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Manitoba

**Assessing the Impact of Ontario's Double Cohort
on Manitoba Post-Secondary Institutions**

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EXECUTIVE SUMMARY

While the double cohort has led to considerable activity and anxiety in Ontario, **the anticipated enrollment impact in Manitoba's post-secondary system appears to be negligible.** The only impact of concern is related to the exacerbation of pressure on the system in terms of recruitment and retention of faculty. For the immediate term, however, it is unlikely that any action beyond ongoing observation needs to be taken to accommodate Ontario's double cohort in Manitoba.

INTRODUCTION

"Double cohort" is an unusual term that describes an unusual phenomenon. Generally speaking, the double cohort refers to the anticipated increase in the number of Ontario high school graduates beginning in September 2003 resulting from the restructuring of the secondary school system in that province. In recent years, Ontario has undertaken a series of program and capital infrastructure expansion initiatives in its post-secondary system in order to accommodate the anticipated increase in enrollment. Ultimately, such initiatives will represent an investment of billions of additional dollars in the Ontario post-secondary system.

While the majority of students are expected to stay in the province, some Ontario high school graduates may pursue post-secondary opportunities in other provinces. It is therefore important that, as a neighbouring province, Manitoba understands the implications of the double cohort on its own post-secondary system.

After looking at a more precise definition of Ontario's double cohort, this paper will look at the background of the phenomenon and action taken by the Ontario government to prepare for the onslaught. The paper will then turn to assessing how the double cohort could impact Manitoba's post-secondary system.

THE DOUBLE COHORT IN ONTARIO

Describing the Double Cohort

The term "double cohort" refers to the fact that, in June 2003, two senior year classes graduated from Ontario's high schools due to the elimination of the Ontario Academic Course (OAC), also known as Grade 13. "The abrupt escalation in the numbers of high school graduates could dramatically increase the annual demand for first-year places in Ontario's universities."¹ This could be exacerbated by a projected increase in the 19 year-old population in Ontario by 2005.²

Because secondary restructuring allowed students who entered high school in September 2000 to opt for the last of the five-year curriculum or the first year of the new four-year program, the impact of the double cohort could be spread out over more than one year.³ The Council of Ontario Universities (COU) predicted that a significant number of high school students will opt for the accelerated program.⁴

The Ontario Ministry of Training, Colleges and Universities believes that there are additional elements at work that influence the potential increase of post-secondary students. The Ministry has based its estimates on four separate factors that are feeding the concerns for growth in post-secondary education enrollment in Ontario. These are:

1. the double cohort;
2. the projected 19% growth in the 19 year-old population in Ontario by 2005, discussed above;
3. more adults participating in post-secondary education; and,
4. an increase of 0.1% in the post-secondary participation rate.

Based on these four factors, enrollment in Ontario colleges and universities may grow from approximately 220,000 students in 1998-99 to around 310,000 by 2005-06. The lion's share of this growth will occur in 2003 and then move through the system. Actual figures reported by the Ontario Universities Application Centre (OUAC) in 2003 reveal that more than 100,000 students have already applied for a university spot for 2003/04, a 46.7% increase over the application cycle in 2002/03, and a 69.9% increase over 2001/02.⁵ OUAC estimates that this could translate into approximately 70,000 students registering this fall, 7,000 to 8,000 more than government and universities planned for.⁶

Ontario's Preparations

The projected enrollment increases have implications in terms of capacity in Ontario's post-secondary system. Key areas of concern include the ability of current program options to meet the demands of increased enrollment, the numbers of faculty members required to meet the growing demand, and the physical infrastructure to accommodate the growth in the system.

Program Options: The Government of Ontario has undertaken a set of new initiatives that will allow Ontarians greater opportunities in terms of the programs they can undertake.⁷ These initiatives include a pilot program allowing for a maximum of 24 applied degree programs to be offered at Ontario colleges - the first time colleges are able to offer degrees in that province. Further, the government is changing requirements to allow private institutions to more easily offer degree programs. The objective of these actions is to provide "a space in post-secondary education for every qualified and motivated student."⁸

Further, through the Access to Opportunities Program, \$228 million has been dedicated to increase opportunities for students in high technology programs at colleges and universities.⁹ One should note that this program is somewhat controversial as it appears to favour science and technology programs over liberal arts programs. However, the Ontario government defends the program, arguing that the program does not reduce funding for liberal arts programs. Rather, the program is designed to redress the low number of technology graduates produced by Ontario post-secondary institutions.¹⁰ Regardless of this debate, the program was established to create 23,000 new spaces in colleges and universities specifically for technology programs.

Related to program options is the issue of student financial assistance. The Ontario Student Assistance Program (OSAP) has received additional funding to help ensure that students will not be adversely affected by the increased number of high school graduates in the first ten years of the 21st Century.¹¹

Faculty Growth: The projected growth in enrollment comes at the same time as there is an expected increase in the rate of retirement within the teaching community. The COU states that 29% of university faculty are between the ages of 55 and 64, and estimates that there will be a need to replace 7,500 professors due to retirement alone.¹² Perhaps more significant, the age demographics among university instructors are similar throughout North America. At the same time enrollment is projected to increase, Ontario may be faced with the possibility of having to fill many academic positions while competing against every other jurisdiction on the continent for qualified staff.¹³ The anticipated increase in enrollment will only exacerbate this situation. Overall, retirements combined with enrollment growth may require that Ontario universities hire as many as 13,500 faculty in this decade.¹⁴

Government has responded by increasing operating grants beginning in 1999/00. The total grant to Ontario post-secondary institutions was \$2.7 billion in 2002/03, and Ontario is committed to providing \$368 million more for 2003/04.¹⁵ The Ministry is continuing to examine issues such as faculty recruitment and is providing advice as required.¹⁶

Physical Infrastructure: Beginning in 1999/00, the Ontario government began to invest in the capital infrastructure in universities and colleges. Through the government-wide initiative called Superbuild, the Ontario government dedicated \$742 million in 1999/00, and \$286 million in 2000-01 for post-secondary infrastructure. This funding will support 59 new capital projects to create an additional 73,000 spaces for students and also support the renewal and modernisation of existing facilities to create more new spaces. In 2002, the province announced a second round of Superbuild projects in recognition that more space was needed.¹⁷ Additionally, since 1999/00, Ontario has invested \$337 million in its Facilities Renewal Program to improve existing facilities at college and university campuses.¹⁸

Concluding Thoughts on the Double Cohort in Ontario

The impact of the double cohort and the other demographic changes lead to potential enrollment growth unprecedented in recent history in Ontario. This has implications for post-secondary institutions and on the support provided by the Government of Ontario. While there is some debate about surrounding adequacy of government action in Ontario,¹⁹ government has taken steps that may help to ensure continued access to post-secondary education.

Clearly, the immediate concern regarding the projected growth in enrollment is the impact that the double cohort will have on undergraduate education in the Ontario post-secondary system. However, one can anticipate an impact on graduate and professional studies two to four years after the double cohort enrolls in a university.²⁰ "Graduate and professional programs may not be [on the agenda] yet within the [Ontario's] double cohort working group, but universities with significant enrollment in post-graduate programs are expected to keep the issue alive."²¹

THE IMPACT OF THE DOUBLE COHORT ON MANITOBA

The Government of Ontario is responsible for ensuring sufficient capacity to absorb the double cohort in the post-secondary system of that province. However, Manitoba must ensure that Ontarians seeking post-secondary educational opportunities in this province do not adversely affect the opportunities of Manitoba students. Thus, it is necessary to understand the double cohort and what it means for post-secondary education here in this province. This section of the paper will explore the historical enrollment of Ontario students in the Manitoba post-secondary system, issues related to capacity and the anticipated impact of the double cohort here in Manitoba.

Patterns of Interprovincial Student Migration

While data on college students are not available, Statistics Canada reports, albeit dated information, that at the undergraduate level, at 9%, Manitoba had among the lowest number of students leaving the province to study.²² Of the 1,365 Manitoba undergraduate students who left the province in 1993-94, many (40%, or 546 students) studied at Ontario universities.

There are two possible effects related to the double cohort arising from the number of Manitobans studying in Ontario. First, should the double cohort lead to an increased demand from Ontarian students in the post-secondary system in Manitoba, there could be a negative effect on the access Manitoba students have to Manitoba colleges and universities. Second, increased congestion in Ontario post-secondary institutions could mean that those Manitobans who go to Ontario to study could have a more difficult time getting into an Ontario post-secondary institution. Either possibility or both in combination could mean that more students could be looking for access to a Manitoba post-secondary institution. This has the potential to create a capacity issue in Manitoba.

However, the likelihood of a stampede of Ontarians coming to Manitoba is remote. While the majority of other Canadians studying in Manitoba are from Ontario, the majority of Ontarian

undergraduate students leaving that province to study tended to go to universities in Quebec (30%), Nova Scotia (18%) BC (14%) and Alberta (4%).²³ The remaining 16%, or 1,725 undergraduate students go to the remaining five provinces, including Manitoba. Evidence suggests that a relatively low number of Ontarians come to Manitoba to study.

Historical Enrollment Levels of Ontario Students in Manitoba

Ontario Students at Manitoba Universities: This analysis will focus on full-time undergraduate enrollment based on the fact that such statistics will reveal both the immediate issues related to the double cohort and allow for an assessment of the impact on graduate and professional enrollment two to four years after undergraduate impacts are realised.

Manitoba universities have experienced a relatively low number of full-time undergraduate Ontarian enrollment over time when compared to total enrollment.²⁴ However, at 45.3% of all full-time undergraduate Canadian enrollment from other provinces, Ontario students are by far the most numerous group of non-Manitoban Canadians studying in this province.

Full-time Enrollment of Ontario Undergraduate Students at all Manitoba Universities

Year	FT UG Enrollment from Ontario*	FT UG Enrollment from Other Provinces*	Total Non-Manitoba Canadian FT UG Enrollment*
1995-96	598	778	1376
1996-97	622	737	1359
1997-98	594	676	1270
Average	604.7	730.4	1335.0

* Includes all years of study, not just first year.

The table above gives an indication of the numbers of full-time Ontario students enrolled in Manitoba universities. A fuller analysis compares Ontario and other Canadian enrollment with the overall full-time undergraduate enrollment in each university in Manitoba.

Average Enrollment of Ontario Undergraduate Students at Manitoba Universities*

University	Average FT UG Enrollment from Ontario**	Average Ontario FT UG enrol as a percent of Non-MB Canadian FT UG Enrollment	Average Ontario FT UG Enrollment as a percent of total FT UG Enrollment
University of Manitoba	510.3	47.4%	3.5%
Brandon University	53.3	34.6%	2.9%
University of Winnipeg	45.8	47.9%	1.0%
Collège de Sant-Boniface	5.7	14.3%	1.6%

*U of M and the U of W are 4 year averages (94/95 - 97/98). The others are 3 year averages (95/96 - 97/98). This is because of the different years in which definitional changes in statistical collection were implemented at each university.

** Includes all years of study, not just first year.

The majority of full-time undergraduate students from Ontario are attending the University of Manitoba. Perhaps surprisingly, the next highest number is found at Brandon University. However, in terms of the percentage of Ontario students at BU as compared to other Canadian students, students from Saskatchewan form a higher proportion at 39.0%. This is likely due to the western location of BU. Similarly, Collège de Sant-Boniface (CSB) has more students from Quebec (26.3 or 66.4% of other Canadian students), presumably because of CSB's nature as a French language institution.

One must take into consideration the fact that the double cohort will initially impact on first year, and the figures shown above represent full-time undergraduate enrollment in all years. Due to the stability of enrollment from Ontario over time, it is possible to estimate the yearly intake of all institutions by dividing the totals by 3.5 (to represent students in three- and four-year programs).

The estimate for first year entrants for 1997-98, the last year for which data are available, and the average over a number of years is shown below:

First-Year Full-time Enrollment from Ontario

University	1997/98 First Year FT UG students from Ontario	Multi-year Average*
U of M	142.6	145.8
BU	13.1	15.2
U of W	12.3	13.1
CSB	1.7	1.6
Total	169.7	175.7

*U of M and the U of W are 4 year averages (94/95 - 97/98). The others are 3 year averages (95/96 - 97/98). This is because of the different years in which definitional changes in statistical collection were implemented at each university.

Without drawing final conclusions, it is possible to note that if there is to be an impact on Manitoba's post-secondary education system arising from the double cohort, it will be felt most acutely at the University of Manitoba, and have the least impact on CSB. A closer examination of the impact at the University of Manitoba allows for a focused look at a clear pressure point in the system.²⁵

U of M First Time Entrants from Ontario

Year	First Time Entrants From Ontario*
1999/00	136
1998/99	159
1997/98	150
1996/97	145
1995/96	179
1994/95	201
Average	161.7

* Figures are for Full-time enrollment and include graduate students

Over the six-year period approximately 160 new full-time students from Ontario enter the University of Manitoba each year.

Because data sources for both the system-wide analysis and the U of M analysis are different, it is important to interpret the data with care. With this in mind, one can reasonably assume that Manitoba universities have in the past had approximately 150 - 200 full-time undergraduate Ontario students enrolled per year.

Ontario Students at Manitoba Colleges: There is considerably less data available from colleges in Manitoba, and much of what is available is anecdotal. This presents challenges in terms of the ability to assess historical enrollment of Ontarians in Manitoba colleges, as well as the ability to project forward and assess the impact of the double cohort.

What is known is the relative proportion of Manitoba students to other students. The table below outlines this data for 2000/01.²⁶

Origins of College Students – All Manitoba Colleges 2000/01

Student Origin	Number	Percent
Manitoba	11,794	97.5%
Outside Manitoba	217	1.8%
International	58	0.5%
Undeclared	26	0.2%
Total	12,095	100.0%

Assiniboine Community College reports that it has "very few (if any) students from Ontario. Almost all of our out-of-province students come from Saskatchewan - particularly eastern Saskatchewan." While ACC has not considered the impact of the double cohort, if the report from ACC is correct, one could assume that the historical enrollment of Ontarians at ACC is quite low.

Red River College reports that there are also very few Ontario students studying at Red River College. The assessment of that College is that there will be no impact from the double cohort, even if all of the effects are felt in a single year. One notes that in 2000-01, RRC reported 105 full-time enrollment from provinces outside of Manitoba.²⁷ There is no data on how many of these are from Ontario. However, if one were to apply the same percentage as the Average Ontario full-time undergraduate enrollment as a percent of Non-MB Canadian full-time undergraduate enrollment at the U of M (47.4%), one could estimate that 47 or 48 of out-of-province Canadian students at Red River are from Ontario. Thus, it is possible that Red River is experiencing 20 to 25 new Ontario students per year.

Information is not available from Keewatin Community College. However, the majority of the population from KCC is either Aboriginal students as well as other students from northern Manitoba. It is unlikely that the double cohort will have a significant effect on KCC. It is estimated that the Ontario student enrollment at KCC is very low.

While it is disappointing that data are not available, the information that is available suggests that there may be no concern regarding the double cohort and its possible impact on the Manitoba colleges system.

Double Cohort Enrollment in Manitoba: Projections

The historical enrollment of Ontario students in Manitoba's universities and colleges suggests that when compared to enrollment at Manitoba post-secondary institutions, Ontarians make up only a very small percentage of the overall student population. Thus, it is likely that the impact of the double cohort will be relatively low in Manitoba.

Projections relating to the enrollment demands from Ontario's double cohort on Manitoba universities and colleges are based on the following assumptions:

- whatever forces that have driven Ontarians to study in Manitoba in the past will continue into the future;
- these forces will act equally on both cohorts graduating from Ontario high schools in 2003; and,
- the full effect of the double cohort will be felt in Manitoba in 2003-04, and will not be spread out over a number of years. This allows for an assessment of the worst-case scenario of a significant increase in demand on capacity at one time.

Given these assumptions, the enrollment forecasts for 2003-04 are based on the best information available as to the historical number of Ontario students in Manitoba. Average figures have simply been doubled for 2003-04 to provide an assessment of the impact.

Before outlining the projections, it is important to note that enrollment forecasting is a complex activity, especially when looking more than one year in the future. Enrollment changes are affected by demographic changes, particularly in the 18-21 year old age group, economic factors, perceptions of the value and returns related to university and college education, and tuition and issues of affordability.²⁸ A shift in any one of these variables can cause a significant change in future enrollment.

Projections for Manitoba Universities: In 2003-04, there could be an additional 175 Ontarian students enrolling in Manitoba universities. Based on average full-time enrollment in past years,

this number could represent less than 1% of the total full time enrollment in Manitoba universities at the time.

Projections of 2003-04 First Year Full-time Enrollment from Ontario

University	Multi-year Average*	2003-04 Projection	Variance
U of M	145.8	291.6	145.8
BU	15.2	30.4	15.2
U of W	13.1	26.2	13.1
CSB	1.6	3.2	1.6
Total	175.7	351.4	175.7

*U of M and the U of W are 4 year averages (94/95 - 97/98). The others are 3 year averages (95/96 - 97/98). This is because of the different years in which definitional changes in statistical collection were implemented at each university.

Initial projections in September 2002 showed a 16.1% increase (32 students) in new students from Ontario at the University of Manitoba, for a total of 231 students from Ontario. While the litmus test will be enrollment in September 2003, to date the above projection appears to be reasonable.

Projections for Manitoba Colleges: The lack of historical data from the colleges in Manitoba makes it more difficult to project forward and predict the impact on the colleges system. A generous and broad estimate could see an additional 30 - 50 students added to the colleges system in Manitoba. One should note that this is a generalization based on one year's worth of data from Red River College, and not based on the historical experience at all three colleges.

Overall, the Manitoba post-secondary system will likely experience a growth of 200 - 225 additional students in 2003-04.

Graduate and Professional Studies in Manitoba

Statistics Canada reports that

the likelihood of attending an out-of-province university increases with degree level. Among those studying full-time, 8% of bachelor's, 16% of master's, and 18% of doctoral students were attending university in another province.²⁹

It is not possible to know today the number of graduate students from Ontario that will choose to pursue their education at Manitoba institutions beginning in 2006-07. According to Statistics Canada, in 1993-94, only 234 Ontario Masters and Ph.D. students studied in provinces other than Quebec, BC, Alberta or Nova Scotia.

Given these numbers, it is unlikely that Manitoba will face a crisis in terms of Ontarian graduate students placing pressure on the Manitoba post-secondary education system. Continued monitoring of the situation will help to clarify such issues.

Capacity in the Manitoba Post-Secondary System

"Capacity" as it is used here refers to the ability of Manitoba's post-secondary institutions to accommodate students in terms of the physical space, as well as in terms of programs. While there may be general concerns about various aspects of capacity, this analysis attempts to look at the pressures that would be placed on capacity that result from the double cohort.

Overall, the double cohort does not significantly challenge the physical and program capacity at Manitoba's post-secondary institutions. Concerns exist, however, related to the effect that the double cohort might have on demands for additional university faculty, especially considering the number of faculty retirements expected within this decade.

Capacity in Manitoba Universities: Because of the small numbers of students involved, it is very unlikely that the double cohort will create a capacity problem in terms of the facilities of any of Manitoba's universities. Manitoba universities will be affected by the increasing retirements. In fact, at the University of Manitoba alone, the proportion of instructional staff who are 40 years of age and under has *fallen* by 34.5% between 1990 and 1998, while the proportion of those who are between 50 and 59 have *grown* by 4.7%. More significantly, those 60 and older have *grown* by 19.3% since 1990. In terms of actual numbers, the University of Manitoba can expect that within 8-10 years, more than 400 professors, or nearly 40% of the current faculty will likely be retiring.³⁰ While figures for the other universities and for all colleges are not readily available, the trends are similar.

Thus Manitoba is already facing a situation where within the next 10 years a significant proportion of the faculty at universities will be retiring. Manitoba will have to compete with post-secondary systems across North America for qualified instructional staff. Thus, the advent of the double cohort in Ontario exacerbates a problem that already exists.

It is important to note that as of this time, Ontario has not significantly increased operating grants to universities or colleges in anticipation of increased enrollment. However, action on this front can be expected to begin soon. Ontario's resource base is such that potential faculty members could be lured from other jurisdictions with higher pay and benefits. Currently, Manitoba universities are competitive in the national arena. In particular, the University of Manitoba has among the highest salaries in the nation.

Salary Ranges at Selected Universities - Most Current Collective Agreements

Agreement Year	University	Full Professor	Associate Professor	Assistant Professor	Lecturer/ Instructor
2003/04	U of Calgary	\$75,167-\$134,227	\$62,282-\$94,496	\$51,543-\$78,389	\$41,879-\$78,389
2001/02	U of Regina	\$67,059-\$88,639	\$52,440-\$78,622	\$42,694-\$65,146	\$34,155-\$49,611
2003/04	Brandon U	\$76,396-\$106,518	\$61,116-\$87,983	\$46,619-\$67,651	\$39,232-\$49,869
2003/04	U of Wpg	\$69,458-\$102,128	\$56,149-\$80,224	\$44,196-\$62,196	\$36,140-\$48,380
2003/04	U of MB	\$76,674-\$116,133	\$59,336-\$89,860	\$45,998-\$69,658	\$35,732-\$54,121
2001/02	U of T*	\$67,000	\$50,100	\$41,000	\$34,400
2003	York U*	\$74,565	\$58,200	\$48,535	\$40,755
2003/04	Dalhousie**	\$60,283	\$51,463	\$42,643	\$37,351

Source: Collective Agreements are the most current as appearing at faculty association home pages. Dates are different as a result of differing negotiation schedules for each university.

* Minimum

** Minimum level for the 2003/04 year only.

Salary comparisons with other universities suggest that universities in Manitoba are generally able to compete within Canada. In the three prairie provinces, the University of Manitoba has among the highest salary levels for all ranks of academics.

In terms of competition for faculty, then, all provinces will face similar pressures, and it is anticipated that the market for qualified university instructors will become quite competitive across Canada and North America. Given the resource base in jurisdictions such as Ontario, Alberta, any many states in the USA, Manitoba may face difficulty retaining and recruiting new instructional staff at universities.

While quantifying faculty impacts are difficult, the trends are clear. The double cohort may make staffing issues at universities that much more difficult.

CONCLUSIONS

Students from other provinces have always come to study in Manitoba. Historical data provided to government by universities suggest that overall the majority of out-of-province Canadians studying in Manitoba are from Ontario. However, a closer examination of the data, along with estimates from Manitoba post-secondary institutions suggest that there are no concerns arising from increasing enrollment related to the double cohort.

However, the advent of the double cohort has the potential to exacerbate the situation with respect to instructional staff, particularly at the university level. It can be anticipated that universities in Manitoba will be hiring qualified staff in an intensely competitive continental environment. Remuneration at Manitoba universities is currently competitive.

One should note that this analysis has assumed that the effects of the double cohort will be felt primarily in a single year - 2003-04. While there is little information with which to estimate the impact, the double cohort may be felt over a number of years, reducing its impact in Manitoba, allowing new students to be absorbed a little at a time. This process could be sped up in colleges where programs are typically only one or two years in length.

Based on the findings of this report, no immediate actions are required to address program or physical capacity. The anticipated additional 200-225 students in Manitoba colleges and universities can be absorbed within the current system.

Given both the potential impact of the double cohort and the difficulty related to enrollment forecasts, prudence suggests continued tracking as the bulk of the double cohort enters the post-secondary system. Further, continued monitoring may be required to assess the impacts, if any, on professional and graduate programs as those from the double cohort enrolled in Manitoba universities move through their undergraduate education.

Footnote: Preliminary Figures For September 2003

While approved in September 2003, this paper was written earlier and speaks to projections. Since that time, preliminary figures reveal that the estimate of 200-225 students was low, most likely a result of relying on figures from the mid 1990s to develop projections.

Current estimates suggest that approximately 275 additional students from Ontario have enrolled at the University of Manitoba and 50 at the University of Winnipeg. Collège de Saint-Boniface reports preliminary figures suggesting that the enrollment of Ontario students is approximately the same. While preliminary figures from Brandon University are not available at the time of writing, the impact is expected to be minimal.

These preliminary figures do not change the conclusions made in the paper above – additional enrollment at Manitoba colleges and universities resulting from the double cohort can be absorbed in the current system.

Notes

¹ The Council of Ontario Universities, *Ontario's Students; Ontario's Future*, (Toronto: Council of Ontario Universities, March 1999), 14.

² Universities Branch, Ministry of Training, Colleges and Universities, September 14, 2000.

³ Susan Bloch-Nevitte, "Preparing for Tomorrow through Higher Education: Double Cohort: Worrysome Prospect," *Centre Point*, February 18, 1999, <http://www.uwo.ca/wnews/centre/cohort.htm> accessed September 13, 2000.

⁴ Council of Ontario Universities, "Ontario's Students," 14.

⁵ Leo Charbonneau, "No More Spaces without More Money, Say Ontario Universities," *University Affairs*, (March 2003), 34; Council of Ontario Universities, "Number of Applicants to Ontario Universities up 46.7%," *For the Record* 6, no. 1 (March 2003), 1,2).

⁶ *Ibid.*, 34.

⁷ Summarized from The Ministry of Training, Colleges and Universities, *Increasing Degree Opportunities for Ontarians: A Consultation Paper*, (Ministry of Training, Colleges and Universities, April 2000), 2-4.

⁸ *Ibid.*, 1.

⁹ Ministry of Training, Colleges and Universities, "Preparing for the Increased Graduating Class," (Press Release February 2000), <http://www.edu.gov.on.ca/eng/document/nr/00.02/prepbk.html>, accessed September 13, 2000.

¹⁰ Hansard, 1st Session, 37th Parliament, Wednesday April 26, 2000.

¹¹ Ministry of Training, Colleges and Universities, "Preparing for the Increased Graduating Class."

¹² _____, "Quality Education Key to Province's Future," *For the Record* 3, No.2 (Council of Ontario Universities, November 2000), 1-2.

¹³ Council of Ontario Universities, "Ontario's Students," 19.

¹⁴ _____ "Quality Education," 1.

¹⁵ Council of Ontario Universities, "The Double Cohort," *The Knowledge Track*, (September 2002), 1-2.

¹⁶ Ministry of Training, Colleges and Universities, "Preparing for the Increased Graduating Class."

¹⁷ Ontario Council of Universities, 1.

¹⁸ *Ibid.*, 1-2.

¹⁹ *Ibid.*, 1-2.

²⁰ Bloch-Nevitte, "Double Cohort."

²¹ *Ibid.*

²² George Butlin and Ian Calvert, "Interprovincial University Student Flow Patterns," *Education Quarterly Review* 3, No. 3, Statistics Canada - Cat. No. 81-003-XPB (October 1996), 32.

²³ *Ibid.*, 35.

²⁴ Universities Grants Commission, *Annual Report 1995-96 & 1996-97*, and the Council on Post-Secondary Education.

²⁵ Figures drawn from The Office of Institutional Analysis, *Institutional Statistics Book*, (The University of Manitoba, various years), various pages.

²⁶ Council on Post-Secondary Education, *Statistical Compendium* (Winnipeg: Council on Post-Secondary Education, forthcoming). Expected date of publication is September 2003.

²⁷ *Ibid.*

²⁸ Herb O'Heron, "Undergraduate Enrollment Forecasts: A Tricky Science," *Research File* 2, No. 1 (Association of Universities and Colleges of Canada, April 1997), *passim*.

²⁹ Butlin and Calvert, "Interprovincial University Student Flow Patterns," 31.

³⁰ Adapted from: Office of Institutional Analysis, *Institutional Analysis*, University of Manitoba, various years.