



Design Questions: Funding Models for Ontario

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Introduction

Ontario is reviewing its university funding model, an enrolment-based formula through which the Ministry of Training, Colleges and Universities distributes a \$3.5B annual provincial operating grant to the province's 20 publicly assisted universities.

We examined the existing model in our June 2015 paper *The Ontario University Funding Model in Context*. We observed that the model is a relatively small (27 %) component of total university system revenues. We concluded that this small slice of funding must be managed in a focussed and strategic way if it is to be effective in shaping behaviour towards desired provincial objectives (HEQCO, 2015).

The province has articulated the objectives it seeks from the funding model in its recent *University Funding Model Reform Consultation Paper*. They are:

- enhancing quality and improving the student experience
- supporting differentiation as expressed in Strategic Mandate Agreements
- addressing financial sustainability and ensuring the long-term sustainability of the sector, and
- increasing transparency and accountability (MTCU, 2015a)

These four objectives are not all of the same order. In fact, only one of them – enhancing quality and improving the student experience – is a real outcome. The others – increased differentiation, greater financial sustainability, more transparent accountability – are not really “objectives.” Rather, they are powerful tools that play important enabling roles. Differentiation is not an outcome on its own but a means to achieve high-quality outcomes at a sustainable cost by focussing on strengths and reducing duplication. Addressing financial sustainability is a prerequisite to shifting the conversation from “where will more dollars come from?” to “how will we expend the dollars we have to achieve the outcomes we want?” Increased transparency and accountability ensure that the model is well understood and demonstrably achieves the outcomes desired.

Institutions have also articulated their aspirations and objectives in recently concluded Strategic Mandate Agreements with the province, which for each institution “outline the role the University currently performs in the postsecondary education system and how it will build on its current strengths to achieve its vision and help drive system-wide objectives articulated by the Ministry’s Differentiation Policy Framework” (MTCU, 2015b).

But how does one translate these general statements of objectives into a new funding model: a set of strategically focussed measurements and mathematics that drive the distribution of funding to and between Ontario's 20 publicly assisted universities? There are many conceptual models to choose from. There is a myriad of variants on these basic models, depending on the features incorporated. These must somehow be compared and assessed against one another, against the existing Ontario model, and most importantly against Ontario's objectives.

In this second paper we table three design questions that we find helpful in determining the kind of funding model approach that will best meet the province's needs. We then apply these questions to a slate of funding models that we propose to be illustrative of the range of models from which Ontario might, when it is ready, ultimately make a selection.

Our goal is not to pick a funding model for Ontario. That is the purview of the government review and ultimately of the Ontario Cabinet. Our objective is to provide some tools by which different models might be analyzed with respect to their fit to Ontario's requirements.

Nor will we delve into the technical details and modeling mathematics necessary to complete the design process. That will likely be the purview of the Ministry of Training, Colleges and Universities. And that is for later: it would be a mistake to begin with the details and thereby risk pre-empting the strategic discussion and decisions from which these details ought logically to flow.

Three Design Questions

Answers to the following three design questions are helpful in shaping a funding model for Ontario:

- 1. What outcomes does Ontario wish to buy with funding model dollars? How will these outcomes be measured and translated into funding shares?**
- 2. How differentially will the model apply? Will one universal formula be applied to all universities or will there be a tailored, differentiated approach?**
- 3. How dynamic do we want the model to be through time? Will institutional funding shares adjust on the basis of measured performance against objectives and, if yes, how aggressively?**

1. What outcomes does Ontario wish to buy with funding model dollars?

Funding is not the only lever through which government can engage with universities to advance the public interest. There are potential legislative, governance and policy tools available as well. Nor can a funding model hope to address all public expectations made of universities. But in an environment such as Ontario where universities are legally and culturally autonomous, funding is a powerful tool. The funding model serves as the contract through which the parties best meet their respective needs.

The province no longer funds "universities" per se. It funds quantifiable outcome(s) or achievements(s) it wants from universities for the betterment of the public good. The things to be measured and applied to determining funding shares must be the outcomes that matter to Ontario. In the past, this has been enrolment growth. Today, as identified in the government policy and consultation papers, they are measures of "quality" and "improving the student experience."

Degrees of Measurability

We are acclimatized to and comfortable with funding models that measure enrolment. Counting students is a concrete, time-honed and auditable exercise, and is the core measurable driving the existing funding models of Ontario and most of its peer jurisdictions.

We might quickly become just as comfortable with outcome measures that are derivatives of enrolment, such as counting the numbers of graduates produced, or persistence rates from lower to upper years of study. These types of outcomes are in use in several U.S. states, which have identified increased persistence and graduation rates as core policy objectives, and are linking their funding models to these outcomes.¹ These too are fundamentally counts of students, only the trigger points have shifted, from “we will count you for funding purposes if you are on campus taking courses this year” to “we will count you for funding purposes if you have you completed your degree requirements this year.” Enrolment counting has been redeployed and relabelled as an outcome measure.

Happily, Ontario does not have a persistence or graduation problem. Having done well on these fronts, our emphasis is shifting to quality and student experience objectives. In this respect, the discussion in Ontario about higher education is more advanced than that in the US. Once the US solves its access problems – by achieving participation, persistence and graduation rates that Ontario now boasts – it too will have to deal with the second-generation quality-centric challenges Ontario now faces. This is more daunting: quality is harder to define and measure; existing funding formulae in other jurisdictions provide minimal precedent for doing so; and moving to quality outcomes feels like an abandonment of the familiar and tested enrolment metric.

The Tenacity of Enrolment

On one hand, Ontario appears ready to move away from an enrolment-driven funding model. In its consultation paper, the government has signalled that “enrolment growth, the main driver of university operating revenue, will slow in the medium-term.... Government and institutions need to work together to find another way” (MTCU, 2015a).

On the other hand, it is difficult to imagine a sustainable funding model entirely divorced from enrolment. Any new model must have the capacity to capture and reflect institutional costs of providing educational services. Costs correlate with size. Enrolment counting² is a strong and proven approach to reflecting institutional size and therefore cost structures.

¹ For a review of outcomes-based funding approaches in the United States and other jurisdictions, see our recent report *Outcomes-Based Funding: Current Status, Promising Practices and Emerging Trends* (Ziskin, Hossler, Rabourn, Cekic & Hwang, 2015).

² Additional detail: For simplicity, we are talking about “enrolment counting.” In reality, most systems of enrolment-based funding also apply “weights” or “factors” to students in different programs or with different characteristics in an effort to reflect more precisely the relative cost of delivering the various programs and services offered by participating universities. Thus a student in a higher-cost program (say, nursing or engineering) would be tagged with a higher weight or value than a student in a lower-cost program (say, general arts).

If a new model were to incorporate derivatives of enrolment, like the graduation counts discussed above, enrolment would still lurk within it, as the number of graduates is a function of the number of enrollees, among other variables.

And if the new model were to adopt other performance outcomes, such as ones related to quality and the student experience, these too can and arguably ought to be influenced or informed by enrolment. This is because the size of the institution must still somehow be reflected in the size of any funding award based on a performance outcome. For illustration: if one wished to measure and fund institutions based (at least in part) on an outcome such as their graduate employment rates, one would need some mathematical method to adjust the value of that reward to reflect the size of each institution. A 1% increment in the employment rate at a large institution ought not translate into the same dollar value of funding as a 1% increment at a small institution. An enrolment scalar³ is a strong candidate to provide that kind of weighting. Enrolment thus becomes a factor in quantifying the funding impacts of other outcomes-based measures even though it no longer triggers funding awards in and of itself. This is precisely what happens in the mathematics that distribute the existing \$23M Ontario performance fund, which includes graduate employment rates.

In addition, the implementation of a new funding model must respect the need to start from existing shares in its first year, in order to avoid disruptive change at the outset.⁴ Given that existing shares are for the most part enrolment-generated, enrolment is therefore automatically locked into the starting point. It is at least a measure that establishes shares under a new model, though not necessarily a driver that triggers change in those starting shares over time.

Finally, as we noted in our earlier paper, tuition revenue, the largest revenue source for Ontario universities, will continue to be enrolment-based and enrolment-driven by definition. Thus, Ontario universities will always attend to the issue of enrolment because of tuition's revenue influence on the institution.

In conclusion, even if enrolment is completely eliminated from the funding model as an independent variable that drives institutional entitlements, it will continue to operate in the background to provide shape and quantum to the model's new triggers.

³ Additional detail: By "enrolment scalar," we simply mean that the raw performance metric for each university (in our example, graduate employment rates) is scaled or multiplied by its size, as measured by enrolment, within the formula that turns the measured performance into dollars.

⁴ This is especially so in times of fiscal constraint, when there is no new money to add to the total allocation available for distribution under the funding model. Without additional money, switching over to a new set of measures with no reference to the existing starting point could lead to unmanageably large transitional disruptions in funding, as the gains made by share winners must be offset by losses contributed by share losers. A less volatile approach is to start with existing shares, but drive future adjustments on the basis of the new set of measures adopted.

Quality Measures

The fact that quality measures are newer, unfamiliar, harder to construct and, at times, proxies rather than direct “counts of quality,” is not cause to avoid them. Rather, these realities are reason to be mindful and adaptive in going down this road, and to do the necessary developmental work before connecting metrics to funding.

With newer outcomes measures, the first focus should be on developing robust measurement tools that quantify the desired outcomes. The tie to funding would be made only when measurement has been achieved. For illustration: if Ontario wanted to tie learning outcomes to funding, the first stage of a reform process could be to select, pilot, review, optimize and implement a measurement tool, such as the PIAAC online test of literacy and numeracy skills.⁵ Incorporation into the funding model would follow only when the measurement scheme has been vetted through experience.

Once measurement is established, attention can shift to the math that translates what has been measured into funding shares and ultimately dollars. There are proven techniques to limit, dilute or buffer the funding impact of measures that are new or unproven, at least at the outset, and phase them in gradually with constant feedback on their efficacy.

In selecting how much weight and impact to give to a new measure, there is an appropriate balance point to strike. Insufficient funding impact attached to new outcomes measures has proven to be the downfall of the first generation of performance funding experiments in the United States. Most states simply put too little money at play to motivate the performance desired.⁶ Ontario has arguably fallen into the same trap with its existing \$23M university performance fund, which is dwarfed to insignificance within the \$3.5B enrolment-driven funding model. But too much impact associated with an unproven metric introduces a substantive risk of misaligned funding, and more generally makes the new model difficult to promote and sustain. A graduated intensification or phase-in plan provides sufficient signalling of strong intent while permitting review and adjustment along the way.

Lastly, it may be important to mitigate the competitive impact between institutions on new measures. Competition on a new measure invites suspicion (of cheating) and criticism (of methodology), especially from those institutions on the low end of the performance curve. Competition is most direct in funding models that actively shift funding shares from worse-performing to better-performing institutions. A less

⁵ The Programme for the International Assessment of Adult Competencies (PIAAC) assembles survey data on adult numeracy, literacy and problem solving in technological environments, and was last conducted by the OECD across 24 countries in 2012. The OECD has developed an online version of PIAAC, and HEQCO proposes to pilot PIAAC Online (formally “Education and Skills Online”) at Canadian universities and colleges to determine whether it is a feasible instrument for measuring basic cognitive skills in current postsecondary students and the value add of higher education.

⁶ For more discussion on this theme, see *Outcomes-Based Funding: Current Status, Promising Practices and Emerging Trends* (Ziskin, Hossler, Rabourn, Cekic & Hwang, 2015).

obviously competitive approach would be to reserve a portion of each institution's notional funding to be re-earned on the basis of performance on negotiated metrics.⁷

2. How differentially will the model apply to the set of institutions it supports?

The conventional public sector funding approach is to fund all recipient institutions on exactly the same basis: the same measures and the same math. This approach is simple to administer and easy to defend as a fair way of apportioning moneys between recipient entities that are ostensibly delivering the same services, while also operating in competition with one another. By confining the funding process to universal measurements and a pre-approved formula that calculates the corresponding shares or dollars, institutional entitlements can be generated automatically without the need for subjective judgement, or the opportunity for political interference, or the spectre of favouritism. This approach also feels market-driven and business-like: everyone knows the objectives and everyone competes on a level playing field to meet those objectives. Lastly, the classic one-size-fits-all approach, because of its simplicity, most readily satisfies the funding review's broad objective of increased transparency.

But this approach steers all participating institutions towards the same, uniform outcomes. Ontario favours increased differentiation amongst universities. It does so because differentiation is a powerful tool to achieve high-quality outcomes at a sustainable cost by focussing on institutional strengths and reducing duplication. While there may be an overall uniform set of provincial objectives for the sector, the contributions of individual institutions are to be varied and to some degree unique.

Through Strategic Mandate Agreements, institutions have begun to articulate their unique areas of strength and focus. An important catalyst for the long-term effectiveness of differentiated SMAs is to link them to the funding model. SMAs will not boldly incorporate differentiated outcomes until institutions see that they will be rewarded for their differentiated efforts. Conversely, the differentiated outcomes that are articulated in SMAs will not be boldly implemented until there are funding rewards associated with them.

The challenges with a differentiated funding approach are complexity of administration and difficulty in defending its fairness across institutions funded on different metrics. At the very extreme, a fully differentiated funding model is not so much a funding model as it is a set of bilateral and disconnected funding arrangements between government and individual institutions.

⁷ Additional detail: We will make reference to the "re-earned" approach several times in this paper. This model supposes that a portion of each institution's notional allocation (however derived) is reserved to be earned back by the institution on the basis of performance on agreed-upon outcome metrics. The institution is essentially competing with itself for the re-earnable portion. But note that this approach does not entirely eliminate the issue of competition between institutions. If one or more institutions do not earn back all of their reserved funds, the question is immediately begged: to whom should those left over funds flow? Regardless of whether the ultimate answer is to other institutions or back to the provincial treasury, shares will have re-balanced, at least in that one year. Note also that the re-earnable model is not a complete funding model on its own: it requires as a first step some mechanism to derive each institution's notional allocation. It is a model within a model. The notional allocation can be derived using any approach: enrolment-based, fixed share, performance-based, or other.

But the introduction of differentiation into the funding model is not an all or nothing proposition. There are approaches available to nest differentiation within the frame of a more traditional funding model. One (used in Tennessee) is to fund all institutions on a uniform set of measures that matter to the state, but give institutions different weights on that basket of measures to reflect their diversity. For example, the state’s research-intensive university would receive a higher weighting for graduate-level students than would a mostly undergraduate university. Weighting could be implemented at the individual institutional level or for clusters of universities with shared characteristics.⁸

Another approach is the “re-earnable” model introduced earlier, whereby a portion of each institution’s notional funding is reserved to be re-earned by it on the basis of negotiated performance metrics that reflect that institution’s priorities and contributions.

The funding model review is an opportunity for Ontario to reassess the appropriate balance between simple uniformity and a more complex structure of differentiated institutional contributions toward common provincial goals. Too little, and the opportunity to link the powerful funding lever with the differentiation imperative will have been lost. Too much, and the funding model risks becoming unstable and arbitrary over time, without transparent focus on common provincial objectives.

3. How dynamic will the model be with regard to the adjustment of institutional shares?

There is a myth in Ontario that the existing enrolment-based funding model, and the long-standing “corridor” formula at its foundation, avoid redistributive impacts: that the funding available to any one institution is not impacted by the actions of others. But has this ever been true?

There is some fear that a funding model based on outcomes will be more volatile than the current enrolment-based model. But is this a necessary outcome?

The question of how dynamic or volatile a funding model will be in terms of the redistribution of funding shares over time is completely separate from the question of what will be measured and rewarded. We say we are used to and comfortable with an enrolment-based model. But it may be more accurate to say that we are comfortable with a model that has seemingly delivered considerable dampening of the negative consequences of enrolment change.

⁸ In our paper *The Diversity of Ontario Universities: A Data Set to Inform the Differentiation Discussion* (Weingarten, Hicks, Jonker & Liu, 2013), we identified four clusters of Ontario universities that might be useful to this kind of approach: the University of Toronto, a cluster of research-intensive universities, a cluster of mainly undergraduate universities, and an in-between cluster.

A Brief History of Dampening

A variety of mechanisms within the Ontario funding model have aimed to dampen the impacts of changes in measured enrolment performance.

The existing model is founded on “enrolment corridors,” which tolerated a degree of enrolment variance from a pre-determined institutional enrolment target without triggering any change in the institution’s assigned funding share. Theoretically, this dampening of share fluctuations eliminated the need to deal with the matter of redistributing funding between institutions.⁹

But this arrangement was much less stable than it seemed. Overall levels of funding per student started to diverge between institutions that allowed enrolment to grow above their assigned target and those that did not. This is because enrolments above target were not automatically recognized and funded by the province. The consequence of growth above target, therefore, was to dilute the value of overall provincial funding per student as compared to institutions that chose not to grow.

There were one-off mitigations negotiated with individual institutions on an ad hoc basis through time to patch-repair the resulting funding anomalies. This was only partially and temporarily effective. By 2005 the level of unfunded enrolments above institutional targets had raised a provincial swell of concern about inter-institutional funding equity and consequential quality impacts. The government adjusted institutional shares to recognize all of the unfunded enrolments. The model made up for its years of sluggish responsiveness in one grand swoop.

More recently, an accessibility fund has been added. It layers on an instant funding response to institutional enrolment growth in real time. Shares continue to adjust. Some institutions are anticipating increasing difficulty competing on this basis because they operate in demographically challenged regions of the province.

The Treasury as a Hidden Variable in the Model

Despite these shifts, the existing model feels relatively stable for one simple reason: more money has been added to hold harmless those institutions that were losing share as enrolment-driven adjustments were made. This was the case in 2005, when all the then-existing unfunded enrolments were bought with new additional funding to the system. It is the case with the accessibility fund as well, which has been driven by the addition of new funds year over year.

⁹ Additional detail: Under the “enrolment corridor” model, a defined level of drift (+/- 3%) from a pre-determined institutional enrolment target was tolerated without funding share consequence. To further dampen enrolment swings, ongoing enrolment measurement for each institution against its target was based on a lagged and rolling average of five years’ enrolment measurement. Under-enrolment measured on this basis (less than 97% of the target, or “below the corridor floor”) theoretically meant a reduction in share, but typically triggered a negotiated mitigation-recovery plan. Over-enrolment above the institutional corridor ceiling (above 103%) resulted in no automatic increase in funding share. Enrolments above these levels were simply “unfunded.”

But this new money is not a feature of the model. It is a happy feature of the treasury. It is unrealistic to imagine that the treasury will continue to be able to increase overall funding every year to the degree it has been willing to in the past.

Regardless of what is measured – be it enrolment or other outcomes – adjusting shares is much easier if the overall allocation to the sector is growing for the simple reason that those institutions losing share in any given year (they are not growing, they are not growing as fast, or they are not performing as well on measured outcomes) see no reduction of dollars. Dollars for performance come from the treasury, not from inter-institutional redistribution. Shares shift, but institutional funding quanta remain at the very least stable.

Balance

A tempting corollary to this observation is that share volatility in the model must be reduced if new funding is limited. But by how much? Once again, this is a question of balance. Too little, and the model begins to approximate a fixed share model,¹⁰ where it no longer matters what is measured. A corridor model with a sufficiently wide corridor is a de facto example of this kind of approach. The obvious consequence is a loss of connection to the province’s objectives: no tie to outcomes. But too much share volatility and the model delivers institution-specific funding fluctuations that make institutional planning and sustainable operations challenging.

The funding review’s objective of “addressing financial sustainability and ensuring the long-term sustainability of the postsecondary education sector” cuts both ways on this balance. On one hand, limiting volatility to ensure predictable funding is important to address institutional financial sustainability in times of fiscal constraint. On the other, making funding responsive to performance is key to achieving the long-term outcomes that drive the continued sustainability of the sector, especially in times of fiscal constraint.

¹⁰ Additional detail: In a “fixed share” model, each institution’s funding increases or decreases in locked proportion to the annual change in the total allocation for the university sector. In a sense, it no longer matters what is measured (enrolment, performance, whatever). Institutional shares are locked down.

Applying the Design Questions

The government’s funding model review objectives map broadly to our design questions as follows:

Design Question	Government Objectives
What outcomes will Ontario buy?	“Enhancing quality and improving the overall student experience”; while also “Shifting the focus of institutions away from enrolment growth”
How differentially will the model apply?	“Supporting the existing differentiation process, which is expressed in each university’s Strategic Mandate Agreement”
How dynamic are institutional shares?	“Addressing financial sustainability” – a goal which seeks the balance between operating a live model that rewards desired outcomes while at the same time avoiding undue financial volatility

All quotes from MTCU University Funding Model Reform Consultation Paper (MTCU, 2015a)

We acknowledge that this mapping omits the fourth government funding model review objective: increasing transparency and accountability. Generally, and all other things being equal, we can predict that *transparency* will become more challenging if and as a new model incorporates new quality measures, or fosters greater differentiation between recipient institutions, or permits greater dynamism in the redistribution of shares and funding through time. Generally, we can also predict that *accountability* will increase with new quality measures, greater differentiation, and dynamic consequences for measured performance. Once again, an appropriate level of balance is called for in optimizing the new model.

Table 1 assesses four potential (illustrative) funding model approaches against the three design questions and discusses the capacity of each to meet the government’s stated objectives. The four are:

Current Model: wherein institutional funding has been increased annually to pay for measured enrolment increases,¹¹ but with no guarantee that this can be sustained in an era of fiscal constraint.

Fixed Share Model: wherein each institution’s funding increases or decreases in locked proportion to the annual change in the total allocation for the university sector. A corridor model with a sufficiently broad “corridor width” acts like a fixed share model: it protects institutional shares against enrolment losses and promises no upward adjustments for enrolment increases.

¹¹ Dynamics of the model are described above (A History of Dampening). A more complete description of the model can be found in the Ministry of Training, Colleges and Universities slide deck *Overview of the Current University Funding Model* (MTCU, 2015c).

While a fixed share or corridor model is historically based on the measure of enrolment, these kinds of models could be supported by any measure one chooses. The essential characteristic is that, regardless of what is measured, the actual shares are not driven or adjusted over time.

Re-earnable Portion: wherein a portion of each institution's notional funding share is held back pending measured performance on agreed-upon outcomes. The first step in operationalizing this model is to generate notional shares, which could be based on a fixed share approach, or enrolment, or a basket of provincial outcomes, or some other basis. The second step is to agree on the outcomes and metrics each institution will deliver on to re-earn its held back portion. The outcomes driving the re-earnable portion could be uniform for each participating institution, or highly differentiated and unique.

Competitive Marketplace: wherein institutional shares adjust on competitive performance within the system on one or more measured outcomes. This could be enrolment, but given Ontario's stated objectives is more likely to focus on measures of quality and the student experience.

Table 1

	CURRENT FORMULA	FIXED SHARE	RE-EARNABLE PORTION	COMPETITIVE MARKETPLACE
Models →	Institutional funding is increased annually to pay for enrolment increases	Institutional funding (in)(de)creases in locked proportion to the annual change in sector allocation	A portion of each institution's share is held back pending performance on negotiated outcomes	Institutional shares adjust on competitive performance on one or more outcomes
Ontario Objectives ↘				

Design Questions ↓

Can These Models Meet Government Objectives?

What is measured and bought?	NO. Enrolment is measured and rewarded; but enrolment has been identified by government as the measure to shift away from	NO. What is measured becomes irrelevant because shares are fixed. Government's stated quality objectives cannot be furthered	YES. The re-earnable portion can be linked to the government's quality and student experience objectives	YES. The choice of measures can reflect the government's quality and student experience objectives
How differentially will the model apply to individual institutions?	NO. The model applies to all institutions in the same way and fails to promote the government's differentiation objectives	NO. All institutions are treated in the same way. The model fails to promote the government's differentiation objectives	YES. The performance contributions and measures in the re-earnable portion can be customized for each institution	YES. All institutions compete on common outcomes, but with tailored weightings that reflect each institution's strengths and areas of strategic focus
How dynamic are institutional shares through time?	UNKNOWN. The model appears dynamic – growth is rewarded and shares adjust. But most of this has been locked into base shares, suggesting that in times of tight money the bias would be stability. In that case, the model would start to approximate a fixed share approach	NO. While fixed shares provide a predictable and sustainable revenue planning horizon for individual institutions, there is no reward for achieving outcomes that build a higher quality, more differentiated, and therefore more robust and sustainable system of institutions for the future	YES. The re-earnable portion is dynamic in as much as an institution must achieve performance against objectives in order to earn it (all) back. The degree of dynamism is a scalable design variable	YES. The model is competitive and dynamic in a manner that rewards measured performance on objectives, but can be mitigated as desired by design

In Conclusion

All we have done is to map a series of questions to help kick start the design of a new funding model.

The most important thing is to begin at the beginning: understanding the province's objectives or outcomes for the university sector. These have been provided at a high level and focus on enhancing quality and the student experience.

To identify the core characteristics of a funding model that drives to these objectives, we simply suggest asking a short but critical series of questions.

- Are the objectives measurable? If not, the first task is to develop robust measures for them. These, appropriately scaled for institutional size (there is no escape from enrolment), become the central determinants of funding shares when the model is operational.
- How differentially will the model apply to institutions? This is a question of balance: too uniform, and differentiation will not be encouraged; too differentiated, and the formula becomes fractured and unwieldy.
- How dynamic will the adjustment of shares based on performance be through time? Again, this is a matter of balance: too little adjustment, and the province's objectives will not be incentivized; too much, and the formula becomes volatile.

Only when these high-order questions have been settled should the detailed design work begin.

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