

**TEACHER AND ADMINISTRATOR SHORTAGES IN CHANGING TIMES:
AVOIDING THE DILEMMA OF SAVING THE TRAIN
FROM HIJACKERS TO FIND THERE'S NO TRAIN LEFT!**

by

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ABSTRACT

This paper addresses the looming shortages of teachers and administrators in Canadian schools. Against a backdrop of demographic change and a world-wide educator shortage, the case of British Columbia is examined. Using a qualitative interview method, involving three provincial agencies and teachers and administrators in twelve purposively selected districts, the study found teacher shortages by region, level, and subject. Specifically, shortages were found province-wide at both elementary and secondary levels, particularly in specialized areas such as French-as-a-second-language (FSL), Mathematics, Physics, Chemistry, and Business and Technology Education. The Teachers-On-Call pool has become the route to permanent appointment, particularly when provincial policy decisions impacted local teacher supply and demand. Some teachers were found to be teaching out-of-field, necessitating their re-alignment with the demands of the curriculum to meet the learning needs of students. The study also found that, despite the student population being made up of diverse backgrounds and ethnicities, few individuals from those backgrounds were entering teaching because of cultural and systemic barriers. Districts expected teacher preparation programs to play a role in addressing shortages arising in local education contexts. They suggested the need for a better fit between what universities do, what the government wants, what districts can deliver, and what the College of Teachers qualifications require. All these factors added up to a projected across-the-board shortage in British Columbia by 2006, but the study found evidence that a small shortage already exists in particular regions and subjects.

The unexpected finding was that a shortage of administrators is also imminent. The study found that the organizational conditions of schools were characterized by managerialism, adversarialism, and a battle over who represents kids. The demographic changes are also affecting administrator supply and demand. But the organizational conditions are making it difficult for districts to recruit appropriately experienced teachers into school administration. Teachers were interviewed about why they were or were not seeking administrative positions. It became evident that a decade of curriculum change in British Columbia has had a negative effect on experienced teachers. They have begun to *disinvest*. Their reasons had to do with the unattractive work conditions of administration and its remuneration, and the fact that they have made a life-style choice to stay in a position where they can hold on to the ideals that first brought them into teaching. They do not consider administrators as educational leaders. At the same time, younger, less experienced teachers are seeking administrative positions. They have not disinvested but neither do they fit the expected profile for leadership. Rather, they align themselves with the managerial nature of administration in today's adversarial conditions.

We suggest five ways in which the work conditions and recruitment of administrators can be improved to attract high calibre candidates. But we also end with a plea. We would not wish a shortage of teachers and administrators to be used to justify appointing persons to positions who are not committed to fundamental educational values. We believe strongly that we must work together responsively to address both the immediate need for well-prepared teachers and capable administrators and also the organizational conditions and culture in which educators do their work.

The Background Context

Thirty-one years ago, Toffler (1970) predicted that technological progress would accelerate so dramatically as the new millennium approached that society would become increasingly confused, fragmented and disoriented. Time has proved him correct. The context is one of change. What has happened?

First, the rapid pace of change has affected all institutions. Changes that previously took decades now routinely occur in a few years. For example, it took almost 50 years before the commercial introduction of technologies like electricity and automobiles reached 25 percent of North American households. By contrast, the internet has only taken seven years to attain the same target.

Second, the last two decades have brought economic and cultural restructuring guided by a Neo-Conservative worldview. This ideology fuses a neo-liberal view of the virtues of individual freedom and free market competition with a traditional conservative view that strong centralized control is necessary to maintain political stability. One consequence has been the reinforcement of the belief that economic and social renewal comes from the creation of a culture of individual enterprise through deregulation aimed at releasing market forces. For schools, this means that competition is good and will raise standards. Education is increasingly regarded as a commodity, not a public good.

Third, the market-driven world in which we now live is characterized by continual and relentless disequilibrium. Contestation is everywhere. The values of modern education—childhood innocence and student immaturity—conflict with postmodern education values of autonomy, childhood competence, and student sophistication (Elkind, 1997).

Fourth, widespread societal change has been accompanied by frustration and cynicism. In public life, there is profound distrust of politicians and experts. People feel that governments have lost control of their currencies and economic policies. Globalization has increased world trade but it has also sparked nationalistic and ethnic fervour. Technological advancement has added speed to business transactions but has also taken away human connection.

Fifth, the traditional boundaries between home and work, between children and adults, between public and private, between home and institution, and between teaching and parenting, have become porous (Elkind, 1997). For example, schools have been changed by the expectation that parents serve as resources to students and work cooperatively with educators. These changes have affected the work conditions in schools.

Sixth, today's educators face different problems from previous times. Dealing with diversity is ongoing. Youth culture has changed dramatically. Outside troubles infiltrate into schools with negative effects (Hargreaves, 1997). The changing world has affected students' attitudes to learning. Teachers are expected to achieve more with fewer resources. There is devolution of budgets but weakening financial provision; devolved responsibility but new forms of accountability and performance indicators. And market competition (with its "winner-take-all" mentality) is redefining the purposes, culture, and function of schools (Hargreaves, 1997).

Take the current context, add changing demographics to the mix, and we have a situation that is seriously affecting the future of the teaching workforce. Suddenly, the supply and demand of teachers and administrators in schools is an important issue.

Focus and Method

The first part of the this paper addresses the following questions:

- What underlies emerging supply and demand concerns? What incentives will be established to retain teachers/postsecondary faculty (e.g., retention and mobility issues, especially in rural and northern areas)?
- How do retirement patterns and practices affect teacher/educator supply?
- What measures will attract suitable candidates to the teaching field (e.g., recruitment methods and successes, provincial certification criteria)?
- What continuing work needs to be done to allow teachers/educators to become proficient in subjects for which they were not initially prepared?
- What impact does out-of-field teaching have on student learning (i.e., issues regarding specialization)?
- What can be learned from other (non-Canadian) jurisdictions on the supply/demand question?

But it is not just teachers that are in short supply; there is also a shortage of school administrators. Forty-five percent of administrators are 50 and over. With eighty percent of educators retiring between 55 and 60 (forty-two percent between 55 and 57), this translates into a huge demand for administrators. Surprisingly, districts are having difficulty recruiting appropriately experienced teachers into administration. Accordingly, the second part of the paper will attempt to find out why appropriately qualified and experienced teachers no longer find the job attractive by addressing the following questions:

- What is the new/emerging role of educational administrators at all levels?
- How can we equip and support administrators and educators with the skills and strategies they need to work together in addressing school and community goals?

The method used in the work reported was a qualitative interview study. Site visits¹ were made to three agencies with a Province-wide mandate (the Ministry of Education, the British Columbia College of Teachers, and the British Columbia Teachers' Federation) and to 12 schools districts for the purpose of interviewing key informants at each location. The districts² were selected according to size, geography and stability of enrollments using a purposive sampling technique. Interviews were completed with local union presidents, teachers,

¹ We wish to acknowledge the helpful work done during the site visits by Andrew Kitchenham of Malaspina University College, Nanaimo, British Columbia.

² The districts are Abbotsford, Burnaby, Gold Trail, Kamloops, Kootenay Columbia, Kootenay Lakes, Nanaimo, Prince Rupert, Richmond, Saanich, Surrey and Terrace-Kitimat.

administrators, and school district officials utilizing a common protocol for each interview³. The aim was to derive a timely and rich data source that would provide a better understanding of the dynamics of teacher supply and demand at the regional and local level. The results of this qualitative approach⁴ are reported in the section dealing with the case of British Columbia. In addition, we have searched the literature for other studies of teacher supply and demand issues around the world. These we have used to frame the background context to the problem of a shortage of teachers and administrators in Canada. We believe it is important to understand the nature of the problem world-wide. This understanding will help determine viable courses of action. For example, in the past Canada has relied on importing teachers from elsewhere during a shortage. That option may not be available in the next two decades. Thus, we are likely faced with a problem that requires not only action but careful planning and innovative thinking.

The situation in school administration is no different. That a teacher shortage does not inevitably lead to an administrator shortage suggests that there are factors at work other than demographic changes. Our aim is to provide an understanding of why appropriately experienced teachers no longer seek administrative positions. Such understanding would form the basis for policy action designed to equip the next generation of school administrators for leadership responsibilities in the 21st century. Hence, we extended the findings of the site visits by interviewing randomly selected experienced teachers about their reasons for not considering the leadership possibilities in administration.

TEACHER SUPPLY AND DEMAND

The problem of teacher supply and demand is upon many countries around the world. Both student enrollments and teacher retirements are increasing at a time when young people are attracted to higher-paying careers and the standards for teacher certification are being toughened. Piphio (1998) predicts that the United States will be facing the largest teacher shortage ever in its history. The National Council for Education Statistics (NCES) in the States projects a 21 per cent growth in demand for teachers in that country in the next decade. The projections are of a demand for 200,000 teachers per year for the next decade. This translates into a demand for 2,000,000 teachers in the United States by 2006. Ten of the largest school districts are facing a shortage of 26,500 teachers in Fall 2001. Specifically, NCES projects a 59 percent demand for Special Education teachers, together with a 22 percent demand for secondary teachers, primarily in Math and Science (Gerald & Hussar, 1999). Some states (e.g., Massachusetts) and school boards (e.g., Dallas/Fort Worth, El Paso) have offered signing bonuses between \$500 and \$20,000 for teachers, particularly ones in Math and Science, who commit themselves to fill vacant positions. New York City has recruited Math and Science teachers from other countries (e.g., Canada, Austria) and the state agency in Kentucky has permitted some districts to hire

³ The interview protocol may be found in Appendix A.

⁴ Although there are a number of advantages to qualitative research, it has the disadvantage of being labour-intensive, time-consuming and expensive. These aspects of qualitative work impact our research and this report. We have not had the resources to carry out an in-depth review of literature on this topic. Neither have we had the resources to do a careful analysis of the secondary data provided to us by the Teacher's Federation and the Ministry of Education. We have been able to do a little of both tasks, but there is much more that remains to be done. Hopefully, these tasks will be carried out in the near future.

people with only a high school diploma. Opposition to this has been sharp. Lewis (1998) argues strongly against lowering the standards of the profession as a means of addressing the looming shortage. Feistritzer (1998) goes so far as to suggest that the shortage has been deliberately constructed so as to reduce the professional status of teaching. Despite these arguments and the different responses (some doubtlessly opportunistic), there is clear demographic evidence that a teacher shortage is real and that it is world-wide.

Australia faces a similar shortage. At a time when there is an increase in student enrollments, teacher retirements, and the number of "discouraged" teachers currently in the workforce, the supply of entrants into teaching is insufficient to meet the demand. The Australian Council of Deans of Education (1998) predicts shortages in both elementary and secondary teachers in each of the next five years up to 2004. Specifically, they predict a shortage of 347 elementary teachers in 2001 and 1,439 in 2004, and a shortage of secondary teachers of 1,467 in 2001 and 3,097 in 2004. Moreover, the aging teaching force is expected to result in approximately 3,000 teachers retiring during the period ending in 2004.

Other parts of the world are also experiencing dire teacher shortages. For example, the United Kingdom is facing unprecedented shortages with the BBC News Online (1998) reporting that an already bad situation is rapidly getting worse. The same source cites a 75 percent rise in teacher vacancies as of April 2001. The teachers' union has recently called off a protest of teacher shortages in England and Wales. In an attempt to help ease the situation, the government has lengthened the time for immigrant teachers to stay in the country to four years. Both the United States and the United Kingdom are recruiting Mathematics and Science teachers in Spain and India. For years England and Wales have recruited young teachers from Australia and New Zealand. The deepening problems of teacher shortages have led to greater recruitment efforts. There are reports that the recruitment campaign has been so successful that it has left schools in New Zealand with their own difficulties in finding staff. Kenya, Africa faces similar difficulties—6000 teachers are needed in the capital city, Nairobi, alone (Aduda & Mugo, 2001, January 5). Canadian teachers and recent graduates are being offered substantial financial incentives to teach abroad.

Patterns of Teacher Supply and Demand across Canada

In Canada, the situation is no different. The 1995 Labour Force Survey by Statistics Canada showed that 60.8 per cent of the teaching force in Canada was over 40 years of age. (In British Columbia this percentage increases to 67.57—the highest in Canada with Quebec second highest at 65.3 per cent and Ontario third highest at 60.0 per cent). Thus, because most teachers retire at or around 60 (the average age for teacher retirement is 57.9 across the country, 58.7 in British Columbia but as low as 52.0 in Newfoundland), Canada will face a serious teacher supply and demand problem in 2015 created by its aging teaching workforce. Not surprisingly, recent studies by Vector Research and Development Inc. (Canadian Teachers' Federation, 1999) and Statistics Canada (Tremblay, 1997) project the possibility of a teacher shortage early in this millennium in different regions of Canada. Particularly affected is the province of Ontario, a finding confirmed by a recent study by the Ontario College of Teachers (McIntyre, 1998) which predicts a dire teacher shortage in that province by 2003. For example, teacher retirements in Ontario increased from 4,650 in 1997 to more than 10,000 in 1998, with 41,000 projected to retire in 2003 and 77,000 (almost half the province's teaching force) by 2008, but the number of

applicants for teacher education programs in the province has declined from 20,000 in 1990 to 8,000 in 1997, although this figure has risen to 15,500 in 2000 due to additional funding and attention. Thus, shortages are predicted province-wide at both elementary and secondary levels, particularly in specialized areas such as French-as-a-second-language (FSL), Mathematics, Sciences and Technology, and Computer Technology. Despite the very real possibility of a teacher shortage in Canada, the majority of the general public (Canadian Teachers' Federation, 1999) is against lowering the standards for entry into the profession.

THE CASE OF BRITISH COLUMBIA

British Columbia will face a teacher shortage beginning in 2006, if not before. This projection is based on the number of new graduates annually certified by the College of Teachers, the average retirement age of 58.7, and the likely reduction in teachers moving to the province as a result of world-wide shortages. According to figures provided by the Ministry of Education, 3,583 educators retired during the five-year period, 1994-98. Almost eighty percent retired between the ages of 55 and 60, 42.6% retired between the ages of 55 and 57 while five percent retired at age 65.

Fifty-five percent of British Columbia educators were between 40 and 54 years of age in the 1997-98 school year. Applying the above rates of retirement to future retirements, 7364 educators will be 55-59 years of age by 2003 and two-thirds will have retired. By 2008, most of the current 50-54 cohort and two-thirds of the current 45-49 cohort will have retired. Another 13.4 percent will retire in 2009 at age 60 for a net estimated loss to retirement of 13,300 educators.

On the supply side there are three "active" pools that are likely sources of "immediate" supply; annual graduates of provincial teacher preparation programs (n=1700), annual immigration of teachers seeking employment in British Columbia (n=800 but decreasing) and the Teacher-on-Call lists (n=5,100). Little is known about the career paths of either those currently on Teacher-on-Call lists or those who migrate into the province. The extent to which the "active" pool has limited mobility is also unclear, but community size and geographic location appear to impact the available supply of teachers. Many active pool members have personal circumstances that make it difficult to change location. Moreover, teaching continues to attract large numbers with backgrounds in the Liberal Arts and Humanities, subject areas that are historically oversupplied. Because of the system's need for a stable Teacher-on-Call list, the 5100 Teachers-On-Call in the province were not included in the projections.

Findings from the Purposive Interviews⁵

We found evidence of shortages that vary by region, level, and subject. However, whereas some needs are common across regions of the province, many immediate needs are local and pressing but not long-term. Thus, we differentiate between acute and chronic demand for

⁵ Our primary data and the secondary sources are limited to the public school system. The independent school sector is assumed to have a similar demographic profile. A comprehensive examination of teacher supply and demand should include the independent system.

teachers, suggesting that the province needs to develop strategies that permit: (1) attending to immediate, local, and time-bound demand for particular kinds of teachers, and (2) address in policy the long-term demand for teachers in all subjects and at all levels both within and across the various regions of British Columbia.

The findings are organized around the following themes:

District Needs: Surpluses and Shortages

Table 1 summarizes our findings by size of district. Our questions were open-ended and the responses were governed by the saliency of the topic for the district. “Yes”, indicates the subject area is a shortage, “No” indicates a surplus, and a blank indicates the area was not a concern.

All districts seem to be aware of the potential shortage of teachers and administrators, but no one appears to be taking steps to address the issue. Districts appear to be extremely busy coping with the daily demands of their responsibilities and an impending shortage of educators was not an immediate concern.

TABLE 1: District surpluses and shortages by level, subject area and district size.

	Metro	Urban	Rural
Elementary	n = 4	n = 4	n = 4
French Immersion	Yes	Yes	Yes
French as a Second Language	Yes	Yes	Yes
Elementary with Special Education Specialty	Yes	Yes	Yes
Elementary with ESL specialty	Yes	Yes	Yes
Elementary with Music Specialty	Yes	Yes	Yes
Primary teachers (one district)	Yes		
Secondary			
Fine and Visual Arts	Yes	Yes	Yes
Languages			
English	No	No	
French	Yes	Yes	Yes
English as an Additional language	Yes	Yes	
Spanish	Yes		
Japanese	Yes	Yes	
German		Yes	
Italian		Yes	
Shuswap		Yes	
Hindi		Yes	
Chinese	Yes		
Science and Math			
Biology	No	Yes	Yes
Chemistry	Yes	Yes	Yes

	Metro	Urban	Rural
Physics	Yes	Yes	Yes
Computer Science			Yes
Mathematics	Yes	Yes	Yes
Humanities	No		
Business Education	Yes	Yes	Yes
Home Economics	Yes	Yes	Yes
Technology Education	Yes	Yes	Yes
Physical Education			
Social Studies	No	No	
Psychologists	Yes		
Counsellors	Yes		Yes
Librarians	Yes		
First Nations Languages and Culture		Yes	Yes

TOC Lists and Supply

In metropolitan districts, hiring for teaching positions comes directly from the Teacher-on-Call lists. The recruitment and hiring process is rigorous because appointment as a Teacher-On-Call typically represents the first step toward a permanent teaching position. This process tends to limit the number of Teachers-On-Call on metropolitan lists and has led to Teacher-On-Call shortages. In many cases, the Teacher-On-Call is on several lists and has no loyalty to a particular district but rather stays in the district in which the most work occurs. This multiple-list approach creates an atmosphere of high competitiveness both among the districts and the Teachers-on-Call themselves.

In urban school districts, hiring for teaching positions also comes directly from the Teacher-On-Call list, but is less likely to be formally written into contract language. Although the Teacher-On-Call list is capped, interviews for the list are conducted all year round. Urban Teachers-on-Call are also on several lists so that they accept teaching positions in any of three or four districts.

In rural school districts the Teacher-On-Call list is more likely to contain individuals not seeking a permanent position. Because of difficulty in making a living as a Teacher-On-Call, individuals have other jobs or other sources of income. Rural areas often have difficulty obtaining certified teachers for the Teacher-On-Call list as well as individuals who are subject matter specialists. The Teacher-On-Call pool is characterized as being “generalists” with the elementary pool considered to have the “strongest” teachers. It is influenced by the number of “white-collar” workers in the area.

The Effects of Legislation on Supply and Demand

Particular decisions taken at the provincial level have impacted teacher supply and demand at the local level. Introducing or expanding different programs (e.g., Special Education, ESL) and changes in formula have required districts to add to their teaching complement or move it around in some way. Districts reported feeling that they were often caught short by decisions

coming down without any kind of lead-time to ensure that they could find qualified people to meet the demands. This has led to instances of teachers teaching out-of-field and the need for re-alignment of existing teachers.

Re-alignment of Existing Teachers

Many urban and metropolitan districts have had to relax criteria relating to many of the specialty positions because they could not get enough qualified people with the requisite academic qualifications and additional preparation. All three types of districts—metropolitan, urban, and rural—were concerned about this and stressed the need for universities to collaborate with them in providing field-based opportunities for teachers to respond to the immediate and long-term needs of the system. Such opportunities would permit teachers to re-educate themselves for subjects in which shortages of qualified teachers likely will occur, thus curtailing instances of out-of-field teaching.

Out-of-field Teaching and Appropriate Qualifications

Out-of-field teaching is highly problematic for student learning. This occurs because of legislated changes, curriculum compression, and sometimes because of teachers presuming they can teach subjects for which they are academically unqualified. Districts emphasized that they prefer to hire specialists in subject fields, particularly at the secondary level.

Diversity: Student Population and Teaching Force

In rural districts, there was little knowledge and even less action reported about discrepancies that exist between the ethnic make-up of the teaching force and the student population. In metropolitan and urban districts, the situation was somewhat different. They reported an important shift over the last four to five years toward Teacher-On-Call applications from people who are non-Caucasian, particularly representatives of the Asian and East Indian communities in metropolitan districts. While this shift in the number of applications is evident, the districts have not tracked the relationship between ethnicity of applicants and actual hiring. Few districts have affirmative action programs, insisting instead on the need to select the best person for the job, regardless of age and cultural background. Thus, it is not possible to say whether the increase in applications from persons of varied ethnic backgrounds will contribute to making the teaching force more representative of the ethnic diversity in the society and student population that they serve.

In the 1996-99 survey of teacher education graduates, 14.7 percent of persons certified by the College of Teachers were visible minorities. Why do so few individuals from the ethnicities represented in the student population not enter teaching? We speculate that there are cultural and systemic barriers at work. Culturally, some ethnic groups do not view teaching as a high status occupation. Systemic barriers include the cost of financing a university education for students of some ethnic groups, the language and grade point average requirements for university entrance, and the fact that it takes five years to qualify for teaching.

Field-University Relationships and Teacher Preparation

The major players in teacher education tend to be reactive to a shortage *after* it has occurred, instead of being proactive and planning for teacher shortages *before* they take effect. Part of this planning should include provision for programs to address shortages that arise in local education contexts. This would involve a better fit between what the universities do, what

government wants, what school districts can deliver and what the qualification requirements of the College of Teachers are, and more consistency between teacher education programs and the requirements of the College of Teachers for teaching in secondary content areas.

Districts were also concerned about preparation not providing concrete instructional strategies for teachers to respond to the challenges they face in today's world, e.g., inclusive education, literacy and the teaching of reading. The question of how Technology Education teachers are prepared was raised as a serious concern.⁶ Despite this critique, districts expressed strong support for collaboration in designing teacher education programs and many expressed a strong desire for "internship" and "mentoring" programs for new entrants to the profession that would also be handled collaboratively.

Conclusions about Teacher Shortage in British Columbia

First, we believe the aging teaching force in British Columbia will create a teacher shortage that will be more obvious in 2003 and will become most acute between 2005 and 2010. Indeed, a recent survey (Overgaard, February, 2001) showed that there is already a shortage of 212 teachers across 45 districts, with five of eight metropolitan districts reporting shortages. What is unique about this shortage is that the same demographics are also affecting other provinces and other countries. Provinces and countries that have traditionally been sources of supply in the past will be facing their own shortages. This widespread shortage will thus reduce the number of teachers migrating into British Columbia and Canada.

Second, we are concerned that unless there is careful planning for and a robust policy about issues of supply and demand, an individual without teacher qualifications will likely be placed in the classroom in the event of a serious teacher shortage, negatively impacting the quality of education and undermining the professional recognition of teachers.

Third, we found signs that some districts are making gains in terms of gender equity in science teaching and in administration. However, we heard only expressions of hope when it came to the possibility of a more balanced representation in the teaching force of those ethnicities that are well represented in the student population. While this may become an issue that might work itself out over time, it nevertheless is a point of concern that teacher education institutions and school districts currently fail to attract many people of diverse backgrounds into teaching. It may become necessary, particularly in instances of program needs that require, for example, First Nations' or languages (e.g., Mandarin, Japanese, etc.) personnel, who have the appropriate expertise but lack a teaching certificate, that some carefully crafted, *temporary fast-track alternatives*, such as a one-year program or two-year program combined with some kind of internship (analogous to the Teaching Chef program) be considered. In this way, it may be

⁶ The sentiments expressed mirrored those of the US Education Secretary:

New and veteran teachers alike say they do not feel very well prepared to teach effectively to the four fastest changing aspects of the nation's schools—raising standards in the classroom, students with special needs, students from diverse cultural backgrounds, and the use of technology. The fact that newer teachers report as much unease as their veteran colleagues indicates that teacher education and professional development programs are not addressing the realities found in today's classroom. (Riley, 1999).

possible both to address a pressing program need and make some progress toward achieving more diverse representation in teaching.

Now is the time to develop initiatives to address teacher shortages. Not only do we need to consider ways to increase the current active supply pool of teachers, but we also need to address chronic shortages of specialty subject areas at both the elementary and secondary level. We need research on the supply side which: (1) identifies the typical career path into part-time and full-time employment; (2) identifies the extent to which those with teaching qualifications—who are not currently employed or on the Teacher-on-Call lists—will become active seekers of teaching employment in the event of a teaching shortage; and (3) provides information about those teachers who migrate into the province, especially the extent to which they are place bound. We also need to know the maximum capacity of teacher preparation programs in the province.

To wait until we are convinced beyond a doubt that a teacher shortage is going to occur would, in our opinion, be too late. We would then forfeit the opportunity that still exists for us to deal proactively with the difficulties facing districts around the province. The current nursing shortage across the country is a vivid illustration of what could happen in education without adequate foresight and preparation.

DEMOGRAPHIC CHANGES AND ADMINISTRATIVE LEADERSHIP

The demographic changes impacting the teaching force in British Columbia also affect the ranks of administrative officers in the province. The 1988 School Act separated administrators from the ranks of teachers, creating a governance structure that is peculiar to British Columbia. We found evidence that the nature of school administration has changed dramatically in the last twelve years, which, together with increased work stress, contributes to a deeply embedded adversarialism between teachers and administrators, is largely responsible for districts having difficulty recruiting highly capable personnel into administrative positions. We consider this difficulty and the shortage of school administrators that could arise to constitute a serious problem for the school system.

How will the projected shortage of teachers affect the ranks of school administrators? Table 2 illustrates the distribution of British Columbia educators among three age cohorts, by job description. Fifty-five percent of British Columbia educators were between 40 and 54 years of age in the 1997-98 school year (this figure rose to 57 percent in 1998-99). Thirty percent of British Columbia educators were over 50 years of age. It also shows that, whereas only 30 percent of teachers were 50 and over, approximately 45 percent of administrators fell into this category, i.e., within 5-7 years of retirement. Thirty-six percent of school administrators were between 50 and 54 years of age, 38 percent between 45 and 49, and 20 percent between 40 and 45 years of age. Moreover, 37 percent of district administrators were between 50 and 54 years of age, 40 percent between 45 and 49, and 22 percent between 40 and 44 years of age. We are now three years on. Many of the administrators in the 50-54 age category will be close to (if not at) retirement. The average retirement age for administrators is no different from average retirement age of teachers (58.7). Thus, of the net loss to retirement of 13,300 educators by 2009, many will be administrators; a shortage of administrators is imminent.

TABLE 2. Selected age cohorts by job description for the 1997-98 school year

Position	40-44 years		45-49 years		50-54 years	
	N	Percent	N	Percent	N	Percent
Teachers	5,344	16.5	7,354	22.7	5,869	18.1
Principal	241	15.4	472	30.1	529	33.7
Vice-Principal	198	19.0	330	31.7	241	23.2
Department Heads	419	16.4	576	22.6	577	22.6
Totals for School Staff	6,202		8,732		7,216	
Director of Instruction	8	9.5	24	28.6	33	39.3
Instructional Support	71	17.2	119	28.9	98	23.8
Testing and Assessment	9	12.2	16	21.6	17	23.0
Totals for District Staff	88		159		148	
Totals	6,290		8,891		7,364	

N.B. The percent beside the number is the percentage of the total group that is in that age group. For example, 33.7 per cent of all principals are in the 50-54 age category (n = 529).

We also found that this imminent shortage of administrators is negatively affected by the organizational conditions of schools.

The Organizational Conditions of Schools: Adversarialism, Managerialism, and the Battle Over Who Represents Kids

The organizational conditions of schools can be characterized by the presence of a managerialism that has led to a deep-seated adversarialism between teachers and administrators that ultimately manifests itself in a battle over who represents the interests of kids. These organizational conditions seem to have their origins in the changing nature of administration and the increased work stress for both teachers and administrators.

The School Act gives administrative officers broad duties, responsibilities, and obligations. Districts rely on principals to help administer the collective agreement at the school level. In addition, principals now deal more frequently with parents and issues that they raise. Thus the primary goal appears to have become one of having good relations with parents and the community, with curriculum being secondary. Teachers and administrators alike view these changes with concern.

The increased work stress experienced by both teachers and administrators also affects schools' organizational conditions. Some administrators are taking stress leave and retiring early. How districts deal with the consequences of these work stresses frequently exacerbates the tension that exists between teachers and administrators. In most instances, both appear to indulge in blaming the other for the current difficulties that characterize the organizational conditions of schools in British Columbia. This situation has exacerbated an already impending shortage of school administrators.

Administrative Shortages

Demographically, there is a shortage of administrators. Organizationally, districts have difficulty in recruiting appropriately experienced teachers into school administration—perceived in some quarters as the most demoralized group in the system—at a time when numerous positions are opening up.

Difficulty Recruiting Administrators

The changing nature of the principalship, with its emphasis on managerial tasks and the administration of the collective agreement is seen by districts as being largely responsible for their difficulty in attracting quality people into the ranks of school administration. The number of applications in metropolitan districts is lower than it was two or three years ago, but not significantly so—on average, 40 applications for the position of elementary principal and 50-60 for elementary vice principal, a combination of internal and external applications. But it is the calibre of applicant for both principalship and vice principalship that they find disappointing. The district staff suggested that there was a lack of depth in both the ranges of applications received and in the specific people they ended up selecting. The collective view was that some of the people going into vice principalships could probably use two or three more years' experience in the classroom.

Administrative Openings

In the next five to ten years, there will be an extremely strong need for more administrators—especially at the secondary level. Indeed, the recruitment of administrators could become a serious problem across the province. In urban and rural districts, there is already a problem with low numbers of only 10-12 applicants on average for an advertised Administrative Officer position. In metropolitan districts, the number of applications is higher, about 30-40 applicants, but few applicants were deemed to fit the district "profile." Thus, all districts reported that the quality of applicants for administrative positions is decidedly "thin." One rural district indicated 30 applicants for a position but 18 were from teachers with insufficient experience. All districts reported having difficulty in coming up with a short list of three appropriate candidates for recently advertised positions.

Why are Experienced Teachers not Seeking School Administration?

Huberman's (1989, 1991) study mapped career stages of teachers. Younger teachers typically have a lot of energy, few responsibilities, and a willingness to work long hours fired by an idealistic view of teaching. Teachers in their mid-careers have much life experience behind them, are more aware of their mortality, and tend to be more focused on establishing a balance between work and their personal lives. Teachers in late-careers tend to disengage. Those who disengaged in a positive manner had steered clear of school-wide innovation. They defined and stuck with their areas of professional (and outside) interests. By contrast, those who disengaged with negativity and disenchantment had been heavily involved in school-wide renewal. Huberman (1991) sums it up thus:

Tending one's private garden, pedagogically speaking, seems to have more payoff in the long haul than land reform, although the latter is perceived as stimulating and enriching while it is happening. (p. 183)

Teachers in British Columbia have gone through a decade of curriculum change. Many have become older but cynical. The adversarialism and managerialism present in British Columbia schools have taken their toll. We found many experienced teachers for whom continual renewal had led to disenchantment. They question why they should be involved in administration. The few positive teachers we found—those who had "tended their own private garden"—saw no reason to become involved in the "land reform" of administration. In short, experienced teachers have begun not merely to disengage but, more significantly, to *disinvest*.

When questioned about this, they offered two broad reasons. First, they have figured out that, by the time one has worked 60 hours a week and come in for every crisis at the school on the weekend, evenings or during the summer, the hourly pay is not very good.

The administrator's day often begins at 7:00am and doesn't end until 10:00pm. Meetings before school, meetings after school, board directives, central office requests, problems with parents, problems with kids, problems with teachers, and so on. From one thing to the next, non-stop go, dealing with everybody's problems but with little power and certainly no real remuneration when you break down what you earn by the hour. Get a life!

The administrators I knew who did a caring job all ended up exhausted and stressed out. Why would anyone subject themselves to that? Certainly not for the money at any rate!

But by far the biggest deterrents have to do with personal welfare issues and the fact that the job is no longer perceived as attractive any more.

When I entered teaching, I had all sorts of visions—I loved my subject and I loved kids. But the system continually frustrates me as an educator. It no longer provides for teachers who care about their subject or who care about the students. It's bad enough being a teacher but at least I have learned how to work some degrees of freedom. If I were an administrator, I'd have none—no scope for my subject, and expected to act like a police officer with the kids and other teachers!

There was a time when it was possible to be an educational leader as an administrator. But, no longer. And I cannot give up the very purposes that brought me into education in the first place. Life's too short!

Administrators are legislatively no longer teachers and this creates an impression for some teachers that they are "crossing over to the other side," leaving behind their colleagues to become one of "them."

Administrators relate to teachers as if they are dispensable pawns in the educational game of chess. I find that very distasteful. Why treat the people who do the most important work with disdain? And you ask me why I don't choose to become an administrator? I'm an educator, that's why, and I'm not prepared to give that up.

Educational policy makers have lost their way. They are too busy reacting to media and parental criticism that they have forgotten what education is for. As an administrator, I'd have to forget too, and I'm not prepared to do that!

The increased work load, the low hourly pay, the adversarial conditions, and the managerial nature of the administration all combine to make the job unattractive and potentially harmful to personal health and life-style. Consequently, experienced teachers rarely seek administrative positions; rather, they *disinvest*.

I put a lot of time and effort into the Year 2000 program, only to have it all negated by a political decision. Administrators experience that time and time again. I'd be crazy even to think of becoming one. Why should I give policy makers even more opportunities to devalue my contribution as an educator?

Professionally, I have worked long and hard to be where I am today in terms of my knowledge of subject and my pedagogy with kids. I now value the quality of my personal life. Why would I consider putting all that at risk? It would be like starting over, and at what cost!

As Goodson (2001) has noted, in postmodern conditions, change has often become an unwelcome and alien imposition for the progressive educator, because individuals increasingly live outside institutional and traditional patternings.

Why are Inexperienced Teachers Seeking School Administration?

The teachers who are considering administrative positions have not disinvested, but neither do they have experience. They do not fit the Districts' profile for educational leadership.

Districts seek persons who are "transformative" rather than "transactional" or "traditional" (Burns, 1978), "empowering" rather than "controlling" (Blase & Anderson, 1995). They look for people who are strongly driven by key sets of personal and professional values to build, implement, and monitor a collective vision by means of feedback from stakeholders inside and outside the organization (Day, 2000). They seek persons capable of combining moral purpose with complexity, of appreciating organizations as living systems engaged in knowledge creation (Fullan, 1999). Thus, prospective leaders need to welcome uncomfortable associates, conflict and diversity, because then the conditions are in place for creative breakthroughs in complex, turbulent times. In so doing, they do not micro-manage but establish a system of people-based learning that is framed by some key values/priorities and loose structures, and both trust the process and continually monitor it. In this way, they forge connectedness of purpose, people, ideas, and understandings (Fullan, 1999). They attack incoherence (Bryk et al, 1998) and work

hard at connectedness within diversity and difference because they know that fragmentation, overload, and incoherence are endemic problems in a postmodern age.

We found that many of the teachers who are considering administrative positions are not driven by a key set of personal and professional educational ideas and values; rather their philosophical orientation aligns itself strongly with the managerial nature of administration in today's adversarial conditions. At a time when outside pressures are infiltrating and, in some instances, redefining the purposes of public schools, this trend represents a serious set-back for the educative agenda of schools.

What can we do about it?

We put forward five suggestions for change to attract talented candidates. These suggestions address two broad areas—work conditions; recruitment.

1) Reconfigure Leadership Roles and Responsibilities

For the most part, schools have been organized hierarchically: principals are leaders and teachers are followers. However, schools in the process of restructuring are coming to understand that this conception of leadership restricts the building of a culture of inquiry. Sergiovanni (1989) makes an important distinction between technical and managerial conceptions of leadership, and cultural leadership:

Transformative leaders practice the principle of power investment. They distribute power among others in an effort to get more power in return. They know it is not power over people and events that counts, but power over accomplishments and the achievement of organizational purposes. To gain control over the latter, they recognize that they need to delegate or surrender control over the former. (p. 220)

What is being proposed here is a different view of the role of principals and teachers. Principals have power in this view, but it is "power to accomplish" rather than "power over people and events." In such a definition, principals practice the concept of "leadership density," that is, leadership is shared and broadly exercised. When talked about in this way, leadership becomes something that both administrators and teachers can have and use; and leadership becomes central to transforming schools into centres of inquiry. But this only becomes possible when school administrators have a work schedule that is feasible and manifest support from central office.

2) Make Work Schedule Feasible

Expecting administrators to work 60 hours a week and come in for every crisis at the school on the weekend, evenings or during the summer, constitute work conditions that are hardly feasible. To attract people to such conditions, we must change either the financial inducement—the hourly pay is not very good—or the work schedule itself. Since we cannot pay school administrators what they deserve for working such long hours, we must re-think the work schedule expectations (something analagous to Doctors-On-Call comes to mind) to make it more attractive to high calibre candidates who commit to fundamental educational values but also wish to have a personal life.

3) Support (and Challenge) School Administrators in a Context of (Social, Political, and Cultural) Change

A major commitment is needed to build the kind of conditions that make possible administrators' and teachers' continuous growth by providing ongoing opportunities for inquiry into their own practice. The challenge of how to do this has been historically elusive. Virtually the entire educational establishment has been set up to accept quick fixes—single-shot workshops, or even week-long summer seminars and "good presenters"—rather than developing a set of mutually reinforcing conditions that need to be considered, understood, and built over time (Lieberman, 1994).

One possible set of conditions is referred to as is school-based professional development; the school is both the *site* and the *context* of professional development—i.e., site as in the place where it happens and context as in the work setting that anchors all activities and meaning. These conditions permit administrators and teachers to work together to examine their values and practices. Instead of a workshop aimed at individual educators, the concept of school-based professional development represents not only the means by which educators improve their practice with their students, but also the co-construction of a collaborative culture in the school, one in which administrators and teachers are encouraged to lead and learn from one another. Such conditions presuppose an increase in the school administrator's authority that is used to nurture leadership capacity in teachers.

4) Nurture Leadership Capacity: Increase School Administrators' authority and responsibility

Nurturing leadership capacity is somewhat analogous to people in a strange city seeking to find their way to a particular place. They can be given specific directions they must follow or they can be shown how to read a map and interpret the city's landmarks. The latter approach builds the capacity to find one's way if one loses the directions or if they turn out to be unclear. Building leadership capacity takes place around the principles, concepts, and core values embedded in educational action. The aim is to generate ownership through deep understanding. Leadership is seen as enabling "participants to learn themselves toward a shared sense of purpose" (Lambert, 1997, p. 8), to foster broad-based and skillful teacher participation in the educative agenda of the school. Two capacities become important: 1) a capacity to listen and understand at a deep level, and 2) a capacity to facilitate dialogue. The emphasis is on vision, purpose, relationships—not—rules, rigid procedures, and mandates; on covenant not contract. The desired, covenantal focus is on building norms of collegiality, openness and trust—at the district and school levels.

5) Actively Mentor a Cadre of Future Administrators

We need to actively mentor a cadre of future administrators along these lines. It is important to recognize that the ideas of shared work, shared problem solving, mutual assistance, and re-configured leadership in curriculum and instruction form the centerpiece for building a school culture that expects, encourages, and supports continuous inquiry into practice.

Conclusion

The demographic changes impacting the teaching force in British Columbia also affect the ranks of administrative officers in the province. We have found evidence that the nature of school administration has changed dramatically in the last ten years which, together with increased work stress, contributes to a deeply embedded adversarialism between teachers and administrators that is largely responsible for districts having difficulty recruiting highly capable personnel into administrative positions. We consider this difficulty and the potential shortage of school administrators that could arise in the near future to constitute a serious problem for the school system of British Columbia and Canada.

We suggest five ways in which the work conditions and recruitment of administrators can be improved. But we also end with a plea. Faced with a potential shortage of school teachers and administrators because of changing demographics and less favourable work conditions, we must act with clear-headed caution. To take less qualified candidates into administration—candidates who may be more committed to the functions of managerialism than to fundamental educational values—merely to preserve the running of schools is, for us, a danger sign. It is reminiscent of the Marx Brothers' film, "Marx Brothers Go West." When Groucho runs out of coal and wood for fuel (a steady supply of high-calibre administrators) he uses the wooden cars (less qualified candidates) to feed the furnace (administrative process), thus driving the engine (administration) until there is no train (public schools) left. Of course he's doing this to save the train from the hijackers (the policy makers and critics of public schools)!

We implore stakeholder groups to resolve not to fall into this trap. We also entreat policy makers to become proactive in addressing the organizational conditions and culture in which school administrators do their work and to work actively to recruit and mentor future administrators whose commitment to fundamental educational values is beyond question. Remember, the aim IS to save the train, not to destroy it!

References

- Aduda, D., & Mugo, W. (2001, January 5). Schools need 6,000 teachers, but TSC (Teacher Service Commission) rules out new recruitment. <http://allafrica.com/stories/200101050303.html>. Nairobi, Kenya: The Nation.
- Australian Council of Deans of Education. (1998). *Teacher supply and demand to 2004; 1998 updated projections*. Victoria, Australia: Australian Council of Deans of Education.
- Blase, J., & Anderson, G. (1995). *The micropolitics of educational leadership*. London, UK: Cassell.
- Bryk, A., Sebring, P., Kerbow, D., Rollow, S., & Easton, J. (1998). *Charting Chicago school reform*. Boulder, CO: Westview Press.
- Burns, J.M. (1978). *Leadership*. New York: Harper and Row.
- Day, C. (2000). Effective leadership and reflective practice. *Reflective Practice, 1* (1), 113-127.
- Elkind, D. (1997). Schooling and family in the postmodern world. In A. Hargreaves, (Ed.), *Rethinking educational change with heart and mind*. Alexandria, VA: ASCD.
- Feistritzer, C.E. (1998, January 28). The truth behind the "teacher shortage." *The Wall Street Journal*, <http://www37.pair.com/ncei/WSJ-12898.htm>.
- Fullan, M. (1999). *Change forces: The sequel*. London, UK: Falmer Press.
- Gerald, D.E., & Hussar, W.J. (1999, August 13). Projections of Education Statistics to 2009. <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=1999038>. Washington, DC: National Center for Education Statistics.
- Goodson, I.F. (2001). Social histories of educational change. *Journal of Educational Change, 2* (1).
- Hargreaves, A. (1997). Rethinking educational change: Going deeper and wider in the quest for success. In A. Hargreaves, (Ed.), *Rethinking educational change with heart and mind*. Alexandria, VA: ASCD.
- Huberman, M. (1989). The professional life cycle of teachers. *Teachers College Record, 91* (3), 31-57.
- Huberman, M. (1991). Teacher development and instructional mastery. In A. Hargreaves & M. Fullan (Eds.), *Understanding teacher development* (pp. 171-195). London: Cassells.
- Lieberman, A. (1994). Teacher development: Commitment and challenge. In P.P. Grimmett & J. Neufeld, (Eds.). *Teacher development and the struggle for authenticity: Professional*

- growth and restructuring in the changing context* (pp. 15-30). New York: Teachers College Press.
- Lambert, L. (1997). *The constructivist leader*. New York: Teachers College Press.
- Lewis, A.C. (1998). "Just say no" to unqualified teachers. *Phi Delta Kapan*, 80 (3), 179-180.
- McIntyre, F. (1998, December). Teacher shortage looms. *Professionally Speaking*.
<http://www.oct.on.ca/english/PS7/cover.htm>.
- Overgaard, R. (2001, February). *Educator supply and demand in British Columbia school districts: An analysis of survey findings*. Victoria, BC: Ministry of Education.
- Pipho, C. (1998). A real teacher shortage. *Phi Delta Kapan*, 80 (3), 181-182.
- Riley, R.W. (1999, January 28). Teacher quality: A report on teacher preparation and qualifications. <http://www.ed.gov/Speeches/01-1999/990128.html>. Washington, DC: NCES Press Conference.
- Sergiovanni, T. (1987). The theoretical basis for cultural leadership. In L.T. Sheive & M.B. Schoenheit (Eds.), *Leadership: Examining the options* (pp. 116-129). Alexandria, VA: Association for Supervision and Curriculum Development.
- Tremblay, A. (1997). Are we headed toward a teacher surplus or a teacher shortage? *Education Quarterly Review*, 4 (1), 53-85.
- Toffler, A. (1970). *Future shock*. New York: Basic Books.
- Vector Research and Development Inc. (1999, March). Canadians expect qualified teaching force even if shortages emerge: The Vector poll on public opinion in Canada. *Canadian Teachers' Federation Economic Service Notes*, April, 1999-4, 1-4.

APPENDIX A

Interview Protocol: Preliminary Questions

The following questions were posed heuristically to elicit information about regional teacher supply and demand patterns in the school districts visited:

1. How many teachers do you have in the district? Is your student enrollment going up, down, or is it stable? Are there any unusual downward or upward "spikes" in the K-12 distribution?
2. What major needs (in terms of the supply and demand for teachers) do you foresee in the immediate two to five years, and in the next five to fifteen years?
3. How many teachers are you likely to need in your district? In what areas (elementary, secondary, subjects, etc.)? Are there any areas / specialties / levels in which you see a potential *surplus* or *shortage* of teachers in your district?
4. Have you had any problems and/or dilemmas on the issue of teacher supply and demand?
5. Could you share some examples of unexpected perplexities, surprises, and changes that you have experienced in your district (enrollment, resignations, and retirements, other)? What kind of turnover of teachers do you experience in your district?
 - a) Approximately how many teachers tender their resignations in a typical year? Are some teachers (level, age, gender, specialty area, etc.) more likely to leave the district than others?
 - b) Do you have a district early retirement incentive plan? How many teachers retired in 1997, 1998, and plan to retire this year? Are some teachers (level, age, gender, specialty area, etc.) more likely to leave the district than others?
6. Could you characterize for me the "shape" of your Teacher-On-Call list in terms of gender, age, level, and subject area?
 - a) How many teachers do you have on the list? Have you experienced a shortage of Teachers-On-Call in the last two or three years?
 - b) Could you characterize the procedure for being put on the list?
 - c) Do you have a cap? (Rationale for having or not having a cap)
 - d) Does the list have a built-in hierarchy that favours seniority?
 - e) How difficult is it for someone to make the list?
 - f) How is your current list affected by the demographics of your district? Do you have any difficulties with the operation of your Teacher-On-Call list? Surplus in some areas, shortage in others?

7. Could you characterize any trends or patterns that may be particular to your district (as distinct to the province as a whole)?
8. Have your local operations (in terms of the recruiting and hiring of suitably qualified teachers) been affected in any way by legislation?
9. Could you comment on the extent to which there may be a need for some re-alignment or re-positioning of teachers in your district, which may (or may not) have implications for professional development?
10. Do you ever face the dilemma in which you have teachers applying for positions for which they lack appropriate qualifications? What do you do in such circumstances? In what areas do these dilemmas typically occur?
11. What do you typically look for when examining a candidate for a teaching position? How do you go about recruiting teachers? For example, are there factors other than qualifications (e.g., familiarity with and sensitivity to the local context) that extenuate your recruitment of teachers?
12. Is there something that could be done at the provincial level that will address the specific needs you experience in your district?
13. Could you characterize the ethnic diversity of the student population in your district? Could you also characterize the teaching force in your district? How do the two characterizations compare? What do you make of the differences and/or similarities?
14. Could you please comment on the supply and demand of school-based administrators in your district?
15. Are there other points pertaining to teacher supply and demand in your district and in the province that have not been covered but you think are important issues that need to be addressed?