

**Teacher supply and demand:
An analysis of current developments in Newfoundland and Labrador**

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Abstract

This paper will focus on human resource issues associated with the demand, supply and retention of teachers in the Canadian province of Newfoundland and Labrador. The results will help determine whether or not a sufficient labour pool exists to meet the province's demand for educators and will provide valuable labour market information for young people considering a career in the education sector. As well, the paper will be valuable for government policy makers and educational leaders concerned about the quantity and quality of the labour supply. If used wisely, the results will help to ensure that all schools, regardless of the social and economic circumstances of their particular communities, are able to attract highly qualified teachers.

Teacher supply and demand: An analysis of current developments in Newfoundland and Labrador

Changes in the teacher labour market brought on by demographic changes, the recent trend towards globalization of the workforce and policy changes introduced by provincial governments have converged to stimulate a debate about whether or not there exists a general teacher shortage in the province of Newfoundland. Based on a more extensive study reported elsewhere (Dibbon and Sheppard, 2001), this paper will argue there is not an overall teacher shortage in the province of Newfoundland, at this time. However, there is evidence to show that there is a high demand for teachers in the rural and remote areas of the province and that there is a high degree of variation in the demand for teachers from one area of specialization to another. As such, the paper will investigate the forces that are converging to influence teacher supply and demand in Newfoundland and Labrador, specific measures of teacher demand and the sources of teacher supply.

Design

The study summarized in this paper was conducted in six phases. Phase I consisted of a review of the literature on teacher supply and demand and the development from that review, of a detailed framework for the study. Phase II highlighted the major social, political and economic trends and forces that were converging to influence teacher supply and demand. During Phase III the present and future demands of Newfoundland and Labrador school districts were identified and assessed, and also provided an overview of teacher demand, as it existed in other jurisdictions (e.g. other provinces and parts of the United States). Phase IV examined the sources of teacher supply and assessed the capacity of each source to meet future demand in the province. Phase V assessed the capacity of the current system to retain its current teachers. Phase VI drew a number of conclusions about the teacher supply and demand issue and provided a series of recommendations, that can help to ameliorate some of the difficulties associated with the imbalance in supply and demand. Because of space limitations, this paper will provide a brief overview of the data collection process for phases II, III and IV only. Those interested in the details are referred to the larger study on which this paper is based (Dibbon and Sheppard, 2001).

Phase II – Structural Changes

In Phase II, of the original study, in order to profile the structural changes taking place within the province, an extensive examination of statistical data sources that provided information on the distribution and composition of the province's population was undertaken. For example, Statistics Canada Reports, the Educational Staff Records¹ (ESR'S) and Annual General Returns² (AGR's) from the Department of Education (1990-2000) were examined to determine the nature of current demographic trends in the general population as well as for school-aged children.

¹ The ESR is a data form that teachers complete and submit to the Department of Education on an annual basis

² The AGR is annual report that schools and districts file with the Department of Education

Phase III – Present and Future Demands

In Phase III, the nature and extent of present and future demands of school districts in the province were identified and assessed. The focus was on identifying the human resource issues associated with staffing schools and classrooms with qualified teachers. To help identify the issues that were pertinent to school districts, a *Human Resources Issues Survey* was developed and pilot-tested. The survey inquired about such things as trends and priorities in human resource development, areas of growth, areas of oversupply, identification of critical skills for the future, and a description of strategies used to attract teachers. Face-to-face interviews were conducted with the 10 out of the 11 Directors of Education and Chairpersons of the School Boards, in the spring of 2000. The interviews were all recorded, transcribed, coded and analyzed using the constant comparative method (Strauss and Corbin, 1990). Also, as most of the teacher hiring in this province occurs between April and August, a follow-up telephone interview was conducted with each of the Assistant Directors - Personnel in the fall of 2000, to inquire about the nature of the difficulties that districts experienced in filling vacant positions for the current school year.

Reports from the field indicated that some jurisdictions were experiencing difficulties obtaining the services of substitute teachers during the fall semester. To investigate this phenomenon a *Substitute Teacher Availability Instrument* was developed and utilized to survey school administrators in each of the school districts. A stratified sample that included 30% of the schools in each district was selected and responses were generated from 103 of the 115 schools contacted.

Phase IV – Teacher Supply

In phase four, the focus was on an examination of the sources of teacher supply and an assessment of the capacity of each source to meet future demand. This phase of the research assessed the depth of the substitute teacher pool and examined the career expectations of these substitutes as well as the career expectations of new graduates from the Faculty of Education at Memorial University.

To assess the depth of the substitute teacher pool a *Substitute Teacher Availability/Career Expectation Survey* was developed and administration via telephone interview. This survey inquired about the career expectations, job search activities, mobility and qualifications of these teachers. When this research was conducted in March of 2000 there were 1,616 teachers who had at least one day of substitute teaching for the current school year. An attempt was made to contact every active substitute teacher in the province and each one was telephoned at least once. However, limited resources enabled only 1,069 (66%) could be contacted.

To assess the depth of the supply of new graduates from the Faculty of Education, at Memorial University (the province's only university) a *Graduate Career Expectation Survey* was administered to all of the students who were slated to finish their program of studies by August 2000. These surveys focused on student's aspirations, intentions, job seeking behaviour, mobility, academic training and other related matters. Student priorities of desired location and specialization were specifically examined, especially as regards the desire to remain in or leave the province, and preference for rural or urban settings. One hundred and eighty-seven out of 240 surveys (78%) were completed.

While the initial data was being analyzed, it became increasingly clear that the greatest demand for teachers existed in the province's secondary schools. As a result of this knowledge, the same *Graduate Career Expectation Survey* was distributed to all of the 140 students who were enrolled in the secondary education program at the Faculty of Education and would graduate in the August of 2001. One hundred and fourteen (81%) returned the surveys.

Factors Affecting Teacher Demand

In a linear and stable world projecting accurate supply and demand numbers would not be a difficult task. But, early in the 21st century we find ourselves living in a complex and volatile society, where the pace of change is so rapid that it is difficult to predict its consequences or its future direction. For example, who could have successfully predicted the number of teachers who would opt for retirement packages that have become popular in recent years or the impact that the collapse of the cod fishery would have on the province's population?

Today there are many forces, both internal and external to the education environment, that are converging to make the task of predicting teacher demand a challenging one. There are three main factors that are driving these changes in Newfoundland and Labrador. First, the trend towards globalization has made many educators more mobile than ever before and emerging technologies are changing the nature of the workplace and the classroom. Second, the past decade has been a turbulent one for people in the education sector as increased calls for accountability, educational reform initiatives and policy changes by the provincial government has resulted in many disruptions to the work life of teachers and administrators, and third, a decrease in population, caused by unusually low fertility rates and high rates of out migration, has placed downward pressure on the student population in the province.

Globalization

The matter of teacher demand and supply is a complex issue, as it increases in complexity when you consider how it varies by grade, subject area, gender, district, location and population. More so than ever before, we are living in an interconnected world and to fully understand the nature of the teacher labour market it is no longer adequate to view the situation solely from a local perspective. To understand the nature of teacher supply and demand in today's global marketplace, decision-makers and policy-makers must understand what is happening in other markets, and the potential for these markets to influence local ones.

Globalization, a word that ten years ago could not be found in the dictionary is now one of the most charged issues of the day and is arguably the driving force behind societal and economic change. These new technologies are moving Newfoundlanders from a traditional resource-based economy to a knowledge-based economy where workers require highly specialized skills. These skills are in demand around the world and so-called knowledge workers have a wide choice as to where they want to work, and many are opting for higher-paying jobs in other countries.

So how does this impact on the supply and demand of teachers in Newfoundland and Labrador? The answer is two-fold. First, the trend towards globalization has opened up new markets and

career opportunities that were previously unavailable, and as a result the population has become somewhat more mobile. This situation has created a demand situation in some Canadian jurisdictions that has set in motion a domino effect which has the potential to upset the supply and demand equation in all parts of the country, including Newfoundland and Labrador. For example, large school districts in southern Ontario, southern Alberta and southern British Columbia that are in high growth areas report a shortage of teachers because they are being raided by American school districts that are able to offer more competitive compensation packages. In order to cope with increasing student enrolments (primarily due to an increase in emigration) and the cross-border raiders these school districts are forced to look to other jurisdictions as well. Typically, they recruit teachers from the northern parts of Canada and also from provinces where the teacher compensation package is not as attractive as their own (e.g. Newfoundland). Consequently when a school district loses teachers and they don't have the capacity in their teacher education programs to replenish the loss, they recruit new, existing and retired teachers from other locations. These days it is common to see school districts from Ontario, British Columbia, Nunavut and the Northwest Territories recruiting teachers in the province of Newfoundland. Because these districts are guaranteeing jobs and providing attractive compensation packages, there are concerns about the province's capacity to meet the need for new teachers in this province.

Second, changes in the workplace have also resulted in changes to the school curriculum. These changes in the curriculum have placed an increased focus on mathematics, science and technology and subsequently an increased demand for qualified teachers in these areas. But, because individuals trained in the areas of mathematics, sciences and technology are in high demand in industry (Brown-Peters, 2001), and because the compensation package is usually better than it is in the school system, many "would be" teachers are now bypassing teacher education programs and opting for careers in industry rather than the classroom (Stracker, 1991). As a result of these career choices, there are fewer graduates available to the school system, resulting in shortages of teachers in these key areas.

Policy

Crocker (2000) noted that in the province of Newfoundland policy changes to the teacher allocation formula have had a profound effect on the number of teachers employed in the province. Following a number of years of instability in teacher allocations resulting from ad hoc adjustments to the teacher allocation formula, a Ministerial panel was appointed by the Minister of Education, in 1999 with a mandate to consider issues of program delivery and particularly the implications for teacher allocations. The teacher allocation policy refers to the way that teachers are allocated to school districts by the Department of Education and a new allocation formula developed and implemented by government resulted in an increase of about 350 positions in the 2000-2001 school year.

Also, adjustments to the pension plan have changed the retirement patterns of teachers throughout the province. In the mid 1990's, amid uncertainty surrounding the long-term prospects of their pension plan and severance package, hundreds of teachers who were in their late 40's and early 50's, and who under normal circumstances may have remained teaching for a couple of extra years in order to top-up their pension, began to retire at a record rate. Reaching full pension eligibility certainly spurred the exodus but the turbulent, uncertain and conflict-laden environment being experienced at the time also contributed to the decision to "get out" as soon as possible.

Demographics

Often confused for a branch of mathematics or science, demography is a discipline that focuses on the study of human populations and how they change over time (Foote, 1996). When, in 1778, the English economist Thomas Malthus published his "Essay on the Principle of Population", it marked the beginning of an era where population trends would be used as a tool to help forecast the future. Today, few societal institutions are unaffected by population change, and in the education community policy makers use demographic information to foresee adjustments that may be needed in our education system in order to meet the needs of changing student and teacher populations.

Population Trends

While the population continues to grow in many parts of the under-developed world, the population in the richer more developed countries has started to slow. Canada is an example of such a country. While the Canadian population has enjoyed a steady growth since statistics were first kept at the beginning of Confederation in 1867, the rate of population growth in Canada is slowing down. The province of Newfoundland, on the other hand enjoyed slow but continuous growth from the mid 1850's to the time of joining Confederation in 1949 (Kincora Research, 1998). Following Confederation, the population growth accelerated until it peaked at just over 580,000 in 1993. In the eight years since 1993 the population has decreased by almost seven percentage points to 538,493 people (Government of Newfoundland and Labrador, 2000) (see figure 1).

While out migration is a major contributor to the population decline, it is the current, unusually low fertility rate (see figure 2) that is causing this negative growth in the population (see figure 3). Fertility refers to reproductive performance, and the fertility rate is the number of live births per 1000 females between the ages of 15 years and 49 years, in one year. The ages of 15-49 are the ages that demographers use as a standard to measure total fertility rates. Since school populations are tied to the number of births, a close examination of fertility rates can provide an indication of the number of children that are likely to enter primary school when they reach the appropriate age.

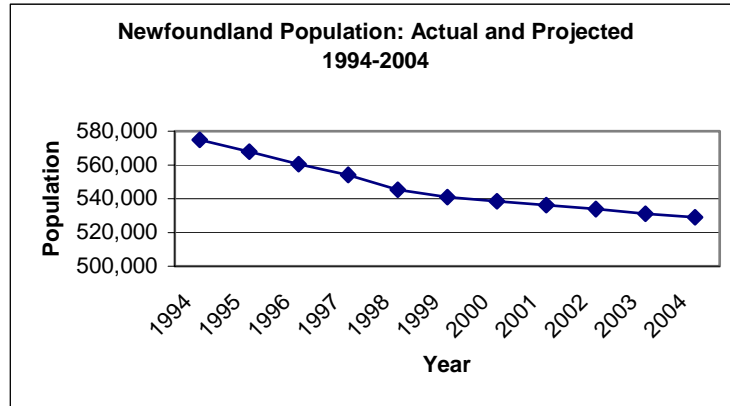


Figure 1: Newfoundland Population: Actual and Projected 1994-2004³

In Newfoundland and Labrador, the fertility rate has dropped steadily from its peak of 5.9 children per woman in 1957 (Kincora Research, 1998) to 1.24 in the year 2000 (Newfoundland and Labrador Center for Health Information, 2001). Considering that the replacement level is 2.11 births per woman (in the child bearing years) the Newfoundland population appears destined to decline for many years to come.

Obviously, a decline in fertility rates results in a decline in the number of live births. In 1971 there were just over 12,500 live births in the province (see figure 3), which accounted for 2.35 percent of the total population. In the year 2000 there were less than 5000 live births, which equals less than one percent of our current population (Newfoundland and Labrador Centre for Health Information, 2001). When the number of births drops below the replacement level (2.11), the age of the people in the community begins to increase (see figure 4) - a phenomenon observed by all those who are familiar with rural Newfoundland communities. And, as everyone knows, an aging community doesn't need as many schools or educators as a youthful one.

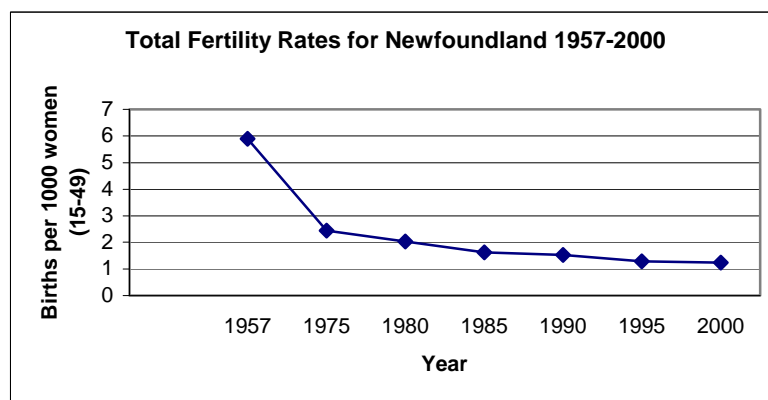


Figure 2: Total Fertility Rates for Newfoundland 1957-2000⁴

³ Source: Government of Newfoundland and Labrador - From 2001 to 2004 the population is projected based on estimates in Statistics Canada catalogue no. 91-520

⁴ Fertility rate information provided courtesy of the Newfoundland and Labrador Center for Health Information

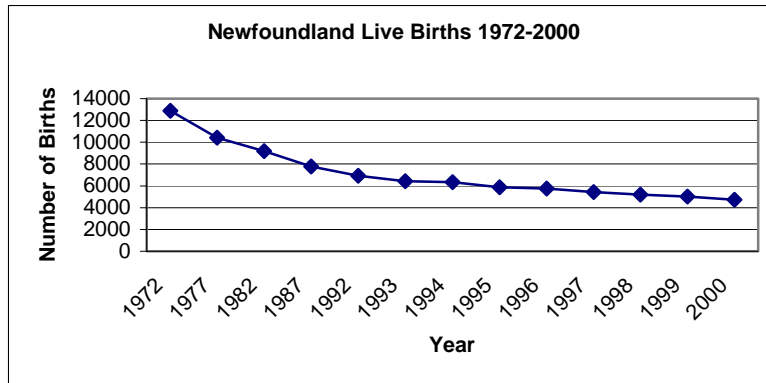


Figure 3: Newfoundland Live Births 1972-2000⁵

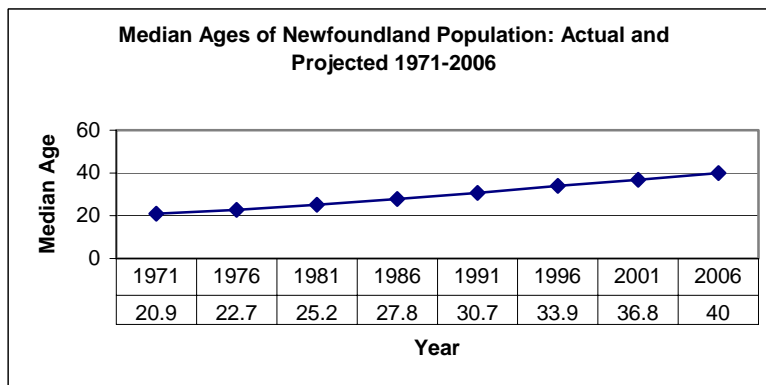


Figure 4: Median Ages of Newfoundland Population: Actual and Projected⁶

While there is some evidence that the population decline is slowing, there are still high numbers of Newfoundlanders migrating to locations outside the province (see table 1). During the past couple of years the high emigration rates have been offset by higher than normal immigration rates and they have slowed the population decline for the moment. However, there is no fundamental or statistical evidence to suggest that the decline in the number of births will reverse itself soon, if ever. The implication, of course, is that the general population is likely to continue to decline for many years to come and as a direct result so will the population of school-aged children. When combined with an aging society, a decline in the school-aged population will certainly soften the overall demand for teachers.

⁵ Source: Statistics Canada catalogue no. 91-520

⁶ Source: Kincora Research

Table 1: Provincial Migration, Births, Deaths 1997-2000⁷

Item	1997	1998	1999	2000
Net in-migration	6,962	7,392	7,995	11,609
Net out-migration	15,096	16,882	13,690	14,119
Net Inter-provincial Migration	-8,134	-9,490	-5,695	-2,510
Immigration	483	421	379	435
Total Emigration	208	247	262	278
Net Non-Perm. Residents	-10	-288	445	276
Net International Migration	265	-114	562	433
Births	5,542	5,250	4,842	4,724
Deaths	4,181	4,360	4,296	4,599

Student Enrollment Trends

In the province of Newfoundland the youth population is expected to drop considerably over the coming years. A decline in the number of live births (figure 3) coupled with high rates of out-migration (table 1) means the school-aged population in Newfoundland and Labrador is declining at a precipitous rate. A comparison of the live birth numbers with the numbers entering kindergarten five years later shows a drop in numbers, as high rates of out-migration have tended to significantly reduce the size of the cohort entering school (see table 2). This report confirms trends identified in earlier reports by Crocker (1998, 2000) and the Ministerial Panel on Education (2000) that have pointed to a continuous decrease in student population. Unfortunately, as the data from this study confirms, the projected numbers keep getting lower. In 1998 Crocker projected a student population of 58,655 in the school year 2010-2011 and last year the Ministerial Panel on Education projected 58,600. Projections⁸ completed for this study place the student population at 57,710 (see table 2). In spite of the severity of this trend there is little likelihood that the trend will reverse itself soon. We have already established a fertility rate amongst the lowest in the world, a continuous decline in the number of live births and high rates of out-migration, and the province has never been a major recipient of immigrants. From the period 1956 to 1993 Statistics Canada⁹ reports that Newfoundland has consistently captured only around three percent of immigrants to Canada and that it is evident that many of the immigrants to Newfoundland stay for a relatively brief period before moving to larger population centres in Canada.

⁷ Source: Government of Newfoundland and Labrador – available at www.gov.nf.ca

⁸ These projections were done by the author and are based upon estimates of the number of live births that Statistics Canada is projecting for the province up to 2006.

⁹ Source: catalogue no. 91-520

Table 2: Student Enrolment :Actual and Projected 1990-2011

	Births	Survival rate	K	1	2	3	4	5	6	7	8	9	10	11	12	12+	Special.	Total
1985-86	8500	0.992																
1986-87	8100	0.987																
1987-88	7769	0.982																
1988-89	7487	0.992																
1989-90	7762	0.961																
1990-91	7604	0.981	8435	8843	9116	9127	9254	9288	9696	9870	10577	10591	10629	10035	8975	1708	885	127029
1991-92	7166	0.951	7994	8558	8813	9034	9092	9220	9308	9863	9863	10442	10752	10112	9481	1864	737	125133
1992-93	6918	0.936	7630	8053	8473	8746	9012	9045	9183	9430	9777	9750	10418	9989	9310	2192	764	121772
1993-94	6421	0.911	7431	7693	7840	8403	8657	8931	9007	9227	9406	9639	9757	9850	9329	2290	713	118273
1994-95	6339	0.917	7568	7431	7581	7846	8242	8664	8827	8943	9250	9211	9574	9221	9196	1762	694	114010
1995-96	5847	0.934	7465	7510	7273	7441	7639	8264	8434	8793	9072	9060	9101	9136	8493	2182	593	110456
1996-97	5542	0.941	6822	7436	7317	7128	7299	7664	8069	8416	8808	8844	8874	8565	8479	1693	791	106205
1997-98	5250	0.931	6478	6721	7263	7141	6932	7300	7444	7963	8531	8560	8693	8378	8040	1452	712	101608
1998-99	4842	0.941	5855	6492	6568	7119	7015	7010	7159	7512	8100	8384	8617	8352	7918	1300		97401
1999-00	4724	0.931	5817	5912	6400	6588	7123	7012	6871	7211	7479	8044	8297	8140	7822	1241		93957
2000-01	4461	0.941	5466	5766	5810	6290	6480	7108	6951	6869	7395	7540	8035	7932	7523	1002		90167
2001-02	4300	0.941	5215	5417	5668	5711	6189	6467	7044	6951	7048	7454	7532	7681	7329	963		86669
2002-03	4300	0.941	4888	5168	5325	5572	5620	6177	6409	7044	7132	7104	7447	7201	7097	938		83122
2003-04	4200	0.941	4556	4844	5080	5234	5483	5609	6121	6409	7227	7189	7097	7119	6654	908		79530
2004-05	4200	0.941	4398	4515	4762	4994	5150	5472	5559	6121	6576	7285	7182	6785	6578	852		76229
2005-06	4100	0.941	4198	4358	4438	4681	4914	5140	5423	5559	6280	6629	7278	6866	6269	842		72875
2006-07	4000	0.941	4046	4160	4284	4363	4606	4904	5094	5423	5704	6330	6622	6958	6344	802		69640
2007-08	4000	0.941	4046	4010	4089	4211	4293	4597	4860	5094	5564	5750	6324	6331	6429	812		66410
2008-09	3900	0.941	3952	4010	3942	4019	4144	4284	4556	4860	5226	5609	5744	6046	5850	823		63065
2009-10	3800	0.941	3952	3916	3942	3875	3955	4136	4245	4556	4986	5268	5603	5491	5587	749		60261
2010-11	3800	0.941	3858	3916	3849	3875	3813	3947	4099	4245	4674	5026	5263	5356	5074	715		57710
ratios ¹²			0.941	0.991	0.983	0.983	0.984	0.998	0.991	1	1.026	1.008	0.999	0.956	0.924	0.128		

¹⁰ Source up to 2000: Newfoundland Center for Health Information and the Government of Newfoundland. After 2000, Statistics Canada catalogue no. 91-520

¹¹ Survival rates in the shaded area were set by the author

¹² The ratios used to calculate survival rates between grades were the actual rates that were calculated for the 2000-2001 school year

Teacher Retirement Trends

One of the best indicators of demand is the number of teachers who are eligible for retirement. A close look at the age distribution of the teachers in Newfoundland and Labrador shows large cohorts that are currently between the ages of 45 to 49 (see figure 5). Many of the teachers who would have been in the 50 plus category have recently retired; taking advantage of newly negotiated early retirement options. Assuming that there are no changes in the retirement options available to teachers, and teachers continue to opt for retirement as soon as they are eligible for a full pension, over 40 percent (2,789) of the current teacher population will be eligible for retirement over the next decade. There is no way of predicting the exact number that will retire and data concerning the exact number that will have reached full pension eligibility is difficult to access. However, figure 6 indicates that just over 2,400 teachers have 20 or more years of teaching experience – all of these individuals will be eligible for a full pension within the next ten years. Therefore, it is reasonable to assume that approximately 2,500 teacher will retire over the coming decade, especially since the trend these days is for teachers to retire as soon as they reach full pension eligibility.

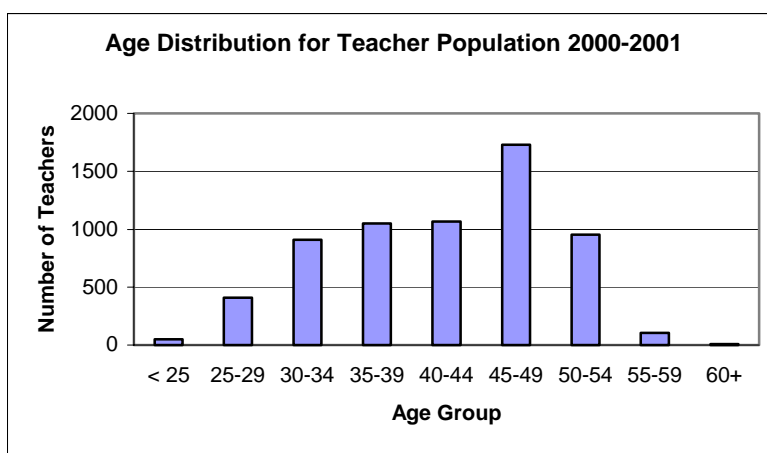


Figure 5: Age Distribution for Teacher Population 2000-2001¹³

With these older cohorts considerably larger than the cohorts between the ages of 20-29 and 30-39 (figure 5) it would seem logical to assume that the future demand for teachers will increase above recent levels in order to replace the larger cohort that retires. But, in Newfoundland and Labrador, unlike in many other parts of the country, the general population is decreasing annually and student enrolments are paralleling this general trend. If this trend continues, and at this time there is no reason to think that it will not, then the overall demand for teachers in this province will not be as pronounced as if the population were more stable. The model used by the Ministerial Panel on the Delivery of Education (2000), projects that the number of teachers will have dropped to around 5,000 by the 2005-06 school year, indicating that the overall demand over that time will be for about 1,000 new teachers. If the population projections are correct then demand should remain at about the same level until the 2010-11 school year.

¹³ Source: Education Statistics 2000

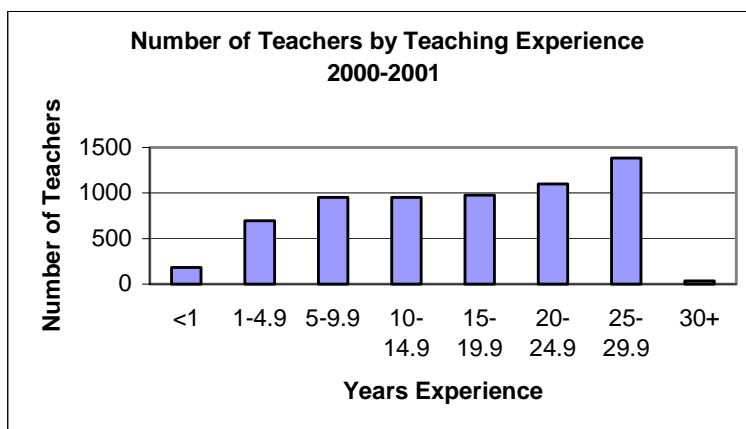


Figure 6: Number of Teachers by Teaching Experience¹⁴

Measures of Teacher Demand

Perhaps the single best measure of teacher demand is to listen to the reports and views of the practitioners who are working in the schools and school districts on a day-to-day basis. From the beginning of the research it was known that it would not be enough to simply look at the demographics and it was imperative that educators in the field be given a chance to describe their experiences. In sharp contrast to what one might expect after examining the demographic data, there was widespread concern expressed by the Directors of Education and the Assistant Directors - Personnel that there were some serious shortages developing, particularly in rural and remote regions of the province (e.g. Labrador coast, the northern peninsula and the south coast), and in certain subject areas (e.g. administration, guidance, mathematics, chemistry, physics, special education and French). One of the clearest points to emerge from this phase of the research is that the demand for teachers varies from one area of specialization to another, as well as from one location to another. Many of these administrators expressed concern that they were experiencing serious difficulties staffing their schools with qualified teachers and they were concerned that the situation was deteriorating rather than improving. This led the investigators to examine teacher demand by looking at the areas of specialization as well as local geography.

Areas of Specializations

Due to the eclectic nature of teaching assignments, the fact that teaching assignments change from year to year, and the manner in which the data is currently collected, it is difficult to predict precisely what the teacher demand will be in a particular subject areas for a given period of time. Also, categorizing educators in terms of what they teach is not an easy task because most teachers teach more than one subject, or take on some administrative tasks (e.g. administrative appointment, department head, guidance, etc.) in addition to teaching. Therefore, the number of teachers who teach a particular subject, for example English, is a much larger number than the number of the teachers who are primarily English teachers. The former may teach only one class

¹⁴ Source: Education Statistics (2000)

of English; the latter may teach only English. Nevertheless, by looking at the number of teachers who have in excess of 25 years teaching experience and who are assigned subject teaching duties in the secondary school system (where the demand appears to be highest), we can get an indication of the subjects where the demand might exist in the coming years.

Figure 7 shows that there are a significant number of teachers currently teaching in the areas of mathematics, science, English, art, French and social studies who are scheduled to retire within the next five years. Obviously, with the province's declining enrolments there will not be a need to replace all of these teachers however, there will certainly be jobs for some new teachers. There is evidence to show that replacing teachers in the areas of language arts and social studies will not be a problem because the vast majority of prospective teachers enrolled in the Faculty of Education, and teachers who are in the substitute teacher pool, have training in those areas. The figure does seem to support the belief though that there will be difficulties in the areas of mathematics and science, simply because there does not exist a pool of teachers who are qualified in those areas waiting to enter the profession. Nor are there large numbers of students with training in these areas entering the Faculty of Education. An analysis of the enrolment figures for the Faculty of Education shows less than a dozen applicants in the area of mathematics and less than 50 in the sciences.

The high numbers of teacher retirements in the area of art was a surprise to the researchers, as it was not specifically mentioned as an area where a shortage was anticipated. This may be because at the junior high school level many of the teachers assigned to teach a class in art even though they do not have any formal training in the area, and they would never consider themselves as an art teacher. Also, the supply may be affected by the fact that there are few new teachers who are being trained in the area. Whatever the reason, it is an area that requires some further investigation.

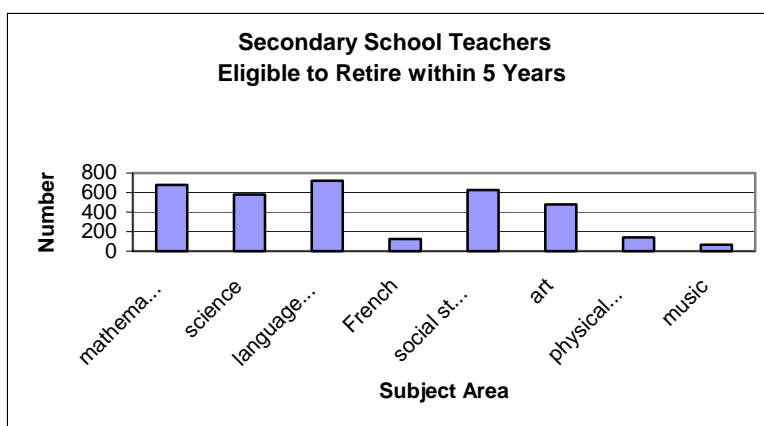


Figure 7: Secondary Teachers Eligible to Retire Within 5 Years by Teaching Area¹⁵

¹⁵ Source: Education Statistics – 1995-1999

There were also a number of concerns expressed about the ability to meet the demand for teachers required in the post-degree areas of school administration, special education and guidance. While many are trained in the areas of administration and special education it is not a position that they desire to work in at this time. Therefore the issue is not one of lack of supply but one where the job itself is unattractive.

School Administration

There was considerable concern expressed about the number and quality of applicants for administrative positions. Representatives for each of the districts indicated that the poor compensation package and the expanding role of the school administrator were deterrents and major obstacles that they felt prohibited many potentially strong candidates from even applying. School administrators typically advance to this position through the route of classroom teacher and in 1999 there were just over 6,200 teachers employed in the province. So, even though there is a large pool from which to develop and nurture future administrators, the demand is not being met because there are fewer teachers who aspire to be school administrators.

With over half (334 out of 594) of the current school administrators eligible for retirement in the next ten years,¹⁶ school districts must be assured that they will have an adequate pool of applicants from which to choose future school administrators. Quality is an issue that districts have the capacity to influence themselves, simply by identifying future leaders and mentoring them by providing opportunities for them to practice and refine their leadership skills. Changing the compensation package to one that will assist in attracting the best candidates is another issue, one that has implications for collective bargaining. In any event if the position is no longer attractive because of influences such as increased time commitments, and a poor remuneration package then the stakeholders must work collectively to find a solution to what appears to be a workload problem more so than a supply problem.

Figure 8 provides a district-by-district breakdown of the numbers of school administrators who are between the ages of 46-55. Since most of them will retire by the time they are 55, there will be an obvious demand for administrators. An analysis of the Educational Staff Records for the 1999-2000 school year revealed that there were 214 teachers currently employed in the school system who expressed an interest in working in school administration sometime within the next two years and another 178 teachers indicated they were interested in beginning a graduate degree in educational administration sometime in the next five years. While there is no way of assessing there is no way of knowing anything about the quality of these candidates or the conditions under which they will allow themselves to compete for a school administrator position. However, we can assume that there will be a fairly consistent pool of candidates from which to hire administrators.

¹⁶ Source: Department of Education

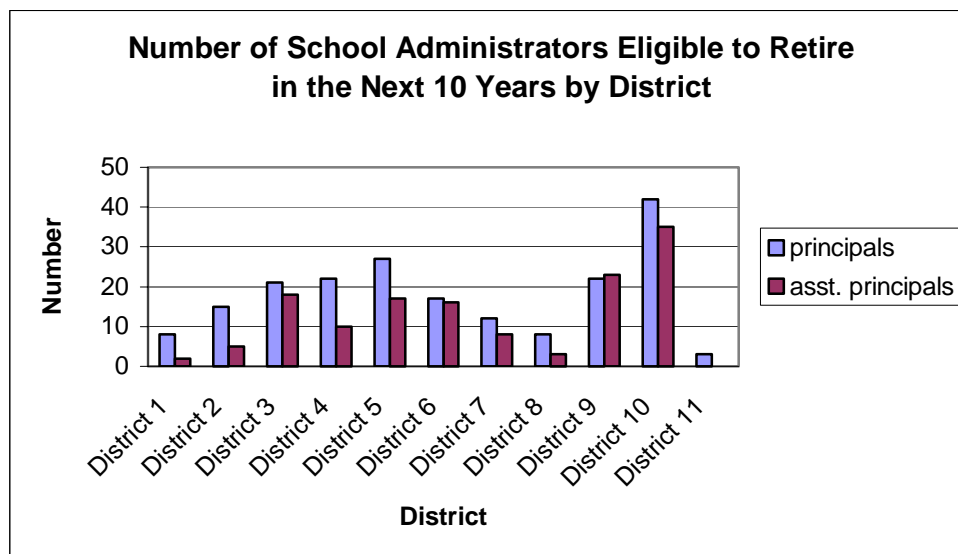


Figure 8: Number of School Administrators Eligible to Retire in the Next 10 Years by District¹⁷

Special Education

The area of special education is another area that deserves considerable attention at this time. Reports from the field indicate that the attrition rates for special education teachers are higher than for all other teachers. In fact, many of the district office personnel feel that special education is becoming a gateway degree for many teachers wanting to gain access to other positions in the school system. Since special education is a post-degree program, the teachers who graduate with this qualification also hold other qualifications. Consequently, they use the special education degree to procure their initial appointment and then within a couple of years transfer to a regular classroom position. Under normal circumstances this would not be an undesirable situation. However, at this point in time there are not enough qualified special education teachers waiting to replace them.

According to the Education Statistics Report for the school year 1999-2000 there were approximately 900 positions in the school system that required a special education qualification. However, an analysis of the Education Staff Records for the same year indicates that there were only 700 teachers with a special education degree. Since we know that not all of these teachers are teaching special education, it is obvious that well over 200 teachers are currently teaching special education without the required qualifications. Many of these are working to complete their special education degree; some are people who managed to get a job before they finished their program and others have enrolled in the special education program as one of the conditions of employment. Any way you shape it there are too many teachers teaching special education without a full knowledge of the area. This in itself indicates that there is a high demand for

¹⁷ Source: Education Statistics (2000)

teachers with special education qualifications, and if current trends continue then the demand will continue to exceed the supply for special education teachers. This appears to be an area of opportunity for new teachers if they are mobile and willing to relocate. Of course not all of them are – this is one of the reasons there are still qualified special education teachers in the substitute teacher pool.

Guidance

Many of the directors and assistant directors identified guidance as an area where shortages were beginning to emerge. With a recent change in policy that makes it possible for a school district to reduce their ratio of guidance counselors to students from 1:1000 to 1:500 the demand for guidance counselors could increase substantially over the next couple of years. Therefore guidance could also be an area of opportunity for teachers who are considering graduate studies. Analysis of the Educational Staff Records for the 1999-2000 school year indicated that there were approximately 300 teachers who indicated that intended to begin a graduate program in guidance within the next five years. If the Faculty of Education is prepared to admit these people into their program it should help to alleviate any shortage in that area.

Geographical Areas

It has become increasingly clear in recent years that schools in certain parts of the province, notably rural and remote regions, are experiencing much greater difficulty in attracting qualified applicants for teaching positions. For example in some areas of coastal Labrador there were still positions unfilled at the beginning of this school year and it is common practice to receive only one or two qualified applicants for many positions in remote communities, everywhere. The situation in the remote areas of the province is becoming more and more critical and the provincial government has just recently announced an additional \$5,000 income supplement, similar to one approved for nurses, for teachers in isolated coastal Labrador communities.

The difficulty of attracting teachers to rural and remote communities is not restricted just to Labrador. There were numerous reports of schools located within a one or two hour drive from a major urban center experiencing similar difficulties, especially for the subject areas where the demand is high. However, for the most part the situation in the larger urban centers is not nearly as acute. It is well known in Newfoundland that many teachers gravitate towards the urban centers and once they get a full-time position in these communities they usually stay for a while. In contrast, to the situation in Labrador, a similar position in one of the more urban areas of the province could attract well over 200 applicants.

Traditionally in Newfoundland and Labrador, many teachers would take an initial teaching assignment in one of the rural or remote areas of the province in order to gain teaching experience, as positions in the urban centres usually went to teachers with more experience. Sometimes these teachers would stay in the rural community for their whole career and others would leave after one or two years. In any event, under this scenario it was possible to staff

these schools with qualified teachers, even if the turnover was high. Today, because of other opportunities in or near urban communities in the province and new opportunities that appear to be more economically competitive, in other regions of the country and the world in general, new teachers aren't as willing to follow the same career patterns. As a result, it is becoming more-and-more difficult to attract teachers to rural and remote regions of the province, especially on the Labrador coast and small communities along the northern peninsula and the south coast. Also, as more of the teachers with a specialization in the areas of high demand (e.g. mathematics, chemistry etc.) reach retirement age, the situation is likely to worsen.

Teacher Supply

The major sources of supply for teachers entering the provincial school system are the substitute teacher pool and new graduates from the Faculty of Education at Memorial University. While the substitute teacher pool has decreased substantially¹⁸ (approximately 25%) over the past couple of years the number of students graduating from the Faculty of Education has begun a modest increase from the low enrolments of the late 1990's¹⁹.

The fact that the substitute teacher pool is declining in numbers is cause for concern as a decrease in the number of teachers who are available for substitute work is indicative of a shift in the teacher labour market. Such a shift has the potential to upset the current education system as schools depend on substitute teachers to continue with regular instruction when teachers are forced to be absent from the classroom. In recent years this dependence has increased as the number of substitute teacher days used by the province has increased even though the total number of teachers has declined. Clearly, if fewer substitutes are available it will have an impact on sustaining a quality education when teachers are absent.

According to school administrators the situation has already begun to deteriorate, as 80% of rural schools and 65% of urban schools reported some difficulty in getting substitute teachers. The situation is most acute however, in rural and remote areas of the province and in all-grade and high schools. Generally speaking, with the exception of social studies and English, it was easier to get a match at the primary/elementary level than it was at the secondary level. In many of the rural and remote areas it was often impossible to obtain a qualified substitute. Often, in those situations teachers or administrators filled in and in the event it was a long-term problem, districts resorted to hiring emergency supply teachers. Emergency supply teachers are people without a teaching degree who, under normal conditions, could not be licensed to teach in the school system. However, under special circumstances the Minister of Education can grant a temporary teaching license to help alleviate a supply problem.

An analysis of the substitute teacher pool indicates that the majority of substitutes are trained in the areas of primary/elementary education. Over 80% of the substitute teachers who are trained

¹⁸ Source: Education Statistics (1995-2000)

¹⁹ Source: Memorial University Fact Book 1990-2000)

in secondary education have training in the social studies or English Language but, there are very few substitutes in the areas of mathematics, science, special education, guidance, French and music. While only about ten percent indicated that they had completed any special training almost 50% indicated that they were currently working to improve their qualifications.

The substitute teacher pool is relatively young, inexperienced, and almost exclusively comprised of female teachers who are looking for full-time, permanent employment. Just over one-half of the teachers had less than six years teaching experience, and almost 80% of them were female. Of the teachers who comprised the substitute pool almost two-thirds were looking for full-time, permanent employment, the others were content to substitute and take short-term replacement positions when they became available. However, fewer than 50% of those looking for full-time employment as a teacher were willing to relocate to find a teaching position and almost 70% were willing to continue substituting until a job became available in the location that they wanted. Of those who were willing to consider relocation only about one-quarter were willing to go anywhere in the province, but almost one-third were willing to leave the province.

Historically, the majority of new teachers have been hired from the substitute teacher pool and for the most part new teachers graduating from the Faculty of Education would replenish the substitute teacher pool, get some experience teaching and then move into a full-time position within a couple of years. It would be somewhat naïve of us to think that the current generation of teachers is going to be content with this process. While it is clear that a large percentage of new graduates would prefer to stay in the province, over 60% indicated that they would leave to find a job if they had to. Also, while there was a strong preference to teach in large towns or cities, many would be willing to go to rural areas as long as it wasn't a remote area like coastal Labrador or the Northern Peninsula – the areas where the greatest opportunities exist.

While the number of students currently accepted to the Faculty of Education has begun to increase once again there is some debate as to the type of student that should be accepted. An analysis of the data published by the Department of Education (Educational Statistics, 1999) combined with the reports from the directors and assistant directors confirm that there is currently an oversupply of primary/elementary, social studies and English teachers. Yet, these groups tend to comprise the majority of the entrants to the Faculty of Education. Should the faculty restrict applications in these areas and accept more applicants from other areas – probably yes, but the truth of the matter is that there are not a lot of applicants in the areas of mathematics, chemistry, physics, and French, and most that do apply get accepted. Lately the number of students who refuse their acceptance has begun to increase, but the real problem is that the number of applicants continues to be low in the first place.

Conclusion

The truth behind the reputed shortage of teachers is that there is no overall teacher shortage in the province of Newfoundland at the current time, and if the current trends in the number of live births, the total fertility rate, the number of children entering school, and out migration don't reverse themselves soon - then an overall shortage is not likely to develop in the near future. Unfortunately, there is very little reason to think that these trends will reverse themselves or even level off in the near future. With fewer children entering school and projections that show the student population will decrease in excess of 30% over the next decade, unless there are policy changes by the government, the teaching population is also likely to decrease proportionally. Even with high numbers of teachers scheduled to retire over the next decade, if the Faculty of Education continues to graduate teachers at the current rates, these new teachers combined with those in the substitute teacher pool will be sufficient to meet future demand.

But, we cannot become complacent just because the numbers indicate there will be enough bodies to sit at the teacher's desks. To ensure a teaching force of quality, and that has to be the overriding goal of policy-makers, it is not acceptable to have teachers teaching students in areas for which they are not fully qualified. However, unless the Faculty of Education can attract students who have degrees in the areas of highest demand there will be a problem supplying teachers with these specialties. Similarly, unless rural districts and communities can make life in a small community attractive for new teachers then their difficulties attracting and retaining new teachers to these locations are likely to persist. This challenge is also being faced by rural communities attempting to attract and retain other professionals, particularly those in the health care sector.

Achieving a balance in the areas of specialization and recruiting qualified teachers to work in rural and remote communities are very real problems – problems that probably won't be solved if policy-makers continue to act within the parameters of existing legislation. More radical solutions are therefore required. These solutions are likely to be expensive and may well prove to be unpopular with many groups within the political and educational world. They might include a consideration of how young people can best learn in the absence of traditional teaching.

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