

Public Support for University Funding: Trends and Determinants in Ontario, 1980-1990

DOUG HART* & D.W. LIVINGSTONE*

Abstract

This paper examines trends in public support for government funding of universities over the past decade, identifies significant social factors related to attitudes on university funding during this period, and briefly discusses possible future tendencies in public support for university funding. Growing public support for increased university funding in Ontario is documented. A variety of types of potential influences is assessed, including societal context, socio-economic status, demographic and political orientation factors. Age, educational attainment, and community size, as well as support for general government spending, are found to have significant individual-level effects on support for university funding. Multi-variate analyses suggest a growing isolation of older, less formally educated and rural people as opponents of increased university funding. The implications of these patterns in the context of an aging but increasingly educated population are then considered.

Résumé

Cet article examine les tendances du soutien public à l'égard des subventions gouvernementales accordées aux universités au cours des dix dernières années, identifie d'importants facteurs sociaux qui sont liés aux attitudes vis-à-vis l'attribution des fonds aux universités durant cette période, et discute brièvement des tendances éventuelles d'évolution du soutien public à l'égard des subventions accordées aux universités. On montre qu'il existe un soutien

* Ontario Institute for Studies in Education

populaire croissant en faveur de l'augmentation des subventions accordées aux universités en Ontario. On évalue divers types d'influences possibles, y compris le contexte sociétal, la situation socio-économique, et les facteurs associés à l'orientation démographique et politique. L'âge, la scolarisation, la taille de la communauté dans laquelle on vit, ainsi que l'appui accordé aux dépenses publiques de façon générale semblent avoir des effets significatifs sur le niveau de soutien accordé au financement universitaire. Des analyses multi-variées suggèrent que les personnes plus âgées, moins scolarisées et vivant en milieux ruraux s'opposent davantage à l'augmentation des fonds accordés aux universités. On conclut en examinant les implications de ces constats dans le contexte d'une population vieillissante et de plus en plus scolarisée.

There appears to have been a substantial increase in the Canadian public's sentiments toward financial support of universities during the past decade. The limited national survey data suggest that support for increased government funding has at least doubled, from one-quarter to over a half, since the 1970s (e.g., Auld, 1979; Johnson, 1985; Poitras, 1990; Dyer, 1990; Gallup Canada, 1991). This trend is documented most extensively for Ontario by the findings of the biennial OISE Survey of Educational Issues (Livingstone, Hart, & Davie, 1991).¹ As Table 1 indicates, while less than one-third of the Ontario public supported increased university funding in 1980, a definite majority did so by the late 1980s. This pattern is part of a broad trend in funding preferences for all levels of formal education, including elementary and high schools as well as community colleges.² Comparable if less pronounced trends have been found in extensive U.S. surveys of public attitudes toward education spending over the same period (Smith, 1989).

These findings of increased support for education funding are probably quite robust. Critics of social policy polling often assert that mass publics always want more services for less taxes.³ In particular, spending preference questions have been regarded skeptically for not including realistic constraints, such as forced trade-offs among government services or revenue generating options to support higher expenditures. Admittedly, such poll questions are not equivalent to referenda on government spending, and introduction of other contextualizing factors may well alter absolute levels of support. However, the criticism has limited relevance to the attribution of aggregate trends and social group differences on the same "unconstrained" survey question over time. More to the point, there is now considerable evidence that people do tend to make trade-offs on policy spending issues (see Welch, 1985; Johnson, 1986;

Table 1

"What would you like to see happen to government spending for the following purposes in the next budget year?"^a

	% Favouring a real increase					
	1980	1982	1984	1986	1988	1990
For universities ^b	30	33	43	49	56	51
For all levels of education	36	35	46	50	61	50
For all purposes	n.a.	n.a.	26	25	32	27
N	1084	1108	1050	1042	1011	1032

^a Options for each question were:
 increase greatly = 1
 increase somewhat = 2
 keep up with inflation = 3
 decrease somewhat = 4
 decrease greatly = 5

^b A comparable 1975 survey found 25 percent of Ontarians supported increased spending for community colleges and universities combined. (see Auld, 1979)

Sanders, 1988). For example, an extensive series of surveys of the Ontario public's fiscal priorities in the mid-1980s found substantial and growing support for increased education funding coupled with strong sentiments to cut back government spending in general and on such areas as assistance to the arts, tourism development and highway construction in particular (see Goldfarb, 1985). Few are now prepared to trade-off education.

Surveys in many advanced industrial societies over the past thirty years have generally found education to be rated among the higher national priorities (see Cantril, 1965; Farah, 1979; Flather, 1988). With increased fiscal constraints on government spending, this relative priority appears to have increased. In the U.S. during the 1970s, public support for education spending remained stable, while support for virtually all other social service spending declined (Smith, 1982). In Ontario, as Table 1 shows, support for increased government spending in general remained fairly stable in the 1980s, in contrast to increases in support for universities and formal education in general. It is certainly clear that Ontarians and other Canadians gave high fiscal priority to education and university spending during the past decade (e.g., Hughes, 1979; Opinion and Research Index, 1981; Livingstone, Hart & McLean, 1983; Tausig, 1991) and are currently strongly opposed to any tax cuts tied to reductions in education and health care services (Bozinoff & MacIntosh, 1988; Todd, 1990). Moreover, the vast

majority of Ontarians currently would prefer to finance increase education spending through reduced spending in other areas, rather than increase either taxes or the government deficit; and over two-thirds of those who favour increased general education and university spending are also willing to pay higher taxes for education (Livingstone, Hart & Davie, 1991; cf Johnson, 1985; Krahn, 1991). While the results of the 1990 Ontario survey and a comparable 1991 poll (Adams, 1992) suggest that the growth in support for increased spending on education may have very recently abated, there is little indication here that the Canadian public is seeking "something for nothing" in expressing its support for university funding. So what factors have been related to support for university funding during this period of growing public support?

Explaining University Funding Preferences

There has been virtually no prior research in this country – or elsewhere to our knowledge – on the determinants of public attitudes toward university funding, beyond the descriptive statistics on social background differences sometimes reported in the previously cited survey reports. On the basis of a review of the generally relevant empirical literature in Canada and abroad, as well as consideration of general theorizing about political attitude formation, we have identified four major types of factors for systematic investigation: (1) societal-level contextual effects; (2) socio-economic status; (3) demographic variables; and (4) political orientation.

In the following sub-sections, rationales will be discussed for specific potential factors, any prior research will be cited, and empirical findings drawn from secondary analysis of relevant indicators in the OISE Surveys will be presented.⁴ The OISE Survey of Educational Issues has been conducted biennially since 1980 with a representative sample of Ontario adults. In addition to providing time-series data on attitudes toward university funding and a wide variety of other educational policy matters, this survey also includes an exceptionally wide array of measures of pertinent social background factors (see especially Livingstone, Hart & Davie, 1985, pp. 53–65).

Contextual Factors

Macro-level contextual factors are typically ignored in research on the determinants of attitudes. There is a prevalent tendency in interpretations of attitude survey data to consider only individual attributes in ahistorical and atomistic ways; more rarely, contextual factors will be alluded to but excluded from analysis because they "were not present in the data at hand" (Smith, 1982, p. 176).

However, contextual factors may often be of central importance for understanding both patterns and changes in public attitudes. In broad comparative historical terms, different levels of societal industrialism, as indicated by urbanization, political democracy and institutionalization of state-sponsored social programs, presumably affect the public's disposition to support both university funding and government social welfare spending generally (see Pampel & Williamson, 1985). Within current advanced capitalist societies, there are at least four contextual factors of likely relevance to recent changes in the extent of public support for university funding: (1) the impact of economic restructuring on the demand for highly educated workers; (2) the actions of university decision-makers to put "underfunding" on the political agenda; (3) the increasing aggregate educational attainment of the population; and (4) a rapidly aging population with growing proportions of middle-aged "baby boomers" and senior citizens.

These contextual factors are clearly of different orders. Economic restructuring is a broad-based movement directly altering the life-circumstances of a significant portion of the populace and likely affecting the perceptions of many more regarding the relationship of education to the labour market. The lobbying and public relations activities of university officials are, in comparison, a more superficial influence on people's thinking, although one directly focused on the issue of funding. The trends toward increased aggregate educational attainment and aging involve changes in the proportions of different social groups which initially vary in degree of support for university funding. (These demographic shifts may or may not also entail, in and of themselves, changes in attitudes.)

To echo Smith (1982), measures of the impingement of these contextual factors on individuals are, with the exception of some perceptions of the changing labour market, "not present" in our data. For the most part, our speculations on the impact of economic restructuring and of publicity campaigns are based on the concurrence of trends and events. In the case of changes in educational attainment and age structure, however, it is possible to assess the extent to which demographic shifts alone can account for increasing aggregate public support for spending for universities.

Impact of Economic Restructuring

Most advanced industrial regions, including Ontario, have been afflicted by slow economic growth rates punctuated by recessions since the early 1970s. Among the more demonstrable cumulative effects during the past decade have been growing numbers of plant closures and off-shore relocations, higher levels of structural unemployment, and sustained efforts by employers to implement

micro-electronically-based technological changes coupled with industrial relations strategies to encourage employees to "work smarter" (see Harrison & Bluestone, 1988; Ross & Trachte, 1990). The general message coming consistently from both corporate business and government in recent years is that we will need a more highly educated workforce in order to respond to global competition (e.g., Ontario Premier's Council, 1990). This message contrasts markedly with a prevalent concern in the prior decade about an "overeducated" workforce (e.g., Freeman, 1976; Clark & Zsigmund, 1981).

The impact of both widespread experience of workplace restructuring and the dominant rhetoric of global competition on popular consciousness about the present and future significance of higher education appears to have been quite substantial. Between 1979 and 1986, the proportion of the Ontario public that judged a postsecondary education to be "very important" nearly doubled, from 34 percent to 61 percent; this increase was generalized across all major social groupings, including all age cohorts and educational levels. Importance ratings showed a significant positive association with support for university spending in 1986 ($\tau - b = .12^{***}$) when both questions were included in the OISE survey (Livingstone, Hart & Davie, 1987, pp. 4-5).⁵

There has been a growing consensus during the past decade that the skill required by the workforce is increasing and that the impact of recent technological change has been to increase educational requirements for jobs. These widely presumed trends are consistent with a popular expectation that the proportion of jobs requiring a university degree will generally increase over the next generation. This growing consensus on increasing job requirements corresponds with the increasing support for university funding. But funding support is not closely related to the perceived current job market situation. For example, between 1984 and 1986 support for university funding continued to increase even though over 80 percent of the Ontario public thought that there were many more job seekers with university degrees than jobs requiring degrees (see Livingstone, Hart & Davie, 1987, pp. 13-15).

In fact, there is considerable evidence that the Canadian job structure has recently been polarizing into "good jobs" typically requiring post-secondary qualifications, and "bad jobs" with few entry requirements (Economic Council of Canada, 1990). But even if current unemployment and underemployment of some university graduates is evident (and a large number of jobs do not demand advanced education), the general ethos appears to have been established during the 1980s that a postsecondary education will be needed in order to cope with technological change and "get along" in future society (see Livingstone, Hart & McLean, 1985).

University Responses to Funding Crisis

Although postsecondary level expansion commitments made during the post-World War II era of sustained economic growth secured university funding into the 1970s, the cumulative impact of slow economic growth also increasingly limited government revenues and led to declining budgetary priority for universities during the past decade.⁶ The universities' share of Ontario provincial budgetary expenditures declined from about 6 percent to 4 percent between 1977-78 and 1991-92; these reductions, combined with continuing enrolment increases, have resulted in steadily declining expenditures per student through the 1980s (OCUFA, 1991, p. 3). The capping of federal transfer grants designated for postsecondary education and health, which was vigorously protested at First Ministers' Conferences during the late 1980s, has further threatened the provision of established university programs (National Council on Welfare, 1991; Statistics Canada, 1991).

Deteriorating financial conditions provoked university leaders into historically unprecedented appeals for funds and the imposition of more restrictive admission policies (e.g., Hay & Basran, 1991; Crawford, 1991). The Council of Ontario Universities launched a sustained publicity campaign to alert the public to the "underfunding" crisis (COU, 1984, 1988). Individual universities initiated major new community fund-raising campaigns and some announced land sell-offs to ensure their viability. *De facto* grade point averages for entrance rose at some universities despite the formal government policy of universal access for all qualified applicants.

In this situation, a generalized public consensus is being expressed that lack of funding is leading to a serious problem and continuing deterioration of university education; two-thirds of Ontario citizens now spontaneously mention either lack of funding or tuition fees as the most important problem facing the province's universities (Decima Research, 1990).⁷

Increasing Post-Secondary Attainment

Canadians have long been among the most highly schooled populations in the world, with our average years of schooling only exceeded by the United States. But in 1960, fewer than 10 percent of our 18 to 24 population were participating in postsecondary education, considerably lower than in the U.S. Over the following decade, the creation of new universities and community college systems led to a 50 percent increase, to about 15 percent of 18-24 year olds. This participation rate remained quite stable through the 1970s. But it again increased by about 50 percent between 1980 and 1990, to involve about 22 percent of this

age group (Nobert, McDowell & Goulet, 1991, p.23). In addition, rapidly growing numbers from older cohorts were both staying longer in full-time postsecondary studies and coming back later for postsecondary credit courses on a part-time basis; so that total postsecondary enrolment rates now closely rival those of the U.S. (Nobert, McDowell & Goulet, 1991, pp. 36, 38). In Ontario, the general adult education participation rate, including particularly postsecondary credit courses, grew very rapidly during the late 1980s (Livingstone, Hart & Davie 1991, p. 21). There are signs here of the emergence of a "permanent education culture", with the majority of adults now having participated in non-formal education courses, and with increasing numbers seeing postsecondary institutions as a prime site for adult learning.

Those who have been successful in any system probably tend to be more favourably disposed toward it. But, even if all postsecondary graduates became system advocates, the increasing numbers of graduates over the past decade are far from sufficient to account directly for the increased magnitude of public support for university spending. A more inclusive "exposure thesis" is also possible. That is, if one has ever enrolled in any university or other postsecondary institution, she/he may become both more familiar with and more sympathetic to the financial limitations faced by such institutions. About half of the adult Ontario population has now attended a postsecondary institution at least briefly at some time in their lives (Livingstone, Hart and Davie, 1991). This may suggest some cumulative effect of multiple forms of direct post-secondary experience in relation to the now majority support for increased university spending. In any case, rapidly growing aggregate postsecondary educational attainment is likely to have been a contributory factor to the increased support for university spending over the past decade.

An Aging Population

As a consequence of its heritage as a colony based largely on European immigration, Canada has historically had one of the youngest populations of all the advanced capitalist societies (Wigdor & Foot 1988, p. 4). But Canada, like the others, has witnessed a remarkable increase in life expectancies during this century as a result of improved medical technologies, extensive immunization against infectious diseases, better diets and more effective sanitation systems. The most dramatic changes up to mid-century were in the form of sharp declines in the mortality rates of infants and young people. But, particularly in Canada, in the aftermath of World War II the return home of hundreds of thousands of military personnel to start families in the context of an expanding industrial economy and a quickly rising standard of living led to an

unprecedented baby boom through the 1950s. Then the long dominant association between rising standards of living and declining fertility rates reasserted itself, so that by the 1970s the proportion of the population under 18 was dropping rapidly. Declining fertility combined with increased longevity translated into a rapidly aging population. During the 1980s, the proportion over 45, and especially over 65, continued to increase quickly; while the huge baby boom generation entered middle age, increasing the 35 to 44 cohort by well over 40 percent. Coupled with restrictive immigration, these trends are destined to produce a continually aging population well into the next century.⁸

Aging has generally been presumed to be inversely related to interest in education. As the entire population ages, then, one would predict a decline in aggregate support for education spending. For example, an aging population makes increasing demands on other public services, most notably health services, that compete with education for limited state revenues. It is often assumed that older people's more compelling need for scarce health care services provokes them into growing resentment of university funding. Whatever the specific rationale, it has been widely asserted that general support for education spending should decline with an aging population (e.g., Stager, 1985).

On the other hand, the aging of the post-War generations could be associated with a more positive new "period effect". That is, the pre-War generations, now over 50, had very little opportunity for access to the small number of universities in existence when they were growing up prior to the 1960s, and hence little chance to develop a sympathetic understanding of universities' financial needs. According to this argument, as an increasingly educated population (and most significantly, the post-War baby boomers, gets older) the prior negative impact of aging on support for education spending should diminish. We will examine the specific individual effects of age, as well as educational attainment, during the past decade closely in later sections. But aggregate changes in the age structure in the 1980s are also not of sufficient magnitude alone to account for the increase in public support for university funding. The 35 to 44 year old cohort of baby boomers, for example, only increased from about 11 to 16 percent of the Canadian population (Picot 1980). Any changes in the contextual effects of both age and education over this decade must therefore have been supplemented by other contextual effects and/or by the potential individual effects to which we now turn.

Socio-Economic Status

It has generally been argued that higher socio-economic status should be associated with greater individual support for education spending. One common

version, the individual-level variant of the previously mentioned exposure thesis, argues that the more fully exposed to and socialized by formal schooling individuals have been, the more appreciative of the value of education and more supportive of funding they will be. Another argument focuses on income levels and contends that greater support is based on greater ability to pay from "surplus" funds. A third version stresses that upper classes will be more supportive of funding because they sense that institutionalized forms of schooling serve to legitimize and reproduce their dominance in society. (See, for example, Campbell & Eckerman 1964; Smith 1982; Baer & Lambert, 1982.)

Conversely, a few theorists have posited a negative relation between higher status and support for general education funding, in terms of relative tax burden. That is, upper income people are assumed to "pay for more public services than they consume so that they will oppose more spending since it has a high cost-to-benefit ratio for them" (Smith 1982, p. 177). However, the applicability of this logic to support for university funding is most doubtful, as the middle and upper classes have clearly been the major beneficiaries of university programs (see Anisef 1986).

The relationships of the relevant dimensions of socio-economic status (SES) – educational attainment, family income, occupational class and subjective class identity – to support for real increased spending on universities in Ontario between 1980 and 1990 are summarized in Table 2.⁹ Educational attainments are measured by highest level, distinguishing between attendance and completion. The family income variable represents a collapsing of the differing, more detailed scales used in each survey to approximate quartiles as closely as possible. The occupational class variable is a collapsed version of the Porter-Pineo categorization (Pineo, Porter & McRoberts, 1977). Class identity is measured by a standard forced choice survey question.

Educational attainment is consistently related to spending preferences throughout the decade, with more frequent support for increased spending on universities among the more highly educated. Family income, occupational class and class identity are all found to have more irregular and generally weaker relations with spending preferences. Where differences appear, increased university funding does tend to get higher support among higher income groups; the income association, however, is quite erratic over the 1980 – 90 period.¹⁰ In contrast, occupational class differences clearly diminished with the broadening of support for increased funding during the 1980s. For example, in 1980 about half of all professional-managerial employees but only a quarter of unskilled workers supported increased funding, compared to about 60 percent of both

Table 2

Socioeconomic status and support for increased spending for universities

	1980	1982	1984	1986	1988	1990
Educational attainment	.12***	.12***	.14***	.17***	.14***	.14***
Family income	.07*	.13***	.00	.03	.07*	.12***
Occupational class	.11**	.08*	.01	.10**	.01	.01
Class identity	.08**	.14***	.07*	.13***	.06*	.06*

Legend: Kendall's tau * $\leq .05$ ** $\leq .01$ *** $\leq .001$

- a Spending preference recoded to
decrease = 1;
keep up with inflation = 2
increase = 3
- b Educational attainment:
some elementary = 1
complete elementary = 2
some high school = 3
complete high school = 4
some community college = 5
complete community college = 6
some university = 7
complete university = 8
- c Income groups: aggregation into four categories paralleling quartiles (from lowest to highest income) as closely as possible
- d Grouping of Porter-Pineo categories:
unskilled workers & farm labourers (14-16) = 1
farmers, skilled & semi-skilled workers (9-13) = 2
semi-professionals to foreperson (4-8) = 3
professionals to high managers (1-3) = 4
- e Class identity: Responses to the question, "If you were asked to use one of the following names for your social class, which would you say you belonged to?"
lower or working class = 1
lower middle class = 2
upper middle or upper class = 3

groupings by 1990. Self-identification as upper middle class is also moderately more likely to be associated with support for increased university funding. But those with working class identities also gave majority support by the late 1980s.

Table 3 presents the patterns of support by educational attainment in more detail. There have been substantial increases in support for more university funding at all levels of educational attainment except those with only elementary schooling. In 1980, about half of all university degree holders favoured increased funding, compared to around a third at most lower attainment levels. By 1990, support had increased to two-thirds among degree holders but also to majorities among all others who have gone beyond elementary school.

Table 3
 Spending preferences for universities by educational attainment

Educational attainment	% Favouring a real increase						
	1980	1982	1984	1986	1988	1990	(1980-90)
Elementary only	26	28	33	36	40	31	(+5)
Less than high school	29	29	43	49	54	54	(+25)
High school diploma	36	36	42	46	62	51	(+15)
College certificate or equivalent	28	33	46	61	59	56	(+28)
University degree	48	49	58	64	71	66	(+18)

At the beginning of the 1980s, significant positive associations were found between higher status on all four SES measures and support for university funding, lending some credence to the class dominance and ability to pay arguments as well as to a university-specific socialization thesis. However, the disappearance of occupational class effects during the decade, and the irregularity of income effects, argue against enduring instrumentalist explanations for support of university funding. While the positive influence of educational attainment appears to remain significant, any university-specific socialization effect also seems to have diminished. By the end of the decade, the most distinctive feature was not a much greater support by the university degree holders, but the persistent lack of support among those with only elementary schooling. These findings suggest that positive views of university funding had become more rooted in a generalized cultural valuation of higher education than in sustained socialization within universities.¹¹

Demographic Factors

Numerous other objective conditions of individuals' life experiences could plausibly influence their dispositions to support university funding. We will consider five of these: age, sex, the size of one's community, the particular region lived in, and ethnicity.¹²

Age effects have been found most frequently in prior research but are also most difficult to specify. We have already referred to possible general contextual effects of an aging population and the particular experiences of distinct cohorts (such as the post-War baby boom generation) on educational attitudes during the period of the 1980s. In addition, individuals' passages through stages of maturation are also likely to influence their attitudes. Attempts to separate

such historical period, cohort and maturation effects have been deemed a “futile quest” (Glenn, 1976; see also Smith, 1989).

Two major explanations for a negative relation of individual aging with support for education in general and university spending in particular have been posited: the lack of relevance of university education to older people, and contending tax priorities for health and retirement needs.

The irrelevance argument is typically based on the assumption that senior citizens are too old to learn complex bodies of knowledge. While some seniors may indeed believe this, the myth has been refuted by considerable research as well as by the greatly increasing participation of seniors in adult education programs during the past decade (Wigdor & Foot 1988, pp. 47–65; Livingstone, Hart & Davie 1991, pp. 21–22). As for the contending fiscal priorities thesis, the notion is that aging individuals become more preoccupied with health services for associated problems and with public retirement benefits than with education funding. However, survey evidence for the early 1980s does not indicate dramatic differences in such fiscal priorities according to age. In fact, health services were the top priority for pluralities in all age groups, and priority for education exceeded that for retirement benefits among all age groups except those 60 to 64, the immediate pre-retirement years for most people (Livingstone, Hart & McLean 1983, pp. 10–11). There were few signs of sharp age-based division in fiscal priorities early in the 1980s.

Whatever the adequacy of particular arguments based on maturation effects alone or in interaction with cohort and/or period effects, all explanations assume a continuation to varying degrees of a negative relation between individual age and support for education.

With regard to each of the other demographic factors considered here, one could plausibly argue in terms of quite opposite effects according to the relative prevalence of either group-specific prior advantages from universities, or compensatory demands to overcome prior discrimination by universities. That is, men, those in larger urban communities and southern Ontario regions, and those of British ethnicity have historically had relative advantages in university access, and might see further funding as continuing to reproduce their advantages. Conversely, women, those in small communities and northern regions, and non-Europeans could see increased funding as providing greater opportunities to overcome their earlier relative disadvantages. Prior research offers only cursory theses and mixed findings on such variables (e.g., Hughes, 1979; Smith, 1982; Smith, 1989). Table 4 summarizes the basic Ontario survey findings on all five demographic factors.

Table 4
Demographic factors and support for increased spending for universities

	1980	1982	1984	1986	1988	1990
Age ^a	-.14***	.18***	-.20***	-.19***	-.18***	-.26***
Sex ^b	.07*	.01	.05	.09*	.00	.01
Community size ^c	.05*	.08*	.15***	.14***	.12***	.18***
Region ^d	.03	-.06*	.11***	.02	.00	.00
Ethnicity ^e	.11***	.06*	.02	.14***	.05	.10**

Legend: Kendall's tau * $\leq .05$ ** $\leq .01$ *** $\leq .001$

^a Spending preference recoded to decrease = 1;
 keep up with inflation = 2
 increase = 3

^b Age groups:
 18 - 29 = 1
 30 - 39 = 2
 40 - 49 = 3
 50 - 59 = 4
 60 + = 5

^c Sex:
 Male = 1
 Female = 2

^d Community size:
 $\leq 1000 = 1$
 1001 - 9999 = 2
 10,000 + = 3

^e Region:
 Northern Ontario = 1
 rest of the province = 2

^f Ethnicity
 British = 1
 Other European = 2
 Non-European = 3

As in all prior opinion surveys, age effects on funding are found to be highly significant and negative in all years.¹³ Sex differences and regional differences are generally insignificant and inconsistent. Community size appears to be an increasingly important factor, with those people in large urban communities becoming much more supportive of university funding than those in small towns and rural areas who have more limited access to such education services. Non-European minorities are somewhat more supportive of increased university funding than those of the historically dominant British background. The effect of ethnicity is of inconsistent significance, and those in minority groups with the highest current university participation rates—notably South East Asians but also those of European Jewish heritage (Herberg, 1989)—are probably now most supportive.

Table 5
 Spending preferences for universities by age group

Age Group	% Favouring a real increase						(1980-90)
	1980	1982	1984	1986	1988	1990	
18 - 29	46	47	60	63	71	68	(+22)
30 - 39	30	44	46	59	56	56	(+26)
40 - 49	32	24	46	53	64	58	(+26)
50 - 59	28	23	34	40	49	47	(+19)
60 +	19	22	30	37	44	28	(+9)

Table 5 presents a breakdown of the age differences in support for university funding. All age groups tended to become more supportive of increased funding during the decade. The gains in support were fairly evenly distributed across most age groups. Support among those under 30 increased from a near majority to over two-thirds, while among those 30 - 49 it grew from around one-third to clear majorities. There were comparable gains to near majority support among those 50 to 59, but more fluctuating and ultimately lesser gains among those over 60. Thus, even though support generally increased among all age groups, the negative individual effect of age on support for university spending may have also increased somewhat between 1988 and 1990.

In sum, increasing support for university funding occurred across all demographic groupings considered here. In this context, age differences retained the strongest effects, with younger people being consistently more likely than older ones to favour increased funding. Community size was also a factor, with urban dwellers becoming more supportive. In fact, there were some signs of increasing polarization in both the effects of age and community size by 1990, as support among both those over 60 and those living in small communities appeared to be diminishing from high points reached earlier in the decade. The influences of sex, region and ethnic differences were found to be either too weak or too inconsistent to be identified as having important sustained effects on attitudes toward university funding.

Political Orientation

It is commonly assumed that people's specific political attitudes are partly mediated by their affinities for general political ideologies and their affiliations with political parties espousing such ideologies. A central dimension of contemporary political ideologies is their views on state involvement in civil society.

On the left side of the spectrum in advanced capitalist societies are socialist ideologies that advocate active state intervention to enhance the social entitlements and power of working people and the poor. On the right end are conservative ideologies that stress the pre-eminence of property rights and the superiority of private market solutions over government involvement. In between, there are various social democratic and liberal democratic versions espousing pragmatic forms of mixed economies, with substantial state provision of social entitlements (see Gamble 1981). Broadly speaking, leftist ideologies place greater emphasis on state provision of education services, including funding of public universities.

The three dominant parties in Ontario politics during the 1980s have been fairly clearly arrayed along this state involvement continuum, from the left-leaning New Democrats to the centrist Liberals and right-leaning Progressive Conservatives. Of course, all three parties did devise versions of their political philosophies that were sufficiently popular to allow them to form provincial governments during the decade, in right to left sequence – the Conservatives until 1985, the Liberals from 1986 to 1990 and the NDP in late 1990. In any case, one would expect that those seeing the NDP as closest to their own political views would generally tend to be most supportive of both social spending and university spending, while Conservatives would be least supportive.

Of course, views on government spending in general (including other social spending but also infrastructure and police budgets) may not correspond exactly with views on university spending. As we have previously noted, many people are now prepared to trade-off other types of government spending to ensure education spending. Nevertheless, on both ideological and practical budgetary grounds, we would expect that support for increased government spending in general would be associated with support for increased university spending. The relevant findings on the influences of political party preferences and pro-government spending preferences on support for university spending appear in Table 6.

The survey results indicate a fluctuating effect on the part of party preference, with Conservative party adherents usually being less supportive of increased university spending than either Liberals or NDP'ers. But support for university funding grew through the decade across all party affiliations and, when support was generally highest in 1988, Conservatives were just as positive as others. Thus, the effects of general political orientations on spending preferences appear to be very much contingent on political parties' responses to changing contextual conditions (cf. Brodie & Jenson, 1988).

Table 6

Political orientation and support for increased spending for universities

	1980	1982	1984	1986	1988	1990
Political Party						
Preference ^a	.11***	.08**	.04	.12***	.01	.16***
Pro-Government						
Spending ^b	n.a.	n.a.	.26***	.35***	.35***	.35***
Legend: Kendall's tau	* ≤ .05	** ≤ .01	*** ≤ .001			
^a Political party preference:	Progressive Conservative = 1 Liberal = 2 New Democrat = 3					
^b Pro-Government spending: based on responses to the question, "What should happen to...total government spending for all purposes in the next budget year?" Response options are the same as for spending for universities (see Table 1). Codes used here for both preference questions are:	decrease = 1 just keep up with inflation = 2 increase = 3					

As predicted, support for general governmental spending is strongly associated with support for university spending. This relationship appeared to become stronger in the latter part of the decade. Over three-quarters of those who favour increased general government spending now support increased university funding. Also, among those who prefer general spending just to keep up to inflation, there is now a small majority support for increased university funding. In contrast, of those who want real cuts in general government spending, a steady one-third have been prepared to support increased university funding.

Thus, while pro-government spending attitudes in general do not seem to be closely or consistently associated with individual voting preferences, at least in the Ontario context, they do appear to be central mediators of views on university spending for many people.

Multi-Variate Analyses

Of course, all of the aforementioned individual-level factors simultaneously influence public attitudes towards university funding. We have undertaken a number of multi-variate analyses, using both parametric and non-parametric statistical techniques,¹⁴ to assess the relative effects of all the factors found to be related to views on university funding in prior sections. The major findings are summarized in Table 7 and Figure 1.

Table 7

Relative effects of age and educational attainment on support for university spending^a

	1980	1982	1984	1986	1988	1990
Age effect	-.11***	-.15***	-.17***	-.16***	-.15***	-.24***
Education effect	.08*	.07*	.09*	.12**	.09*	.08*

Legend: Kendall's tau * $\leq .05$ ** $\leq .01$ *** $\leq .001$

^a The numbers are Person partial correlation coefficients, in each instance controlling for the effects of the other independent variable.

Zero-order age and education effects have been found in virtually all empirical surveys of public attitudes toward educational funding. Table 7 shows the relative individual effects of age controlling for education, and of education controlling for age. While both age and education remain significant influences, it is clear that the age effect has been consistently stronger than the education effect, and that the age effect has increased since 1980 while the education effect has remained fairly constant. More detailed analyses indicate that the main age effects are among those without postsecondary attainments. That is, older people with limited formal schooling are much less supportive of university funding than are younger people with limited schooling.

The path model in Figure 1 displays all the posited individual factors that have had consistently significant effects since 1984. General dispositions toward government spending are confirmed to be most closely related to specific support for university spending. But age, education and community size all retain significant relative effects on university funding preferences apart from their relationships to general government spending. Age is clearly the most influential individual background variable, with both a direct negative effect on university funding preferences and an indirect effect through its increasingly negative influence on general government spending preferences. Both education and community size retain significant direct effects on university spending views but exhibit no consistent relationship with general government spending preferences.

Overall, our analyses of individual-level effects suggest some polarizing tendencies in views about university spending. Elderly people, who are likely to be less formally educated and live in more rural communities, are both more opposed to increased university spending than younger people and increasingly likely to be against government spending increases in general. Their views

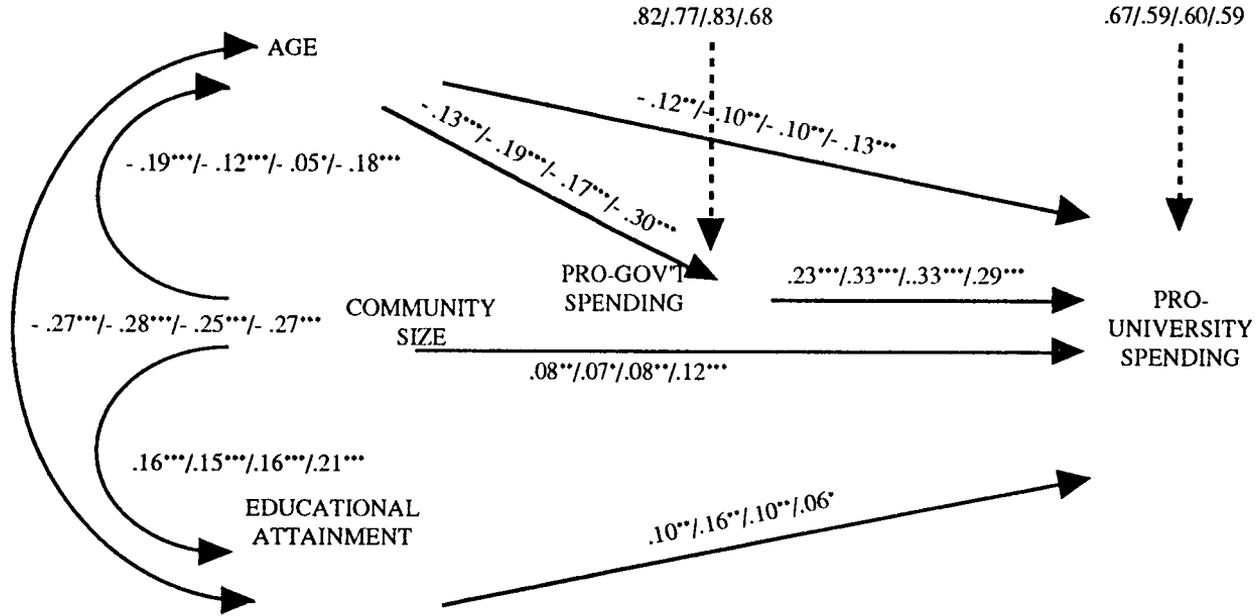


Figure 1

Path model of determinants of support for university spending, 1984-1990¹

The figures next to the curved lines are zero-order Person correlation coefficients for respective years. Those on the solid straight lines are standardized beta coefficients. Those above the dotted lines are the residual unexplained variance.

appear increasingly out of step with the majority, and particularly with younger, more highly educated urban residents who are the most enthusiastic supporters of increased university funding. These are merely tendencies, however, and one should be cautious about general explanations and predictions based on such individual effects, particularly as well over half of the variance in public support for university funding remains unexplained.

Conclusion

Several particular contextual factors were probably important positive influences on the increasing public support for university funding in Ontario over the past decade. Under the impact of economic restructuring initiatives and increasing formal educational requirements for jobs, an expectation became generalized that a postsecondary education will be needed to get along in future society. Secondly, the universities' unprecedented responses to relative reductions in government grants made the public increasingly aware of lack of funding as a serious problem. Thirdly, a rapid increase in the participation rates of both 18 to 24 year olds and older age groups in postsecondary institutions meant that a significantly larger proportion of the population was exposed to both the benefits and the financial limitations of such institutions. In addition, it should be noted that the prevalent political affiliation in Ontario shifted from right to left during the decade and that — while individual voter preferences at any given time remain contingent on changing party programs and strategies—this shift is consistent with some growth in general public openness to state spending on social services such as education.

Several individual-level factors have also exhibited significant positive effects on support for university spending. In the context of the general political shift from right to left, attitudes towards general government spending have consistently shown the strongest direct positive relationship with attitudes toward university spending in particular. In the context of increasing aggregate educational attainments, higher individual attainments have retained a significant positive effect on support for university spending. In the context of at least moderate increases in the urban composition of the Ontario population (see Simmons & Bourne, 1989; Ontario Ministry of Revenue, 1992), urban residents do seem to have become increasingly more supportive of university spending than rural people since 1980. All of these contextual and individual factors exhibit complementary positive effects on increasing support for university spending.

The single important exception is age. The individual effect of age has been demonstrated to remain strongly negative, both in its direct influence on support

Table 8

Changes in support for university spending among comparable age cohorts, 1980 and 1990

(1980/1990) Cohort	1980	1990	(% Change)
20-29/30-39	44	56	(+12)
30-39/40-49	30	58	(+28)
40-49/50-59	32	47	(+15)
50-59/60-69	28	26	(-2)
60-69/70-79	19	36	(+17)

for university spending, and in its dampening of the positive influence of views on general government spending. These negative effects may even have increased as younger peoples' support for university spending grew somewhat more than old peoples' over the decade. But what about particular age cohort contextual effects?

While it remains impossible to separate such cohort effects from the historical period effects cited previously (see Smith, 1989), Table 8 suggests what may have happened to the views of respective 1980 age cohorts with aging to 1990. Juxtaposing ten year cohorts in 1980 with the next older cohorts in 1990, we find that in nearly all instances support for university spending increased significantly. The most substantial increase is among the leading edge of the baby boom generation, now dominating the 40 to 49 age cohort. Even among those now in their 70s, support appears to have increased over the decade. The lone exception is those now in their 60s, the cohort that directly grappled with financing its own retirement during this period; even here, however, there was no significant decline in support for university funding. Thus, at least over the past decade, aging does not appear to have been inevitably associated with diminishing support for university spending.

To predict the future on the basis of extrapolations from the past is, at best, highly misleading (Livingstone, 1983). Period effects that emerged during the 1980s — such as the concerted business and government appeals for a more highly educated work force to meet global competition, or the political shift to the left in Ontario — could just as quickly be reversed. However, the cumulative growth of postsecondary participation levels and associated support for postsecondary funding is unlikely to be so rapidly altered. Opposition to university funding could well increase among those groups most excluded from its benefits: those with only elementary schooling, rural residents, and the elderly.

But the numbers with only elementary schooling are rapidly diminishing, while rural residents remain a small minority of the total population. Only the elderly are a significant growing source of potential opposition. But even among the elderly, support for greater university funding has actually increased during the past decade. Again, this could be reversed in reaction to major cutbacks of state funding which threatened established health services for the increasing elderly population.

For the short-term, however, the array of social influences that coalesced during the past decade is most likely to maintain strong public support for increased university funding. Indeed, there are even some indications here that popular support for universities could continue to increase, to the extent that "...a great mass of people of all ages feel they can come and get their lives revitalized".¹⁵

Footnotes

¹ This has been the only publicly disseminated continuing opinion survey of educational policy issues in the country over the past decade. For detailed discussion of the survey's methodology and design, see Livingstone, Hart and Davie (1985). It should be noted that the published OISE Survey reports utilize standard Gallup Poll weightings for age and sex. The figures presented here have been reweighted to correct for an under-representation of the least educated population, and therefore differ slightly from those in the reports.

² The correlation between support for community college funding and university funding is very high in all OISE Surveys, ranging from tau-b's of .63 to .83 over the decade. Most of the basic findings presented here apply as well to community colleges. These findings are omitted from the text largely for economy of presentation. Both college and university support are also quite highly correlated with support for spending on elementary and secondary education, ranging from tau-b's of .47 to .53. But significant social influences—notably educational attainment—differ somewhat.

³ It should be noted here that some of the most powerful economic interest groups, most notably corporate executives, are generally opposed to increased government social service spending and university funding as well (see Livingstone, Hart & Davie, 1991). For a classic statement of the interactions among "ruling class interests", intellectuals' policy analyses, mass opinion and government decision-making, see Key (1961).

⁴ The most comparable prior analyses have been done in the U.S. and assessed factors related to support for education spending in general. Tom Smith (1982) assessed the effects of a wide variety of individual-level attributes during a period of stable support for general education spending, 1971 – 78. He found a strong age effect but no direct, independent effect of educational attainment on spending preferences. Wade Smith (1989) has examined a more limited set of factors in relation to increases in sup-

port between 1972 and 1986. He found consistently higher support among younger birth cohorts and those educated beyond high school, as well as less consistent regional and racial differences. An extensive review of earlier U.S. research may be found in Piele and Hall (1973).

5 Unless otherwise stated, zero-order correlations reported in text and tables are Kendall's tau-b's or tau c's as appropriate. Significance levels are indicated with asterisks as follows: * $\leq .05$, ** $\leq .01$, *** $\leq .001$

6 For an insightful account of Canadian patterns of government funding and university responses from the mid 1970s to the early 1980s, see Skolnik and Rowen (1984), especially Chapter 4 which focuses on the Ontario case.

7 Public attitude tendencies appear to be more in accord with the universities' own increasingly strident claims of underfunding than with the conclusions of the various externally-sponsored commissions which have typically been both more circumspect about financial impact and more interested in efficient re-organization of higher education (e.g., Bovey, 1984; Cameron, 1987). As the most recent commissioner has put it, with particular reference to the efforts of the COU (Smith, 1991, pp. 16-18):

There is no evidence that financial restraint has caused a serious decline in the quality of university graduates and, according to this view, universities should take credit for having improved their productivity, at least as measured in graduates per dollar received. This argument, of course, puts universities in a position where they feel they are made to suffer financially because of the success of their dedicated efforts to protect students from the full consequences of what they see as government underfunding....It is clear to the Commission that a preoccupation with underfunding pervades every campus.

8 This account of Canadian demographic trends is based primarily on Wigdor and Foot (1988).

9 It should be noted that in part as a function of the broad categorization of objective SES variables employed here, there is considerable heterogeneity even in polar categories. Thus, overall for example, a majority of those in the highest income category in each year do not have postsecondary credentials. Among the occupational classes, almost a third of the professional-managerial group do not hold postsecondary credentials. There is thus wide scope for different patterns among SES variables which are themselves related.

10 Several additional sub-group analyses were also conducted, using the family income variable. For example, among employed married men over 25 (for whom family income and individual income are likely to be most closely correlated) the association between family income and support for university funding is generally insignificant. We also investigated whether there is a relationship between family income and spending preferences among parents. The argument for expecting such a pattern is that lower income parents will view their children's opportunities to obtain a university education as highly dependent on government funding; while higher income parents will be less concerned, given that they have the resources to cope with 'underfunding,' and that this may be accompanied by tax relief. This is a more specific version of the cost-benefit hypothesis referred to earlier. In fact, in only one year, 1982, are there statistically significant differences among parents by family income in support

for increased spending on universities. In this instance, those with higher rather than lower incomes are more likely to favour more spending. If the comparison is restricted to parents without high school diplomas (eliminating the possibility that the higher income group will be more supportive of spending because they are more educated), there are no significant differences among income groups in any year.

11 We should note here that we have also explored the possible effects of under-employment on support for university funding, using a variety of measures. Especially among increasingly underemployed young university graduates (see Nobert, McDowell & Goulet, 1991; Livingstone, 1992), this factor might be assumed to have significant negative effects. Underemployment is associated with educational attainment and, when the latter is controlled for, proves to have no significant negative effects on views about university funding. This finding is consistent with prior research on the lack of negative effects of underemployment on political attitudes (Burriss, 1983; Livingstone and Bowd, 1990).

12 Ethnicity is a much more complex and nuanced social characteristic than these other demographic factors (see Isajiw, 1980; Hughes & Kallen, 1974). The sample size did not permit a detailed analysis of the differences among "visible minorities", for instance.

13 We must mention here that some previous researchers have posited specific positive effects of current student or parent of postsecondary student status in terms of anticipated direct benefits of educational participation (see Smith, 1982). Such statuses have been closely related to age; any positive effects they may have become insignificant once age is controlled for in these samples.

14 The multi-variate results displayed here are merely illustrative. Ordinal-level measures of partial correlation (e.g., Kendall's tau) and multiple simultaneous effects (e.g., log-linear models) are most appropriate with these variables. Interval-level measures (Pearson partial correlations and regression-based path models) are used here both for ease of presentation and because results with the respective statistical techniques are nearly identical with these data. For fuller discussion, see Pine (1977)

15 Northrop Frye, cited in Wigdor and Foot (1988, p. 64).

References

- Adams, M. (1992, January 16). *Changing times—Changing attitudes*. Address to Ontario Public School Boards' Association Conference on Public Opinion on Education. Toronto.
- Anisef, P., et al. (1986). *Accessibility to postsecondary education in Canada: A review of the literature*. Ottawa: Department of the Secretary of State.
- Auld, D. (1979, March–April). Public sector awareness and preferences in Ontario. *Canadian Tax Journal*, 27(2), 172–83.
- Baer, D., & Lambert, R.D. (1982, May). Education and support for dominant ideology. *Canadian Review of Sociology and Anthropology*, 19(2) 173–195.
- Bovey, E. (1984) *Ontario universities 1984: Issues and alternatives*. Toronto: Commission on the Future Development of the Universities of Ontario.

- Bozinoff, & MacIntosh, P. (1988, November 28). 47 percent believe children today receive superior education. *The Gallup Report*. Toronto: Gallup Canada.
- Brodie, M.J., & Jenson, J. (1988). *Crisis, challenge and change: Party and class in Canada revisited*. Ottawa: Carleton University Press.
- Burris, V. (1983, August). The social and political consequences of overeducation. *American Sociological Review*, 48, 454-467.
- Cameron, D. (1987). The framework for managing and financing postsecondary education in Canada. *The Forum Papers: National forum on postsecondary education*. Halifax: Institute for Research on Public Policy.
- Campbell, A., & Eckerman, W. (1964). *Public concepts of the values and costs of higher education*. Ann Arbor: University of Michigan Institute for Social Research.
- Cantril, H. (1965). *The pattern of human concerns*. New Brunswick, N.J.: Rutgers University Press.
- Clark, W., & Zsigmond, Z. (1981). *Job market reality for postsecondary graduates*. Ottawa: Department of Supply and Services.
- COU. (1984). *Continuity and renewal: The demands of excellence*. Toronto: Council of Ontario Universities.
- COU. (1988). *Access and quality in higher education and research*. Toronto: Council of Ontario Universities.
- Crawford, T. (1991, November 30). The struggle to make the grade. *Toronto Star*, D1, 4.
- Decima Research. (1990). *Attitudes toward universities in Ontario and the recovery plan*. Toronto: Decima.
- Dyer, L. (1990). *Public attitudes towards adult education in New Brunswick*. Fredericton, N.B.: New Brunswick Department of Advanced Education and Training.
- Economic Council of Canada. (1990). *Good jobs, bad jobs: Employment in the service economy*. Ottawa: Minister of Supply and Services.
- Farah, B. (1987). Political dissatisfaction. In S. Barnes and M. Kaase (Eds.), *Political action: Mass participation in five western democracies*. Beverley Hills: Sage, pp. 409-47.
- Flather, P. (1988) Education Matters. In R. Jowell, et al. (Eds), *British social attitudes: The fifth report*. Aldershot: Gower Publishing, pp. 17-34.
- Freeman, R. (1976). *The overeducated american*. New York: Academic Press.
- Gallup Canada. (1991, September 4.). Most want more school funds. *Toronto Star*, A17.
- Gamble, A. (1981). *An introduction to modern social and political thought*. London: Macmillan.
- Glenn, N.D. (1976, October). Cohort analysts' futile quest: Statistical attempts to separate age, period and cohort effects. *American Sociological Review*, 41(5), 900-904.
- Goldfarb Consultants. (1985). *Survey of various aspects of life in Ontario today* Toronto: Canadian Polling Institute.
- Harrison, B., & Bluestone, B. (1988). *The great U-turn*. New York: Basic Books.
- Hay, D.A., & Basran, B.S. (1991). State policy and educational change: Crisis in postsecondary education. In T. Wotherspoon (Ed.), *Hitting the books: The politics of educational retrenchment*. Toronto: Garamond Press, pp. 35-58.
- Herberg, E. (1989). *Ethnic groups in Canada: Adaptations and transitions*. Scarborough: Nelson Canada.

- Hughes, D., & Kallen, E. (1974). *The anatomy of racism: Canadian dimensions*. Montreal: Harvest House.
- Hughes, A.S. (1979). *Public attitudes toward postsecondary education in the Maritime Provinces*. Halifax: Atlantic Institute of Education.
- Isajiw, W. (1980). Definitions of ethnicity. In J. Goldstein, & R. Bienvenue, (Eds.), *Ethnicity and ethnic relations in Canada*. Toronto: Butterworths, pp. 13–25.
- Johnson, A.S. (1985). *Giving greater point and purpose to the federal financing of postsecondary education and research in Canada*. Ottawa: Secretary of State.
- Johnson, R. (1986). *Public opinion and public policy in Canada*. Toronto: University of Toronto Press.
- Key, V.O. (1961). *Public opinion and American democracy*. New York: Alfred Knopf.
- Krahn, H. (1991). *University education in Alberta: Public opinion trends*. Edmonton: Population Research Laboratory, University of Alberta.
- Livingstone, D.W. (1983). *Class, ideologies and educational futures*. London: Falmer Press.
- Livingstone, D.W. (Forthcoming 1992). Lifelong learning and chronic underemployment: Exploring the contradiction. In P. Anisef, & P. Axelrod, (Eds.), *Transitions: schooling and employment in Canadian society*. Toronto: Thompson Educational Publishing.
- Livingstone, D.W., & Bowd, R. (1990, June 3). *Deciphering 'underemployment': The relations between occupational class, education–job mismatch and political attitudes in Ontario, 1982 – 88*. Paper presented at the Annual Meeting of the Canadian Association of Foundations of Education, Victoria.
- Livingstone, D.W., Hart, D.J., & Davie, L.E. (1985). *Public attitudes toward education in Ontario 1984*. Toronto: OISE Press.
- Livingstone, D.W., Hart, D.J., & Davie, L.E. (1987). *Public attitudes toward education in Ontario 1986*. Toronto: OISE Press.
- Livingstone, D.W., Hart, D.J., & Davie, L.E. (1989). *Public attitudes toward education in Ontario 1988*. Toronto: OISE Press.
- Livingstone, D.W., Hart, D.J., & Davie, L.E. (1991). *Public attitudes toward education in Ontario 1990*. Toronto: OISE Press.
- Livingstone, D.W., Hart, D.J., & McLean, L.E. (1983). *Public attitudes toward education in Ontario 1982*. Toronto: OISE Press.
- National Council of Welfare. (1991). *Funding health and higher education: Danger looming*. Ottawa: Minister of Supply and Services Canada.
- Nobert, L., McDowell, R., & Goulet, D. (1991). *Profile of higher education in Canada: 1991 edition*. Ottawa: Department of the Secretary of State.
- OCUFA. (1991, May–June). Are universities a priority in Ontario? *OCUFA Forum*. 3.
- Ontario Ministry of Revenue. (1992). *Ontario census report property assessment program*. Oshawa: Assessment Branch, Ontario Ministry of Revenue.
- Ontario Premier's Council. (1990). *People and skills in the new global economy*. Toronto: Queen's Printer of Ontario.
- Opinion Research Institute. (1981). *Public attitudes towards Alberta universities*. Calgary: University of Alberta.

- Pampel, F.C., & Williamson, J.B. (1985, December). Age structure, politics, and cross-national patterns of public pension expenditures. *American Sociological Review*, 50(6), 782–99.
- Picot, G. (1980). *The changing education profile of Canadians, 1961–2000*. Ottawa: Statistics Canada.
- Piele, P.K., & Hall, J.S. (1973). *Budgets, bonds and ballots: Voting behavior in school financial elections*. Lexington: D.C. Heath.
- Pine, V.R. (1977). *Introduction to social statistics*. Englewood Cliffs, N.J.: Prentice-Hall.
- Pineo, P. C., Porter, J., & McRoberts, H.A. (1977). The 1971 Census and the socioeconomic classification of occupations. *Canadian Review of Sociology and Anthropology*, 14(1), 91–102.
- Poitras, J. (1990, November 13). Canadians want bucks for education. *The Varsity*, 111(22), 1.
- Ross, R.J., & Trachte, K. (1990). *Global capitalism: The new leviathan*. Albany: State University Press of New York.
- Sanders, A. (1988, Une). Rationality, self-interest, and public attitudes on public spending. *Social Science Quarterly*, 69(2), 311–24.
- Simmons, J.W., & Bourne, L. (1989). *Urban growth trends in Canada, 1981–86: A new geography of change*. Toronto: Centre for Urban and Community Studies, University of Toronto.
- Skolnik, M., & Rowen, N. (1984). *“Please, sir, I want some more” – Canadian Universities and Financial Restraint*. Toronto: OISE Press.
- Smith, A. W. (1989). Trends in public attitudes toward educational spending. *Social Indicators Research*, 21, 159–73.
- Smith, S.L. (1991). *Report: Commission of inquiry on Canadian university education*. Ottawa: Association of Universities and Colleges of Canada.
- Smith, T.W. (1982). Public support for educational spending: Trends, readings and models 1971–1978. In K.J. Gilmartin, & R.J. Rossi, (Eds.), *Monitoring educational outcomes and public attitudes*. New York: Human Sciences Press, pp. 164–198.
- Stager, D. (1985). Demographic and economic trends, with consequences for public sector education in Ontario. *Background papers: The commission on the financing of elementary and secondary education in Ontario*. Toronto: The Commission.
- Statistics Canada. (1991, August 30). Tories shirk education, report says. Cited in *Toronto Star*. B2.
- Tausig, C. (1991, March). Recent poll reveals majority support increased university funding. *University Affairs*, pp. 48–49.
- Todd, O. (1990, August 29). Few support cuts in taxes funding social aid, poll finds. *Toronto Star*, A10–A11.
- Welch, S. (1985, Fall). The ‘More for Less’ paradox: Public attitudes on taxing and spending. *Public Opinion Quarterly*, 49(3), 310–316.
- Wigdor, B.T., & D.K.Foot. (1988). *The over-forty society: Issues for Canada’s aging population*. Toronto: Lorimer.