Mandatory retirement: a constraint in transitions to retirement?

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Keywords *Older workers, Retirement, Policy*

Abstract *Issues associated with retirement in general, and phased transitions into retirement in particular, are taking on increased importance for a variety of reasons. Outlines those reasons, paying particular attention to the practice of mandatory retirement. Presents age dependency ratios for the OECD to highlight the importance of these issues in the context of an ageing and longer-lived workforce relative to a smaller working age population. Then discusses the prevalence of mandatory retirement in Canada and the USA, and presents empirical evidence from Canada on variables associated with retiring because of mandatory retirement. The Canadian case is of particular interest, because mandatory retirement in Canada has generally not been banned, which is in marked contrast with the situation in the USA, where it has been banned as constituting age discrimination. The public and legal debate over the issue of mandatory retirement has also been extensive in Canada, and this debate may provide information for other countries dealing with the issue. Ends with an assessment of the extent to which mandatory retirement exerts a constraining influence on transitions into retirement. The essential argument is that its constraining impact is not as simple as it may initially appear. To the extent that mandatory retirement is an intricate part of the compensation and human resource function of firms, banning it can have important implications for those functions and, in turn, for transitions into retirement. The complexities of these issues and dramatically increasing old-age dependency ratios will ensure that this is an area of growing importance for public policy and human resource management.*

Introduction

Issues associated with retirement in general, and phased transitions into retirement in particular, are taking on increased importance for a variety of reasons. The purpose of this paper is to outline those reasons, paying particular attention to the practice of mandatory retirement and its anticipated effects on phased transitions into retirement. The central questions addressed in this paper are threefold. First, we wish to ascertain whether mandatory retirement inhibits employees and organisations from establishing optimal contractual

Financial assistance from the Government of Canada-funded project on Regional Aspects of Employment Relations Policy in Canada is gratefully acknowledged, as is the editorial assistance of Patrick Gunnigle, two anonymous referees and the research assistance of Tony Fang and Konstantinos Tzioumis.

Employee Relations,
Vol. 24 No. 4, 2002, pp. 403-422.

DOI 10.1108/01425450210435545

arrangements such as deferred compensation schemes, which are only feasible if a termination date – based on objective criteria such as an age limit – is agreed by both parties. Second, we ask whether mandatory retirement is a constraint which is truly binding for workers, in the sense of forcing significant numbers of employees to involuntarily terminate their working careers. Finally, our last question centres on the incidence of mandatory retirement and whether it is disproportionately greater for certain workers based on characteristics such as gender, occupation and health status.

The paper is structured as follows. Age dependency ratios for the OECD and G7 countries are presented, highlighting the importance of mandatory retirement in the context of an ageing and longer-lived workforce relative to a smaller working age population. The prevalence of mandatory retirement in Canada and the USA is then discussed, and empirical evidence from Canada is presented on variables associated with retiring because of mandatory retirement. The Canadian case is of particular interest, because mandatory retirement in Canada has generally not been banned[1], which is in marked contrast with the situation in the USA, where it has been banned on the basis of constituting age discrimination. Furthermore, the public and legal debate over the issue of mandatory retirement has been extensive in Canada, and this debate may prove informative for other countries and jurisdictions dealing with the issue. Throughout the analysis, the pros and cons of mandatory retirement are outlined. The paper concludes with an assessment of the extent to which mandatory retirement exerts a constraining influence on employees and human resource departments in facilitating transitions into retirement.

Prior to beginning the analysis, it is important to emphasise that legislated mandatory retirement is not a policy that forces people to retire from the labour force at a particular age. Rather, it is part of a company personnel policy or collective agreement that says that a particular contractual arrangement is over, and the individual now has to retire from the organisation, usually with the receipt of a company-sponsored pension. That person may remain in the labour force, by obtaining employment or a contract with another organisation, or perhaps by working as a self-employed individual. In some cases, the person may also be rehired by the same organisation, usually on a contractual basis. This latter arrangement is sometimes termed *compulsory retirement* to distinguish it from *automatic retirement*, where the company pre-commits to not rehiring the individual under any terms. In essence, mandatory retirement is a human resource policy and not a legal entity. The legal aspect centres on whether the law allows such practices, or prohibits them as being discriminatory.

Reasons for current policy interest in mandatory retirement

Age structure and public pension reform

Mandatory retirement is attracting increased scrutiny because of the concern that requiring people to retire at, say, age 65 may be jeopardising the viability of public pension schemes. The modern public pension system has its origins in the late nineteenth century, when Chancellor Bismarck of Germany first

established public pensions to be received at age 65 – an age that few people reached at that time and certainly did not exceed for any considerable length of time[2]. It is quite remarkable that the original Weimar Republic age of pension receipt and retirement has remained at around age 65 in spite of the substantial increase in life expectancy. Initial conditions matter in establishing subsequent behaviour and this certainly seems to be the case with retirement ages.

The public pension systems in many developed countries will soon be under incredible stress, given the ageing workforce (detailed subsequently). In pay-as-you-go public schemes, the existing workforce pays for the retirement pensions of the existing retirees, in return for their pensions being paid by future generations of workers. Such schemes work well when there is constant population and productivity growth. But when a large cohort of older workers retires and their pensions are to be paid by a smaller cohort of younger workers – as is soon to be the case in most developed countries – the viability of this "social contract" becomes strained. This is especially the case when the large cohort of older workers may live longer because of increasing life expectancy, and when the strain they place on the pension system may be exacerbated by the strain they place on public health-care systems. Stagnant productivity growth further exacerbates the problems.

The concern is that, in such circumstances, the younger workforce may be facing an intolerable burden of inter-generational transfers from pay-as-you-go public pension schemes. This can be exacerbated by the unfunded liabilities of other pay-as-you go systems such as workers' compensation (Gunderson and Hyatt, 2000), as well as growing health-care expenditures from an ageing population. Understandably, in such circumstances the tax-paying workforce may attempt to shift the burden back to the older workers not by directly reneging on the social contract, but perhaps more indirectly by cutting back on health or other expenditures for the aged or by imposing clawbacks on benefit payouts.

External labour market pressures

The ageing workforce also means that severe labour shortages may be experienced because of extensive retirements, with mandatory retirement possibly inhibiting older workers from filling those shortages. Mentoring experiences between older and younger workers may also be lost.

The ageing workforce also means that issues associated with age discrimination will become more prominent, especially as the ageing population will have more political clout. Issues of human rights and discrimination are taking on increased importance in general. The possibility that mandatory retirement constitutes age discrimination obviously becomes important in that context.

Mandatory retirement is also increasingly questioned, given that physically demanding work is less prominent, as we shift to services- and knowledge-based work. Many people may want to retire earlier, and they have the

financial means to do so, especially from public and private pensions. But for many professionals and knowledge-based workers, whose vocation may be their vacation, mandatory retirement may inhibit them from obtaining the intrinsic satisfaction they obtain from work.

There is also the spectre that the wealth accumulation experienced in recent years, associated with Western stock-market expansions, has ended and in fact may be in the process of reversing itself. In such circumstances, people may simply not be able to afford to retire, especially if they had defined contribution pension plans that were dependent upon the stock-market. The trend towards earlier retirement, fostered by our wealth accumulation, could well be reversed, again placing pressure on organisational mandatory retirement provisions.

Internal labour markets and personnel strategies

The human resource management (HRM) community has understood for some time that pensions are not just paternalistic forms of forced saving. They can be an important tool of strategic human resource management (Lazear, 1983, 1990). Pension benefit accruals from defined benefit pensions can be an important component of deferred compensation plans. Such back-loaded compensation schemes – whereby employees are "underpaid" relative to their productivity when younger in return for being "overpaid" when older – can serve various strategic purposes. They can reduce unwanted turnover; reduce shirking and enhance honesty and commitment, so as to ultimately obtain the deferred compensation; enhance loyalty and commitment to the firm that "owes" the deferred compensation; enable periodic and retrospective monitoring and evaluation; and deter adverse selection by discouraging "lemons" from applying for such jobs, since their true productivity will be revealed over time. Mandatory retirement has been justified as a necessary rule to put a termination date on such deferred compensation arrangements, since, without such a termination date, wages would exceed productivity for an indeterminate period of time (Lazear, 1979).

Subsidised early retirement – by facilitating the voluntary withdrawal of persons who may otherwise be expensive to the firm and have a high value of their own leisure time in retirement – can also be an important strategic tool, mitigating the worst side-effects of downsizing[3]. Since pensions are intricately linked to mandatory retirement, then any change in mandatory retirement can have important implications for pensions and the associated labour market behaviour that is affected by pensions.

There is general agreement that policies that can facilitate transitions into retirement are preferable to those that lead to abrupt changes such as from full-time work to immediate and complete retirement[4]. Yet many features of organisational (private) and public pension systems, as well as certain HRM policies, create barriers to flexible and voluntary transitions into retirement. Public pension systems can have clawbacks that discourage continued labour market work. Private employer-sponsored occupational pension plans can have

significant pension benefit accruals that increase as the person approaches normal retirement age, inducing the person to work long hours to maximise those accruals. Then abrupt retirement can be encouraged if the benefit accruals drop off sharply. Disability benefits, which are more common for older workers, similarly can reduce incentives for continued labour force participation. Mandatory retirement policies can imply abrupt retirement rather than a transition into retirement.

Policy interest in mandatory retirement: a summary

Clearly, there are a wide range of pressures that are making the issue of mandatory retirement a top policy priority and an issue of practical relevance and importance for human resource management. In such circumstances, it is important to have more information on mandatory retirement:

- How common is it?
- Does it exert a constraining influence on the retirement decision or do most people want to retire at or near the mandatory retirement age?
- How flexible is it – that is, can persons be hired back, perhaps on an alternative contractual basis?
- In what type of work environment is it most common?
- Why does it exist in the first place?
- Does it constitute a form of age discrimination?
- What are the implications for human resource policies, if mandatory retirement is banned?
- Would its being banned facilitate more phased transitions into retirement?

It is to addressing these questions that we now turn.

Demographic shifts and mandatory retirement

As discussed previously, the ageing workforce is giving rise to a wide range of labour market and broader social policy issues. It is fuelled not only by an ageing baby-boom population (those born after the Second World War and now approaching their mid-50s) that has increasing life expectancy, but also by dramatic declines in birth-rates[5].

Old age dependency ratios across the OECD

As such, the old age dependency ratio (e.g. the ratio of the population age 65 and above to the population age 14 to 64) is predicted to increase dramatically over the next decades. These forecasts are likely to be reasonably accurate, since their essential ingredients are fairly predictable[6]. That is, the older population (the numerator) is simply based on "ageing" the existing population that is already there, as is the case with much of the younger population (the denominator). Dramatic changes in birth-rates, unanticipated deaths or large

shifts in immigration could alter the ratios, but these are not likely to be substantial. It is also the case that these ratios are under-estimates of the dependency ratios that would prevail, if a more typically "working age" population were used in the denominator, such as persons 20-60, to exclude students and people who may retire before age 65.

The dramatic changes in these dependency ratios are given in Table I for the OECD countries. As indicated in the last row, the overall (unweighted) average goes from 0.145 in 1960 to 0.298 in 2020 to 0.484 in 2050. That is, in 1960, the older population was approximately 14.5 per cent of the population age 15-64, by 2020 that ratio is expected to double, and by 2050 it will more than triple to be almost 50 per cent of the population age 15-64.

This sharp increase in the old age dependency ratio is expected to occur in every OECD country, albeit there is substantial variation. As indicated in Figure 1, the increase is expected to be greatest in Asia (Korea and Japan), both because it starts with a low base in 1960 and because it ends with the highest ratio in 2050. Europe is a close second, followed by Scandinavian countries and then North American. Figure 2 illustrates the changes for the G7 countries. By 2050, the ratios are expected to be highest for Italy, Japan, and Germany, with France and the UK clustered in the middle, and Canada and especially the USA lowest.

Where will demographic pressures to amend mandatory retirement provisions be greatest?

Clearly, old age dependency ratios are higher in the EU than in the USA or Canada, and they are expected to diverge even more dramatically in the next two decades (McMorrow and Roeger, 1999). Most European countries have significantly lower average ages of retirement for both males and females than the USA and Canada. This can be attributed to the financial disincentives among older employees to remain in the workforce after the standard age of retirement, emanating from such factors as:

- the lowering of standard retirement ages;
- higher pension replacement rates;
- flatter pension accruals at older ages;
- higher implicit tax rates on continued work;
- higher pension contribution rates; and
- support from other income maintenance schemes such as disability and unemployment insurance programs (Blondal and Scarpetta, 1998a, b).

As a result of these demographic trends and the impending demographic "crises", as well as the strict budgetary criteria of the EMU, many European countries are undergoing a reform process with respect to retirement issues, public and private pensions[7] and age discrimination.

Table I.
Old age dependency ratios, OECD countries: 1960-2050 (G7 countries in bold)

Countries	1960	1970	1980	1990	2000	2010	2020	2030	2040	2050
Australia	0.138	0.132	0.147	0.167	0.180	0.197	0.258	0.322	0.360	0.375
Austria	0.182	0.229	0.240	0.222	0.215	0.240	0.286	0.402	0.506	0.536
Belgium	0.186	0.213	0.218	0.226	0.252	0.260	0.326	0.425	0.477	0.482
Canada	**0.127**	**0.128**	**0.138**	**0.165**	**0.187**	**0.207**	**0.280**	**0.374**	**0.398**	**0.402**
Czech Republic	0.135	0.181	0.212	0.189	0.195	0.219	0.318	0.377	0.471	0.606
Denmark	0.165	0.191	0.222	0.232	0.227	0.257	0.322	0.383	0.430	0.402
Finland	0.115	0.139	0.177	0.199	0.222	0.255	0.364	0.435	0.435	0.440
France	**0.187**	**0.207**	**0.220**	**0.213**	**0.243**	**0.252**	**0.321**	**0.387**	**0.435**	**0.442**
Germany	**0.171**	**0.217**	**0.237**	**0.218**	**0.241**	**0.296**	**0.331**	**0.432**	**0.497**	**0.488**
Greece	0.127	0.175	0.204	0.204	0.266	0.302	0.351	0.424	0.543	0.646
Hungary	0.137	0.172	0.207	0.200	0.215	0.230	0.290	0.319	0.385	0.484
Iceland	0.140	0.152	0.158	0.164	0.176	0.185	0.238	0.314	0.362	0.388
Ireland	0.194	0.194	0.182	0.186	0.168	0.182	0.235	0.283	0.325	0.400
Italy	**0.141**	**0.169**	**0.203**	**0.222**	**0.270**	**0.313**	**0.375**	**0.491**	**0.645**	**0.657**
Japan	**0.089**	**0.103**	**0.134**	**0.172**	**0.251**	**0.338**	**0.437**	**0.461**	**0.544**	**0.585**
Korea	0.060	0.060	0.061	0.072	0.093	0.131	0.176	0.278	0.374	0.417
Luxemburg	0.159	0.191	0.200	0.193	0.215	0.216	0.288	0.371	0.429	0.453
Mexico	0.091	0.087	0.074	0.070	0.076	0.090	0.117	0.163	0.236	0.300
The Netherlands	0.148	0.163	0.174	0.186	0.203	0.230	0.316	0.431	0.514	0.491
New Zealand	0.147	0.142	0.158	0.169	0.177	0.189	0.241	0.303	0.334	0.343
Norway	0.176	0.206	0.235	0.252	0.237	0.242	0.312	0.384	0.438	0.422
Poland	0.095	0.132	0.154	0.156	0.175	0.177	0.253	0.318	0.349	0.448
Portugal	0.127	0.148	0.165	0.205	0.231	0.252	0.293	0.359	0.476	0.564
Slovak Republic	0.110	0.145	0.164	0.160	0.165	0.170	0.232	0.295	0.353	0.461
Spain	0.127	0.157	0.171	0.207	0.248	0.269	0.316	0.422	0.598	0.721
Sweden	0.182	0.209	0.254	0.277	0.270	0.297	0.374	0.434	0.474	0.465
Switzerland	0.153	0.176	0.208	0.208	0.216	0.247	0.314	0.443	0.531	0.532
Turkey	0.063	0.081	0.084	0.071	0.072	0.098	0.120	0.169	0.231	0.302
UK	**0.180**	**0.205**	**0.236**	**0.241**	**0.245**	**0.259**	**0.311**	**0.384**	**0.424**	**0.423**
USA	**0.153**	**0.159**	**0.169**	**0.189**	**0.189**	**0.195**	**0.255**	**0.334**	**0.351**	**0.355**
OECD unweighted average	**0.145**	**0.168**	**0.186**	**0.194**	**0.211**	**0.234**	**0.298**	**0.376**	**0.446**	**0.484**

Source: United Nations (1998);

Note: Old age dependency ratio calculated as the population aged 65+ divided by the population aged 15-64

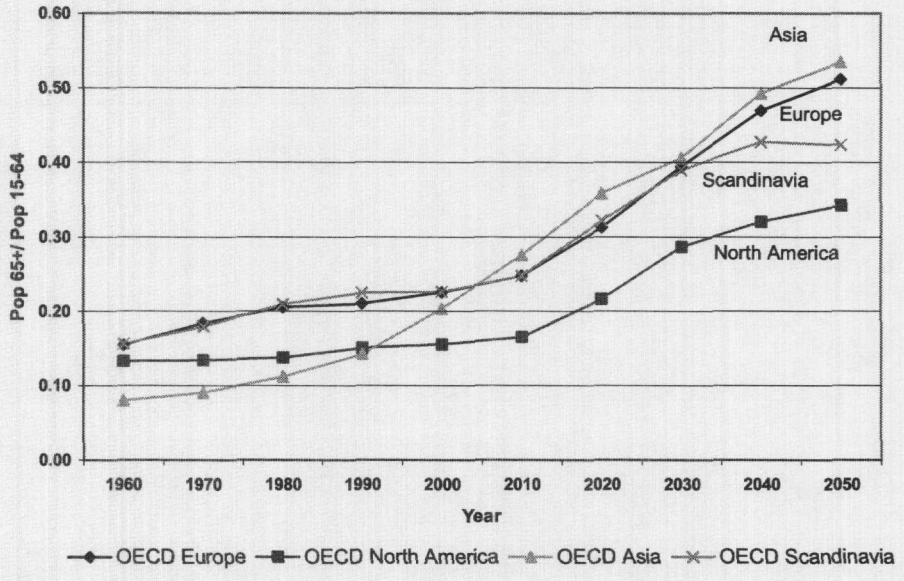

Figure 1.
Old age dependency ratios, OECD region: 1960-2050

Note: OECD Europe: Austria, Belgium, Czech Republic, France, Germany, Greece, Hungary, Ireland, Italy, Luxemburg, The Netherlands, Poland, Portugal, Slovak Republic, Spain, Switzerland, Turkey; **OECD North America**: Canada, Mexico, United States; **OECD Asia**: Japan, Korea; **OECD Scandinavia:** Denmark, Iceland, Finland, Norway, Sweden

Source: Table I, unweighted averages of dependency ratios

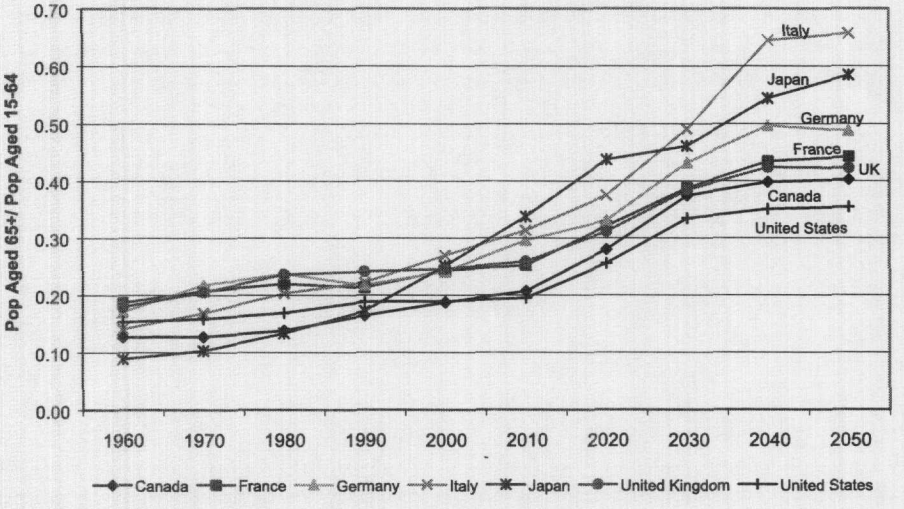

Figure 2.
Old age dependency rates, selected OECD countries: 1960-2050

Source: Table I

With respect to age discrimination, for example, in October 2000 the European Council passed the Council Directive 2000/78/EC, establishing a framework for expanding equal treatment in employment and occupation[8]. The enumerated grounds for protection are religion or belief, disability, sexual orientation and age. The Directive applies not just to employment but also to training, vocational guidance, worker and employer organisations, professional organisations and public bodies. It deals not only with direct, overt discrimination but also with indirect discrimination (termed systemic discrimination in North America), which is the unintended by-product of a particular practice. It also deals with harassment as well as victimisation (i.e. reprisal by an employer in response to a complaint or legal initiative).

Clearly these age-related issues will grow in importance in Europe and Japan, given the dramatic demographic shifts that are occurring. In that context understanding mandatory retirement becomes especially important, given its obvious relationship to retirement and transitions to retirement, as well as its potential interpretation as constituting a form of age discrimination. As indicated previously, Canadian information is particularly relevant to the European experience, given the importance of the debate over that issue in Canada and the fact that mandatory retirement has not been banned, as it has in the USA.

Prevalence of mandatory retirement

Systematic data do not exist, indicating the precise portion of the workforce in jobs covered by mandatory retirement provisions in Canada. The picture compiled from different data sources, however, suggests that about half of the Canadian workforce is in jobs with mandatory retirement provisions, as part of either a collective agreement or an employer-sponsored pension plan[9]. Similar magnitudes were reported in the USA, prior to their legislative ban on mandatory retirement (see, for example, Kittner, 1977; Lazear, 1979; Schultz, 1974; Stone, 1980; Wallfesh, 1978). Perhaps somewhat surprisingly, there is considerable flexibility in mandatory retirement policies within Canada in at least two dimensions[10]. There is variability in the age at which mandatory retirement applies, with age 65 being the required age in less than half of the cases. Also, compulsory retirement – where the employee could be hired back under a new contractual arrangement – was more prominent than automatic retirement, where the employee could not be rehired. Most employees covered by an employer-sponsored pension plan and hence subject to mandatory retirement are also eligible for subsidised early retirement programs, typically at age 55 and at least ten years of service (see Pesando and Gunderson, 1988). More importantly still, mandatory retirement tends to be associated with relatively advantaged workers, who occupy "good jobs" characterised by such factors as higher wages, employer-sponsored pension plans, long-term employment relationships in the core or primary labour market, and the protection of a collective agreement and formal personnel policy (see Dunlop, 1980; Lazear, 1979; Urban Institute, 1981).

Does mandatory retirement force workers to retire early?

The evidence is more limited and less conclusive on the extent to which persons who are covered by a mandatory retirement policy are constrained by it, in the sense that they would prefer to continue working but are forced to retire. The numbers which do exist, however, appear to be small. An Economic Council of Canada (1979, p. 68) study suggests that about 6 per cent of those who plan to retire at the mandatory retirement age would prefer to continue working. Dunlop (1980, p. 12) suggests that less than half of those who are required to retire at the mandatory retirement age would like to continue working. A Canada Department of Health and Welfare study (1993, pp. 9, 23) indicated that 18 per cent of men and 3 per cent of women covered by mandatory retirement would like to continue working. The general trend towards earlier retirement also suggests that most people want to retire earlier rather than postponing retirement; as such, the "normal age" of retirement of 65 is no longer the "normal" age (Gower, 1997).

Determinants of retiring due to mandatory retirement

Data and methods

In order to estimate the relationship between the probability of retiring due to mandatory retirement and various individual and workplace characteristics, micro-data from the Canadian General Social Survey – Cycle 9 (GSS – Cycle 9) were used. The GSS sample population comprises 11,876 respondents, aged 15 and over and includes observations on labor-market outcomes, working conditions, attitudes towards retirement and the social background of respondents. Though the survey is aimed at the world of work, cycle 9 in particular contains data on issues of pertinence to retirement and thus is a useful data source for those interested in accessing the views and labour market histories of retirees.

For the purposes of this paper the sample was restricted to individuals who had ever retired from the workforce and had responded (either yes or no) to a question asking whether they retired because of a mandatory retirement policy at work. The question that provided information on mandatory retirement was part of a series of questions asking respondents to respond yes or no to a sequential list of reasons for retirement: "What was the main reason for you to retire?" The variable was originally coded using a three-response item running from "yes", "no" to "do not know". We selected only those responding positively or negatively and discarded the small minority of observations with unknown values. The sample, under these exclusions, was 2,163 respondents[11].

Survey evidence from Canada indicates that about 12 per cent of retirees indicated that they retired because of mandatory retirement. This does not mean that only 12 per cent of the Canadian workforce are in jobs subject to mandatory retirement; as discussed previously, that figure is much higher, more like 50 per cent. Rather, it reflects the number who said that they actually did retire because of mandatory retirement provisions at work. Others could have been in organisations with a mandatory retirement policy, but they retired

before the mandatory retirement age, perhaps because of ill health, early retirement or lay-offs. For the 12 per cent who indicated that they retired because of mandatory retirement, presumably that policy was exercised, although it could still correspond to their preferred age of retirement.

The figures from Table II column 2 are the most informative, since they give the change in probability of retiring due to mandatory retirement associated with being in each of the categories, relative to the omitted reference category (denoted in parentheses). They are calculated[12] from the logit coefficients given in column 1.

Are males more "oppressed" by mandatory retirement?

As indicated, the probability of retiring due to mandatory retirement is 0.059 higher for males than for females – a substantial difference, given that the average probability of retiring due to mandatory retirement is only 0.123. This higher probability for males exists even after controlling for such factors as industry, occupation and pension coverage that can influence the likelihood of being in a job covered by mandatory retirement. This higher probability for males does not imply that males are more oppressed by what could be interpreted as a discriminatory work rule, since such jobs are likely to be good high-paying jobs with a pension and often covered by a collective agreement. Furthermore, even if females are less likely than males to retire due to mandatory retirement, this does not mean that females are less likely to be affected by mandatory retirement. Because of career interruptions and shorter stays in the labour force, females are less likely to accumulate the seniority and service credits on which pensions are based (Pesando *et al.*, 1991). For that reason, mandatory retirement may constrain them from attaining additional service credits and the seniority-based wage increases that would augment their pension benefits and make them eligible for the subsidised early retirement provisions. In essence, even though females are less likely to retire due to mandatory retirement, those who do retire for that reason may be more adversely affected by it.

The effects of age, education and health status

There is a steady increase in the probability of retiring due to mandatory retirement associated with each higher age category of the retirees when they responded to the survey. Much of this, however, likely reflects the fact that mandatory retirement usually occurs around the age of 65; hence, retirees who were under 65 when they responded to the survey are not likely to have retired due to mandatory retirement. They may, for example, have taken early retirement or retired for health reasons.

There is generally no significant variation in the probability of retiring due to mandatory retirement across the different education categories. People who are in better health, compared with the omitted reference category of poor health, are more likely to retire because of mandatory retirement, presumably reflecting the fact that their health enabled them to work until the

	Logit coefficient (1)	Change in probability (2)	*p*-value (3)
(Female)			
Male	0.4647	0.059	0.001
(Age 50-54)			
Age 55-59	0.7739	0.110	0.471
Age 60-64	0.9251	0.138	0.376
Age 65-69	1.3757	0.234	0.185
Age 70 and over	2.0736	0.404	0.044
(Less than high school)			
High school graduate	–0.1968	–0.020	0.395
Some post-secondary	0.5232	0.068	0.051
Comm. college/vocational ed.	0.0492	0.005	0.797
University graduate	–0.4009	–0.037	0.126
(Health poor)			
Health fair	0.4088	0.051	0.140
Health good	0.1943	0.023	0.467
Health very good	0.4739	0.061	0.077
Health excellent	0.2751	0.033	0.350
(No interest income)			
Received interest income	0.1494	0.017	0.324
(No home)			
Home owner	–0.202	–0.020	0.213
(No plan)			
Employer pension plan	1.0377	0.161	0.000
Occupation prestige index	–0.0426	–0.005	0.182
(Manufacturing industry)			
Primary industry	–0.8051	–0.064	0.028
Construction industry	–0.6679	–0.056	0.134
Service industry	–0.5229	–0.046	0.016
Health and education	–0.0657	–0.007	0.802
Public administration	0.3286	0.040	0.189
Industry not available	–0.1881	–0.019	0.475
(Ontario)			
Atlantic	–0.21	–0.021	0.306
Quebec	–0.0238	–0.003	0.911
Manitoba/Sask.	–0.3545	–0.033	0.126
Alberta	–0.4724	–0.043	0.095
British Columbia	–0.609	–0.052	0.019

Table II. Effect of various characteristics on probability of retiring due to mandatory retirement (mean probability = 0.123)

Note: $n = 2{,}163$ respondents who had ever retired, and who responded yes or no to a question asking whether they retired because of a mandatory retirement policy

mandatory retirement age. People in poor health had the lowest probability of retiring due to mandatory retirement, presumably because they may have retired earlier due to their poor health, or they may have taken early retirement options for that same reason. This does suggest that, as health and

life expectancy increase, more people obviously may be constrained by mandatory retirement.

The effects of occupation, industry and region

There is no significant relationship between the probability of retiring due to mandatory retirement and the person's occupation level, as captured by an index of occupational prestige[13]. There is considerable variation across industries in the probabilities of retiring due to mandatory retirement, with that probability being highest in public administration and then manufacturing, and lowest in primary industries, construction and the service industries – the latter being industries that are not likely to have pension plans with their associated mandatory retirement requirements. This highlights again that mandatory retirement is likely to be associated with "good jobs," as in public administration and manufacturing.

The regional variation in the probabilities of retiring due to mandatory retirement is generally not substantial, with the coefficients usually not significant. The exception is British Columbia, where the probability is 0.05 lower than in the reference category, Ontario.

Are wealthier individuals more likely to be covered by mandatory retirement?

There is no significant relationship between a person's wealth (as proxied by the two variables – being in receipt of interest income and being a home-owner) and their tendency to report that they retired because of mandatory retirement. This does suggest that mandatory retirement is not likely to place people into poverty, if they cannot continue working. This is not a surprising conclusion, since jobs with mandatory retirement policies are likely to be "good jobs" covered by pensions and/or a collective agreement[14].

The effect of private pension plan coverage

The strong correlation with mandatory retirement and pensions is exhibited by the large and highly significant coefficient on the variable, indicating whether the person was covered by an occupational pension plan. In essence, mandatory retirement and occupational pension plans are intricately related components of the compensation and human resource practices of firms, as predicted by Lazear (1979). This also highlights that persons who retire because of mandatory retirement are much more likely to have the income support of a pension plan, and hence are certainly not likely to be in poverty. It further highlights that banning mandatory retirement may have important implications for pension plans. Such plans may be regarded as less necessary as a quid pro quo for mandatory retirement or to provide income support, since individuals are now able to continue working, if mandatory retirement were banned. This has often been a concern of labour and trade unions – that banning mandatory retirement would make it easier to reduce or eliminate pensions, since persons could more easily continue working.

Overview of the empirical results: implications for public policy and HRM

Overall, workers were more likely to retire because of mandatory retirement, if they were male, were in good health, were covered by an employer pension plan and were in industries like public administration or manufacturing, where collective bargaining coverage rates tend to be higher. There was no substantial effect of wealth or occupational prestige. From a human resource management perspective, the results confirm theoretical claims that mandatory retirement is intricately linked to occupational pension plans and hence should be regarded as a strategic element of the compensation and human resource management practices of firms. The fact that mandatory retirement tends to be associated with "good jobs" usually covered by a pension plan and possibly a collective agreement also reminds us that, if it does inhibit transitions into retirement, it is an inhibition that is generally agreed by persons with reasonable individual or collective bargaining power. Furthermore, it is a rule which says that, while this particular contractual arrangement is over, it may be renegotiated (if there is no automatic retirement) and the person may seek alternative employment, including self-employment and limited term contracts, which are increasingly common.

Our results also support the contention that mandatory retirement often facilitates planning for both the employer and the employee, by fixing the date of retirement in advance. Knowing that date in advance can facilitate employers being able to forecast their retirements for purposes of succession planning and to determine disability, medical and pension costs. This could, for example, also account for the discrepancy found between those covered by mandatory retirement regimes (50 per cent) and those who actually claim to have retired due to such policies (12 per cent).

From a public policy perspective, the results suggest that pressures to ban mandatory retirement are likely to be small in jurisdictions which have them, since (as mentioned above) only about 12 per cent of retirees indicated that they retired due to mandatory retirement, yet nearly half of the labour force is covered by such plans. Moreover, much of this is likely to be "quasi-voluntary" retirement, because the mandatory retirement age often corresponds to a worker's preferred retirement age in any case[15]. A worker's willingness to accept mandatory retirement is also part of their personnel package, including pensions, which, in our data, are correlated positively with each other.

Public policy makers, however, must remain vigilant. With increased life expectancy the pressure on mandatory retirement provisions may grow. More importantly, in the light of this growing ageing workforce, the public policy role of constraining opportunistic behaviour on the part of employers to dismiss workers before their age of retirement and thus limit their pension pay-outs, will be also be strong. But one must remember that, if mandatory retirement is banned as a result of mounting pressures to keep older workers in the workforce, then private dismissal of older workers will likely be more (not less) common, as will monitoring and evaluation, so as to protect against claims of unjust dismissal. These may well be appropriate workplace practices in

circumstances where mandatory retirement is not allowed, but they may also mean that the more extended transitions into retirement may be more difficult transitions for some. If mandatory retirement is banned, our results suggest that associated employer-sponsored pension plans may also dissipate (this is often the fear of trade unionists), as may deferred compensation, to the extent that it is sustained by mandatory retirement[16].

Concluding observations

At the outset of the paper we posed the following question: "Does mandatory retirement inhibit transitions to retirement?" The answer, stemming from much of the discussion presented in this paper, is a clear, unambiguous, unequivocal YO – yes and no. The yes part, which is likely the common perception, comes from the fact that mandatory retirement obviously appears as a blunt rule – work, generally full-time, up until age 65 and then retire completely. But appearances are at least somewhat deceiving in this area.

The "no" part of the response comes from the complexities surrounding mandatory retirement. It is a rule that potentially applies to about half of the workforce in that they are covered by a mandatory retirement policy. Its actual application in the sense of people retiring because of mandatory retirement is much less, although there is no good information on that exact number. About 12 per cent of retirees in the data set analysed in this study retired because of mandatory retirement. The proportion of those who retired involuntarily is unknown, since, for many, that mandatory retirement age may well have coincided with their preferred date of retirement.

More importantly, the concept of retirement being involuntary for those who retire at the mandatory retirement age is at best an elusive, and at worst, a wrong contention. Mandatory retirement is generally part of a long-term contractual arrangement, whereby persons in those jobs may have enhanced their employment and promotion opportunities when they were younger because of the inter-temporal worksharing that is associated with older workers retiring. In such circumstances they may well say that they would prefer to continue working, once their turn comes to retire. This is augmented further by the fact that, if mandatory retirement exists in part to foster deferred compensation, then such workers are being paid a wage that exceeds their productivity at the time of retirement. Understandably, they may prefer to keep working at that higher wage. When they retire, they will almost invariably have the benefits of an employer-sponsored pension plan – benefits they may not have had, were it not for mandatory retirement.

In such circumstances, it is not meaningful to ask people whether they feel involuntarily constrained by mandatory retirement in that they would like to keep working past the mandatory retirement age. That is a bit like asking people whether they feel involuntarily constrained by having to pay their mortgage now that it is due. The question of involuntarily retiring due to mandatory retirement has to be asked more in the context of:

> Given that mandatory retirement may enhance your earlier job and promotion opportunities, as well as your pension and lifetime earnings (from the positive purposes served by deferred compensation arrangements sustained by mandatory retirement), are you for or against mandatory retirement?

The fact that substantial numbers "vote with their feet" by taking jobs that involve mandatory retirement provisions, usually as part of a pension plan and/or a collective agreement, suggests that this is an arrangement that not only is often entered into on a voluntary basis but also is a coveted arrangement.

This also reminds us that the relevant question with respect to legislative bans on mandatory retirement is not: "Are you for or against mandatory retirement?" Rather, it is:

> Are you for or against the state prohibiting private parties from entering into arrangements like mandatory retirement that may restrict their flexibility, presumably in return for other benefits like earlier employment and promotion opportunities and higher wages and pensions?

It is distinctly possible to be against mandatory retirement at your workplace, but to be in favour of allowing private parties to agree to it as part of a collective agreement or pension. Similarly, governments that do not ban mandatory retirement are not asserting that they favour mandatory retirement – only that they are allowing it to be agreed to either individually or collectively.

This also highlights another element of flexibility in mandatory retirement. If it does inhibit transitions into retirement that are increasingly desired, then surely it will dissipate as a workplace practice. If it does not, then this suggests that it must serve some strong positive purpose for it to "survive." If older employees increasingly prefer more flexible worktime arrangements, then employers will be under pressure to provide such arrangements or to pay a compensating wage premium (perhaps in the form of more generous pensions) for sustaining those arrangements. Similarly, if employers find that mandatory retirement is constraining them from filling skill shortages or mentoring needs, then they can abandon the policy or make it more flexible, perhaps by shifting to compulsory retirement that enables them to rehire their retirees.

As indicated previously, this may well be occurring, since there is more flexibility around mandatory retirement than first meets the eye. There is considerable variation of mandatory retirement ages, and compulsory retirement (where the person can be rehired on a contractual basis) is more common than automatic retirement (where such rehiring is not allowed).

Clearly, the extent to which mandatory retirement inhibits transitions into retirement is not the simple matter that it may first appear. Hence, the YO. It is also the case that the ageing workforce and the demographic changes that are occurring in the near future will ensure that this issue will be increasingly important for policy makers and for human resource management.

Notes

1. The legal status of mandatory retirement in Canada is actually quite complex (Gunderson, 2001), in part because issues of age discrimination are under the jurisdiction of the human rights code of each province and territory as well as the federal jurisdiction, the latter covering about 10 percent of the workforce. Some jurisdictions have an age cap of 65 in their code, which is essentially designed to accommodate mandatory retirement; others do not have such a cap but some exempt retirement plans from the protection code. In a number of cases the Supreme Court has interpreted mandatory retirement as being justifiable, given the broader social purposes it serves (e.g. worksharing, sustaining pensions). Mandatory retirement is also deemed justifiable, if it serves a bona fide occupational requirement (BFOR) as in protecting public safety in the case of firefighters or airline pilots.
2. Taking the case of Germany as indicative of other Western economies, there have been significant changes in the last half of this century. In 1950 average life expectancy for both males and females was 67 years of age. In 2000 it had crept up four more years to 71 and by 2025 it is expected to reach 80 years of age.
3. For a discussion and illustrations of these incentives in the Canadian context see Pesando and Gunderson (1988) for final-earnings plans that dominate the non-union sector, Pesando *et al.* (1992a) for flat-benefit plans that dominate the union sector, and Pesando *et al.* (1992b) for evidence on the retirement-inducing incentive effects.
4. The importance of phased retirement is emphasized in Doeringer (1990) in the US context, Gunderson (1998) in the Canadian context, and OECD (1995) in the European context.
5. The expanding baby-boom population and their increasing life expectancy both increase the numerator of the old age dependency ratio, while the dramatic declines in birth-rates decrease the denominator of the ratio.
6. There is, of course, more uncertainty about retirement rates or that portion of the older population that participates in the labour force (Sunter, 2001). This is especially the case, since such rates are affected by unemployment, health, wealth, expected wages and the incentive effects of public and private pensions as well as other income maintenance schemes.
7. Pension reforms have focused on a wide range of policy "triggers" for public pensions including eligibility rules, age of access, benefit rates, contribution rates, integration with private pensions and with other income support programs. Private employer-sponsored pensions have also been encouraged, as have private pension savings. These are discussed, for example, in Kalisch and Aman (1998) and OECD (1998).
8. The current state of age discrimination legislation in Europe, and proposed new initiatives, are discussed in the *Rowntree Report on Age Discrimination* (Hornstein, 2001). That report provides more detailed information on the EC Directive and on age discrimination legislation in a number of countries including the UK, Australia, Canada, Finland, Irish Republic, New Zealand, Spain, USA, Belgium, France, Greece, The Netherlands, Portugal and Sweden.
9. These estimates are based upon different surveys: the 1975 Retirement Survey (Economic Council of Canada, 1979, p. 68); the Conference Board of Canada Survey (Dunlop, 1980, p. 7); a British Columbia survey of 2,200 firms (Herzog, 1980; Taylor, 1980).
10. See Gunderson (1987) based on data from major collective agreements (200 or more employees) in Ontario.
11. Because the GSS-cycle 9 focused on retirement issues, it disproportionately sampled persons age 55 to 74 to gain a representative sample of the retired population.
12. The logistic function is $P=[1+\exp(-x\beta)]^{-1}$, where $P=1$, if the respondent indicated that they retired due to mandatory retirement, 0 otherwise, x is the vector of explanatory

variables, and β is the vector of logit coefficients. The changes in probabilities associated with a unit change in the explanatory variable is $\delta P/\delta x = P(1-P)\beta$; that is, the logit coefficients can be converted to changes in probabilities by simply multiplying them by $P(1-P)$, where P is the level of the probability. In this case, they were evaluated at the average probability of 0.123, which implies $P(1-P)$ of 0.108. This calculation of the change in probability is strictly true for small changes in x. For large changes in x, as is the case with discrete changes associated with categorical independent variables, the change in probability is calculated by evaluating the probability from the logistic function with the effect of the variable included, and then subtracting the probability with the effect of the variable excluded.

13. The index is the Pineo index of occupational prestige, reversed in direction, so it goes from a low of 1 to a high of 16 (i.e. 1 for farm labour, 2 for unskilled manual labour, up to 14 for high level management, 15 for employed professionals and 16 for self-employed professionals). As indicated in the GSS codebook, it "groups the 4-digit SOC-80 codes into 16 homogeneous categories."

14. Unfortunately, the dataset does not enable one to determine whether the retirees were covered by a collective agreement in their job at the time of retirement. While other variables (e.g. pension coverage, industry, occupation status) referred to their job immediately prior to retirement, the collective agreement coverage referred to their last job in the last five years. Persons who had retired previous to the last five years would be recorded as being not covered by a collective agreement. For that reason, only about 3 per cent of retirees were recorded as having been covered by a collective agreement – a completely unrepresentative figure relative to the over 30 per cent in the workforce who tend to be covered by an agreement. For this reason, a collective agreement coverage variable could not be constructed.

15. In results not published here, but drawn from the GSS, respondents' desired age of retirement is on average 61 years of age, four years less than the typical official age of retirement.

16. Luchak and Gunderson (1998) provide evidence that employees who receive deferred wages and are covered by employer-sponsored pension plans perceive themselves to have greater job security. However, the risk of the loss of deferred compensation associated with job loss does have a negative effect on their job satisfaction (Luchak and Gellatly, 2001a). Also, although deferred compensation binds them to the firm, it is through their fear of the high cost of quitting (and losing their deferred compensation) as opposed to a more positive sense of commitment to the firm (Luchak and Gellatly, 2001b).

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