledge, basic cognitive skills (e.g. reading and numeracy), higher-order cognitive skills (e.g. problem solving, critical thinking, communication), soft skills (e.g. persistence, attitude, determination, initiative) (see Higher Education Quality Council of Ontario (HEQCO), <http://www.heqco.ca/en-ca/OurPriorities/LearningOutcomes/Pages/home.aspx>). Surveying the primary stakeholder group (students) is the best way to test for outcomes.

By moving toward differentiated mandates, HEIs move away "from inevitable convergence (i.e., striving to all be the same). Its benefits are to maximize the quality of the overall system by enabling each institution to make an optimal and distinctive contribution to the province's higher education system as a whole." (HEQCO, 2013, *Quality: Shifting Focus*, p. 11). Outcome-based funding paired with differentiated mandates provides an opportunity for engagement between government and HEIs to come to the table on pre-defined basis to establish benchmarks and indicators collaboratively.

Sub-national governments in the states and provinces no longer react to funding requests by higher education institutions (HEI) (i.e. universities, colleges/community colleges). Instead, governments appear to have their own agendas for HEIs related to labour market demands, changing demographics, economic trends and their own desired outputs and outcomes. With the change in the funding structure, governments should rethink their funding model from one that is input driven to one that is outcome driven in order to achieve and track their results.

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<sup>4</sup> The framework was adopted by the OECD Network of Parliamentary Budget Officials at their 2015 conference in Vienna, Austria and the paper is to be published in the OECD Journal of Budgeting.

### **Tennessee's Higher Education Commission**

Tennessee's Higher Education Commission has successfully implemented an outcome-based funding formula model in the state, premised on differentiated mandates and institution-specific evaluation modalities (<https://www.tn.gov/thec/topic/funding-formula-resources>). The Ontario government has already identified its intention to consolidate the province's higher education structure through differentiated institutional mandates (i.e. not every university needs a medical school, just like every hospital does not need a cardiac institute). Pursuant to this decision, the province is undertaking a study on funding model reform.

## **Prerequisites for Change and Challenges to Implementation**

Three key prerequisites for change include: leadership, data and measurement, and labour agreements.

Political leadership and institutional leadership are at once the biggest challenges and greatest potential influences of HEI funding change. The decision to change and the willingness to execute are required to transform the way higher education is funded and how its outcomes are evaluated. Coming to an agreement with HEIs will be based on evidence, facts and a solution that can be sold both politically and in the academic world. The government should take into account both taxpayer and student perspectives when presenting the model.

Tennessee successfully implemented a revolutionized outcomes-based funding model throughout the state in 16 months. This case should serve as a model of how a government developed a model, fostered agreement among stakeholders and implemented a new system with improved outcomes for students and taxpayers. Progress – with benefits for both governments and HEIs – is achievable when political and institutional will align with evidence, testable plan and traceable outcomes.

Data on the higher education system – while not complete – is ubiquitous. Analysts should do a better job of leveraging the existing data and applying it for measurement of outcomes while identifying data gaps to fill. Related to data analysis are key performance indicators to measure outcomes and quality of education. Governments should undertake a scoping exercise to identify and define the

indicators they will use to evaluate outcomes. This will ensure requirements are clear for both government and HEIs (see Tennessee’s model definitions [https://www.tn.gov/assets/entities/thec/attachments/Detailed Outcomes Formula Definitions 01-2016.pdf](https://www.tn.gov/assets/entities/thec/attachments/Detailed_Outcomes_Formula_Definitions_01-2016.pdf)).

Labour agreements with faculty will be an important consideration to successfully advance outcomes-based budgeting through differentiated mandates. In general, faculty tend to spend 40% of their time on research, 40% on teaching and 20% on administrative and other duties. To reach new outcomes defined through differentiated mandates,

time spent on these activities may have to be reallocated.

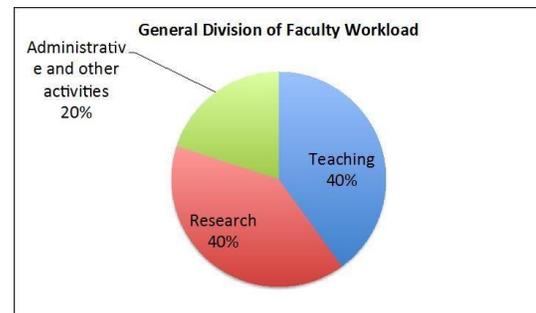


Figure 4: General university faculty workload allotments on percentage basis.

The benchmarking and status-measuring among institutions will be a challenge. With differentiated mandates, institutions may perceive a “tiering” of institutions based on their mandates. For instance, research-focused institutions may consider themselves superior to their teaching-focused counterparts. While this tendency may persist, official stances and evaluation tools should emphasize the equal importance and distinct means of fulfilling these mandates.

The country’s aging demographic also means fewer students to attend HEI, with fewer tuition fees and overall, less pressure on the system. The government should take into consideration revenue changes and market demands when assessing the place and role of higher education in society. Comparative analysis with other systems could be useful. For instance, countries such as Germany and Switzerland promote post-secondary training and education for their students. In these systems, an apprenticeship or internship may help students attain their goals more effectively than a university of college degree. As demographics and labour-market demands change, so should the model through which students are prepared for the workforce as active contributors to the economy.

## Conclusion

In brief, differentiated institutional mandates are a tool through which to implement outcomes-based budgeting. Governments’ compressed fiscal environments, changing demographics and a more vocal student client-base provides an opportunity to reform and improve the higher education funding model, with traceable benefits for students, HEIs and taxpayers.