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Cost pressures and cost theories

Working Paper #1

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Abstract

This Working Paper provides a brief review of cost pressures and cost theories in higher education. The author offers commentary on the relevance of the theories in the Canadian context and points to some of the key factors that need to be examined to better understand the underlying cost pressures that underpin the current financial challenges.

The 2015 Working Paper series is intended to provide a relatively brief review of some key issues that affect higher education – particularly university education – in Canada. Faced with the twin realities of financial constraint and a decline in the 'traditional age' PSE cohort, universities are faced with major financial challenges. As universities, and the PSE sector as a whole, grapple with the challenges the need for more in-depth analysis of particular issues is critical. The Working Papers draw on the observations and insights gleaned from years of hands-on experience in the PSE sector and the many consulting and research projects completed by Snowdon & Associates. All of the Working Papers will use excerpts from previous reports, updated, augmented and modified as necessary. The first Working Paper – "Cost pressures and cost theories" – sets the stage for working papers that examine key issues such as "Compensation in Academe" (April) "Understanding Research Costs" (May, 2015) and "Faculty Workloads and the Innovation Agenda" (May 2015). The intent is to complete the series over the summer 2015 with commentary and observations about ways to deal with the complex set of challenges that face higher education institutions. Comments and questions about the Working Papers are welcome. Ken.SnowdonandAssociates@gmail.com.

Introduction

Universities have a mismatch between various cost pressures and revenue increases that tends to cause considerable angst and anxiety internally and externally. Due to the labour intensive nature of higher education, university cost pressures invariably outpace the general increase in inflation and reining in costs is seen as a diminution of quality and / or an attack on faculty and staff. Arguing for more revenue (tuition and grants) is seen as potentially compromising access or simply as whining to government. Attempts to diversify revenue streams and increase revenue in non-traditional areas are seen as threats to academe (corporatization) and / or carry their own risks, complexities, and costs. The need to better understand the root causes of the mismatch between cost pressures and revenue leads to a review of the key 'cost' theories in higher education.

Dominant theories

Over the past fifty years, two theories have often been cited in the discussion of cost increases in higher education. The Baumol Effect[1], sometimes referred to as the "cost disease", argued that cost increases in labour intensive sectors are an inevitable result of productivity gains elsewhere in the economy; that is in order to ensure that highly skilled labour is not drawn away to other sectors of the economy where productivity gains finance real compensation growth, the labour intensive industry must pay attention to competitive compensation yet has limited influence over productivity.

A little more than a decade later Howard Bowen argued that costs were simply a function of revenue and summarized what became known as Bowen's Law[2] in the following manner.

1. The dominant goals of the institutions are educational excellence, prestige, and influence.
2. In quest of excellence, prestige, and influence, there is virtually no limit to the amount of money an institution could spend for seemingly fruitful educational needs.
3. Each institution raises all the money it can.
4. Each institution spends all it raises.
5. The cumulative effect of the preceding four laws is toward ever increasing expenditure.

[1] Baumol, W.J., and Bowen, W.G., *Performing Arts: the Economic Dilemma*, New York, 1966.
[2] Bowen, H.R., *The Costs of Higher Education*, Jossey-Bass, San Francisco, 1980 pp.19-20

Baumol's and Bowen's theories are not the only explanations that have been offered but they tend to be the dominant theories.[3] A number of economists have argued that competition among institutions for students and faculty drives up costs as institutions increase the level of service / quality in an attempt to attract more and/or better students and increase salaries in the pursuit of the 'best' faculty. A variation of the 'competitive market driving up costs' is related to an argument that changing student preferences for more expensive programs (i.e., science-based) affects costs and cost increases. Yet another variation suggests that faculty and administrators, in the quest to heighten institutional (and their own) status, drive up costs by establishing practices that are more costly than necessary – e.g., smaller class sizes than necessary, higher admission standards, more scholarship funding, more emphasis on research, building enhancements etc. The validity of the competitive market argument is directly related to the existence, or perceived existence, of a competitive market within the higher education sector. The antithesis of the competitive market view is that universities have sufficient control over degree granting that they can pass on cost increases to students and/or taxpayers even if service levels and/or quality remain constant or decline.

Two other explanations for higher education cost increases have also emerged over the years: first, the quality of management and decision-making or the 'weak management view'; and second, 'government regulation as the major culprit' explanation. The 'weak management view' is aimed at university presidents and appears to apply equally to internal appointments (who are seen as having limited management experience and limited management skills) and external appointments who simply "fail for lack of experience in higher education".[4] Weak management, it is argued, contributes to cost inflation because costs are not managed properly.

The 'government regulation as the major culprit' argument focuses on the plethora of added regulatory requirements that invariably drive up costs – compliance, reporting, systems etc. Over time the increased regulatory requirements, whether general requirements applicable to all industries and sectors (i.e., minimum wage laws) or specific to the higher education sector (i.e., animal research, tuition fee regulations, research reporting), place added costs on the institution that are seen as mandatory.

Considerations

Taken together the preceding 'cost explanations' represent a reasonably comprehensive set that, with various overlaps, tend to cover the range of possible explanations as to why universities tend to be under constant cost pressure. The explanations should not be seen as mutually exclusive.

In reflecting on the preceding explanations in the context of developments in Canadian universities, one is struck by the applicability of the Baumol and Bowen theories and

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[3] Clotfelter, C., Ehrenberg, R., Getz, M., and Siegfried, J., *Costs and Productivity in American Colleges and Universities*, 1991, National Bureau for Economic Research (NBER).
[4] Getz, M., and Seigfried, J., 'Cost Inflation' in Ibid. p. 266.

resonance with some of the other explanations as well. Certainly intense competition among institutions for faculty had a major bearing on faculty costs for some (but not all) of the period from the latter part of the 1990s to today. And competition for students (undergraduate and graduate) has also led to increased student assistance, student services, facilities and new programs. The 'weak management' argument aligns with the views of some critics inside and outside the university, but tends to be more institutional specific than endemic to the sector.

At the same time it is difficult to ignore the impact of government regulation, in all its guises, as a major cost driver although it could be argued that many segments of Canadian society (public and private) have had to cope with the regulatory cost driver as well. What may make it uniquely more taxing in the higher education sector is specific regulatory aspects associated with sponsored research and the degree of regulation / intervention regarding program development, program approval, labour force planning, and tuition fees.

It is also the case that the funding of research is quite different than in the United States where the preceding theories and explanations originate. In the United States the full direct and indirect costs of sponsored research are funded via the sponsoring agency and direct costs include faculty time. In contrast, the Canadian practice relies on a combination of mechanisms to fund research activity – operating revenues to fund a portion of faculty time and a portion of indirect costs, special grants (some federal, some provincial) to fund part of the indirect costs, restricted grants to fund non-faculty direct costs and restricted grants to fund specific research faculty. To the extent those various funding sources have not kept pace with the cost of increased research activity the shortfall becomes yet another 'cost pressure' on the institution. Significant government investments in the 'innovation agenda' resulted in institutional contribution requirements, increased indirect costs, and shifts in academic workloads that were not well understood in the late 1990s but had major cost implications.

Another aspect worth noting is the cost pressure emanating from capital projects. Since capital projects tend to require contributions from multiple funding sources including institutional sources, universities are 'on the hook' for finding substantial resources to pay for capital construction and on-going operation. Over the past decade or so many universities have had to use debt financing to cover a portion of the capital construction commitment and then rely on operating funding to service the debt. That represents a change in policy and practice from what had been the 'norm' before the new millennium and has added yet another cost pressure.

Yet another aspect to consider is the increased emphasis on diversifying revenue (i.e. less reliance on government controlled grants and fees) over the past decade or so. Universities tended to downplay the very important distinction between "gross" and "net" revenue. As long as total revenue scampered upwards institutions were able to manage the internal subsidies associated with revenue generating ventures; as revenue growth slowed, however, structural deficiencies emerged and some institutions are now faced with the prospect of scaling back or abandoning such activities.

Finally, the present day Canadian university is different from the Canadian university of the 1960s and 1970s. The term “multiversity” was first used over 50 years ago and applied, at the time, to a handful of research based universities in the United States.[5] Today the term ‘multiversity’ applies to many institutions in Canada. And it carries with it a complexity that is difficult to fathom for individuals outside academe. Managing the complexity is a task unto itself; managing it during a period of austerity and retrenchment requires a clear understanding of cost pressures and cost drivers including the cost of complexity.

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At this juncture, it may be useful to remind readers that the current financial circumstance is not new. Universities have experienced ‘boom and bust’ cycles in the past. The contextual differences today, however, are fourfold: demographic realities, especially in some regions; the implications of an essentially ‘unfunded’ expansion of mandates regarding research and service; the major impact of pension deficits, and greater complexity associated with a suite of factors ranging from size and rates of growth, through regulation and high levels of unionization, to the ‘knowledge explosion’ and knowledge economy. But at the core, the ‘work of the university’ is the same and the fundamentals are the same; academe is still a labour intensive industry where key measures of student engagement and research productivity are directly related to the quality of faculty and staff – which in turn has a bearing on compensation in academe – the topic of Working Paper #2.

[5] Clark Kerr coined the term “multiversity” to try to capture the reality of large universities that had evolved to be a ”whole series of communities and activities held together by a common name, a common governing board and related purposes”. Kerr is acknowledged as one of the architects of the modern public university – and, in particular, the American research university. He served as Chancellor of Berkeley and then President of the University of California (1958-1967) and was instrumental in the development of the California ‘Master Plan’ – a plan that recognized the distinct roles of community colleges, state universities and the ‘flagship’ University of California system.
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