This presentation is an effort to describe our Financial Outlook with the objective of connecting you to a real shared problem.

A problem that can only be solved by a shared strategy. A shared strategy that means a real cross-collaborative initiatives involving centralized and decentralized units along with deployed centralized units, who working together really need to do things differently.

Some things in today's presentation will challenge you to accept. You may even disagree with some of today's outlook. But, I want to challenge you to consider both the good and bad possibilities of the figures and facts I share today. And, I want you to consider helping me, and your colleagues, by turning some of your attention over the next year or so to your role in our future outlook.

Last year we covered: Finances linked to Enrolment, in particular how revenues looked bleak when our province froze funding for domestic enrolment, meaning we would no longer be financially rewarded for domestic student intakes. Then in order to pay the bills, or simply ensure we could cover our annual inflation, we embarked on a goal of maintaining existing domestic enrolment levels while growing our international student participation.

The strategy to increase international students would allow McMaster to have continued revenue growth greater than expense growth, even though we knew growing international students would require some additional student support investments.

We also discussed the corridor model and how having our operating grant frozen meant we could drop domestic enrolment up to 3% (over a smoothed averaging period) without any negative operating grant impact. This meant that within a corridor model we could, if we chose, create more seats for international students. International students who pay full tuition.

Overall, we concluded that while eventually we need to focus on controlling or right-sizing our expenses to a model that does not require perpetual growth, that at least in the short term we had to find ways to grow revenue to offset annual expense inflation. Overall, we concluded cutting expenses was the hard stuff, it meant having to go through the difficult “process change” discussions that would shift our cost model and allow us to move toward a model of less administrative support staff.

THIS YEAR…

FOR 2018, We will look at where are we now and where are we going. Further we will consider what the tools for success are required moving forward.

When our operating grant for domestic enrolments became frozen (tied to 2014/15 levels), McMaster along with most other Ontario schools looked to increase international enrolments in order to grow revenues at the same or greater pace than expense inflation.

This year I'll show you the financial results of this strategy to-date and I will show the financing outlook as we continue to focus on international enrolment as a way to fund expense inflation. This year you will see what happens to our financial projection when we reach our international participation rate goal of 25% and we reach a total enrolment capacity at McMaster, considered somewhere between 32,000 and 35,000 fall/winter undergraduate figures, for this presentation an enrolment cap of around 33,500 fall/winter undergraduates has been modelled.

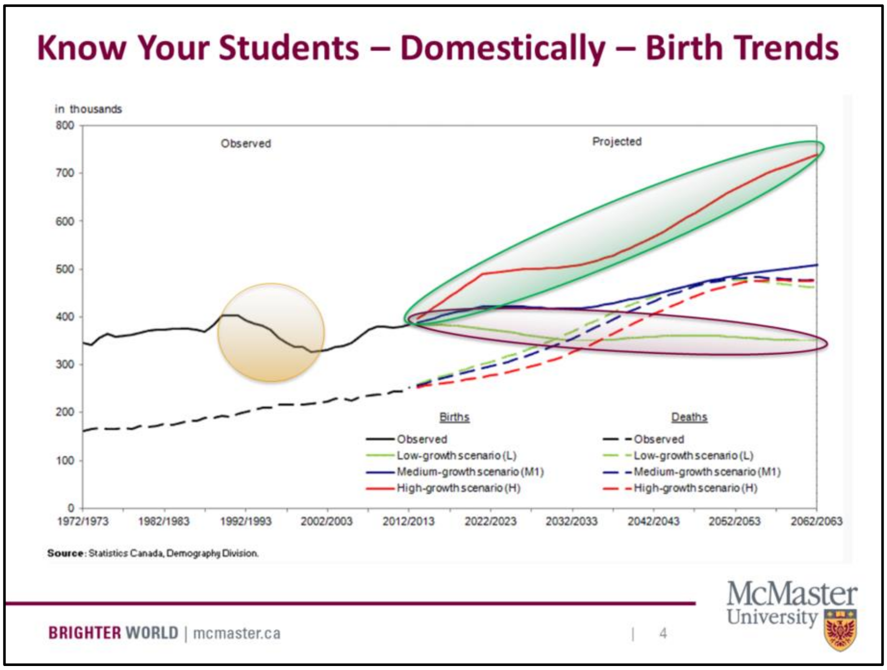
Further, you'll also get to see the potential financial impact if our Ford Government delivers a funding cut of 4% or 10% to our operating grant in

2019/20.

Overall, I want you to leave here fully understanding how our students impact our ability to afford our current operating support model. I want you to understand where our students are from so we can appreciate the variety of support they might need while studying here. I want you to think about student diversity and diversification risk since this past year we, and Canada, learned too quickly what geopolitical risk looks like; it is the impact when one country decides to remove its students from our country as a policy decision that would see the swift removal of an entire country's participation at McMaster (Saudi Arabia).

Finally, I want to talk about what we have to be doing now. How we literally need to move beyond talk, beyond planning. How we need to take actions, meaning having hard conversations about processes and remodeling transactional work efforts, conversations that we need now, and literally begin actioning.

So let's get started…



Source: https://www150.statcan.gc.ca/n1/pub/91-520-x/2014001/c-g/c-g2.3-eng.htm

First, you need to know your students, which is really a function of births about 17 years ago. These are the domestic undergrads we have coming through enrolments now – particularly in the last part of the golden circle. The trough of births within this golden circle has and continues to cause a great deal of trouble across Ontario and nationally. This trough meant for some schools, far north and south of us, domestic enrolments were going down and so too was operating grant funding because our funding system ties operating grant funding to domestic student enrolment.

For our Ontario universities, facing a continuous stream of declining revenues is significant since roughly 70% of a University's costs are people related, some tenured, meaning cutting expenses at the same pace and magnitude as lost student revenues is not easy. The Province, recognizing this risk of declining domestic enrolment, re-introduced the corridor model in 2015/16, which is essentially frozen operating grant budgets, as a way to assist some universities stabilize income and manage during enrolment decline.

However, this declining birth rate shifts toward growth in about 2002, so when we add 17 years to this to get to our entry level students we would expect by about 2019/20 a return to modest domestic growth, assuming provincial participation in higher education remains steady. But our growth starting point in 2002 would be much lower than our previous 1990 levels and take a long time before returning to 1990 levels.

Stats Canada, using its 2016 Census data, projects out births using High, Medium and Low birth modelling.

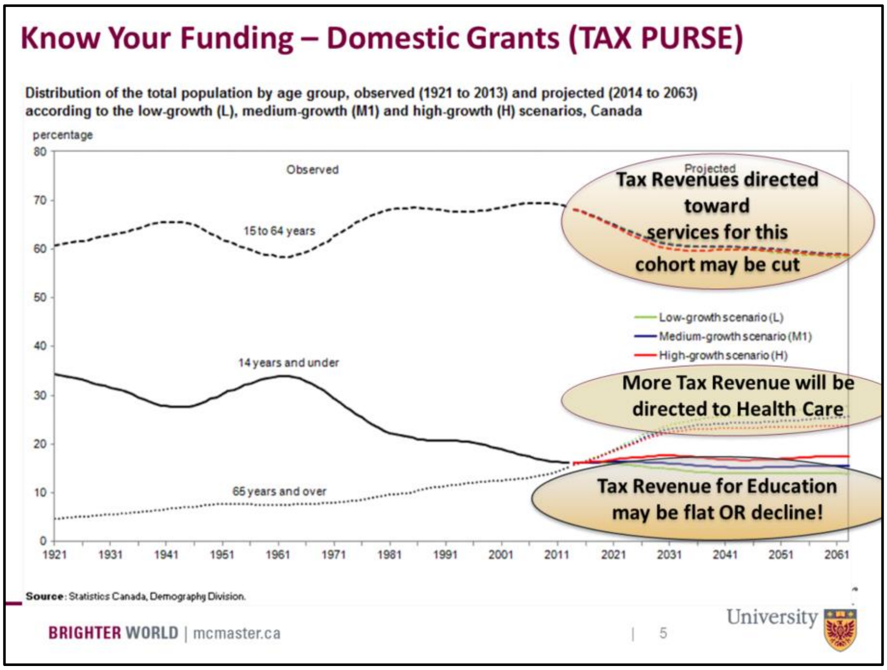
Thus, the return to modest growth becomes short lived under the Low Births model (see the marron oval) where trend expectations expect a prolonged period of declining domestic student numbers, thus unless local participation significantly grows we simply face declining domestic enrolments over a long period (by this chart decline begins in 2013 and continues off the chart in 2063).

Under the Medium Births model (blue middle line) we see little growth during our likely remaining career time, since its flat to 2038, add 17 years so that growth begins again in 2055. Thus if your birthday is after 1990 you are unlikely to see any of these domestic growth glory days return during your remaining career time.

Finally, under the high predictive model (refer to the green oval) we see great financial opportunity for our education system, perhaps less so for the climate health and the government tax purse. If we achieve the high birth trends, in this scenario, revenues might look great as long as we have the capacity or infrastructure to accommodate the student population.

The reality is, when you compare old census data projections to their updated actuals the history shows we have typically trended just under the Medium scenarios. If this continues into the future it means we have a real shared problem: we need to solve how to balance our books without domestic enrolment growth sufficiently enough to afford annual expense inflation. Part of the solution might be achieved through natural attrition opportunities whereby we look at each staff member nearing retirement age and consider as roles retire that we: STOP, ASSESS, DO NOT POST THE VACANCY, LOOK TO CHANGE OUR PROCESSES, PARTNER WITH OTHER UNITS AND FIND EFFICIENCIES.

UniForum results tell us we operate with as much as a 13% higher cost structure than necessary for a university of our size and research intensity. To address this overspend we need to change our work organization. We need to re-size the support environment.

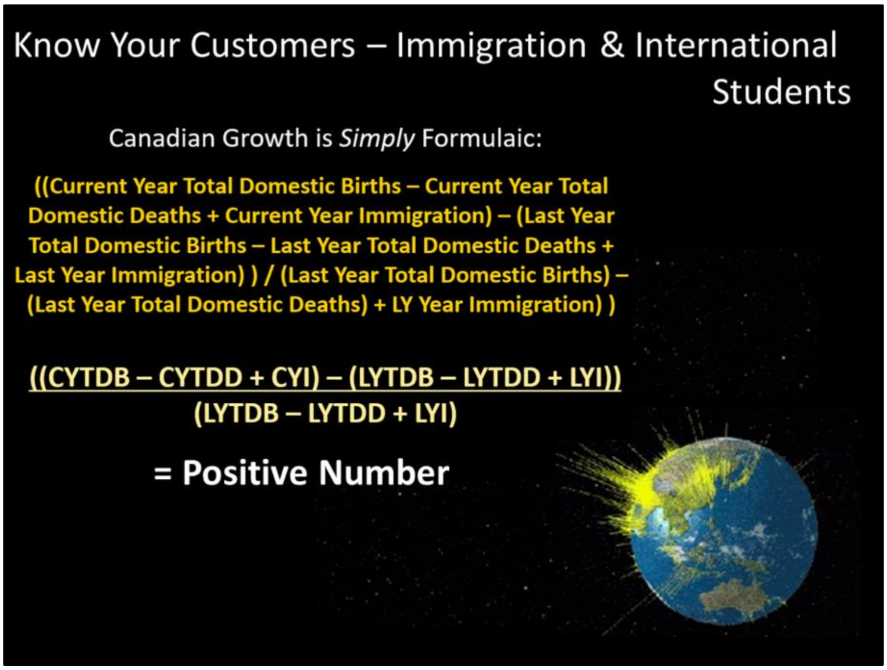


So, now lets look broader, while our domestic births have declined and growth appears to be limited – we need to think more broadly at what is happening to our funding or tax purse. Let's start by looking at our Canadian population.

If you look at these three lines and consider the top line or largest grouping of citizens ages 15 to 64, then the middle line ages 0 to 14, and finally the bottom line those 65 and over this one slide tells us quite about about future government funding. First, our largest population, those 15 to 64, are projected to decline over the next several decades. This means tax revenues for current programs to support this cohort are at risk of being cut since services are being provided to declining percentage of the population.

Next our oldest population, those 65 and older, will be growing as a percentage of the population, meaning funding to support senior living and health care is going to need a much larger allocation of revenues within our taxation allocation system, this is not only to support the movement of the baby boomers through, it also reflects the fact the people are living longer with longer term medical and drug related support needs.

Finally, the population we at McMaster need to pay closest attention too, since this is the cohort or grouping that represents our post-secondary market, our future students. Unfortunately this line is on the slow decline trajectory meaning tax revenues directed to Education may be flat, even deflationary, into future years. Right now our revenues are frozen meaning each year as inflation kicks in our funding actually buys less services. So, if we can't find our enrolment growth domestically – let's think about our international opportunities.



Just due to natural population demographics alone, the likelihood of new and more money from the government toward our education sector is low. However, growth in Canada is really a simple formula and why accept decline? Simply put, we have the ability to look at our own current year total domestic births less our current year total domestic deaths and add Immigration to ensure we end each year net ahead (the economic model used by many countries without regard to the environment).

I mean really, what politician would run on a platform to shrink the population and therefore economy? All we really need to do is to manage this simple formula. Simple right? Well this isn't all we need to do, as a University we need to think about where our students are coming from and we have to consider whether we have the right staff support system for those students.

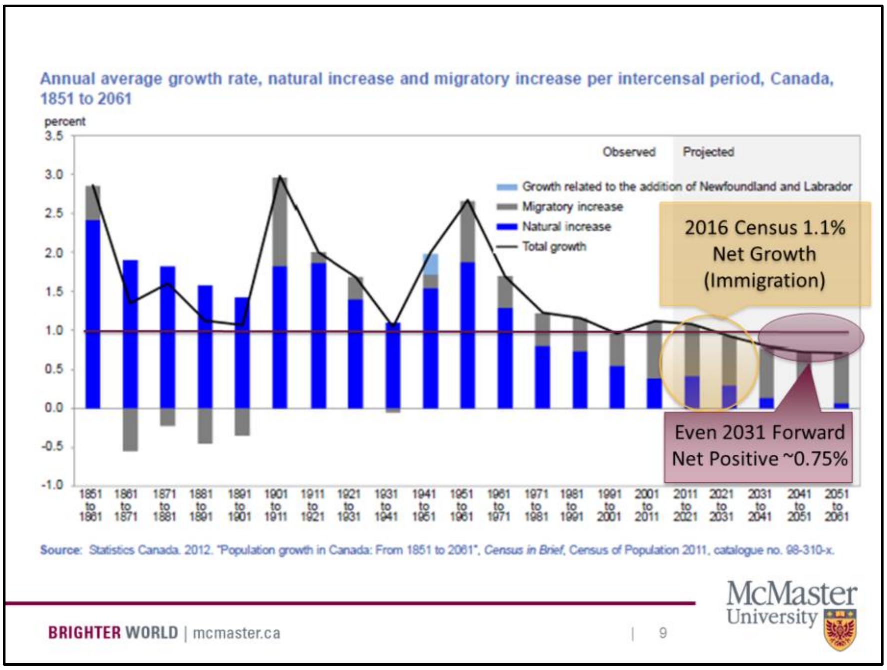
Let's look at our immigration strategy for a minute to get insights into the people across Canada…

Refer to Youtube video (copy this url):
https://www.youtube.com/watch?v=cX02bJ1pyw4

What does immigration history have to do with us? We can look at immigration history to present day to tell us a lot about both our students and our work force serving students. What we will find based on this immigration history is that much of our workforce will be Caucasian whites from European countries of origin, many of whom are first or second generation Canadians. Less so, we will have staff from visible minorities, whom are more so first born generation Canadians or educated landed immigrants; rather than second generation Canadians. Visible minorities will be predominantly from Asia and India, with others from the other 100+ countries whom have likely had access to education.

This staff mix, which we have established as predominantly Caucasian or white, supports our students many of whom domestically will reflect our birth population from 17 years ago (which includes a small but growing visible minority base) along with our growing international students participation. Why might this be important? Because it affects our ability to relate to the socio-economic and cultural, religious, and other factors affecting our students. Ideally our staff base would be a reflection of our student base, with reasonable support mechnisms for students living away from home, many of whom have different cultures or customs.

So not only do we face the task of re-examining our existing support structure in an effort to reduce our 13% overspend on support, but we also need to consider shifting, over time, our staffing mix to become more reflective of our student population in order to moat suitably serve their needs, as well as providing our students role models and mentors a varied student base can relate to.



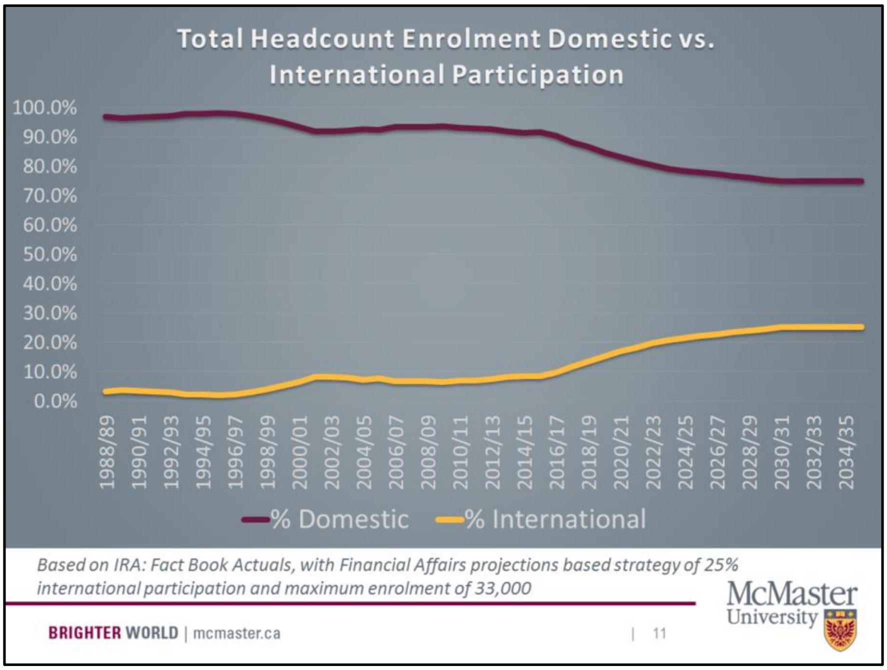
Based on the 2016 census and based on the economic growth or population growth formula I shared, it would seem clear that government, along with immigration, are also on the same page, when your domestic population growth is declining it can be supplemented it with immigration. Between 1971 to 2001 not much changes in terms of the immigration related growth rate, however as domestic growth was projected to decline the immigration intake grew, lessening the impact of what could have been a steep population growth decline. Growth ensures our economic engine runs, it allows for new housing starts, new job starts, etc., etc. without much correlation to the environmental impact of the human-made economic model. This model, like university perpetual growth, is not a sustainable model on many levels!

However, as long as our population growth remains above 0% we can look forward to some forms of economic growth, such as new job starts, new housing, new consumables will be needed. Like a University, the economy runs on an ongoing growth model, however breaking points occur in the economy! We see this when recessions occur and we see the long term impacts our reliance on economic growth has had on other more ethical and morale choices we have put to the side such as investing as a priority in protecting our climate.

Just like the economy, the University saw its domestic population growth capped and supplemented it with international students. However, also like the economy, our University has a breaking point too. This point occurs in a situation where we set our own enrolment limit or cap at a fixed upper enrolment number and where student mix domestic and international students has been optimized, as modelled this occurs somewhere around a 78% domestic and 22% international ratio. At this stage, we would need to remove domestic spots in order to make way for more international spaces to achieve a 75:25 mix.

For our current career periods 2011 to 2031, based on census data, we can at lease consider ongoing growth of about 1.1% and future outlook beyond 2031 we still see net growth of about 0.75%

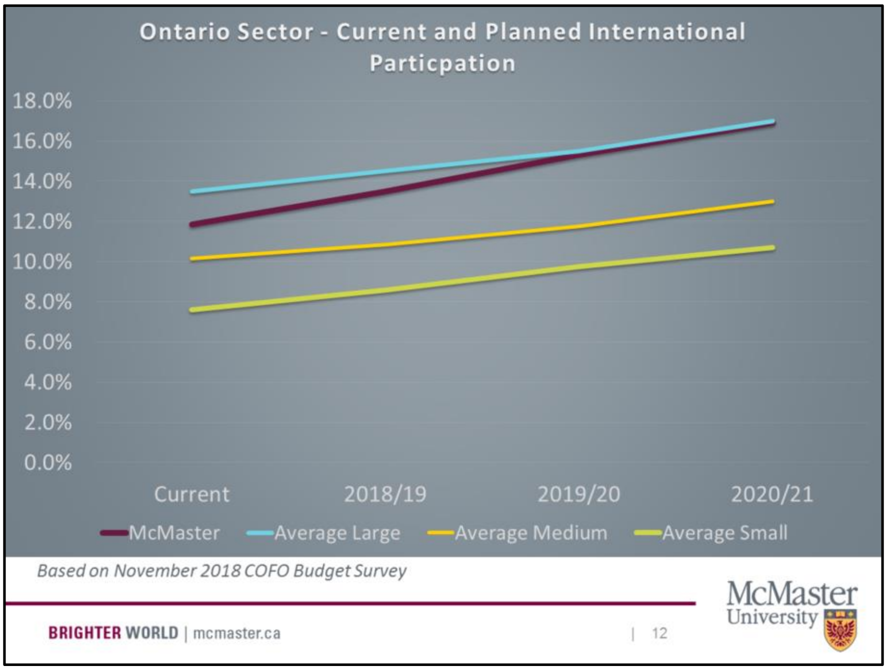
So, all this talk about international growth, let's look at our international students historically, currently, and projected.



Based on our factual actuals, throughout the late 1980s our international participation was about 3.5%, this declined to about 3% in the 90s and then picked up to about 7% on average from years 2000 to 2013. Then, in 2013 to 2015 international growth began and we shifted to about 8% international participation. Since then we have grown to 9.7%, 11.8% and now we're nearing 13% international participation. All as incremental growth without impacting our current enrolment numbers domestically.

The question is whether we can achieve 25% international participation? It would mean strategically reducing domestic spots as our student base reaches an internally planned maximum enrolment, modeled for this presentation as 33,500 (but this enrolment cap is still being determined).

How does our strategy compare to our peers and their international participation plans?



Here is McMaster compared to three groups, Large Universities like McMaster (Toronto, Western, Ottawa etc). Medium Universities and Small. All of us are seeing the same population trends and within our plans we are all looking at international students as a funding solution. So, if we're able to grow to 15%, then 20% maybe even 25% over 20 years, our revenue will still eventually teeter off when we reach an enrolment cap because domestic enrolment would remain frozen by a corridor and at some point international enrolment growth as a strategy will become untenable to the academy.

If the corridor was left unadjusted, meaning no inflation or change applied, then we would need to start looking at other ideas to grow revenues or finally get to the hard stuff, meaning cutting expenses. Regardless of how we get there, let's look at the make-up of this student mix now, given what we have also learned about geo-political risk.

Here you can see that based on 2017 student enrolment data, both undergraduate and graduate combined, our domestic students still represent 87% of our student enrolment, with a growing number of these students identifying as visible minorities. This means the smaller slice of this pie, or 13% is our international participation, let's look at this closer.

The 13% international student base consists 55% from China and another 6% Hong Kong, thus 61%, by far the largest foreign segment followed by:
India at 6%
Saudi Arabia at 4%
Iran and Nigeria each at 3%
And the US at 2%
And students from another 106 countries each under 1%

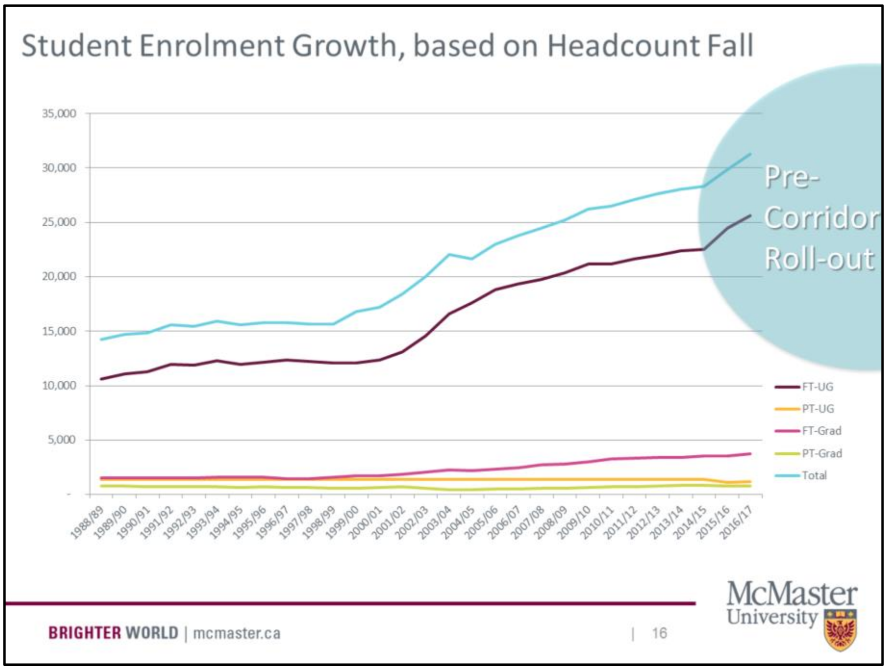
What's risky with this international strategy? Well, never had we seen what happened with Saudi Arabia students this year and geopolitical issues between Canada and Saudi Arabia resulted in a massive reduction in participation, literally 4% of our international students mostly gone next year, with a financial impact in excess of $11M per year.

What has this situation with the Saudi students taught us? It tells us that no one Faculty or program should be significantly financially exposed to geopolitical risk of a student co-hort. But as you can see we already have huge risk if China were to decide overnight to pull its students out of Canada. Thus, the international strategy comes with sustainability risks for McMaster, albeit some students view learning in Canada as a pathway to citizenship.

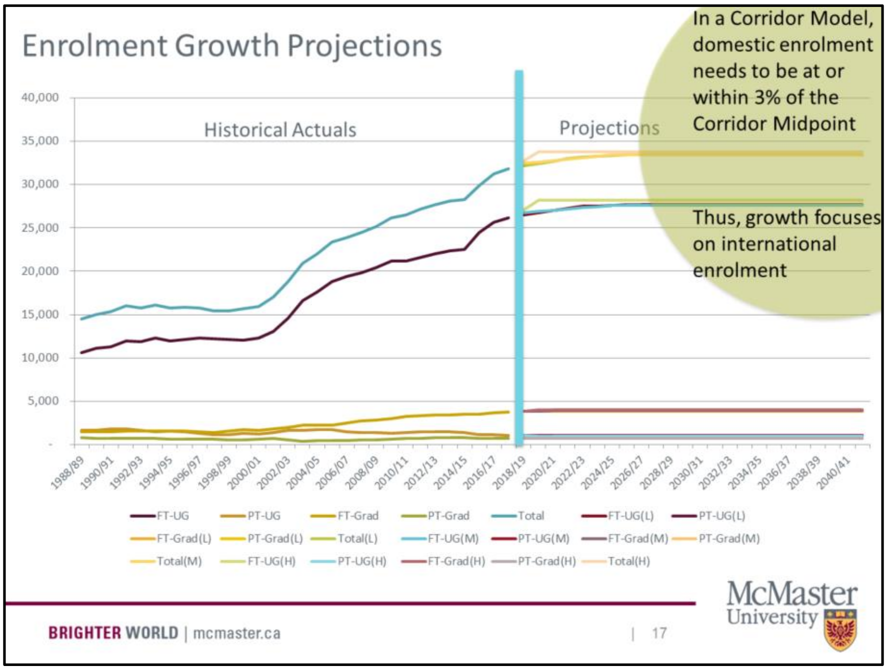
So now let’s focus on total operating revenues.

As a reminder, we focus on enrolment growth, now internationally rather than domestically, because growth rewards us with revenues that offset expense inflation. As long as we can grow revenues at a pace equal to or greater than expense growth we don’t have to focus on the more difficult things like cutting expenses or worse, re-thinking our work force and processes to drive efficiencies or downsize (or right-size). Overall, focusing on revenue growth is simply far more pleasant then the types of conversations we need to have or the thinking/actions we need to do if faced with a budget crisis.

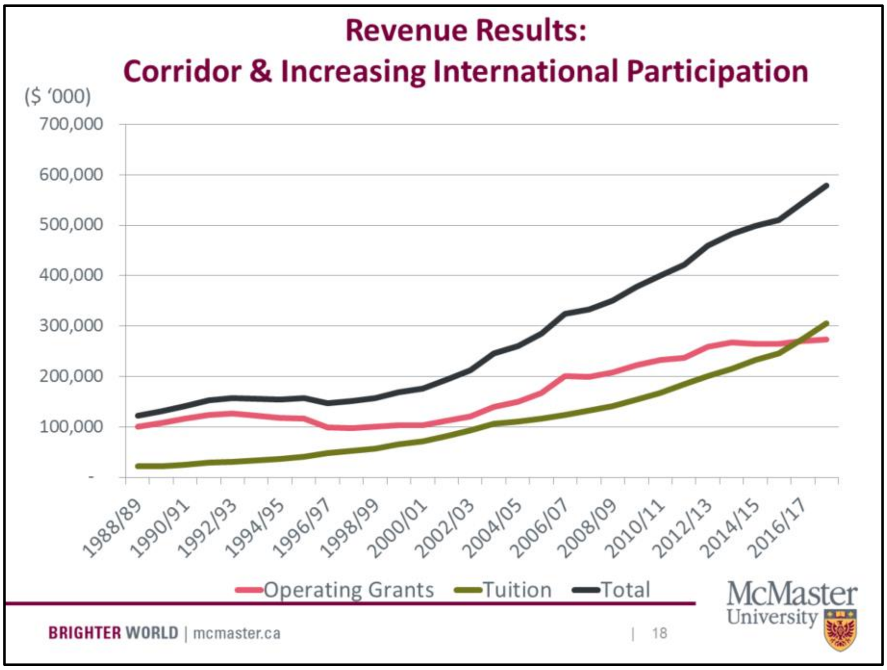
So let’s look at the student enrolment and revenues.



Here is our growth based on IRA fact book data beginning in 1988 to now… You can see our knowledge of the corridor or frozen budget affected our enrolment decisions just prior to the freeze (refer to the blue semi-circle).

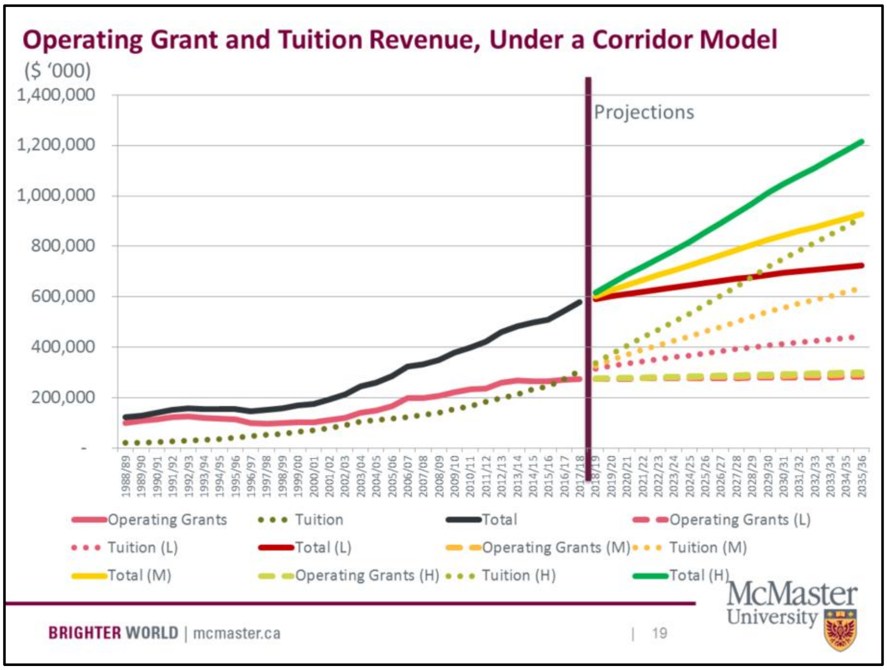


Here are the projections, new this year is the concept that enrolment can grow up to approximately 33,500 students. This might look bleak, but no worries yet, this is headcount and not reflective of the revenues particularly the higher revenues driven by a growing international participation rate. Let’s examine this one step further.



With the implementation of the corridor model you can see the Operating Grant (the red line) revenues begin to flatten based on a frozen or fixed operating grant to 2014/15 levels. However, on the tuition side (the green line) you can see that our international growth has completely offset the issue of provincial funding being fixed.

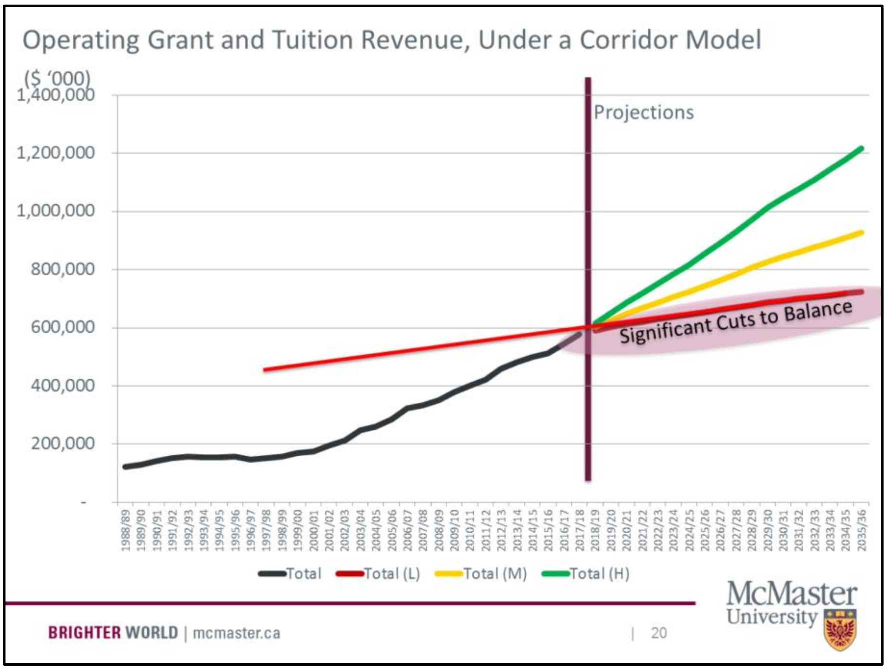
Now lets look at the projections based on growing international participation to 25% over time and capping enrolment to around 33,500 (considered planning capacity).



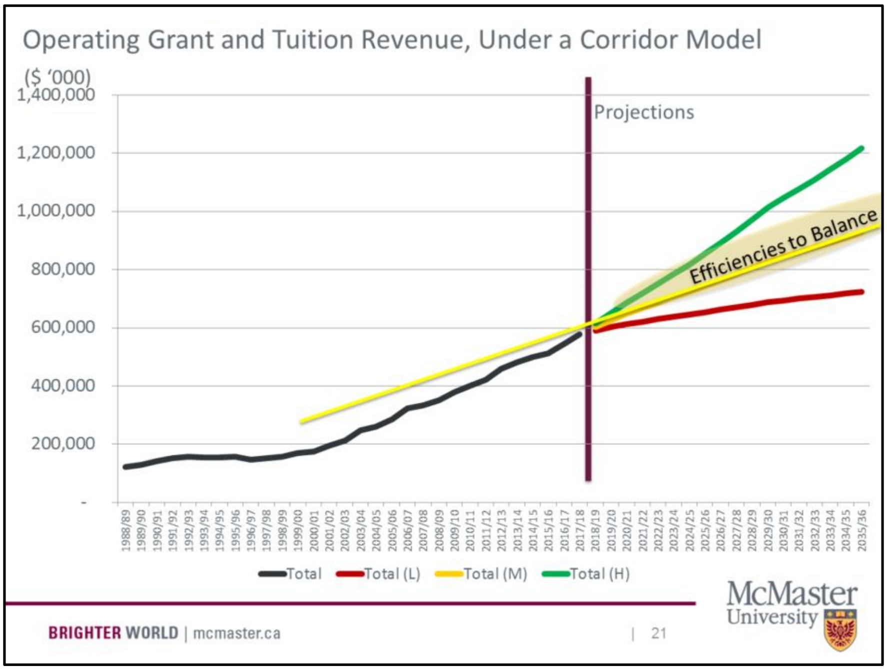
The projections assume a high, medium and low achievement of our plans. The high model assumes our plans work 100%, meaning we are able to increase international participation to 25% and grow to around 33,500 students, the continued growth assumes that domestic tuition increases will not fall below a 3% cap and international rate increases will average around 5% over the period (higher in the short term).

The medium model assumes we are 66% successful with these strategies, which allows for mix not to be achieved and tuition rates to be less than the planned caps.

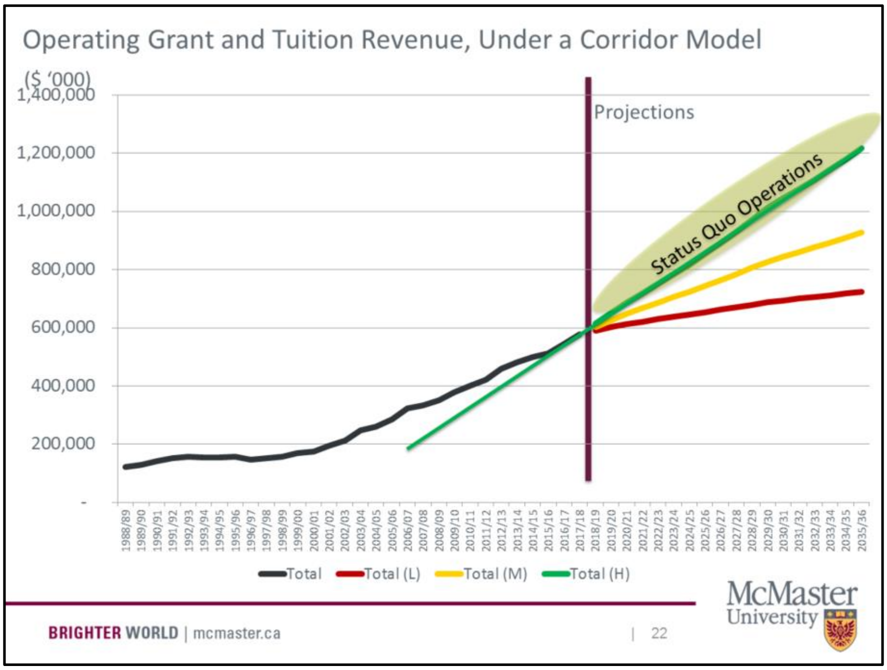
The low model assumes 33% success, meaning lots of room for us to miss our mix objective and what we might look like with tuition cap reductions.



The low model would require significant cuts to balance because we see a flattening of the revenue slope, it actually reflects average revenue growth rates around 1.2% compared to annual expense growth trends between 3-5%.

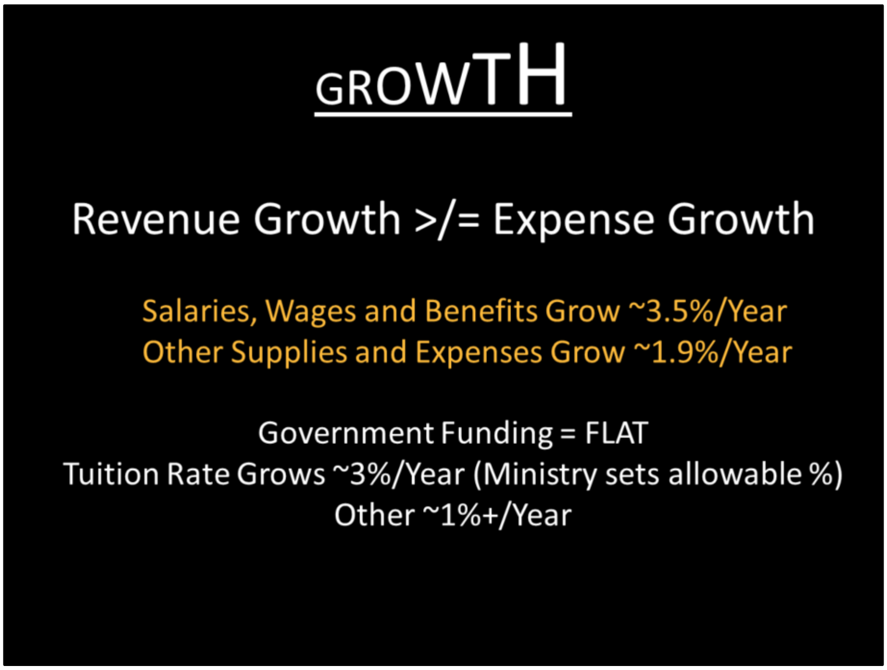


The medium model would require some efficiencies to balance since some years our growth approximates 5% or more, here the trend of revenue growth is 2.9%, as well as we focus on efficiencies and limit strategic investments we might be able to get by keeping expenses around 3%.



Finally, if we are completely successful growing international students, managing diversity risk, and tuition caps are not reduced from todays levels, then revenues grow on average by 4.1%, this would mean modest efficiency projects but pretty much status quo, because expenses over time grow between 3 and 5%.

So, is it possible we could get this 100% perfect, without local government interventions on tuition and without any further geopolitical risks? Maybe we will be 100% successful and we can rest on this plan.



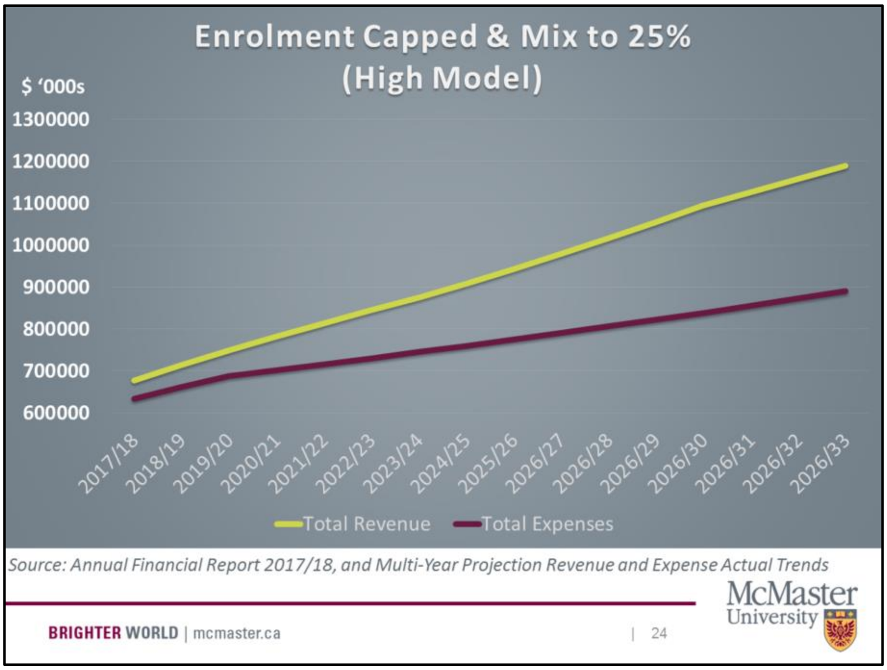
Well, for our sector growth is what keeps us in balance or in the black to fund existing expenses and new strategies. Growth is necessary because the expense side or our operations is relatively static and salaries, wages and benefits we know grow by about 3.5% per year, and other expenses grow relatively to inflation.

Therefore, our revenue must at least fund normal expense growth before any extra strategies are funded. However, our revenue side of our operations is made of three key funding areas:

First government funding, however I showed you previously our population situation and can tell you this source is flat for the foreseeable future.
Second, there is our tuition which is domestically capped or set by the Ministry that limits growth to about 3% per year, whereas no limit exists on our international rates.
And third, finally, we have our other revenue sources which grow about 1% per year.

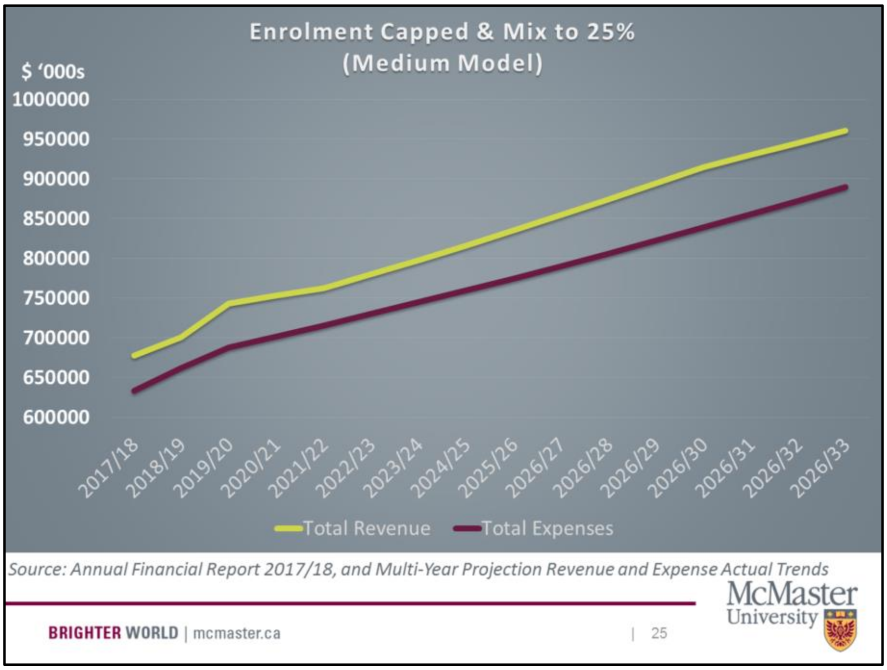
Thus, we focus on enrolment growth to-date, because we need to drive our overall revenue growth percentage to be greater than or equal to our normal expense growth. And, fundamentally, growth needs to be greater than expense growth if we want to undertake new initiatives and new strategies.

So what is McMaster’s financial outlook if we are 100% successful with our strategy?



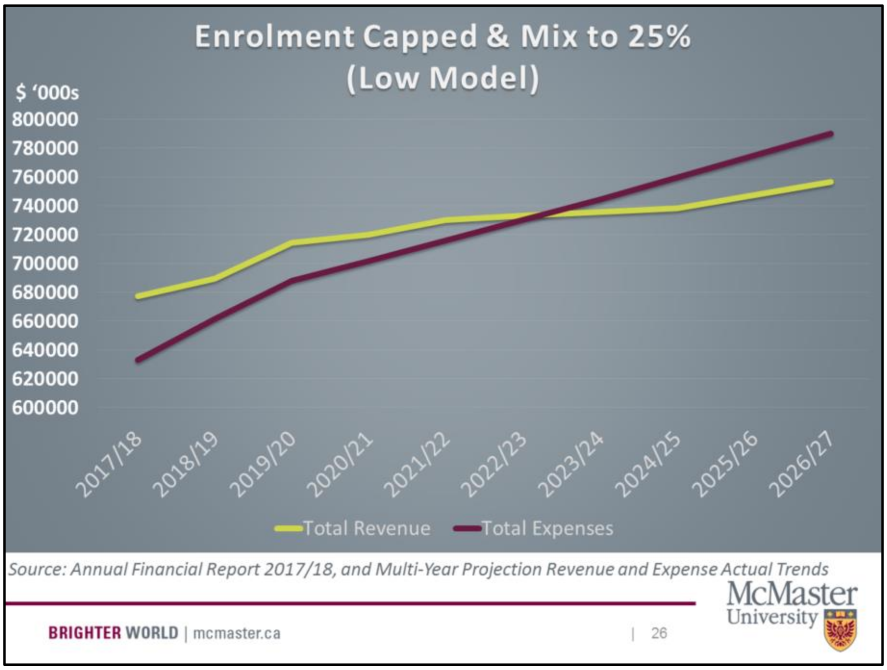
Here is what we look like with 25% international participation, where we can annually increase tuition on average by 5% per year, where tuition caps allow annual 3% increases, where no provincial funding cuts occur, and no further geo-political issues cause a loss of students.

But what if we don't hit this plan 100%?



Here is our 66% success model – we can balance, but we will have to be cautious with our funding for strategic investments.

But, what happens if we have 33% success?

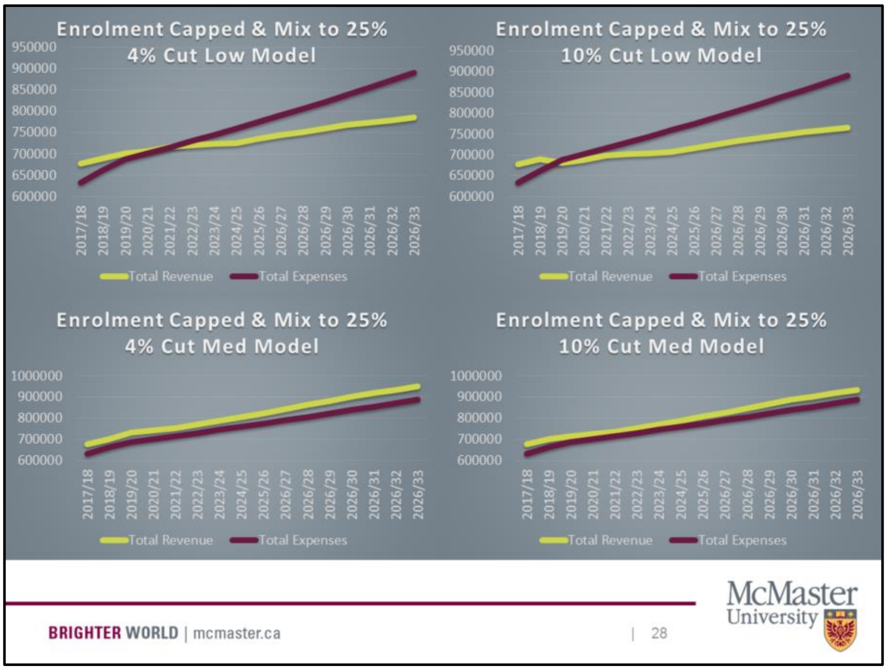


Well, in this situation we have work to do, starting now so that expenses do not exceed revenues come 2022/23. This situation would drive a budget crisis.

So do we have anything to really worry about?

Well, our figures look “maybe” okay, but we have to remember we have a new government elect and this guy is looking to deliver savings, as much as 10% across the system he claimed in one pre-election speech. So, what does savings look like? We already saw the cancellation of three major capital projects underway, we also so the cancellation of a French-language university, what else might be necessary to cut 10% from the education purse (estimated around $4B).

We are hearing the possibility of budget cuts, as much as 10%, sometimes we hear 4%... What do we look like in that scenario?

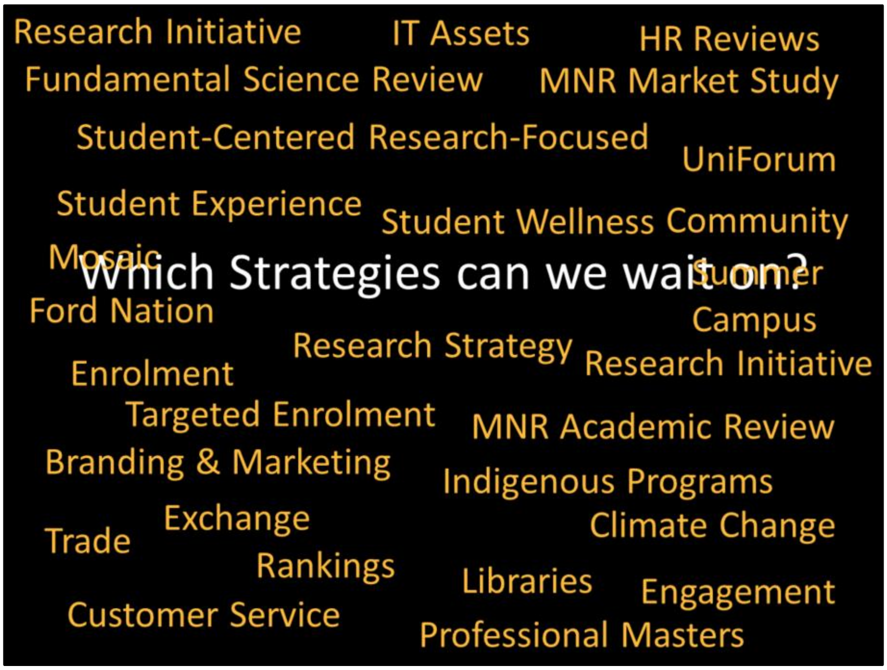


Here it is a 4% and 10% cut under the low or medium success models. These models suggest a much tighter outlook and in the case of the 10% cut a real need to act on process changes.

We need to get international enrolment up across faculties some of which are already hosting programs with a 50% international mix, other faculties, like Humanities may have more difficulty in attracting an international student based on program content, such as Canadian law.

So what does all this mean to ME (aka YOU)

If we fail to meet the objective of 25% overall international, say we are only 33% successful, thus international participation moves to about 15.5% Or, if we get any form of budget but under the Ford government then as you have seen our expense line exceeds our revenue line and it means its time for the tough conversations and real action. All of these numbers have been based on status quo operations, we haven’t even addressed possible incremental funding needs for strategic initiatives. Maybe we can simply take a hiatus on strategy?

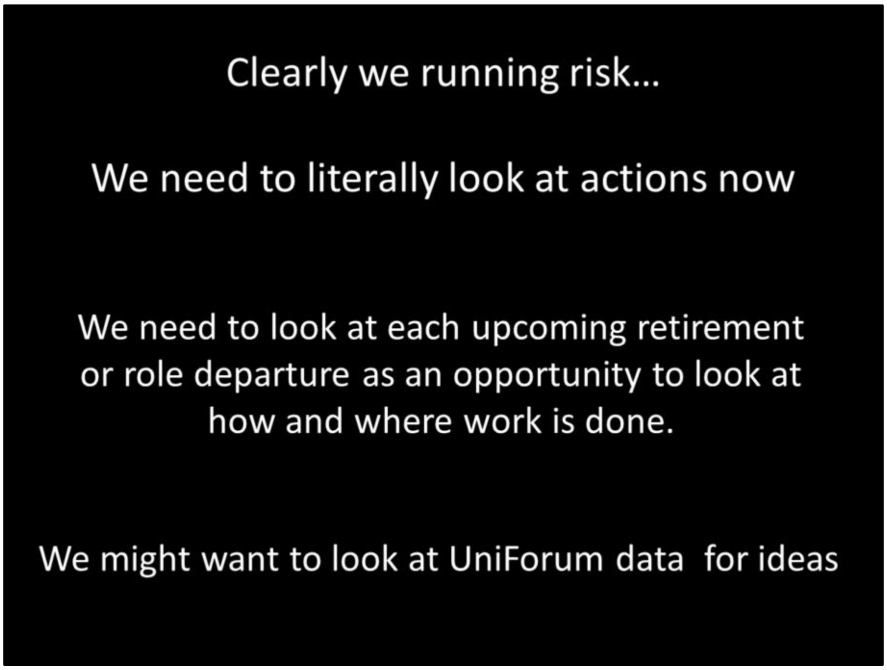


What strategies would you hiatus? How do we fund our strategies going forward?

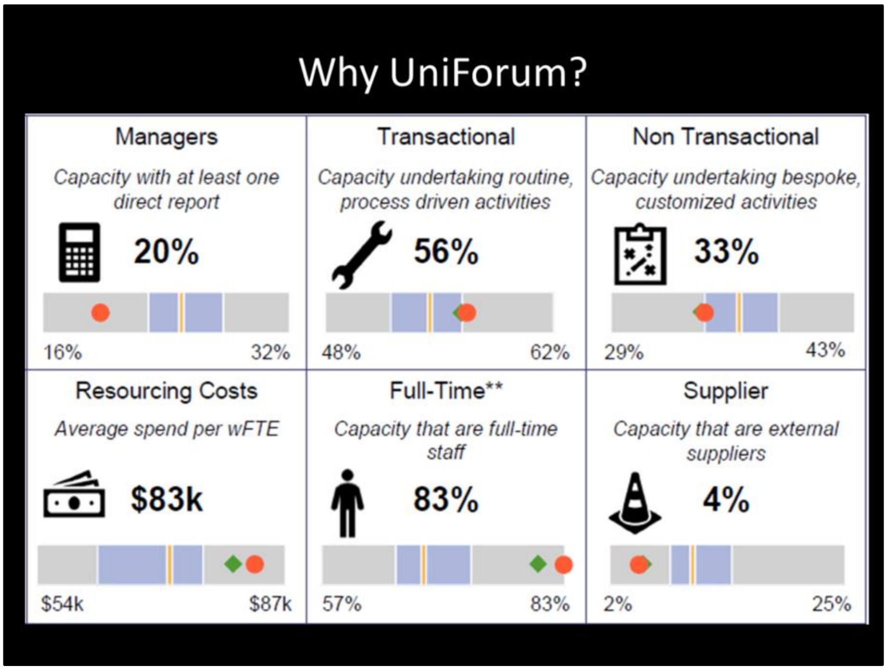
We've been able to fund enrolment support, Mosaic, reviews, customer service
We've been able to invest in being Student-Centred and Research-Focused, the Student Experiences, Community, and engagement
We've been able to focus on student wellness, targeted enrolment, branding and marketing, indigenous programs, rankings and
We've been able to turn our minds to exchange, and needs of our libraries

What will we being thinking about next? I assure you, not nothing! What about a renewed research strategy, UniForum actions, climate change, disruptive technology, capacity, and more.

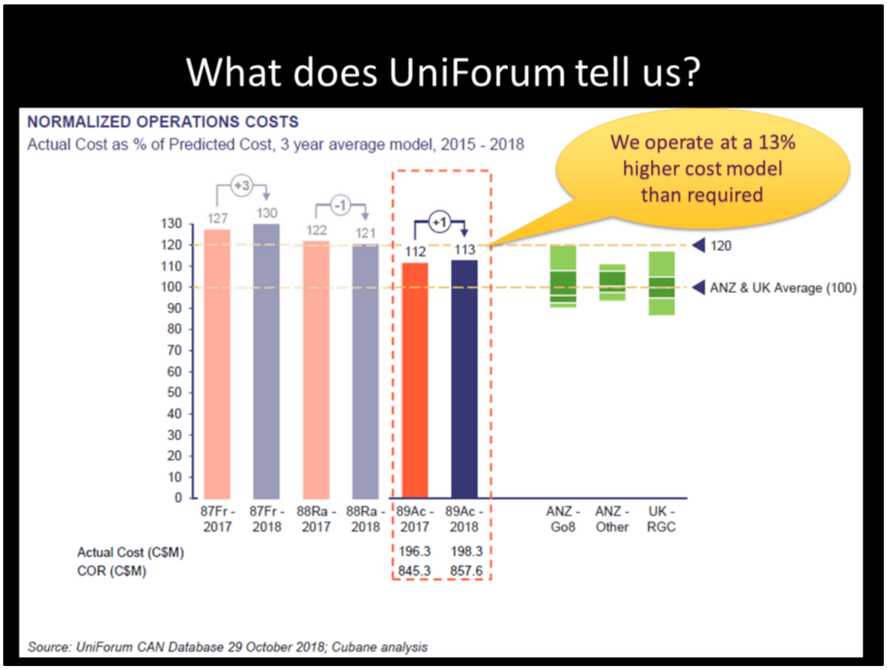
Many unknowns, but its likely that business as simply normal without strategies that need investment is unrealistic.



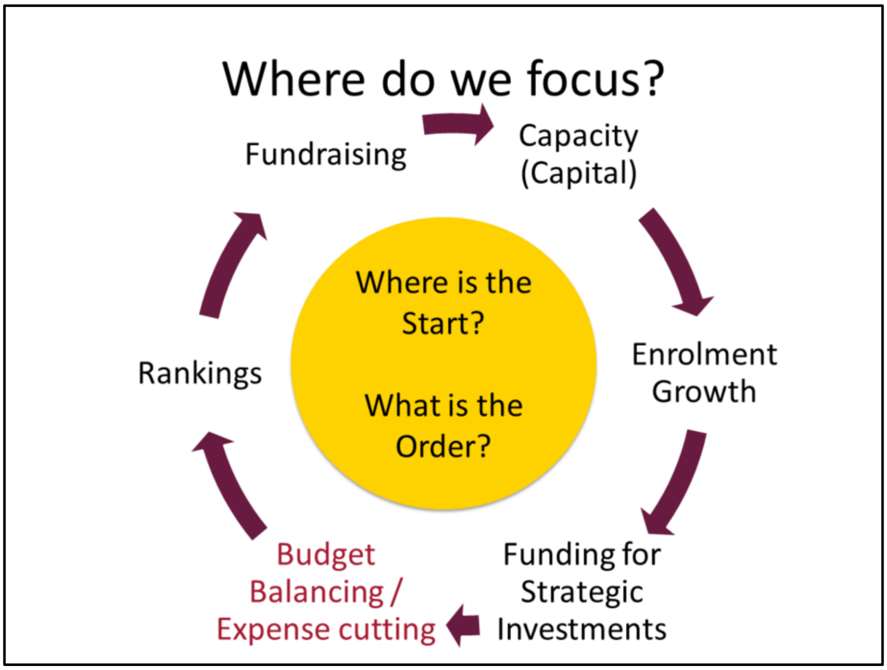
So we are running a risk if we fail to look at process efficiencies now, especially as roles retire.



Why all this focus on Uniforum? Well, we have believed for sometime our support model might not be sustainable, but what does benchmarking to others really tell us? Here's what benchmarking gives us and it helps us consider where opportunities might exist to change our expense or support model. McMaster has more managers with limited spans or control (or direct reports), we are not even in the benchmarking average (shown in blue). McMaster has its staff more than the benchmarking average focused on transactional work and the least amount of time on non-transactional work. And, unlike our peers we have far more full time staff and far less outsourced support. What does this mean?



Once normalized for size and research intensity, it means we spend 13% more on our support model than expected.



So, should we keep building capacity hoping to fill new spaces with international student growth? Is enrolment growth forever? Can we, like our peers, simply keep importing more students without geo-political risk? Can we simply grow enough to beat our expense inflation issues, what about strategic funding needs? Or, are we ready to do the work to examine the 13% savings potential?

It won't be achieved by things you can do alone or I can do alone, it will only be achievable by working more broadly outside our singular academic or administrative areas. The opportunities will come from centralized and decentralized support activities working together to improve the quality of support and changing where work is supported from based on what makes sense in the circumstance. Here's another point not widely captured in the figures I have shown you yet. Our rankings also have an impact, our improved rankings add costs to libraries and require sustainable investments in our marketing and branding efforts. This means while our reputation and rankings have improved so too has our cost structure, further requiring the focus on revenue growth and expense containment or ideally cutting.

Maybe fundraising will help us out of all of this? Well even our strategy for the

Research Initiative will require investments upfront to deliver funding for specific future research activities, it won’t be funding to pour into our operating fund or unit level support structure.

So what is my message, am I making the case for more centralization or decentralization? NO! Not that point at all.

Here is the task:

Consider matching work that is best delivered in a customized fashion to areas within decentralized units

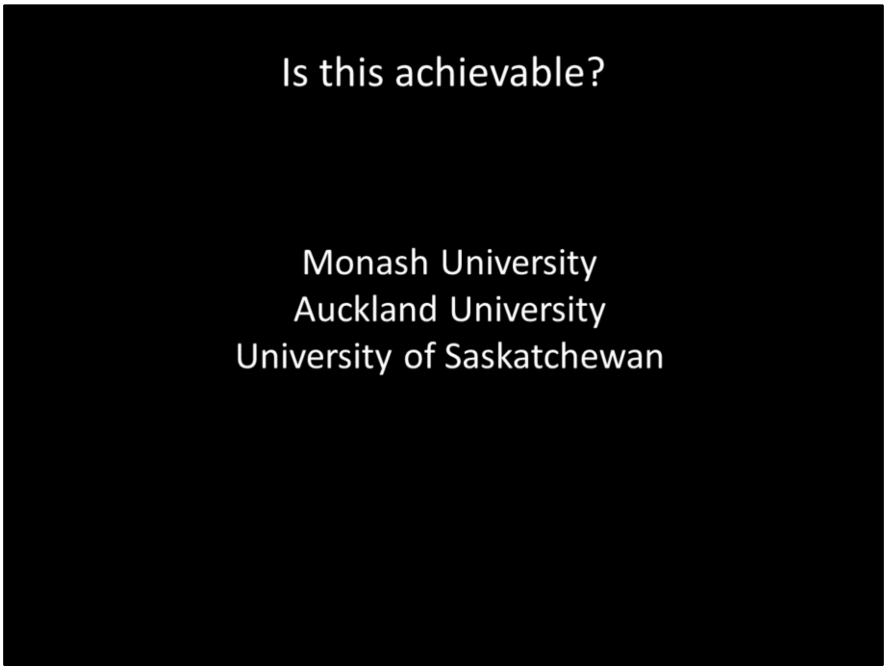
Then match work that requires no customization, work that is really standard/routine transactional to decentralized shared service hubs or centralized units

Minimize duplicative hubs and focus on expertise, quality, and speed of transactional support delivery

I am trying to highlight and make resonate that we have an important task to undertake together. Here’s what I want your collaborative help on.

Can we together, consider matching work that is best delivered in a faculty customized fashion to areas within the faculty (aka decentralized units). Then, can we also consider work that requires no customization, work that is really standard across faculties and transition this work to either decentralized efficient shared service hubs or centralized units?

And, can we make sure we eliminate duplication of efforts wherever possible. Let’s match resources to where services can be optimally delivered (both economically and qualitatively).



Other schools have been able to do this just a few are listed from Australia, New Zealand and Canada as examples.

Fundamentally, we need to get to a point beyond forever enrolment growth and reliance on 25% international enrolment, where we balance costs. Uniforum tells us we spend 13% more on our support resource model than we should for our size and research intensity. Our efforts over the past decade or more have focused on the revenue side of the equation, because its the easier and friendlier to focus on revenue growth over expense cutting.

But when you take a moment consider that we could be saving as much as 13% on support resources taking some of the pressure off our enrolment or revenue growth needs; and you consider that potentially some of these savings might be used on other needs like international student support and our academic and research mission; does it make you consider how you could be a part of the solution? Wouldn’t you want to try to deliver some of these opportunities? What does this mean? It means that the next time a role retires or departs from your area you should STOP reposting and really consider: is this role changeable? Should I have conversations with other units to re-imagine how work is done before I simply repost?


The End
Questions?
BRIGHTER WORLD | mcmaster.ca
McMaster
University