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The Employment Experience of Recent Graduate Education Students*

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Abstract

Because it both employs a significant portion of university graduates and provides an early warning of future demand for higher levels of education, the teaching profession affords an instructive illustration of the experiences of highly trained personnel in the labour market. The study is an attempt to elucidate part of the picture of supply and demand for teachers by examining the labour market experiences of recent education graduates of the University of Alberta. Although concern recently has surfaced that a shortage of teachers is imminent, these respondents who entered the labour market in late 1987 or mid-1988 reported that teaching jobs were still in short supply in early 1989. Only 62 percent found full-time employment, though 86 percent sought teaching jobs. Job location, age and the extent of the job search emerged as important influences on employment status.

Résumé

L'enseignement emploie un nombre important de diplômés de l'université et par conséquent anticipe ce que la demande de l'éducation tertiaire sera à l'avenir. Pour ces raisons la profession enseignante est une bonne illustration des expériences que connaît la main d'oeuvre hautement qualifiée sur le marché du travail. L'étude présente met à jour un aspect de la situation de l'offre et de la demande d'enseignants sur le marché du travail, en analysant les expériences de récents diplômés de l'Université de l'Alberta. Bien qu'on ait fait état récemment d'un manque possible d'enseignants dans un avenir proche, les diplômés qui sont entrés sur le marché du travail vers la fin de 1987 ou vers mi-1988, rapportent que les offres d'emploi faisaient toujours défaut au début de 1989. Sur 86 percent des diplômés à la recherche d'un emploi, 62 percent

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seulement avaient trouvé de l'emploi à plein temps. L'endroit où ces emplois étaient offerts, l'âge, et l'intensité de la recherche d'emploi apparaissent comme les influences déterminantes sur l'embauche.

Introduction

Interest in the link between postsecondary education and economic development grew during the 1960s when a myriad of human capital studies provided 'scientific' credibility to the popular belief that educational expenditures to improve the quality of Canadian manpower would stimulate higher productivity, expedite technological advance and lead to economic growth. The acceptance of human capital theory reinforced pressure for universal access to educational opportunities, provided reassurance that the post-War policy of educational expansion was correct and contributed to the unprecedented expansion of the Canadian postsecondary system during the 1960s and early 70s. Although the idea that education was instrumental in the creation of both individual and national economic wealth was challenged in the United States as early as 1949 by writers like Seymour Harris, it was not until the early 1970s that serious incongruences between the supply of university graduates and the labour market became apparent in Canada (Kushner, *et al.*, 1971). Prior to this period the demand for highly skilled labour in Canada's rapidly expanding economy had far exceeded the supply emanating from the country's postsecondary system.

The teaching profession provides an instructive illustration of the experiences of highly trained manpower in the labour market, both because it is an occupation which has traditionally employed a significant portion of university graduates and because it provides an early warning of future demand for higher levels of education. The demographic tidal wave of baby boomers that swept through the educational system between the 1950s and the early 1970s ensured a high demand for educators. As the wave passed through the primary and secondary systems the relative demand for teachers plummeted in most regions of the country. Exacerbated by the country's slower rate of economic growth during the 1970s, the employment prospects of Canada's highly educated manpower, including teachers, deteriorated. Since at least the early 1980s, as funding for education decreased and the size of the school age population stabilized, there have been even fewer new teaching positions in elementary and secondary schools (Decore and Pannu, 1986). At the same time, mobility in the existing teacher work force fell as teachers chose to remain in secure positions rather than take leaves or seek other employment alternatives.

This situation led to considerable concern that that too many new teachers were being trained for too few positions, a situation sometimes resulting in enrolment quotas designed to limit entrants into the teaching profession. By the end of the 1980's, elementary school enrolments once more began to grow as the progeny of the baby boomers began to enter school. The need for more teachers to accommodate larger enrolments is compounded by the fact that the large contingent of teachers hired during the 1960's is reaching retirement age. Hand-wringing about teacher oversupply has turned to alarm about impending teacher shortages that are expected to grow at least into the next century (Globe and Mail, 1989; Alberta Education,1990) The study reported here attempts to elucidate part of the picture of supply and demand for teachers by examining the labour market experiences of recent education graduates of the University of Alberta.

Literature Review

One of the first examinations of Canada's well educated manpower resources, *Canada's Highly Qualified Manpower*, indicated that between 1950 and 1970 the total teaching force had more than tripled as it attempted to keep pace with the enormous rise in enrolments. At the time of the study teachers made up the largest single component of the country's highly qualified manpower (Atkinson, Barnes and Richardson, 1970:169). Kushner, Masse, Blauer and Soroka's less sanguine 1971 study, *The Market Situation for University Graduates*, concluded that an overall excess supply of university graduates was present, with the most severe area of surplus in the field of education. Continuous increase in the number of Education students was outstripping the slowing enrolment of primary and secondary school students and resulting in an extremely tight job market (1971:20).

Subsequent work including *Degree Holders in Canada* (Ahamad, 1979), *Supply, Demand and Salaries* (Manpower and Immigration, 1976), *Out of School - Into the Labour Force* (Zsigmond, *et al.*, 1978), *The Class of 2001* (Clark, Devereaux and Zsigmond, 1979) showed falling demand for qualified manpower accompanied by a qualifications escalation and rising unemployment and underemployment. The trends in the teaching profession were even less promising as elementary-secondary enrolments continued to fall during the 1970s. In 1969 more than 30,000 teachers were hired nationally, while in 1976 this figure dropped to approximately 10,000 (Zsigmond *et al.* 1978:44). Decreasing enrolments were being compounded by an attrition rate among teachers which fell steadily from around 11 percent percent in 1966-67 to just over seven percent in 1977-78. During the same eleven years the recruitment

rate for teachers fell from close to 18 percent to approximately seven percent. Although the job market projections were extremely discouraging, the number of degrees and diplomas granted in the field of education remained relatively constant at approximately 24,000 a year from 1972-73 to 1975-76 (Clark, Devereau and Zsigmond, 1979:73). As Ahamad notes, these effects spilled over into other fields as graduates in the social and human sciences who had traditionally been employed in large numbers as teachers were forced to seek employment in more general occupations (1979).

A clearer picture of the job market experiences of higher education graduates emerged with the 1978 Statistics Canada study of 1976 graduates. Despite all the problems in the field of education, Bachelor of Education graduates fared better than graduates from most other fields. Within two years of graduation 93.2 percent of all 1976 Education graduates from Alberta universities were in the labour force, compared to 94.8 percent nation wide (Clark and Zsigmond, 1981:170). Although no unemployment data were available for B.Ed.'s in the province, 27 percent of the graduates stated that they were working at jobs which required a lower level of qualification. This figure was similar to the national underemployment rate of 28.2 percent for graduates of faculties of education, which was 8.4 percent lower than for graduates with bachelor's degree in all fields combined. Nationally, only 4.8 percent of people in this category were unemployed in 1978, compared to the overall average of 8.4 percent (358). Picot, in a comparison of these data with those of 1969, notes that the teaching profession played a declining role in absorbing graduates from Canadian postsecondary institutions. In 1971, 42 percent of all 1969 bachelor's graduates were employed as teachers as compared to 37 percent of 1976 bachelor's graduates (1983:51).

The best and most recent data on training and employment come from the 1984 Statistics Canada study of 1982 graduates, *The Class of '82* (Clark, Laing and Rechnitzer, 1986). Unfortunately, these data pertain to Canada as a whole and any generalization to Alberta is difficult, especially given that the overall unemployment rates were higher in Alberta than in the rest of Canada at the time. Nonetheless, the study found that by 1984, 76 percent of Bachelor's graduates in Education were employed full-time (138), though 19 percent were in jobs not requiring a university degree (141) and 11 percent were in jobs not related to their education (47). Of the remaining 24 percent, nine percent were unemployed and 15 percent were either employed part-time or not in the labour force (30). Compared to the situation facing other Bachelor's graduates, the job market in 1984 was tighter for Education graduates.

Despite the concerns, first, that teaching positions were hard to come by and now, that there will be a considerable shortage of teachers, there are few relevant studies focussed on individual provinces. A 1971 study of University of Alberta graduates found that 72.6 percent of Education graduates obtained employment as teachers and another 4.6 percent were employed in non-teaching occupations. The study, however, gives no indication about how many of these positions were full-time (Zaharia, 1972). In a similar study of 1973 graduates, 82 percent of Education graduates were in full-time employment and 7.6 percent in part-time employment, but no indication is given as what proportion was employed in teaching (Zaharia, 1975). Using data from the Statistics Canada 1984 study of 1982 graduates, Britton examined the labour market experiences of Manitoba graduates in Education (Britton, 1986). By 1984, 80 percent of Manitoba Education graduates had obtained full or part-time teaching related positions. A more recent survey in Ontario of 1985 university graduates found just over 60 percent of Education, Physical Education and Recreation and Leisure graduates were employed full-time, and just under 20 percent were employed part-time, one year after graduation (Denton, *et al.*, 1987). This was comparable to the findings of a similar study of 1982 graduates (Davis, Denton, and Hunter, 1983). Unfortunately, Education graduates were not distinguished from Physical Education and Recreation and Leisure graduates, nor were those working in occupations related to Education distinguished from those who were not. Because these studies date from the period of low teacher demand, they have only limited utility for any understanding of how more recent graduates have fared on provincial labour markets.

The Study and Its Findings

All University of Alberta Bachelor of Education graduates from the fall of 1987 and spring of 1988 were surveyed to ascertain how many were employed in teaching or other jobs, and how many were unemployed, underemployed or still in school. This group constitutes approximately half of the newly certified entrants into the teaching profession of the province each year. Information was also collected on the location of their employment, how employment was obtained, the problems encountered in obtaining employment and basic background data. The survey was conducted at the beginning of January 1989, just at point when the oversupply of candidates for teaching positions was beginning to shift to greater demand.

Eight hundred and sixty-four graduates received questionnaires, 7.4 percent (64) of which were undeliverable and 47.9 percent (414) of which were not

returned to the investigator. Questionnaires were completed by 44.7 percent (386) graduates who form the basis of this analysis. Although a higher response rate would have been desirable, two checks were made to estimate representativeness. First, a comparison on two variables — sex and year of graduation — for which data on both the respondents and the entire cohort were available, revealed no substantial differences.[1] In addition, response rates of those who had permanent addresses in Edmonton, other locations in Alberta or other regions of Canada were similar to the overall response rate of 44.7 percent.[2] A second check for representativeness involved contacting as many individuals who did not return the questionnaire as could be located within the Edmonton calling area during July, 1989. In this case, 91 individuals responded in a telephone interview to a short form of the questionnaire focussing on employment status and basic demographic characteristics. Again no major differences were evident in basic demographic characteristics, though some differences which are reported below are evident between the respondents and non-respondents in employment experiences.

Of the 386 recent graduates who returned the questionnaire, 81.9 percent (316) were employed in teaching related positions, 12.7 percent (49) were employed in positions unrelated to teaching and 5.4 percent (21) were not employed (see Table 1). While these global figures give the impression that the respondents had been quite successful in obtaining jobs related to their training, 19.9 percent (77) of these respondents were in teaching related jobs as part-time staff, supply teachers, interns or daycare workers and 61.9 percent (239) were employed in full-time teaching positions. For 13 (3.4 percent of all respondents) of the 77 individuals employed in part-time, supply or daycare positions, the employment status was one of choice; but for the remaining 16.6 percent (64) it was involuntary. Tightness in the job market for teachers was also evident among those respondents employed in jobs unrelated to teaching and those unemployed. The attraction of better pay or new challenges, changes in interests and other factors led 6.7 percent (26) of the respondents to choose employment in areas not related to teaching. Likewise, 3.6 percent (14) of the respondents were unemployed by choice some returning to school, some caring for families, and some travelling. Leaving aside the 13.5 percent (52) who were voluntarily not employed full-time in a teaching related position, nearly a quarter (95 or 24.6 percent) of all respondents sought but were unable to find full-time teaching jobs.

An examination of the employment experiences of those individuals who responded only after follow-up reveals a less favourable employment picture.

Table 1
Current Employment Status

	responded by mail		responded by phone	
Employed Teaching Full-time Subtotal	239	61.9%	46	50.5%
Employed Teaching Part-time				
part-time voluntary	13	3.4%	3	3.3%
part-time involuntary	64	16.6%	20	22.0%
Subtotal	**77**	**19.9%**	**23**	**25.3%**
Employed not Teaching				
could not find teaching position	23	6.0%	7	7.7%
found better paying job	7	1.8%	3	3.3%
no longer interested in teaching	7	1.8%	2	2.2%
variety of other reasons	12	3.1%		
Subtotal	**49**	**12.7%**	**12**	**13.2%**
Not Employed				
continuing education	8	2.1%	3	3.3%
family responsibilities, travel, other	6	1.5%	2	2.2%
could not find teaching position	7	1.8%	5	5.5%
Subtotal	**21**	**5.4%**	**10**	**11.0%**

Just half (50.5 percent) of this group reported full-time employment in teaching as compared to 61.9 percent of the mail respondents. A larger number of the telephone respondents were employed in part-time teaching, 25.3 percent as compared to 19.9 percent of the mail respondents. In addition, a larger proportion of the telephone respondents were unemployed, 5.5 percent as compared to 1.8 percent of the mail respondents. These observations probably mean that the employment experiences of the cohort were less favourable than the data from the mailed survey indicate. Despite this caution, the data from the mailed survey do give a general though slightly optimistic picture of the experience of the cohort in the labour market.

Though a general tightness in the job market affected the employment experiences of these recent graduates, their employment experience compares favourably with that of Education graduates in the 1984 Statistics Canada Survey. In that study, only 57 percent of Education graduates held full-time teaching positions two years after graduation.

A logical start for this examination of who found teaching jobs and who did not is the respondents' field of specialization. Given that the baby boom echo is being felt first in the lower grades, it is not surprising that more respondents in the elementary route were employed than was the case for secondary route respondents. This was true for both full-time employment, where 65 percent of the elementary route respondents obtained employment compared to 59.5 percent for the secondary route respondents; and for part-time employment where 22 percent of the former were employed, compared to 17.4 percent of the latter.

Overall, then, 87 percent of elementary route respondents were employed in teaching while 76.9 percent of secondary route respondents were so employed.

In terms of subject specialization, there are also differences in demand. At the elementary level, early childhood, special education and language (including French) specialists are in high and nearly equal demand, with about 70 percent in full-time teaching employment and over 20 percent in part-time teaching. Interestingly, specializations in the fine arts and in intercultural education do not appear to offer the same employment opportunities, with around 55 percent of such specialists obtaining full-time teaching jobs and 20 percent part-time jobs. At the secondary level, specialization in Business and Vocational Education, and in Math and Science offer better entry into the teaching market than other specializations. Full-time teaching jobs were obtained by 71.4 percent of the Business and Vocational majors and a somewhat lower 63.9 percent of Math and Science majors. The part-time teaching opportunities were also better for

Business and Vocational Majors, with 14.3 percent so employed compared to 5.6 percent of Math and Science majors. Not surprisingly, given that larger numbers of students specialize in Physical Education and Social Studies, these majors were in least demand. Among Physical Education majors, 58.6 percent were in full-time and 17.2 percent in part-time jobs, while among Social Studies majors the figures were 54.1 percent and 21.6 percent. It should be noted that the variability in teaching employment between various specializations was smaller for respondents in the secondary route than for those in the elementary route. These findings are consistent with Alberta Education data from school districts about their needs for particular specializations (2).

For respondents in the present study, employment has been complicated by the unavailability of jobs in particular locations. Table 2 examines how employment status is related to why individuals find themselves in that status — whether that reflects personal choice, the availability of jobs in particular locations or the overall availability of teaching positions. Over all employment categories, fewer than half of respondents (42.3 percent) held positions that reflected their choice of location and/or type of position. For a larger proportion (46.3 percent), job location posed an important problem. Of all respondents, 11.4 percent had experienced employment problems because of the general unavailability of teaching jobs.

Looking at this in terms of specific employment status, it is evident that for those employed as full-time teachers, more than half (55.7 percent) were in positions outside the location of their choice. Amongst those teaching part-time, nearly half (47.8 percent) had experienced problems obtaining jobs in their choice of location; and approximately one-third (32.8 percent) reported employment problems related to the general scarcity of teaching positions. Unlike those respondents employed in teaching related positions, the status of the majority of those in non-teaching positions (55.3 percent) and those not employed (65 percent) reflected their personal choice. For these two categories, unavailability of work in particular locations was less of a factor than the general unavailability of teaching jobs. Twenty individuals or 30 percent of those in the "not teaching" or "not employed" group experienced underemployment or unemployment related to the general shortage of teaching jobs.

Since the location of jobs appears to be most important for those employed in full or part-time teaching positions, Table 3 examines how the identification of location as a problem is related to whether those teaching were in city or in smaller urban and rural schools. Clearly, more respondents employed in city

Table 2
Employment Status by Reason for Particular Status

	EMPLOYMENT STATUS				
	Full-time Teaching	Part-time Teaching	Not Teach Employed	Not Employed	ROW TOTAL
Personal Choice of Location and/or Status	104 44.3	13 19.4	26 55.3	13 65.0	156 42.3%
Location Problem	131 55.7	32 47.8	7 14.9	1 5.0	171 46.3%
No Jobs In General		22 32.8	14 29.8	6 30.0	42 11.4%
COLUMN TOTAL	235 63.7	67 18.2	47 12.7	20 5.4	369 100.0%

NOTES: 1. Since by definition no respondents teaching full-time could cite a general shortage of jobs as a reason for their employment status, tests for significant differences could not be conducted. As a general rule of thumb, differences of 10% or more were deemed substantively significant.

2. Since the variable reason for particular status entailed the combination and transformation of several different variables each of which had some missing cases, the transformed variable could not be constructed for all respondents.

jurisdictions were where they wanted to be. While 61 percent teaching in city schools were in their preferred location, only 26.1 percent of those in smaller urban or rural schools were in their choice of location. This was the case, despite the fact that 85.7 percent of those in smaller urban or rural schools were employed full-time compared to 67.4 percent in city schools. For those employed full-time, the difference is even more dramatic, with 70.5 percent of those in city schools reporting that they were in their chosen location, as compared to 26 percent of those in rural schools. Though it is not possible to tell from the data whether those dissatisfied with their location in smaller urban or rural schools would all have preferred to be in cities, the probability is that

they would. Certainly, the difficulties in recruitment that rural and especially more remote Alberta school districts are already having indicates that new teachers prefer placements in or near larger urban centres (Alberta Education, 2).

Given that location of employment appears to be problematic, the success of individuals on the job market may have been limited by their willingness or ability to move. A number of factors that may have affected geographic mobility, including sex, age and previous geographic location, are examined below. While the proportion of respondents who were male (32.2 percent) was smaller that that of females (67.8 percent), this difference is a reflection of the general enrolment patterns in Faculties of Education and of the makeup of the cohort contacted. Only small differences between males and females were evident in terms of their success in obtaining employment. Amongst males, 61.7 percent were employed full-time, 19.2 percent were employed part-time, 15.8 percent were employed in non-teaching positions and 3.3 percent (4) were not employed. The proportions are comparable for females, with 64.7 percent employed full-time, 17.7 percent part-time, 11.2 percent in non-teaching positions and 6.4 percent not employed. Females were slightly more successful in obtaining full-time teaching employment, were less likely to be in non-teaching employment, and were more likely not to be employed.

Though one might postulate that traditional female roles may act as a brake on mobility and that as a consequence female Education graduates would experience more problems with job location than males, this does not appear to be the case. Job location, however, appears to be an equally significant factor for both sexes, with 45.8 percent of males and 46.6 percent of females identifying job location as a problem. Despite this overall similarity, 60.8 percent of the males who were employed full-time in teaching indicated that they were unable to find employment in their choice of location in contrast to 53.4 percent of the females. In the case of those employed part-time, more females reported job location problems. It would appear that females were more likely to find employment in their choice of location — 46.6 percent of those females employed full-time in teaching compared to 39.2 percent of males — but that they were also more likely to resort to part-time teaching or employment in other fields when job location was a problem. More than half, 52.3 percent, of those females employed part-time, as compared to 39.1 percent of males, indicated that their employment status was the product of a shortage of teaching jobs in their choice of location. Similarly, 15.9 percent (7) of females but only 4.3 percent (1) of males who were employed in non-teaching

Table 3
Employment Status by Choice of Location Controlling for Location of Employment

	TEACHING IN CITY SCHOOLS			TEACHING IN SMALL URBAN & RURAL SCHOOLS		
	Full-time Teaching	Part-time Teaching	ROW TOTAL	Full-time Teaching	Part-time Teaching	ROW TOTAL
Teaching in choice of location	67 70.5	19 41.3	86 61.0	36 26.1	6 26.1	40 26.1%
Not teaching in choice of location	28 29.5	27 58.7	55 39.0	102 73.9	17 73.9	119 73.9%
COLUMN TOTAL	95 67.4	46 32.6	141 100.0	138 85.7	23 14.3	161 100%

positions or were unemployed cite job location as a factor affecting their employment status. Males, particularly those in non-teaching employment or unemployed, were more likely than females to report that a general shortage of positions affected their employment status. Of males who were not teaching or were unemployed 43.5 percent reported the general shortage of jobs as a problem, while only 22.7 percent of females did so.

Age, like gender, may affect employment status. Younger individuals with fewer commitments to a particular community or to other members of their family are more likely to be able to go where the jobs are. Table 5 bears out this relationship between age and employment status. While 58.2 percent of those thirty and over and 59.5 percent of those 25-29 years old were employed full-time in teaching positions, 71.9 percent of those under 25 were so employed. Conversely, the proportion of respondents who were either in part-time or supply positions increases with age — 13.3 percent for those under 25, 19.0 percent for those 25 to 29, and 23.6 percent for those 30 and over. Nearly equal proportions of the two older groups reported that there were no jobs in general (12.7 percent and 12.4 percent), and 25 to 29 year olds were most likely to be employed in non-teaching jobs or unemployed. The youngest cohort fared best in terms of employment on all counts.

The greater success of the youngest cohort in obtaining full-time teaching positions came at a price. Only 35.5 percent of the oldest cohort reported that finding a job in their choice of location was a problem, while 43.0 percent of the middle cohort and a much larger 57.8 percent of the youngest cohort did so. This difference is even more evident amongst those teaching full-time, where 37.5 percent of those 30 and over, 55.6 percent of those between 25 and 29, and 67 percent of those under 25 indicated that they were not teaching in the location of their choice. It is apparent that the more favourable employment experience of the youngest group was a product of their greater geographic mobility.

Like age, geographic origin might predispose particular groups to be more willing to consider a variety of teaching locations more or less favourably and so expand or diminish their employment opportunities. Geographic origin in this study is based on where respondents attended high school. Though one might expect that individuals who attended both high school and postsecondary education in cities might be less likely to consider a teaching location that differed from their previous experience than would those who have had both city and small urban or rural educational experiences, the influence of geographic origin on location of employment is not large.

Table 4
Employment Status by Reason for Particular Status Controlling for Age

		EMPLOYMENT STATUS			
		Full-time Teaching	Part-time Teaching	Not Teach Not Employ	ROW TOTAL
BORN PRIOR TO 1960	Personal Choice of Location and/or Status	40 62.5	6 23.1	11 55.0	57 51.8%
	Location Problem	24 37.5	13 50.0	2 10.0	39 35.5%
	No Jobs in General		7 26.9	7 35.0	14 12.7%
	COLUMN SUBTOTAL	64 58.2	26 23.6	20 18.2	110 100.0%
BORN 1960 TO 1964	Personal Choice of Location and/or Status	32 44.4	6 26.1	16 61.5	54 44.6%
	Location Problem	40 55.6	9 39.1	3 11.5	52 43.0%
	No Jobs in General		8 34.8	7 26.9	15 12.4%
	COLUMN SUBTOTAL	72 59.2	23 19.0	26 21.5	121 100.00%
BORN 1965	Personal Choice of Location and/or Status	32 33.0	1 5.6	11 55.0	44 32.6%
	Location Problem	65 67.0	10 55.6	3 15.0	78 57.8%

Table 4 (continued)
Employment Status by Reason for Particular Status Controlling for Age

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1967	No Jobs in General		7 38.9	6 30.0	13 9.6%
	COLUMN SUBTOTAL	97 71.9	18 13.3	20 14.8	135 100.00%

The proportion of respondents with city origins who were employed full-time in teaching is smaller but not markedly so than that of respondents from small urban or rural origins — 60.9 percent as compared to 66.9 percent. A correspondingly larger proportion of those with city origins were employed in non-teaching positions or were unemployed than was the case for those with small urban or rural origins — 21.4 percent as compared to 14.6 percent. Except among those respondents teaching part-time, there were also only small differences between city and small urban/rural respondents in the degree to which their status was affected by a shortage of teaching jobs in particular locations or by a general shortage of positions. In the case of respondents teaching part-time, contrary to expectation, those from a small urban or rural background (54.5 percent) reported more difficulty finding positions in their choice of location than did those from city backgrounds.

Because this study includes graduates from two different convocations, Fall 1987 and Spring 1988, it is possible to see whether those who were in the job market for 8 to 10 months longer had more success in obtaining full-time teaching posts in their choice of location. Length of time on the job market appears to have had little impact on whether respondents were able to get a full-time teaching position; 63 percent of the '87 graduates and 64 percent of the '88 graduates did so. Among later graduates, however, 20.5 percent were employed in part-time positions, in contrast to 13.4 percent of the '87 graduates. Overall, 8 percent more '88 graduates were employed in teaching related positions than was the case for '87 graduates.

Despite their greater success in obtaining teaching related jobs and lower unemployment, the more recent graduates reported location of employment and unemployment to be greater problems than did the earlier graduates. Nearly half, 48.8 percent, of the '87 graduates reported that their employment status and location reflected their individual preference, in contrast to 39.8 percent of

the '88 graduates. This is so for all categories including those in full-time teaching positions, where 48.8 percent of the earlier graduates but only 41.8 percent of the later graduates reported employment in their choice of location. It appears that the more recent graduates, like younger graduates, paid a price for greater employment, both full and part-time, by taking positions that did not reflect their preferences.

Table 5
Employment Status by Mean Number of Contacts, Interviews, and Offers

EMPLOYMENT STATUS	MEAN NUMBER OF CONTACTS	MEAN NUMBER OF INTERVIEWS	MEAN NUMBER OF OFFERS
Full-time Teaching	29.5	4.3	2.1
Part-time Teaching	21.3	2.9	1.3
Non-teaching Employment	25.7	2.4	1.3
Unemployed	18.5	2.5	0.8

NOTE: The differences between employment status groups in mean contacts is not significantly different because of high within group variability but differences in mean number of interviews and mean number of offers are significant beyond the .001 level.

It is reasonable to expect that the extent of the job search individuals conduct will have an effect on their success in obtaining employment and the respondents in this study are no exception to this expectation. Those respondents who found full-time teaching employment averaged 29.5 initial contacts with potential employers, while those who were unable to find any employment, teaching or other, averaged 18.5 contacts. As would be expected, this more extensive search led to nearly twice as many interviews, an average of 4.3 interviews for those who obtained teaching positions, as compared to 2.5 interviews for the unemployed; and to more than twice as many offers of teaching positions, an average of 2.1 offers as compared to 0.8 offers for the unemployed. Despite the fact that there is a good deal of variability within employment categories in the number of contacts made with potential employers and as a consequence in the number of interviews and offers received, the differences between those who were successful in obtaining teaching positions and those who were not are considerable.

It is worth noting that though success in obtaining a full-time teaching position is a reflection of the quantity of actual contacts with potential employers, there are no notable differences between successful and less successful job seekers in the sources of employment assistance or number of sources they used. All respondents sought assistance from on and off-campus employment agencies, instructors, personal and professional contacts, to a similar degree. Just as there are few differences between those who got full-time teaching jobs and those who did not in the sources of assistance or their number, so too were there few differences in the extent to which respondents felt they needed more assistance in developing their job search techniques or their interview skills. Not surprisingly, however, 46 percent of those employed in non-teaching positions or unemployed felt they needed much more assistance obtaining actual job leads, while 38.9 percent of those employed part-time and only 32.5 percent of those employed full-time felt such a need. Another area in which those unsuccessful in obtaining a full-time teaching job felt they needed more assistance than those with full-time teaching jobs were career counselling. Of those not teaching or not employed 71.4 percent felt they needed much more or more career counselling, as opposed to those teaching full-time, 64.6 percent of whom felt they needed no further career advice.

Conclusions

Although concern has recently surfaced that a shortage of teachers is imminent, the labour market experiences of this group of recent graduates who entered the teaching force in late 1987 or 1988 reported that teaching jobs were still in short supply in early 1989. Although 86 percent of the respondents indicated that they sought full-time teaching employment, only 62 percent were successful in finding it. Nearly one quarter of the respondents were unable to find full-time employment as teachers and so would be available to meet future increases in demand.

If the full-time employment figures obtained from the telephone survey are used to adjust for the over-representation of those employed full-time in the mail responses, the employment level for the cohort is even lower, at about 56 percent. With similar adjustments, another 30 percent of the cohort who were teaching part-time, employed in non-teaching positions, or unemployed because they could not find full-time teaching positions, would be available to meet the projected increases in demand for teachers in Alberta schools. Unfortunately, those who experienced the greatest difficulty in the teaching market possessed specializations that are in least demand. Approximately 14 percent of the cohort

are unlikely to enter the teaching force in the immediate future. Some who have continued their studies or have chosen to travel or to care for families may enter the work force at a later date, but those who have taken up other opportunities or whose interests have changed are not likely to do so.

An important factor that influences this availability for jobs is their location. While 11 percent of the respondents indicated that they were not employed full-time because there were no jobs, another 11 percent indicated that they were not employed in full-time teaching positions because the location of available jobs was a problem; and a further 36 percent who were employed full-time indicated that they were dissatisfied with the location of their job. This would indicate that as jobs in preferred locations arise they will be filled, with the possible consequence that jobs in less desirable locations will be more difficult to fill. In addition, among respondents in rural or small urban settings, 74 percent reported that their job location was a problem, compared to 39 percent of those in city locations, this despite the fact that a larger proportion were employed full-time than in city schools.

Several factors with the potential to affect the respondents success in finding full-time teaching employment and/or their willingness to accept positions outside their preferred location were examined. Whether respondents came from city or smaller urban and rural backgrounds made relatively little difference in their success in getting full-time teaching positions or on the extent to which finding a job in a preferred location was problematic. Similarly, length of time on the job market had little influence on the proportion of respondents who were teaching full-time, though a slightly larger proportion of more recent graduates were teaching part-time, while a slightly larger proportion of those who had been on the job market longer were either employed in non-teaching positions or were not employed. In addition, a larger proportion of the earlier graduates reported that the location and/or nature of their employment was that of their choosing.

Overall, gender appeared to have little effect on success in finding full or part-time teaching employment or in finding employment in the respondents choice of location. In spite of these similarities, a smaller proportion of females than males reported difficulties in finding full-time teaching jobs in their preferred location; and a larger proportion of females than males in part-time or non-teaching employment identified finding a job in their choice of location as problematic.

Age is the personal variable most clearly and strongly related to success in obtaining full-time teaching employment. While just under 60 percent of those

25-29 and over 30 years of age obtained full-time teaching jobs, 72 percent of those under 25 did so. At the same time, a much larger proportion of the youngest age group reported problems in finding a full-time teaching job in a location of their choice. The youngest respondents were, no doubt, both more able and more willing to accept a less desirable location in exchange for full-time teaching employment.

The success of individuals in obtaining full-time teaching positions was affected not only by background factors such as age and to smaller extent by gender and length of time on the job market, but also by the nature of the job search conducted. Those individuals who obtained full-time teaching positions made the highest mean number of contacts with potential employers and as a consequence had the highest mean number of interviews and offers. A slightly different reflection of this fact is seen in the high proportion of those who were either not employed or who were in non-teaching employment, who felt they needed more assistance in obtaining job leads for teaching positions.

Whatever the effect of particular personal factors or job search strategies, it is the location of jobs that coloured the labour market experiences of the respondents. If job location was seen as so important, even during a period when the supply of teachers exceeded the demand, that individuals were willing to take part-time teaching or non-teaching positions, the difficulties in filling jobs in rural and more remote locations will be much greater as the demand for teachers escalates, as it already has at the time of this analysis (Alberta Education, 7). According to Alberta Education data and estimates, while only 57 new teachers were needed to accommodate enrolment growth in 1987-88, 495 were needed in 1989-90; and this trend will continue at similar levels into the mid-1990's after which it will decline (8). In addition, the number of retiring teachers, most of whom were hired during the original baby boom, has already begun to increase, and will rise further from 495 teachers in 1989-90 to 850 by the year 2000.

While these findings are specific to the time period and context in which the study was conducted, the trends in overall demand for teachers and for teachers with particular specializations are similar across the country. It is not unreasonable to expect also that beginning teachers' preferences for and ability to locate in particular geographic locations, which are evident in this study, probably hold in other provinces. Accordingly, particular regions of provinces and, perhaps, even particular provinces will find teacher recruitment more and more difficult.

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