

Looking Back, Looking Forward: Canadian Higher Education Research on Tuition Fees

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Article abstract

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LOOKING BACK, LOOKING FORWARD: CANADIAN HIGHER EDUCATION RESEARCH ON TUITION FEES

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Abstract

To contribute to the 50th Anniversary Issue, this scholarly article will review the literature on Canadian higher education tuition fees over the past 50 years, focusing on the major theme of higher education planning, and the role higher education research has played in the policy-making environment. Examining both the French and English language scholarship published by the CJHE, the researchers will describe the contributions, and provide commentary on opportunities for impactful research for the future. Presenting a case study in Québec, the article will identify emerging trends that are anticipated to shape this higher education policy area in the future.

Keywords: tuition policy, tuition fees, scoping review, planning

Résumé

Pour contribuer au numéro du 50^e anniversaire de la revue, cet article scientifique dresse un tour d'horizon de la littérature sur les frais de scolarité en enseignement supérieur au Canada, au cours des 50 dernières années. Le texte se concentre sur le thème principal de la planification de l'enseignement supérieur et sur le rôle que la recherche en enseignement supérieur joue dans l'environnement des politiques relatives à ces établissements. En examinant les travaux et résultats de recherches publiés en français et en anglais par la RCES, les chercheurs décrivent leurs contributions et fournissent des commentaires sur les possibilités de recherches percutantes pour l'avenir. Présentant une étude de cas concernant le Québec, le document indique les tendances émergentes qui devraient façonner le domaine des politiques d'enseignement supérieur à l'avenir.

Mots-clés : politiques de droits de scolarité, frais de scolarité, politiques d'enseignement supérieur, planification

Introduction

Over the last half century, the introduction or increase of tuition fees has been a notable global phenomenon, and a significant policy shift in higher education financing arrangements. For more than five decades policy makers, researchers, and leaders within educational communities have deliberated about the ways in which to balance affordability and availability of higher education, in a context where demographics, economic conditions, and priorities for higher education continue to shift, and where there is often an information lag to inform evidence-based policy making. Typically questions regarding post-secondary ed-

ucation tuition policy research include the following: What is the appropriate balance of cost-sharing between individuals and the public? What higher education financing policies support system planning or expansion, or develops human capital? The literature has shifted over the last 50 years, reflecting key questions on the economics of higher education and related policy debates.

Approach

In this article, we assess and characterize the research published in the *Canadian Journal of Higher Education* (CJHE) on Canadian tuition fees over the past 50 years.

Using the general approach of a scoping review, our intention is to clarify and set context for later systematic reviews, and to identify potential questions for further research. Scoping reviews are helpful to determine the scope or coverage of a body of literature on a given topic, provide information on the volume of literature as well as an overview of its focus, and are particularly helpful to inform practice (Arksey & O'Malley, 2005). The full CJHE archive was assessed for articles in English and French related to tuition fees, droits de scolarité, frais de scolarité, or frais d'enseignement. Searches were expanded to include cost, economics, and finance, and results were evaluated for the extent to which tuition fees were a significant object or component of study. We identified 57 English language articles and eight French language articles, which we mapped and coded to support descriptive analysis. Then, we turn to a provincial example to explore future policy issues related to tuition fees and higher education planning.

Looking In: The Contribution of the Canadian Journal of Higher Education

The description of the CJHE collection of articles related to tuition fees are as follows. Of the total number of articles retrieved, 12% were French language publications. In terms of focus of study, 55% were national or federal in scope, followed by Ontario at 23%, Québec at 11%, and Alberta at 6%; we found scant attention specific to British Columbia, the Prairies, and Atlantic Canada, and none were specific to the North. Of all the articles, 42% of articles focused on questions specific only to university tuition fees, and not inclusive of all institutional types. Additionally, 46% have conceptual frameworks based in economics or deploy specific economic methods, with 80% broadly framing the problem as a public policy and finance issue.

The collection illustrates key themes, which reflect the progression of HE policy problems faced by governments over the past 50 years. Canada faced practical problems of financing, system and capacity planning, and understanding the political economy of institutions in a newly expanded mass education system, including the role of the labour market. Questions related to student-as-consumer, affordability, and the appropriate

balance of public and private investment in higher education emerged, along with pressures of expansion, contraction, and fiscal pressures in all political jurisdictions in this country (namely, the severe deficit and debt problems experienced by federal and provincial governments). There are notable changes in scholarly attention over time, which we describe here associated with their decade.

An early theme in the journal was the inclusion of select bibliographies or inventories related to higher education in Canada (Harris et al., 1974, 1975; Houwing et al., 1974; Lemelin, 1982; McCormack Smyth et al., 1976; Stager, 1982), reflecting an interest in establishing knowledge of the field. Interestingly, several of these efforts were a result of cooperation with the research division of the Association of Universities and Colleges Canada (the AUCC Research Inventory), the national institutional membership association of the time. Harris et al. (1974) wrote that the journal (titled *Stoa* at the time) intended to publish these supplements with each issue, a practice which continued for about a decade. Tuition and related higher education finance were only one aspect of these publications, which drew upon a diverse range of topics, disciplines, and authorship, including institutional researchers, librarians, government departments, extension departments, and scholars from a number of different disciplines (Houwing et al., 1974; Michaud & Houwing, 1971). Later, faculty associations, institutional membership associations, professional associations, and other learned societies were contributors (Harris et al., 1974). While the last such inclusion in the journal was in 1982, this need clearly continued and was filled through aggregating works commissioned by government or developed by other parties (for example, see Tandem, 2007).

1970s: Focus on Growth and Financing

The journal published 14 tuition-relevant articles between 1972 and 1979, including the bibliographies just discussed. Early works in the journal focused on higher education financing arrangements, system building, and student finance, with calls to action on specific areas of research as well as public policy. Higher education participation rates in Canada had increased rapidly from 1955 to 1971, and tuition fees rapidly increased from 1958 to 1968, followed by a decline in the 1970s in all

provinces (Vanderkamp, 1984). Thür (1972) and Stager (1972) both encouraged further work related to finance in addition to development of higher education policy, with Stager focusing specifically on the mechanisms and the role of the federal government in financing. Hartle (1973) too focused on the 1974 expiry of the federal-provincial cost-sharing arrangements for post-secondary education and the future role of the federal government in financing arrangements. Oliver (1973) extended the consideration further, to comment on the evolution of the university financing system from the 1960s to consider several policy alternatives for the 1970s. Similarly, Parr (1973) pursued the question of both university and college financing arrangements, considering the relationship between the labour market. Clark (1975) in his report on the 1975 Annual Conference of the Canadian Society for the Study of Higher Education (CSSHE) noted three main points of concern in the general discussions of the conference: questions of government control, financing higher education, and the parity of esteem among colleges and universities. Farine et al. (1977) also considered higher education financing, introducing for the first time in the journal the question of a contingent repayment student assistance program as part of the reconsideration of the balance of cost-sharing between students and government. In a similar vein, Mehmet (1979) examined the question of Ontario university financing and graduate income, finding university education to be a significantly regressive policy, tending to create wealth for, and shift income distribution to, the higher income groups.

Canadian higher education finance research in the 1970s focused on questions of resource allocation, returns to investment in higher education, institutional productivity, alternative modes for financing institutions and students, redistributive effects of financing arrangements, determinants of demand, and rationalization of capacity in light of changing conditions of the labour market (Stager, 1982). Reflecting on the general research productivity in the field of higher education finance in the 1970s, Stager (1982) noted that most of the research undertaken in the 1960s and the early 1970s was responding to government priorities. Governments had identified education as a major source of economic growth, and in support of the need for rapid expansion and diversification of higher education. Governments were actively seeking assistance in planning and budgeting, so as a result researchers found a motivated au-

dience for their work. Similarly, Stager observed that in the second half of the 1970s this research production was slowed, in part due to changes in government interest, given other competing needs in public spending, and in part due to challenges in the economic climate. Foreshadowing future concerns of scholars for decades to follow, Creet and Trotter (1978) note frustration with enrolment and institutional finance data, and ongoing concerns regarding the data management and leadership needed for effective modelling and planning for the universities.

1980s: Changing Concerns on Financing and Participation Rates

Research published in the 1980s reflected changing concerns amidst the shifting context of demographics and the fiscal state of Canadian governments. Stagnating economic growth, increasing unemployment, and shrinking state revenues, combined with rising expenditures and growing deficits, resulted in a reassessment of the social and economic priorities of the state, one outcome of which was the reconsideration of financing of higher education and the structure of institution revenues (Decore & Pannu, 1986).

The journal published 10 tuition-relevant articles between 1982 and 1988. Early in the decade, two articles focused on continuing questions established in the 1970s; Meng and Sentance (1982) examined the redistributive effects of university education in Canada, questioning the effectiveness of the idea that universities afford economic equality, and Downey and Fritz (1982) discussed policy alternatives of voucher schemes in the context of changes to the federal-provincial financing arrangements (Established Programs Financing), building on the notion that student choice in determining the allocation of resources to and within higher education would meet some federal government policy priorities. This was followed by Dean (1987), who provided a critique of the federal Senate Report on Postsecondary Education, which recommended a major change in the way that the federal government provides support to the provinces for higher education; he argued that the federal government has been reducing its provincial support for higher education since 1972 as a means to eliminate the federal government presence “from an area where the Senate committee thinks there is no clearly defined rationale for

the federal government to be involved in the first place” (p. 22).

Researchers continued monitoring and assessing levels and mechanisms for federal transfer payments to provinces, and the overall financing of higher education. A consistent theme linked these federal transfers to questions of access to seats; in both the 1970s and 1980s, there were questions on the limits of systems to provide the needed capacity to meet enrolment demand. Decore and Pannu (1986) examined changes in financing to education from 1970 to 1985, both in terms of intergovernmental relations and the fiscal crisis of the state. Questions emerged regarding forecasting enrolment and related financing challenges, undertaken both by educational institutions and governments, to understand the interaction of demographics, public policy, and the labour market in the pursuit of improved models for enrolments, required for finance and capacity planning. Stager (1982) noted a shift in researcher attention, arising as a result of decreased enrolments during the 1970s, institutional financing concerns, needs for models of resource allocation, and questions regarding labour market outcomes of university graduates. Foot and Pervin (1983) examined the significant determinants of enrolment rates in Ontario, including questions of price sensitivity, motivated by overall questions regarding the stabilization in enrolment rates in Ontario over the 1970s and system capacity planning for the 1980s. Vanderkamp (1984) analyzed university enrolment in light of participation rates, cost factors, and labour supply, motivated by questions about the possibility of a further decline in university enrolment and the university age group, based on declining birth rates. He determined that government policies related to student financial aid and tuition fees were not likely responsible for increased participation rates from 1955 to 1970, finding little relationship between the patterns of enrolment and tuition fees. He also noted that tuition fees had emerged as significant political and provincial social policy issue, an observation in the journal which foreshadowed much of the policy activity to follow.

The 1980s also saw the introduction of some new ideas in the journal. Thinking about students as consumers, Pain (1986) examined the university student-institutional relationship and student decision making by applying a consumer behavior framework. Translating the problems of public policy to questions of institutional management, Crespo et al. (1986) examined the man-

agement of budgetary austerity in universities through the lens of department chairpersons, and Holdaway (1988) introduced into the journal questions regarding public policy that could increase support for international university students, in light of substantial declining international enrolment in the 1980s.

1990s: Growing Questions of Privatization as Public Policy

Although the number of publications in the journal dropped in the 1990s, with six articles from 1991 to 1998, there was continued introduction of new ideas and research questions, notably questions of privatization. Pike (1991) responded to pressures within Ontario to permit private universities and, through a case-study, evaluated the potential benefits of a challenge to the public monopoly in university education in Ontario, including an espoused benefit of extending capacity. Looking at Alberta, Rae (1996) considered privatization initiatives in that province, noting that this move is identified as a shift in the balance of financing arrangements as well as an ideological shift claiming to safeguard public interests.

Reflecting international policy conversations of the time, McDonough and Wright (1998) introduced to the journal a developed idea of a private sector income contingent plan, in which the private sector would provide student loans such that, according to the authors, financial accessibility barriers to education would be eliminated. In contrast to time-based repayment loans, income contingent loans are repayable when and only if a graduate's income meets or exceeds a certain threshold. This type of loan program has been adopted in a variety of countries since the late 1980s (Chapman et al., 2020); the history of Canadian policy discussions on this topic is covered in Wellen et al. (2012).

Stager (1996) addressed tuition fee policy questions directly through an empirical assessment of Ontario university data from 1960 to 1990, privileging the notion of return on investment. He concluded that doubling tuition fees from 1990 levels, or abolishing fees, would change the rates of return by only about two percent in either direction, and doubling fees in the major professional faculties would leave rates of return still in excess of returns to arts and science.

Finally, student finance emerged in the 1990s as a

particular frame for understanding public policy implications and impacts. Introducing student debt and financial aid in the first systematic manner, Hiscott (1996) explored educational financing and debt patterns for graduates of Canadian colleges and universities, noting markedly higher debt over time, and Looker (1997) examined factors shaping higher education participation, identifying cost factors as a major deterrent.

2000s: New Focus on Policy Histories, Contexts, and Impacts

The journal published 15 tuition-relevant articles between 2000 and 2009. Questions and concerns about increased privatization of universities continued, often framed in light of changing government priorities and fiscal conditions. A significant number of publications focused on individual provincial contexts, policy histories, and policy issues. Placing policy changes in historical context, Barnetson and Boberg (2000) reviewed three Alberta policy changes in higher education that started in 1994, including shifting the balance of public funding and funding derived from tuition fees, shifts that were responsive to the province's deficit and debt elimination priorities. Similarly, Tremblay and Paquette (2000) framed their analysis of Québec's university financing in an international, national, and historic context to discuss the province's model of financial diversification of funding sources including increasing the proportion of funding from tuition fees. Young (2002) outlined seven major higher education policy changes in Ontario that make use of market mechanisms while enhancing state control, particularly in resource allocation. In a case study of an Ontario university, Quirke and Davies (2002) critically evaluated the effects of higher and de-regulated university tuition fees on students, characterizing this increase as a new entrepreneurial trend in higher education. Jones (2004) charted and assessed major changes in Ontario's policy environment in the 1990s, including privatization and marketization, noting that shifts in higher education finance policy led to a shift in the balance of public and private sources. Examining the case of British Columbia, Dennison and Schuetze (2004) reviewed key changes in public policy that opened higher education to market forces, noting that these were framed in terms of enhancing accessibility and choice; in a similar vein, Schuetze and Bruneau (2004) situated Canadian high-

er education reform in an international context, including increased reliance on market mechanisms, private sources of funding, and new forms of university governance and management. Boggs (2009) summarized a 10-year policy history on tuition fees in Ontario and discussed active policy challenges and options, noting the ongoing tensions between the policy goals of financing higher education and ensuring student accessibility.

As with previous decades, others focused efforts on pan-Canadian research. Responding to the erosion of public funding of universities and increasingly diversified funding bases, Mount and Belanger (2001) studied the views of university presidents on several key areas, including funding, institutional directions, and the impact of the corporate sector. Giroux (2004), in his remarks to the 2003 Annual Meeting of CSSHE, commented on the demands on universities, noting that government cutbacks and rising tuition fees had shifted the balance from public funding to private funding, with no net gain to universities in a context of enrolment growth, challenging universities to meet future demand. Using both an economic and a student development lens, Côté et al. (2008) evaluated high school students' perceived return on investment in education, and the effect of those perceptions on actual participation. Looking at the role of students in shaping policy, within a historical study of the student movement, Moses (2001) described the efforts of different student organizations in shaping government-funded mass student-aid and tuition fee policy. Wellen (2004), responding to the policy idea of income contingent loans and the prospect of tuition fee increases, argued a case for income contingent loan programs as a means for higher education expansion in light of social equity and affordability aims.

Higher education participation and the relationship between tuition fees and decision making also continued to be an area of scholarly interest. Thompson (2003) examined the prevalence and effectiveness of tuition-waiver policies for older adults in Canadian universities. Christofides et al. (2001) examined socio-economic influences on participation rates, considering family income. Using individual data from the Canadian Labour Force Survey, Johnson and Rahman (2005) examined the role of economic factors, including the level of tuition, in university participation decisions, noting regional variation, institutional variation, and national variation by gender and over time. Also using an eco-

conomic lens, Christofides et al. (2009) identified factors, including measures of affordability, affecting university participation from 1977 to 2003.

2010s: Focus on Student Finance and Policy Debates

The journal published 11 tuition-relevant articles between 2010 and 2016. Student finance concerns continued to attract scholarly attention. In their study of family approaches to saving for post-secondary education, Sweet et al. (2010) found that income and home ownership were strong predictors of savings in immigrant families, but both immigrants and non-immigrants share similar parenting beliefs and practices that encourage investment. Peng and Yang (2010) examined the relationship between rising tuition fees and student labour market decisions, including total number of working hours and seasonality. Finnie et al. (2015) investigated access and a number of barriers to higher education including family income and parental education, further developing our understanding of affordability. In one western province, Calder et al. (2016) described international students' experiences with finances and other related issues, including ability to work or find employment, in light of costs of education and examining the perceptions of rural secondary students, and in Alberta, Friesen and Purc-Stephenson (2016) investigated perceived barriers to pursuing a university education.

Continued publication of policy-oriented studies reflected an ongoing scholarly interest in government policy activity related to tuition fees. Undertaking a form of policy analysis and taking a new approach, Pringle and Huisman (2011) applied a management conceptual framework to one province to analyze the competitive positioning of Ontario universities in light of increasing pressures. Several new policy histories examined both provincial and federal dynamics. Using frameworks from political science, Smith (2011) examined the policy history of Manitoba's higher education system from 1967 to 2009, evaluating changes to provincial legislation to assess structural change and trends associated with globalization, and Rexe (2015) examined the social, political, and economic factors in a case study of a tuition policy change in Ontario. Focusing on policy developments in Ontario, Chan (2015) examined perceptions of university officials about the efficacy and effectiveness of newly introduced government measures of institution-

al performance and accountability in light of government policy goals. Piché and Jones (2016) explored the policy debate about institutional diversity in Ontario, especially within the university system, focusing on issues of quality, accessibility, and funding. Finally, examining the federal policy-making sphere, Wellen et al. (2012) analyzed several key federal policy histories, providing insights into intergovernmental relations, goal-setting, and policy formation. Finally, focusing on critical policy issues of institutional finance, Lang (2016) examined major government steering policy developments that affect questions of tuition and access.

Summary

The central motivations in this journal focus on public policy and finance in addition to questions of social equity; as a result, the scope of theoretical commitments is limited, as are lines of theoretical debate. The main approaches emerge from economics, sociology, history, and political science. In terms of methods, case selection and uneven deployment of theoretical frameworks presents challenges to generalizability and validity. Strong empirical work in finance (Wu, 1985) and economics (Vanderkamp, 1984) had largely moved out of the CJHE, a trend which may be reversing (Bouchard et al., 2020). The task of consolidating knowledge which featured early in the journal has been taken up elsewhere, mostly outside of scholarly journals.

Overall, we found diversity in problem focus, deployment of conceptual frameworks, and subject for analysis, which is a positive reflection of CJHE researchers. We observe that some provinces have been underexamined, as has the college sector. As a result, the full fabric of the pan-Canadian experience, with its diverse institutional arrangements, social contexts, and policy-making dynamics, is not fully represented in the journal. Publications on higher education finance policy have focused heavily on questions of federal and provincial responsibilities. One area of interest was the potential impact on students of significant structural changes in the funding of higher education, and the barriers and impact of increases in tuition on social equity. Privatization and marketization as public policy, together with continued policy scrutiny of the federal-provincial government funding relationship, set the context for understanding impacts of government policy on participation and attainment, as well as debt and labour market outcomes.

At the time of writing, the decade of the 2020s has hardly begun; however, three interesting publications perhaps are indicative of future trends in scholarship. First, Bouchard et al. (2020) returned to an earlier tradition within the journal and in the broader literature of empirical work related to funding formulas, enrolments, and the public policy issues related to planning and institutional financing. Second, two articles focused on critical questions of international education. El Masri (2020) examined Ontario's international student funding policies, and the policy history of one graduate scholarship, and Buckner et al. (2020) examined what activities, practices, and rationales Canadian colleges and universities adopt in light of internationalization goals.

Looking Forward: Future Issues in Tuition Fees and Higher Education Planning,

A Case Study of Québec

Since the expansion of higher education in the post-war period, a significant effort has been made to develop forecasting models on the provision of post-secondary places, involving a variety of modelling factors including tuition fees (see Creet & Trotter, 1978; Stager, 1982). As noted in the previous section, attention to these models has shifted over the decades, and has largely been absent from the scholarly literature since the 1980s. Changing environmental conditions in the province of Québec illustrate the need for increased focus on the development and refinement of predictive models to support the adequate planning for higher education. While Québec is often an outlier in Canadian higher education, this case study raises questions pertinent to other provinces, and illustrates the importance of the research community's readiness to support policy discussions and evaluate governmental responses to policy problems.

This section will examine the issue of planning demand for higher education in the case of Québec, including the question of tuition fees. The challenge of forecasting and planning higher education is not strictly limited to Québec, as similar challenges of modelling intersecting social and economic policy exist in other provinces.

Capacity Planning

Québec has used government models to forecast university demand and to support system capacity planning, in much the same way that is found in the early literature reviewed in this study, using key population information. However, key changes in the population, lagging data, and the impact of interacting public policy changes have destabilized that historical model, and as a result, the province is facing the consequences of underestimated future demand. This section will review the background to the system planning model issues and discuss the new higher education system finance problem that has been generated as a result.

Recent history has shown problematic enrolment forecasting produced in Québec. In 1998, the Québec Ministry of Education (MEQ) published a forecast of full-time equivalent student (FTEs) enrolment in Québec universities until 2011–2012 (Lavigne, 1998). At that time, it was predicted that enrolment was already at a peak, which was estimated to be about 150,000 FTEs in 2011–2012. The following year, university enrolment was already above anticipated targets. Two years later, Lavigne (2000) forecasted a peak in 2001–2002, then a decline to 155,000 FTEs in 2013–2014. In 2002, the forecast was changed to show anticipated peak enrolment at 161,000 FTEs in 2013–2014, and then decline to reach 131,000 FTEs in 2031–2032. (Lavigne, 2002). In fact, there were 239,000 FTEs enrolments in 2013–2014 in that year, an error of 48%. In 2020 alone, there were two adjusted published enrolment forecasts for 2027–2028 (239,000 and 248,000 FTEs for the same year), a 3.8% correction made only five months later.

To test the current government assumptions of predicted future enrolment (Gouvernement du Québec, 2020), recent research was undertaken using a two-step regression model with instrumental variables (Bouchard St-Amant et al., 2022). That study estimates that, contrary to government models, forecasted enrolment will be 289,000 FTEs in 2030, a difference of 38,000 FTEs, and this estimate probably remains a very conservative estimate. The most significant factors that have led to this underestimation of university attendance years are (a) the increase in the cohort size, or proportion of students eligible for university admission (CEGEP graduates); (b) the increase in the participation rate of university attendance; and (c) other public policy interactions which affect university enrolments.

Cohort Size

In term of assessing the future cohort size relative to government modelling, observe the rate of population growth of Québec in Figure 1, which illustrates growth since 1973.

As the analyses carried out by governments are generally based on outdated data (reports produced ranging from T-2 to T-5, which base their rationale on data produced prior to the production of the report), it should come as no surprise that at the beginning of the first decade of the 20th century, a decline was planned in Québec—yet that is not what was happening. To be convinced of this, we refer to Figure 2 on the population of Québec reported by Roy (2007), in a study to plan energy demand.

We observe that the data presented in the 2007 article dates from 2003 for the Institut de la statistique du Québec (ISQ) and from 2005 from Statistics Canada. The ISQ forecasts used by the Government of Québec assume a population peaking at just over 8.1 million inhabitants in 2031. In reality, the Québec population reached 8.6 million in 2021, exceeding the forecasted future peak by 500,000 persons. Two factors explain

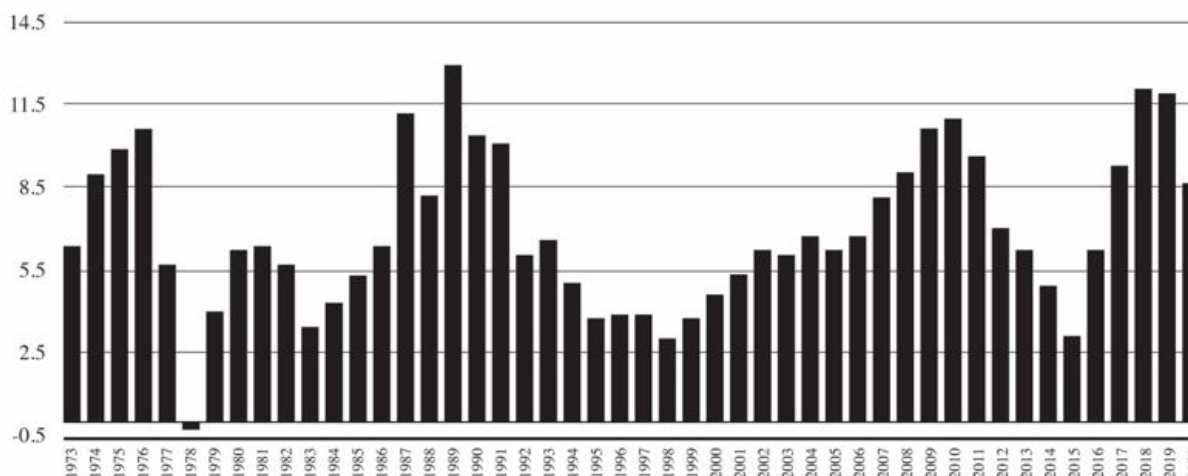
this major forecast error: birth rates and migratory flow. Currently, the ISQ forecasts that there will be 9.1 million inhabitants in Québec in 2031, which is expected to be an underestimate, as the population of Québec grew by nearly 70,000 people in 2020, and nearly 100,000 people per year for the two previous years (see Figure 1). To reach 9.1 million in 2031, it would only take an increase of 50,000 people per year for 10 years. However, Québec has only experienced two years in the last 20 years with an increase of this order. As a result, it is projected that Québec will reach a population of 9.1 million three or four years before the date currently provided by the ISQ.

Participation Rate

Over the past 20 years, the Québec government has aimed to significantly increase the rate of university participation given historically low rates (Maltais & Umbriaco, 2020), although this public policy goal has not been integrated by the Institut de la Statistique du Québec into its model (Maltais & Umbriaco, 2020; Maltais, 2021a, 2021b, 2021c). Even if the 18–24 age group decreases slightly, the increase in participation rate from 19% to more than 30% leads to a very significant net increase.

Figure 1

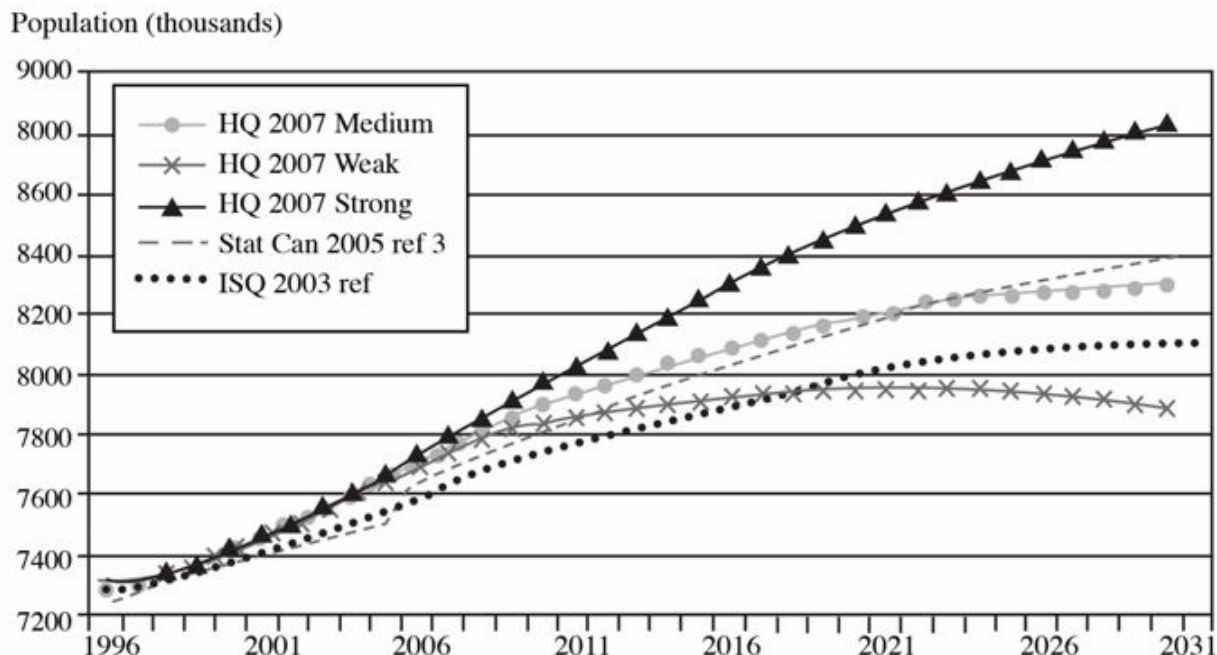
Québec population growth rates, 1973–2020



Note: Figure 1 shows Québec's population growth rate per 1,000 population from 1973–2020. Source: Statistics Canada. Table 17–10–0009–01 Population Estimates (formerly CANSIM 051–0005).

Figure 2

Forecasted Demographic Change in Québec



Note: Figure 2 shows forecast of households in Québec according to different scenarios, 2001–2031. Source: Roy (2007) using data from Hydro-Québec, Statistics Canada, and Institut de la statistique du Québec.

Further, Québec plans to increase high school graduation to 90% by 2029 (Gouvernement du Québec, 2017), which will increase the college eligibility by more than 10%, and plans to increase college graduation rates by 10%. If these policy targets are achieved, Québec will be faced with financing compounding effects.

Table 1 describes the effects of meeting targets of educational policies with a demographic hypothesis fairly close to the current situation (+ 20% of the number of young people aged 17–21), by postulating that the interest in higher education remains relatively stable. We can therefore observe that by 2030, even without an increase in the participation rate for the same reference group, reaching the targets reflected in Québec policies could mean an increase in university demand by 57% from the current state and probably not less than 20%. The scenario presented by Bouchard St-Amant et al. (2022) is therefore a floor, as there are other potential drivers of increases. These forecasts do not include any potential future demand increases resulting from changing immi-

gration levels, anticipated increases in international student demand, or increases to adult attendance.

Public Finance and Tuition Fees

These modelling errors pose a serious system planning problem to accommodate unexpected growth, as well as a significant public finance issue, as government finance planning has been based on modelling that has predicted decreased demand rather than an increase (Maltais & Umbriaco, 2020; Maltais, 2021a, 2021b, 2021c). In short, there is a likely increase of at least 30% in university attendance over the next 10 years. There is no current capacity to absorb the additional demand, and more government investment would be necessary; a 30% increase in the university population represents more than 70,000 FTEs, or the requirement of nearly three additional institutions the current size of McGill University, which was itself 26,016 FTEs in 2019–2020. It is in this context that the question of tuition fees arises.

Table 1

Educational policy effects on projected post-secondary demand in Québec

Current scenario (approximate) T ₁		10-year hypothesis (policy targets reached with constant participation rates and population growth) T ₂	
100 youth 17–21		120 youth 17–21	
80 graduates	Graduation rate of 80%	108 graduates	Increased graduation rate to 90%
60 attend CÉGEP	Participation rate of 75%	81 attend CÉGEP	Participation rate of 75%
39 graduate CÉGEP	Graduation rate of 65%	61 graduate CÉGEP	Increased graduation rate to 75%
28 attend university	Continuation rate of 72%	44 attend university	Continuation rate of 72%

The Maple Spring crisis (2012–2013), saw a province-wide, sustained student protest against proposed increased tuition fees in light of government austerity measures (Bégin-Caouette & Jones, 2014). In the wake of the Maple Spring, Québec established an acceptable tuition strategy at the *Sommet sur l'enseignement supérieur* in 2013, and as a result has experienced a period of calm; fees have been annually indexed to household disposable income (Ministère de l'Enseignement supérieur, 2021, p. 116). Due to the social and political culture in Québec, it is unlikely that tuition will take a relatively larger role in university funding; given the lessons from the Maple Spring crisis, it is unlikely that any Québec government will take the risk over the next 10 years to generate a new crisis of confidence and be forced to address this issue again. As a result, the anticipated student contribution through tuition will remain at around 19% (Quirion et al., 2020). Given that indexing tuition fees is settled public policy, the Québec government will have to meet all cost for growth itself, both growth in system costs as well as growth in demand.

Finally, we cannot consider the question of future demand and the question of tuition fees without anticipating the effects of the health crisis linked to the COVID-19 pandemic, which we are still experiencing at the time of writing. The Canadian and provincial governments have put in place unprecedented measures to support students during the pandemic, including provid-

ing remote learning, mental health supports, and other infrastructure including fast-tracking high-speed internet to underserved regions. Given the overall effects of the pandemic on learning, on educational delivery, and on future achievement, and the immense costs of the pandemic to date, tuition fees may not be able to increase beyond inflation due to the political difficulty in imposing a larger share of costs on this generation of students. Current affordability is also premised on continuing low interest rates, but inflationary pressures could create a different rhetoric, one that will require significant economic growth and human capital enhancements resulting in the push for universal higher education. Workforce needs of Québec is also anticipated to influence tuition fees. For example, in 2021–2022, Québec's Ministry for Higher Education is planning to offer new grants to all students in specific fields of study, designed to attract graduates to areas of labour market need. As this trend is anticipated to grow over the coming years, the exceptional financial assistance measures developed during the pandemic could arguably become more established in the medium term.

Discussion

Early work in the journal showed intentional relationships between academics and stakeholders in the policy-making environment, a dialogue which generally

has shifted away to other venues. One key example is the modelling of student demand, an example which our case study shows has significant impact on government, institutions, and students. In terms of volume and focus, scholarly production of policy-analytic research in this area—including publication in the CJHE—lags behind the various publishing and distribution channels outside of the peer-review process. While some questions remain unsettled in this policy arena, largely because of the conflicts related to beliefs and resources, it is unclear the extent to which current research programs and venues suffice for policy makers, and what value researchers might be yet to provide to policy areas. Nor is the use of research by policy makers in this area fully explored or understood, although use of educational research and its impact in policy making is an area of interesting scholarly enquiry (Bensimon et al., 2004; Birnbaum, 2000; Kezar, 2000; McCormick & McClenney, 2012; Ness, 2010; Perna, 2016).

We have deployed a provincial case example here to illustrate future policy issues related to tuition fees and higher education planning, harkening back to examples early in the journal history on system capacity planning, rapid expansion, financing arrangements, and tuition fees (Stager, 1982). This example illuminated a relative weakness in a policy-analytic community to plan for future higher education demand. This case reminds us that higher education planning requires coordination over different policy areas; for Québec, it will be a complex financial problem to add significant capacity to the Québec higher education system while holding their tuition fee commitments in order to meet important public policy goals. Elsewhere in Canada, there are different demographic and higher education system planning challenges. In an example of a smaller province with different planning problems, Manitoba significantly lags the national average in attainment rates, and there are identified post-secondary education deserts due to geography and population distribution; a provincial review recommended increasing the number of college graduates by 15% over five years (Usher & Pelletier, 2017). In contrast to Québec, in Ontario there are changing provincial demographics which indicate a declining domestic student population and demand, which presents other planning challenges (Weingarten, et al., 2018). The project of system building for access is not complete. Reflecting back to the work undertaken at the origin of

the Society and in this journal, we offer a call to action to meet these challenges in the spirit and of those whose work contributed to solving the problems of a previous generation.

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