Unprecedented growth, but for whose benefit?

Elizabeth Cullen

Fifteen years ago, most of us thought that it would be a marvellous thing to double the average income of everyone in Ireland. So, now that a doubling has happened, why has it seriously damaged the nation's health and the bonds between its people? The answer is – because of the way the growth was generated. In order to bring it about, the government used the tax system to aggravate the tendency of the free market system to increase inequality.

Elizabeth Cullen is a medical doctor with a particular interest in public health. She currently attends NUI, Maynooth, studying the likely effects of climate change on Irish health. She is a trustee of Feasta and a committee member of the Irish Doctors' Environmental Association. She lives in Co. Kildare. health@feasta.org

For the politicians who claimed to have bred it, the Celtic Tiger was a matter of great pride. After all, it had been hailed as 'one of the most remarkable economic transformations of recent times' by *The Economist magazine*. 'Mr. President,' the Taoiseach, Bertie Ahern, boasted[1] to President Clinton and members of the Oireachtas during the American leader's visit to Ireland in 2000, 'in the eight years of your presidency, Ireland has changed, and changed very fast. We've a new economy and a modern society. The economy is now in its seventh year of sustained growth. It has grown by over 9 percent per annum in the last three years.'

Certainly, the pace of Irish economic growth had been remarkable. As figure 1 shows, in just thirteen years, between 1989 and 2002, the population's average income had doubled, which meant that it had grown by as much as it had increased in all the 8,000-odd years since the first settlers moved into the country as the ice sheets retreated.[2]

Irish incomes double

GDP/Capita & GNP/Capita 1985-2002 (1995 Prices)

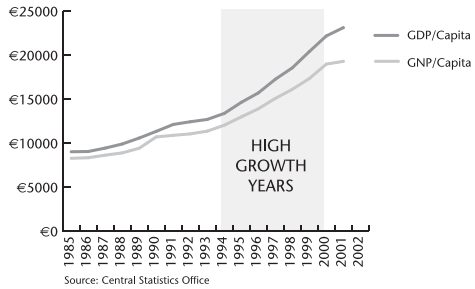


Figure 1: *Gross Domestic Product (GDP) measures the value of all the goods and services produced in a country in the course of a year, whereas Gross National Product is the value of the goods and services the inhabitants of the country actually consume. The growing gap between the two shown above is largely due to the fact that the profits made by foreign companies based in Ireland are included in GDP but not GNP and that these have increased more rapidly than other incomes. Nevertheless, the value at 1995 prices of the goods and services available to the average Irish resident (the lower line above) doubled between 1989 and 2002. Most of that growth took place between 1994 and 2000, the shaded area on the graph.*

This rate of growth was at least three times faster than in comparable countries. To achieve it, the way people lived and earned their incomes had had to change significantly. Many more people were going out to work than before and unemployment, which began to fall in 1993, dropped from almost 16% to just under 4% in 2001, as depicted in figure 2. It has risen slightly since.

By 2003 Ireland had become the world's 'most globalised' country thanks to its high level of foreign trade, multinational investment and the large number of telephone calls to the rest of the world[3]. The Central Statistics Office's *Statistical Yearbook of Ireland 2003* reported that manufacturing industry production more than doubled between 1995 and 2002 and the output of the distribution, transport and communications sectors expanded by almost as much during the same period. By contrast, the traditional base of the economy, agriculture, forestry and fishing, only grew by 7% during those years.

Unemployment Rate 1985-2002 (%)

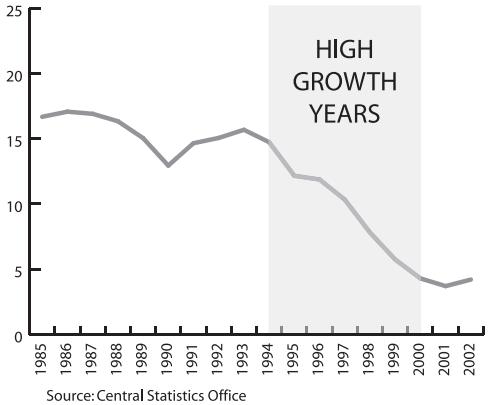


Figure 2: The percentage of people unemployed fell sharply in the high growth period between 1994 and 2000, and then began to rise a little once the growth rate slowed. The fall was perhaps the major benefit of the Celtic Tiger years but many of the jobs created were poorly paid.

Dramatic fall in unemployment

The beneficial effects of the reduction in unemployment must not be underestimated. Many studies have found that unemployed people consistently show higher levels of psychological distress than employed people living on the same level of income. There is also a lot of evidence that unemployment is associated with increased illness and mortality. However, it may have been that other changes during the period offset much or all of the benefit of reduced unemployment, particularly as many of the jobs created were poorly paid. We will be discussing some of these changes in this article.

Apart from the lower unemployment, what benefits did the rapid growth bring? Was the Taoiseach's pride justified? Were people happier, less stressed and more content? Did their health improve? Or the physical and social environment in which they lived? Or did the distribution of income change markedly, leaving some badly behind?

This report will attempt to answer these and similar questions. It is divided into two parts. First we will look at how the changes affected people's health and the way they felt about themselves. Then, in part two, we will explore the effects that growth had on society. However, as we will see, the health and societal aspects of life are closely linked.

Part One. How the Celtic Tiger affected the nation's health

A. The quality of life

Did the increase in incomes fulfill their advertised promise and make people happier, less stressed and more content? Or, to put this another way, did the increase enable their quality of life to improve? Unfortunately, the quality of life, like happiness and contentment, cannot be measured directly and it is very difficult to measure trends in the quality of life over time. Nevertheless, many recent surveys clearly show that during Ireland's high growth years a deterioration took place in many of the factors that make up the quality of life.

One of these factors was the **level of stress** under which people found themselves. Several reports show that this increased significantly. For example:

- A survey of 1,000 people carried out in 2001 on behalf of the Mental Health Association of Ireland[4] found that 73% reported finding life more stressful than five years previously; 19% of the respondents said they were smoking more and 17% said they were drinking more in order to cope with their stress.
- A National Health and Lifestyle Survey of 6,539 people in 1999 to ascertain what people believed would best improve their health[5] found that the majority reported 'less stress' regardless of their age, sex and social background. A follow-up report in 2001 also reported that stress was the most common answer for both males and females.
- In an online survey[6] in 2001, a sample of 2000 students was asked if they thought that the level of stress experienced by the general Irish population had increased. Over two-

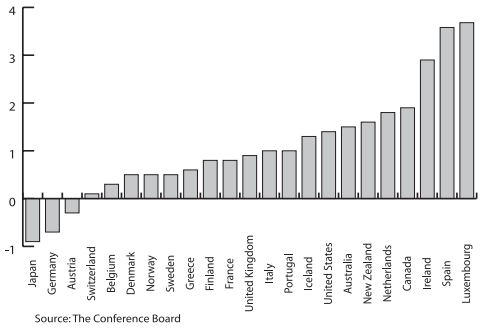
thirds said that it had increased a lot, 30% said it had a little and only 3% said not at all.

- The 2004 Amarach report[9] found that between 2001 and 2004, the proportion of people who said they suffered from stress 'often', rose from 9% to 14% and half the population suffer from stress 'sometimes or often', up from 41% just three years previously. Furthermore, the proportion of people who thought that the pace of change in Irish society was too fast had almost trebled since the mid-1990s.
- A 2002 study[7] of attitudes in the workplace found that 77% of respondents said that the economic boom had not improved their quality of life. Almost half of the sample of 344 people interviewed at work felt that they were caught up in a rat race; a third said they were continually tired and over a quarter complained of excessive stress levels. The main cause of their absences from work was found to be the stress they experienced while they were there. Almost a quarter of them said that they suffered 'great stress from bullying, back biting and other forms of aggressive behaviour and intimidation'. Over a half reported that they did not have a satisfactory balance between the demands of their work and the time that they devoted to their personal lives.

Longer working hours may partially explain this lack of balance. The hours Irish people worked increased substantially during the high growth period. As shown in Figure 3, Ireland came third highest out of 23 countries in terms of the increase in hours worked between 1995 and 2003. A survey in August 2002 on behalf of the National Economic and Social Forum[8] found that 83.5% of respondents said that they would like to meet up with family and friends more often. The greatest single barrier to this was reported to be lack of time due to paid work. This makes it unsurprising that the 2004 Amarach report[9] found that almost a half of all workers said that they would like to retire before the age of 55, compared with one third in 2001.

Working hours increase

Hours Worked % Change 1995-2003



Source: The Conference Board

Figure 3: *A small amount of the increased incomes people received was due to their working longer hours. Between 1995 and 2003, the average hours worked by Irish employees rose by almost 3%, one of the biggest increases in the OECD. This left less time for other activities and almost certainly led to increased stress. Working hours fell slightly in two countries with rising unemployment, Germany and Japan.*

More depressive disorders: In 2003[10], research involving a representative sample of 12,702 women in four European countries found that women in Dublin were more susceptible to depressive disorders than those in similar cities in other countries. One in three suffered from depression. One of the authors, Professor Patricia Casey commented 'This [study] was conducted at a time of economic boom, when you would expect depressive disorders to reduce'[11].

The 2004 Amarach report found that although there was a positive relationship between feeling less miserable and increased GDP, the measure of life satisfaction has fallen steadily in recent years, returning to levels last seen in the mid 1980s.

Satisfaction with life drops by half

Trend in Irish GDP per capita as % of EU Average and % of Irish who are 'Not Satisfied' with their lives

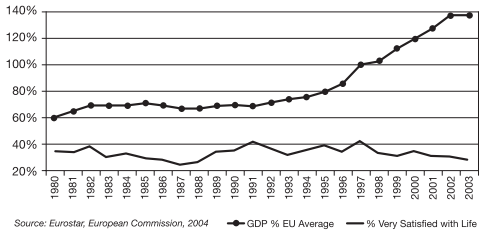


Figure 4: *At the end of the high growth period during which Irish GDP climbed in relation to the EU average, only half the number of people said that they were very satisfied with their lives as had done so before growth took off.*

In view of these studies, it is not surprising that one of the EU's regular Eurobarometer surveys[12], showed that only 30% of Irish people reported themselves to be very satisfied with their lives in spring 2002 compared with 42% in 1997[13]. Nor that the Mid Western Health Board reported[14] in January 2004 that 60% of the men randomly selected in a survey it had carried out agreed with the statement, 'that the lot of the average man is getting worse'. A third of the men surveyed believed that they had little control over their lives and 4% had actually planned their own suicide. In short, there seems little doubt that for many, rapid economic growth, longer hours and higher pay led to less satisfying, more stressful lives.

No increase in life satisfaction

Life Satisfaction, Ireland (1993-2003)

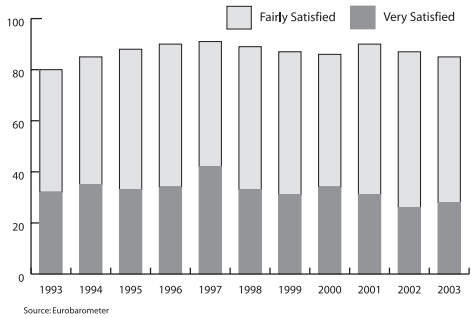


Figure 5: *Each year, the EU's Eurobarometer team asks a random sample of the inhabitants of each member state whether or not they are satisfied with their lives. The results for Ireland show that the number of people expressing themselves as very satisfied has fallen from a peak in 1997, despite the massive rise in average incomes.*

It has to be said, though, that not all surveys were negative. The 2002 Amarach report[15] *Quality of Life in Ireland* found that the proportion of all respondents reporting feeling stressed 'often or sometimes' declined from 48% in 1999 to 41% in 2001. Moreover, 77% of people believed that the quality of life in Ireland had improved over the previous five years. On the other hand, one in ten adults thought it had worsened. Those thinking this way were predominantly 'in the older age groups and the lower social classes'. This group also reported that their personal quality of life had worsened.

B. How did the distribution of income in Ireland change?

As one might expect in a period in which the average income doubled, the number of people living in conditions of basic deprivation fell from 15% in 1994 to 5.5% in 2003. This was very good, since basic deprivation means not being able to afford to have some of the things that most of us would regard as essential, like heating on a very cold day, a waterproof coat, a change of shoes, and at least one substantial meal each day. In short, it means absolute poverty.

But there is another form of poverty, too, and that increased. It is relative poverty, This was defined in the 1997 National Anti-Poverty Strategy as living on income and resources (material, social and cultural) which are so inadequate as to preclude people "from having a standard of living which is regarded as the norm for other people in society". It is generally accepted that living on less than half the median income (that is, less than half income that the middle person received if everybody in the country lined up according to their earnings) involves relative poverty. This more than doubled, from 6% in 1994 to 12.9% in 2001.[16] The National Anti-Poverty Strategy concentrates on reducing absolute poverty and does not have targets to reduce relative poverty. To those who believe that relative poverty does not cause stress and despair, Padraig O'Morain[17] says 'Tell that to the lone parent who is so in debt that she is afraid to answer the door, but whose child wants a €35 pair of Nike runners and will not wear a perfectly adequate €15 pair of non-Nike runners from a department store'.

Figure 6 shows that the incomes of those at the top of society increased strongly as a result of the growth, while those at the bottom were left

behind. It divides the Irish population into ten groups of equal size on the basis of their incomes. The groups range from the poorest 10% of the population on the left to the richest 10% on the right. The chart shows that between 1994/95 and 2000, seven out of the ten groups (deciles) saw their share of the national income fall in relation to the other three groups. While the 5th decile saw its share increase slightly, the most significant feature was the gains made by the top 20% and particularly the top 10%, which stand in marked contrast to the experience of the rest of the population. The chart was prepared by Micheal Collins of Trinity College, Dublin, for the Conference of Religious in Ireland[18] a body which has followed recent changes in the distribution of income with some care. Collins found that the gap between the top and bottom of the income distribution widened for three reasons. These were: the segmentation of the labour market into high and low skills; in that highly skilled people did very well, low-skilled people badly; tax cuts that gave most benefit to those with higher earnings, and the fact that social welfare payments grew more slowly than average incomes.

The rich get much richer

Change in Decile Divisions of Disposable Income, Ireland 1994-2000 (%)

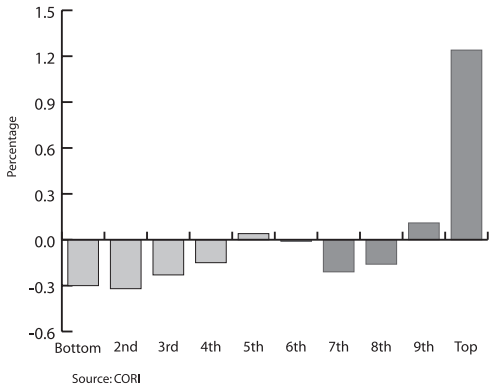


Figure 6: *In the high growth years between 1994 and 2000, the share of national income going to the top 20% of the Irish population grew at the expense of almost everyone else. The top 10% did particularly well.*

Roughly three times as many adults were living in relative poverty in 2001 as had been the case seven years earlier. As Table 1 shows, the deterioration was worst among the elderly, whose incomes did not keep up with the rest of the population. The percentage of people over the age of 65 living in relative poverty increased over sixfold in the years 1994-2001. If the numbers of people on old age pensions are categorized as being under the 60% median income line, approximately one in twenty were below this limit in 1994; by 2001, it had risen to almost one in two[19].

As Table 2 shows, carers, the old and the ill were also amongst those left behind economically. There was almost a sixfold increase in the percentage of people in relative poverty who were ill or had a disability. There was a similar increase in the percentage of people categorized as 'performing home duties' and a threefold increase among people who had retired living in relative poverty. Table 2 also shows that almost five times the proportion of employees were in relative poverty in 2001 compared to 1994, reflecting the deterioration in the position of less-skilled workers. In short, not everyone has gained from the economic growth.

More poverty in old age

	1994	1997	1998	2000	2001
	%	%	%	%	%
Adults	4.3	6.4	8.1	10.8	12.4
Aged 18-64	4.6	7.1	8.6	10.6	11.3
Aged 65 or more	2.8	2.6	5.7	12	18.2
Children (under 18)	9.4	13.8	14.2	15.1	14.2

Table 1 *shows the percentages of the people in each age category who received an income of less than half the national median income. The figures clearly show that, during the high growth years, increasing numbers of people saw their incomes fall behind.*

Source: *Monitoring Poverty Trends in Ireland* 2003, ESRI

Carers, the sick and the old lose out

	1994	1997	1998	2000	2001
	%	%	%	%	%
Employee	0.6	1.2	0.4	2.3	2.9
Self-employed	9.9	10.7	12.6	12.7	10.6
Farmer	10.2	6.2	5.5	17.1	12
Unemployed	19.1	39.8	41	37.3	33.8
Ill/have a disability	10.1	27.5	43.6	45.3	59
Retired	4.0	2.1	6	12.1	15.3
Home duties	5.7	8.9	21.2	24.8	31.2
All	6.0	8.4	9.9	12	12.9

Table 2 *shows the proportion of people in each employment category who received incomes less than half the national median income. As the Celtic Tiger ran its course, carers, the retired, the unemployed and the sick and disabled got progressively worse off in comparison with the rest of society. Many employees' incomes fell behind too.*

Source: *Monitoring Poverty Trends in Ireland 2003*, ESRI

In an earlier study, the ESRI[20] found that 1 in 10 of those who had lived below the relative poverty line for a year had sunk into absolute poverty while after five years below the line, the proportion had risen to a half.

Impact on children

Children were also badly affected by the income changes. As table 1 shows, the percentage of children living in relative poverty increased from 9.4% in 1994 to 14.2% in 2001. Other observers drew similar conclusions:

- In 2003, the Combat Poverty Agency described the level of child poverty in Ireland as 'relatively high', with 6.5% per cent of children at risk of consistent poverty and nearly a quarter of all those under 18 living in low income households[21]. In its 2003 pre-budget submission, the St. Vincent de Paul society noted that '70,000 children did not necessarily have enough food, warmth or a second pair of shoes'[22] implying that they lived in homes in absolute poverty.
- A UNICEF survey[23], published in 2000, of the extent of child poverty (which the researchers defined as being brought up in a household where less than 50% of the national median income was coming in), placed Ireland sixth worst out of 23 countries, as it had 16.8% of children living in such households whereas the average for the countries involved was 11.87%. Mexico and the United States had the worst records. The report warned that 'many of the most serious problems facing today's advanced industrialized nations have roots in the denial and deprivation faced by many in childhood.'
- A Combat Poverty Agency[24] (CPA) survey of low income families in late 2000 found that only a quarter of children living in poverty were happy with their lives; they had concerns about 'fitting in' and had a fear of being different. A quarter of the deprived children were being bullied in school, causing some to leave early. One in three reported health problems. 'By allowing child poverty to continue in this country, we are denying over a quarter of a million children their basic rights to fulfill their talents and potential,' Hugh Frazer, the then director of CPA commented. 'How children live today powerfully influences how they will live tomorrow. Poverty has negative effects on the health and development of children. Those who grow up in poverty are likely to do less well educationally, have fewer recreational, social and cultural opportunities and are more at risk of being involved in crime and anti-social behaviour.'

The Chief Medical Officer, Dr. Jim Kiely, stated in his annual report *The Health of Our Children 2002*, that 300,000 children under 14, one in four, were being brought up in a home where the income was less than €175 a week, and that 17 per cent were experiencing chronic poverty. The CMO admitted that this proportion was higher than in most European Union countries[25] and added that the socio-economic conditions in which children lived were among the key determinants influencing their health.

Despite his recognition that poverty causes illness in children, he noted that the data on how it does so and the extent to which it does were very limited. 'We have some way to go before we have the information available which enables us to produce a comprehensive picture of the health

of our children' the CMO wrote. 'There are considerable gaps such as information from out-patient and primary care, mental health information and chronic disease information.'

He was right. The data collected on child health in Ireland are not coded by socio-economic group[26], even though international research has indicated that adverse socio-economic circumstances in childhood are associated with stroke, heart disease, respiratory disease and stomach cancer in later life[27] [28] and that the level of infant mortality is directly proportional to the degree of income inequality[29].

Farmers suffer

Another group to be badly hit by the changes in the high-growth years were farmers and 35,000 of the 275,000 working the land in 1998 had left it by 2002. A major factor in their decision to leave farming was that between 1996 and 2002, agricultural output prices fell by 5% while input prices rose by over 9%[30]. It is not surprising then that the *Living in Ireland* survey found that farmers made up a significant proportion of those living in relative poverty. 'There is no getting around the fact that there is a feeling of an occupation in decline,' commented Mike Magan of Agri-Aware[31]. 'There is huge uncertainty and great worry, and that can make people feel very isolated'. As one farmer put it[32] 'If 20% of the people expand to survive, another 50% will be put out of business. What will happen to them?'

After farmers had donated €28,000 to the Samaritans in 2003 to help the organization combat loneliness and depression in rural areas, Paul O'Hare of the Samaritans commented that farmers were subject to uncertain seasonal factors and were looking at reduced incomes.[33] As a result, they could find themselves under considerable stress particularly if they were trying to support a family.

C. Psychological stress of poverty

Not only has research clearly established that living in relative poverty damages both physical and psychological health, studies have also found that, not surprisingly, the damage is proportional to the degree of poverty. For example, the ESRI[34] found that people who were consistently poor suffered more psychological distress than those who were categorized as potentially poor, who in turn appeared to suffer to a greater degree than those who were in neither category. ('Consistently poor' referred to people who were living below 60% of the mean income and experiencing basic deprivation in relation to a standard set of items while 'potentially poor' was defined as living below 60% of the national mean income and not having one of five stated luxury items). There was also, not surprisingly, a strong relationship between the degree of fatalism felt and the number of years the person had been poor. The authors write 'we found a clear relationship with the sense of control over one's life decreasing as the period of income poverty increased.'

Several studies have shown that continual stress (which includes psychological distress) weakens disease resistance. For example, stress has been found to influence cardiovascular and immune disorders[35], ulcers[36], and strokes[37], but not cancer[38]. A longitudinal study [39] published in the Proceedings of the National Academy of Sciences established a link between long-term stress and the release of chemicals involved in both immune system regulation and the development of cardiovascular disease and myocardial infarction, adult-onset diabetes, osteoporosis, arthritis and congestive heart failure. Researchers have found that greater job stress is associated with higher cholesterol, a person's body mass index 5 to 10 years later and cardiovascular mortality regardless of factors such as age, exercise habits and smoking. In a 28 year study[40] of workers in Finland, Kivimäki and colleagues found that work stress doubled the risk of cardiovascular death.

People who suffer from clinical depression have been found to have a three- to fourfold increase in the risk of a heart attack[41]. A correlation was also found[42] between long-term work stress and high blood pressure. 'Work woes could contribute to problems with blood clotting or insulin resistance, a precursor to diabetes, which in turn is a major risk factor for heart disease and stroke,' the study added. Other researchers have shown[43] that the heart conditions of men who show stress-induced blood pressure reactivity and who report high job demands deteriorate more rapidly than those in less stressful situations. This finding was independent of other known risk factors and suggests that the traditional medical advice about cardiovascular health - stop smoking, cut down drinking, eat less fat, and engage in physical activity - needs to be supplemented by reducing stress at work.

D. The effects of stress on health

We saw earlier that people complained about increased stress during the period of very rapid economic growth between 1994 and 2002 and that relative poverty also increased during that time - a change which would have created great stress in the groups that lost out. We've also seen evidence that stress weakens the body's immune system and leads to increased illness. Accordingly, although it might take some years for the full effects of the stress to show up in the statistics, I thought it worthwhile to check whether health in Ireland did in fact deteriorate during that period, or at least improve less than in other similar but less-stressed countries.

Life expectancy is one measure of health. It is a broad measure and does not take into account life expectancy in different groups in society. Nevertheless, I found that Irish life expectancy is very low and getting worse in comparison with our EU partners. In 1997, Irish life expectancy at birth for Irish males was 73.5 years and 79.2 for females, the second lowest in the EU[44]. But by 2001, the changes during the high-growth period seem to have made the situation worse and Ireland had[45] the lowest life expectancy of all EU countries, being three years less than the EU average for both males and females (male life expectancy had fallen to 73 and female to 78.5 years). The most recent Central Statistics (2004) report states that life expectancy in Ireland rose in 2002, to 75.1 for males and 80.3 for females[46], and 'the most dramatic increase in life expectancy for both sexes occurred in the past 6 years'. Even so, in 2002, life expectancy for both sexes was lower than the EU 15 average, for both life expectancy at birth and life expectancy at age 65.

Table 3: *Life expectancy at birth 2002*

	Males	Females
Ireland	75.1	80.3
EU 15	75.8	81.6

Source CSO

Table 4 *Life expectancy at age 65*

	Males	Females
Ireland	15.4	18.7
EU 15	16.3	19.9

Source CSO

World Health Organization figures show that Ireland, at 46 per 100,000, has by far the highest death rate for heart disease for those under 65 in the countries in the European Union, the EU average being just 25[47]. In fact, the Department of Health's own website shows that for all major disease groups apart from stroke and motor vehicle accidents, Irish mortality rates are higher than the EU-15 average. This can be seen in Table 5.

Irish death rates compare badly with other EU states

per 100,000 population

	Ireland	EU-15 average
All causes	734.3	687
Ischaemic heart disease	160.2	107.6
Lung cancer	39.4	38.5
Breast cancer	35.2	28.2
Suicide	11.5	10.7
All circulatory diseases	286.8	266.82
All cancers	197.2	187.6
Meningitis	0.4	0.2 males 0.1 females
Stroke	60.9	67.2
Road Traffic Accidents	9.0	10.7

Table 5: *Irish mortality rates are worse than the EU average for almost all diseases except strokes. No allowance has been made in this comparison for the age distribution of the different countries' populations. If this were done, Ireland, with a relatively young population, would fare even worse. The Irish data is for 2001 while the EU data is for 1998*

Source: Department of Health website 2003

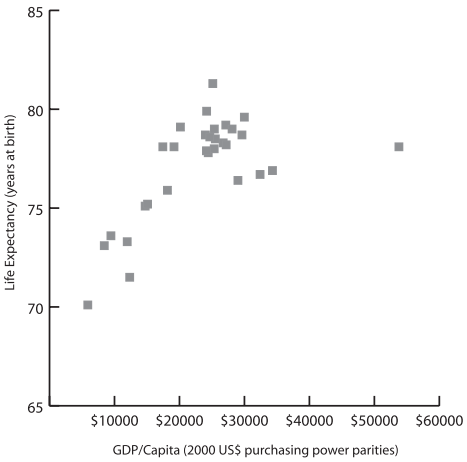
E. Health and Relative Income

Before looking at more data to see what actually happened to health in Ireland during the high-growth years, let's look more closely at what researchers have found out about the relationship between health and relative income.

One's health depends on the interplay of many factors. Robin Stott in the Schumacher briefing, *The Ecology of Health* [48] suggests that 80% of our health is determined by factors outside the scope of the conventional healthcare sector. Socio-economic influences on health have been comprehensively explored by Richard Wilkinson of the Trafford Centre for Medical Research at the University of Sussex[49] since the mid-seventies. 'The distribution of income is the single most important determinant of levels of health in the developed world' he writes. 'It has now been demonstrated [many] times using different measures of income distribution from different countries at different dates. About two-thirds of the variation in life expectancy between these countries is related to differences in their income distribution.' This can be seen in figure 8.

Higher national incomes don't always mean better health

GDP per Capita and Life Expectancy OECD Countries, 2000



Source: UNDP Human Development Indicators

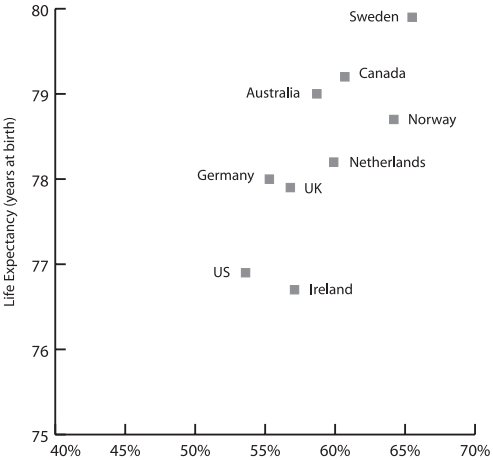
Figure 7: *This graph uses more up-to-date data than that used by Wilkinson. It shows that life expectancy at birth does tend to be longer in countries with higher average incomes per head but that countries with an enormous range of average incomes per head (ranging from less than $20,000 to almost $60,000 in the graph) can have the same life expectancy and that countries with the same or greater average incomes can differ in life expectancy by five or six years. Those countries with the longer life expectancies tend to have smaller income differences between rich and poor as shown in Fig. 8*

Wilkinson found that there was no link at all between GDP per capita and life expectancy in twenty-one OECD countries and that the proportion of national income going to the poorest 70 per cent of families explained most of the international variations. Even the proportion of national income devoted to health care had a negligible explanatory effect: He writes:

> Since the early 1970s, Japan has gone from the middle of the field in terms of life expectancy and income distribution to the top in both. Japan now has the highest recorded life expectancy and the most egalitarian income distribution in the world. On the other side of the coin, while Britain's income distribution worsened dramatically during the eighties to produce the largest inequalities for over a century, its relative position in terms of life expectancy has also worsened. Each year since 1985 mortality rates among both men and women between the ages of 16 and 45 have actually risen - a trend which is not attributable to deaths from AIDS[50].

Greater income equality means longer lives.

Income Distribution and Life Expectancy Selected OECD Countries, 2000



Source: UNDP Human Development Indicators

Figure 8 *shows that the more equally national income is distributed, the longer people tend to live. Sweden, which reduces relative poverty by taking a very high proportion of its citizen's incomes in tax and redistributing a lot of that to the less well-off, enables its citizens to live longer than equally rich countries with a bigger gap between rich and poor.*

Wilkinson is certain that differences in absolute poverty do not account for the differences in death rates among rich countries. He maintains, for example, that the improvement in the health of people in Japan could not be explained by dietary changes, smoking and other behavioural factors affecting health, in health services and other preventive health policies.

> We are not dealing with the effects of residual poverty in the developed world - there are too few people in absolute poverty in each of the developed countries for their death rates to be the decisive influence (on the overall statistics). Some people in rich countries were unable to eat properly even though they had incomes which were theoretically adequate to cover the cost of essentials because they were forced to buy 'inessentials' like rounds of drinks if they were to participate in ordinary activities in their communities. Others had to live in damp housing. However, neither of these circumstances could account for most of the increase in the gap between death rates. These differences were found after controlling for the effects of average personal disposable income, absolute levels of poverty, smoking, racial difference, and various measures of public or private provision of medical services.

He further states that health inequalities within countries cannot be understood in terms of selective social mobility, genetic differences, and inequalities in health care or health-related behaviour. 'Relative poverty is a demeaning and devaluing experience and a sense of relative deprivation will reduce people's sense of self-worth and self esteem,' which then affected their health. 'What people feel about their housing, he writes, their financial and social circumstances and what that does to their morale is likely to be more important [to their health] than their objective conditions.' Relative poverty, he writes, leads people:

> To feel depressed, cheated, bitter, desperate, vulnerable, frightened, angry, worried about debts or job and housing insecurity; to feel devalued, useless, helpless, uncared for, hopeless, isolated, anxious and a failure: these feelings can dominate people's whole experience of life, colouring their experience of everything else. It is the chronic stress arising from feelings like these, which does the damage. The material environment is merely the indelible mark and constant reminder of the oppressive fact of one's failure, of the atrophy of any sense of having a place in a community, and of one's social exclusion and devaluation as a human being.

This leads him to suggest that health statistics could be used as an indicator of the subjective aspects of the quality of life.

Wilkinson is by no means alone in stressing the importance of relative income to health. Ichiro Kawachi writes[51] in his book The Health of Nations: *Why Inequality is harmful to your health* 'The degree of income inequality in society explains about three quarters of the variation in life expectancy across countries, whereas by itself, the absolute size of the economic pie (measured by per capita GNP) accounts for less than 10%.' He adds that income inequality and poverty rates could together explain about one quarter of the differences between countries in overall mortality rates, as well as just over half of the variation in murder rates.

Many studies[52] confirm Wilkinson's view that changes in income relationships have profound effects on the health and life expectancy of those experiencing them, with the winners becoming healthier and living longer and the losers doing the reverse.

In *The Growth Illusion,* Richard Douthwaite[53] reported the adverse health effects associated with economic growth in Britain:

> Elsie Pamuk, who investigated changes in Britain in the mortality rates of men in 143 occupations that could be consistently identified for the span from 1921 to 1971 found that mortality rates for occupations in social class V (such as labourers), tended to improve more rapidly than those for social class I (doctors, accountants, lawyers) in the period up to 1951, when war, economic depression and government policies pushed relative incomes in favour of the less well-off.
>
> After 1951, however, there was a concentration of national income around the middle of the distribution – both the richest and the poorest 10% lost in relative terms to the middle group although their actual incomes increased. Pamuk's study showed that when the various classes' incomes ceased to converge, the difference between mortality rates ceased to converge as well. This was largely because the absolute death rate of class I people continued to fall while the Class V death rate behaved erratically, even worsening from time to time'.

Later work[54] has shown that the mortality gap between the classes continued to widen until 1991 at least. Douthwaite also reported that Pamuk found that wives' mortality rates moved in parallel with those of their husbands. 'Another study, published by the British Department of Health and Social Security[55] in 1984, showed that children were affected too:

the difference in height between eight-year-old children from the five social classes which had been converging until 1950 remained on a plateau until the end of the 1970s and then began moving apart' he wrote.

How the British income gap has widened since 1960

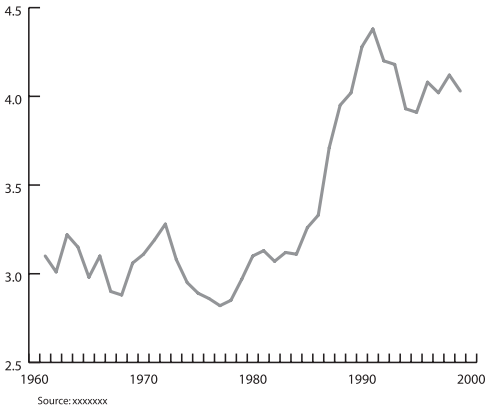


Figure 9 *shows how the income gap between rich and poor in Britain has widened since 1960. The vertical axis measures the ratio between the income received by the highest-paid 10% of the population in comparison with that received by the poorest 10%. It will be seen that in the 1960s and 1970s, the rich earned about three times more than the poor. However, after Mrs. Thatcher came into office in 1979, there was a rapid increase in the incomes of the better-off and now they earn around four times more than the least well-off. Source: Institute for Fiscal Studies.*

Anna Lee, chairperson of Combat Poverty Agency in 2000 stated the situation quite clearly ' Poor people get sick more often and die younger than the well-off.... The scale of income difference, the bigger the gap in inequality, the more life expectancy drops'[56].

F. The problems with Irish statistics

Anyone wishing to investigate whether the recent changes in relative incomes have affected Irish health faces enormous problems mainly due to a lack of data. Irish health data is grossly inadequate. This is admitted officially. In relation to children, the Chief Medical Office wrote in The *Health of our Children*, a report published in 2002:[57] 'The description and analysis of the health determinants, health status and service utilization pattern among children given in the report are necessarily limited due to the lack of comprehensive data.'

Nor is the adult situation any better. The following year Dr. Kiely wrote: 'There is increasing interest in the scale and nature of inequalities in health in Ireland. But the discussion is hampered by the lack of quality information. While a substantial amount of data on the Irish health service is collected, drawing inferences on inequalities is not straightforward, primarily because of weaknesses in the data collection systems used.'

The Institute of Public Health agrees. 'The poor quality of occupational data on death records on the island, particularly among people outside the working years and amongst females, severely limits our ability to explore the relationship between socio-economic circumstances and mortality. The absence of other data items such as ethnicity and country of origin imposes further limitations' it stated[58] in 2002 in its publication *Inequalities in Mortality.*

'You will know of those who are poor in the midst of riches, which is the worst of poverties' <<<

Seneca Epistles to Lucilius 88.28, as quoted in The Health of Nations

When data is collected by the health system, no link is usually made between the patient's income, the health problem and the treatment outcome. Only the patient's occupation is recorded so that he or she can be assigned to a socio-economic group. The latter can, of course, be used by researchers as a proxy for a person's income but this may lead to erroneous conclusions. For example, those who are unemployed are categorized according to their previous employment and occupations traditionally associated with low pay, such as hotel work, hairdressing and farm labouring do not have a separate entry in the occupational statistics classification.

Nevertheless, even the limited data shows a marked discrepancy in health status between the socio-economic groups. *Inequalities in Mortality* examined mortality data between 1989 and 1998. It found that mortality from all causes in the occupational classes associated with lower

What a difference one's income makes

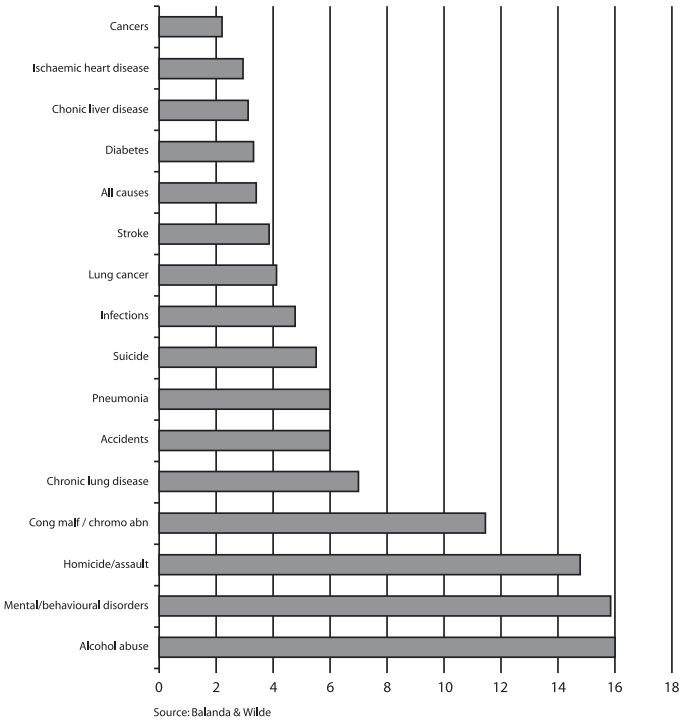


Figure 10 *This graph, showing data from the years 1989-1998, compares the death rates from various diseases of the richest and poorest socioeconomic groups. It shows, for example, that the poorest have twice the likelihood of dying from cancer and 16 times the chance of dying from alcohol abuse as the most prosperous members of our society.*

Source: K. Balanda and J. Wilde in *Health in Ireland – an unequal state* Public Health Alliance Ireland, Institute of Public Health, 2004

rates of pay was 100-200% higher than the rate in the occupational classes associated with higher pay. For circulatory diseases it was 120% higher, for respiratory diseases it was over 200% higher, for injuries and poisoning, it was 150% higher and for cancers it was 100% higher. The overall all-cause mortality rate in the Republic was 6% higher than the North. Unfortunately, this study amalgamated data for the years 1989-1998, making it impossible to distinguish trends during this period of massive economic change and to ascertain if there was a link with income. There are no plans to repeat this analysis using data from the most recent census[59].

Even the results in *Inequalities in Mortality* may be underestimating the problem. A 2001 study by the Department of Community Health at Trinity College, Dublin[60] found that the socio-economic group with the highest mortality rates was 'unknown'. It accounted for 14% of all deaths in 1981, rising to 24% in 1996. This category had a higher standardized mortality ratio for all-cause mortality, ischaemic heart disease, cancer, injuries and poisoning than every other socio-economic category. Over a third of people who were admitted to a psychiatric hospital had a classification of 'unknown' socio-economic group. The authors state that this could reflect either a lessening of standards in data coding and collection, or a genuine increase in the number of people in very poor health whose socio-economic group could not be identified.

Low birth-weight

The standard of data compilation and publication has certainly fallen in one key area – the perinatal statistics. It has been established that, in general, the incidence of low birth-weight is higher in babies born to poorer mothers than in babies born to more affluent ones. Consequently, one of the first effects of an increase in inequality could be a rise in the number of low birth-weight babies. Unfortunately information on birth-weights is not published promptly. The 1999 figures were only published in 2002 and the figures for 1993-1998 have not been compiled at all, although the data was collected. This has made it very difficult to follow trends during the high-growth period.

This matters because research by Professor David Barker,[61] an epidemiologist at Southampton University, has shown that underweight babies are much more likely to develop heart disease, high blood pressure, diabetes and kidney and liver problems in later life. This may be because their bodies diverted the poor supply of nutrients their mothers provided in the womb away from their vital organs to ensure that their brains, at least, developed fairly well. Some workers think, however, that their brains could be permanently locked in 'fight or flight' mode. If true, this could partially explain the high incidence of crime and behavioural problems among deprived groups.

From the national point of view, the birth of an underweight baby is a double tragedy. It is bad for the community, who will have to shoulder the expense of providing medical (and possibly custodial) care for the new individual for a lot of his or her life. It is worse, however, much worse, for the family and the baby concerned, as it will have to put up with chronic illnesses and never develop its full potential.

In 1998, research by the Southern Health Board[62] found that the high infant mortality figures for Cork City were caused by low birth-weight, congenital abnormalities and infant death syndrome. It associated these with the high levels of social deprivation in the city. The report found that despite 'significant overall improvements in infant mortality in the SHB area, infants born into the lower socio-economic area (Cork City) continue to experience higher relative risks of mortality in comparison with those born in the higher socio-economic areas'.

In the absence of official national low birth-weight statistics from 1994-1998, I compared the birth-weights of babies born to mothers who were confined in public wards (as a proxy for mothers on lower incomes) and who tend to have a higher proportion of babies with low birth-weight, with the birth-weights of babies born to mothers who were confined in private wards in a large Irish maternity hospital over the years 1995 to 2000. One fifth of the babies born to women in the public wards weighed less than 3kg, in 1995, and this remained the same in 2000, while the percentage of low birthweight babies in the private wards had fallen from 14.8% to 10.6%. In other words, economic growth and the reduction in absolute poverty did nothing to reduce the number of low birthweight babies being born to the poorer section of the population.

This result was confirmed by the publication in 2002 of the 1999 perinatal statistics, which showed that the proportion of babies born in 1999 with low birth-weight was significantly higher than in the early 1990s. Furthermore, the perinatal mortality figures for babies from poorer homes had worsened seriously since that time. In 1993, the perinatal mortality rates for single babies born to fathers who were classified as being manual unskilled workers and unemployed were 6.2 and 7.9 per thousand respectively. By 1999, the corresponding figures were 10.7 and 11.4. The figures for babies with fathers classified as higher professionals had improved, however, falling from 5.0 in 1993 to 3.5 in 1999. So the gap I had been trying to measure in one Dublin hospital had clearly widened in the country overall. Again, economic growth was clearly not benefiting everyone equally.

More underweight babies

1990	4.18
1991	4.23
1992	4.13
1993	4.18
1999	4.99

Table 6 *shows that the percentage of babies born with low birth-weights increased by 20% between 1993 and 1999. The increase appears to have been concentrated in babies born to parents on lower incomes.*

Figure 11 shows that the decline in infant mortality after 1990 stopped during the high growth years and may have resumed since. The ESRI data suggests that the plateau may have been due to the fact that the survival rate of children born into affluent families continued to improve while the death rate in poor families worsened, the two trends canceling each other out.

The 2003 edition of the report *Better Health for Everyone* from the Department of Health states that the infant mortality rate in Ireland is second highest in the EU-15 at 6.2, the EU-15 average being 5.2. Only Greece is worse. However, the reasons for infant mortality are complex and the report suggests that 'variations in practice relating to the registration of deaths' might be

responsible. The same report states that the Irish perinatal mortality rate at 10.00 is the highest in the EU-15, the average being 7.7. Part of the difference here however, could be due to the fact that abortion is not carried out in Ireland on babies with serious congenital malformations who may then die after they are born.

No improvement in proportion of babies dying at birth

Infant and Perinatal Mortality per 1,000 live births (1991-2002*)

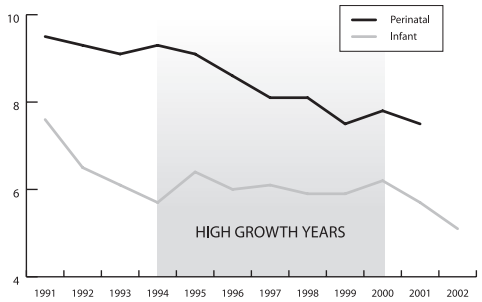


Figure 11 *shows that, although the proportion of babies dying at or near birth (perinatal deaths, the upper line above) continued to improve between 1994 and 2000, the long run improvement in Ireland's infant mortality figures marked time during the high growth period.*

Other data problems

Here's a round-up of some of the other statistical difficulties I came across in the course of this research:

1. The National Disease Surveillance Centre is concentrating on infectious diseases which caused only 0.6% of deaths in 1999, the last year for which such information is available. They do not collect information on income.
2. Ireland does not have national registers for asthma, diabetes, depression, arthritis, and most other common disorders despite the fact that they account for a high proportion of all healthcare activity. This means that we can neither assess the incidence of these diseases nor examine an association with income.
3. The Irish National Cancer Registry does not record income.
4. HIPE (Hospital In-Patient Enquiry), which reports activity in Irish hospitals, does not note socio-economic status or income.
5. Data on prescriptions is only analyzed for medical cardholders, whose income is extremely low. This prevents investigations into the differences in health status between people on low incomes with medical cards and those on higher incomes who don't.
6. Although farmers are one of the groups worst affected by relative poverty, those compiling the report *Inequalities in Mortality* were unable to analyze their mortality figures because of inadequacies in the data.
7. Although the height of British schoolchildren was found to track their socioeconomic circumstances, it is not possible to follow height trends of Irish schoolchildren because, although they were being measured regularly by the schools medical service, measuring methods do not appear to be standardized and accurate socio-economic details are not recorded. As a former schools doctor, I was particularly interested in following this issue up and wrote to the Department of Health to ask if the data had been analyzed in any way. I received no reply.
8. No income records are kept on people who are eligible for the long-term illness card scheme.
9. The Census Office changed the way it assigned the living to socio-economic groups in 1996 without a corresponding change being made in the death classifications. This highlights the need for a coordinated approach to addressing the issue of monitoring trends in health.

In summary, although income inequality plays a significant role in determining illness and mortality, the relevant data is not collected routinely.

G. What the available statistics do show

There are no long-run, consistent time-series showing trends in the nation's overall health in a way that can be related to trends in the distribution of income. There are however two Irish studies on the issue. One is a study[63] from the European Foundation for the Improvement of Living and Working Conditions, which relates self-assessed health in Ireland to income. This was published in 2002 and compares the proportion of the poorest fifth of the population saying they were experiencing bad health with

that of the richest fifth. The results were shocking. Those in the lowest fifth (quintile) in Ireland were over eight times more likely to say that they had bad or very bad health compared to those in the top quintile, far higher than any other EU country. The Irish figure of 8.3 compares with 4 in Denmark, 2.6 in France and 1.6 in Germany. The next worst figures after Ireland were from Greece at 5.7. Furthermore, a recent study from the Irish Institute of Public Health[64] found that people on the lowest incomes are 52% less likely to be very satisfied with their health compared with people on the highest incomes.

Suicide

If people feel badly about themselves they may think of suicide and the rate at which suicide is increasing among young Irish men is the fastest in the world[65]. It trebled in adolescents in the past decade[66] to become the most common cause of death among 15-24 year olds. Since 1997, all deaths by suicide have been consistently higher than the number of deaths from road traffic accidents[67]. Ireland has the second highest young male suicide rate in the world[68] and is the only EU country where youth suicide continues to rise.[69] Concern has been expressed that suicide may still be under reported.[70] The national chairperson of the mental health association GROW, Jean Hasset, stated in the organization's annual report for 2001 that high suicide rates 'did not represent the full extent of the despair that is rampant among Ireland's men and women and were little more than a record of those who had succeeded'[71]. Rates of suicide in young women doubled in past ten years, and violence and aggression in young women were cited as possible reasons.[72]

The experience of being a young Irish person in 2002 is one of 'personal loneliness, lack of purpose and engagement' according to a draft report from the National Economic and Social Forum.[73] In a youth poll, carried out by *The Irish Times* and published[74] in September 2003, it was found that 55% of those aged 15-24 knew somebody in their age group who had committed or had attempted to commit suicide. It is a sobering reflection on our society that each health board has its own 'suicide resource officer'.

In 2000, the first ever large-scale Irish epidemiological study to examine rates of psychiatric illness among young people[75], found that one fifth of adolescents were at risk of developing psychiatric disorders. Another report, *'The male perspective - Young men's outlook on life study'* released in January 2004 by the Mid Western Health Board, and referred to earlier, found that half of those surveyed had contemplated suicide at one time, and 4% had actually planned it.

The National Suicide Research Foundation has developed a parasuicide (attempted suicide) registry, the first of its kind in the world. Parasuicide rates among teenage girls aged between 15 and 19 have outstripped all other age specific rates among men and women, making them the most vulnerable group[76]. The registry's second report, for 2002 but issued in 2004, found that the incidence had increased from 2001, but also reported that not all hospitals participated in this survey. The peak rate of parasuicide was in girls aged 15-19, at 626 per 100,000. This figure indicates that 1 in every 160 girls in this age group presented to hospital after a suicide attempt. The highest rate was at age 17, when 1 in every 140 girls presented to hospital after an attempt. The peak rate for men appeared to be in the 20-24 age group, at 407 per 100,000.

A 2003 report by the South Eastern Health Board, *An Overview of Suicide*, notes that parasuicide is a growing phenomenon among adolescents, reflecting their feeling of helplessness and hopelessness in coping with life stresses, their impulsiveness in relationship breakdown, and the vulnerability of those with poor education, low incomes or no employment. 'The increase of affluence and material well-being has been met with a parallel increase in societal pressures that some young children cannot cope with' Paul Gilligan, the chief executive of the ISPCA[77], said when commenting on the shocking statistic that 201 children aged between 10 and 14 were treated in Irish hospitals for attempted suicide in 2002. Over €4.5 million will be spent in 2004 to try to reduce the suicide and attempted suicide rates.[78] Unfortunately, these and other mental health services will tend to be concentrated in areas of highest affluence, not in areas of greatest need[79].

Male suicide increases during economic growth spurt

Suicide Deaths per 100,000 of Population 1990-2001

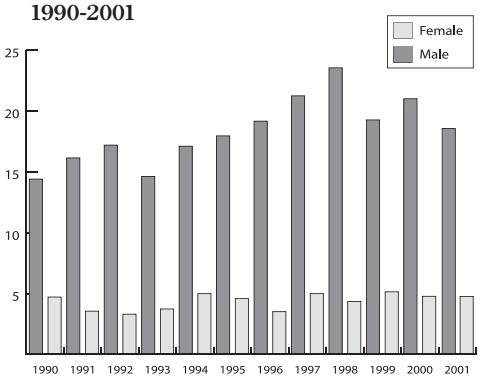


Figure 12 *shows that while the number of women committing suicide stayed fairly constant during the high growth years, there was a marked rise in the number of men taking their own lives.*

Alcohol and drug use

Many people deal with stress by turning to drink or drugs. And they did. 'Against the backdrop of the fastest growing economy in Europe, Ireland has had the highest increase in alcohol consumption among EU countries,' a government report[80] stated. 'Between 1989 and 1999, alcohol consumption per capita in Ireland increased by 41%, while ten of the European Union member states showed a decrease and three other countries showed a modest increase during the same period.' Ireland's consumption continued to increase in 2000 and ranked second after Luxembourg for alcohol consumption with a rate of 11 litres of pure alcohol per head of population or 14.2 litres per adult. The EU average for 2000 was 9.1 litres per head. The same report noted that while alcohol consumption per adult had been gradually rising over the previous 40 years 'since 1995, there has been a dramatic increase in consumption'. Irish alcohol consumption was below the EU average until 1996, when it began its rapid ascent[81].

Big increase in Irish alcohol consumption

Hospitals came under pressure as a result. A pilot study undertaken in the Mater Hospital in Dublin found that one in four attendances was alcohol related.[82] 'The health service is creaking and groaning and is collapsing under the weight of our new lifestyle. The nation is richer than it has ever been and yet the health service is under severe pressure because of this lifestyle' an Accident and Emergency consultant in Cork University Hospital told a conference on alcohol in November 2003.

Change in alcohol consumption

Capita 1989-99 (%)

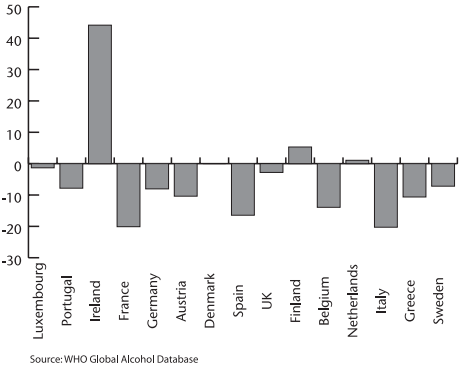


Figure 13 *shows that, while almost every other EU country reduced its consumption of alcohol between 1989 and 1999, the increasingly wealthy Irish boosted their drinking by over 40%. The health service and the police were put under pressure as a result.*

Drinking rises in step with increasing incomes

Alcohol Consumption litres pure alcohol/capita, Ireland 1969-99

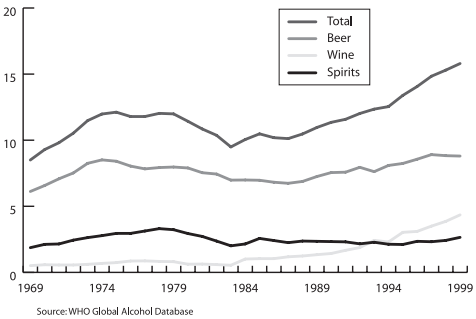


Figure 14 *shows that an increase in wine consumption accounted for a large proportion of the rise in the average Irish person's alcoholic intake since the early 1980s. The rate at which consumption increased accelerated during the boom years.*

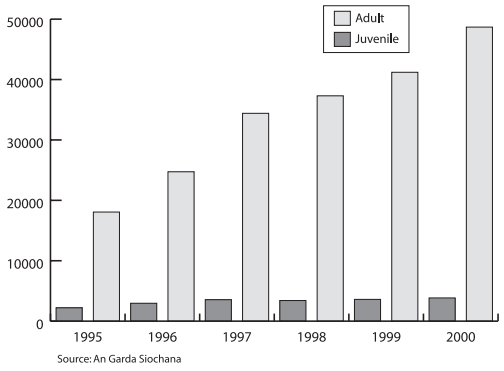
Alcohol abuse is also a problem with older people. One in five Irish people are now drinking in a manner that is either harmful or hazardous to their health and Dr. Ann Hope, National

Alcohol Policy Advisor at the Department of Health and Children, has stated that suicide, cirrhosis, crisis pregnancies, and sexually-transmitted disease have risen dramatically with the increase in the consumption of alcohol.

According to a 2003 report comparing drinking patterns in Ireland with six other European countries,[83] half of all Irish men now binge-drink at least once a week, the highest in the countries surveyed, and 16% of Irish women do too, which was also higher than the other European countries studied. 12.4% of Irish men said that their alcohol consumption affected their ability to do their job, again the highest of all countries surveyed. 11.5% of men had 'got into a fight', three times the EU average, 9.6% said that friendships had been harmed and 6.3% had been in an accident as a result of drinking, both figures again the highest percentage. Alcohol is a factor in a quarter of visits to casualty in Irish hospitals, thirty percent of road accidents and forty percent of fatal accidents. It is also associated with one in three cases of marital breakdown and public order offences. The economic cost of 'alcohol harm' has been estimated at €2.3 billion[84].

Big increase in alcohol-related offences

Alcohol Related Offences 1995-2000



Source: An Garda Siochana

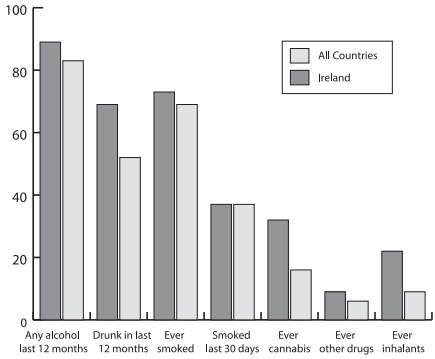
Figure 15 *shows just how rapidly the number of alcohol-related offences rose during the high-growth years. Surprisingly, in view of the increase in drinking among young people, it was adults rather than juveniles who were responsible for the rise.*

The *Interim Report on Alcohol*[85] highlighted the link between alcohol and street violence. 'Of particular concern is the increase in intoxication in public places among teenagers which has risen by 370% since 1996,' it said, adding that in the five-year period between 1996-2000, assaults and public order offences by adults increased by 97%. The Garda Commissioner highlighted the link between alcohol and the rise in street violence.

Changes in the behaviour of Irish schoolchildren in the 15-16 year old age group between 1995 and 1999 were examined by ESPAD, the European School Survey Project on Alcohol and Other Drugs (See figure 16). The study covered alcohol, tobacco and drug use by schoolchildren in 26 European countries. It found that there had been a marked deterioration in behaviour patterns between the two years among Irish participants and that Ireland ranked among the highest of all participating countries in relation to alcohol and illicit drug use. The proportion of Irish participants who reported using alcohol ten or more times in the previous 30 days had increased. This was particularly true for the girls, whose rate had almost doubled. The number of Irish students of both sexes who reported having been drunk on three or more occasions in the previous 30 days rose from 15 per cent to 24 per cent, ranking Ireland joint second with the UK for this indicator.

Schoolchildren become heavy drinkers and illegal drug users

Key Health Behaviours Children under 16 years (%)



Source: ESPAD Report, 1999 (Ireland and All Participant Countries)

Figure16 *presents the results from a study in 26 European countries which showed that Irish sixteen-year-olds were among the heaviest users of drink and drugs. Moreover, their consumption increased between 1995 and 1999.*

There is no sign that the situation has improved since 1999. A survey[86] of 2,297 post-primary

students in 2003 found that 39% had used drugs, an increase of 10% on a 1998 study. It was also noted that the number of teenagers who had used inhalants had increased by almost 8% to 21.3% in the four years since 1998, with 6.8% having used inhalants in the previous month, compared with 2.7% in 1998. Another survey, this time of 1,200 secondary school teachers in 2003, found that a third of teachers had taught in classes where students were under the influence of alcohol or drugs[87]. Furthermore, a 2003 report from the Drug Treatment Centre Board found that rates of opiate, cannabis, benzodiazepines, cannabis and ecstasy use remained high, and cocaine abuse was increasing[88].

A survey[89] of 2,297 post primary students carried out in the Mid West region in 2002 found that rates of smoking and drinking had increased since a similar survey four years previously. It found that over a fifth of 14-year-olds reported that they had been 'binge drinking' or had consumed five consecutive drinks in the 30 days before the survey, and 44% of 16-year-olds had been drunk in the month before the survey. And the stark reality of the alcohol problem among young people was illustrated by an analysis of patients admitted for acute alcohol intoxication to Mayo General Hospital in 2000[90]. Of all admissions under the age of 16, 30% had been found in the open, comatose and alone.

Obesity and diabetes increasing

Besides alcohol and drugs, stressed, anxious people also comfort themselves by eating. This may be a contributory factor in the rise in obesity. Recent research has shown that people who are struggling socially tend to have low self-esteem which in turn is reflected in their diet and tendency to obesity'[91]. Since 1990, the prevalence of obesity in Ireland has increased by 250% in men and by 125% in women. In 2002, 14% of men were obese, up from 11% in 1998, and 12% of women were obese in 2002, up from 9% in 1998[92]. At present, one in eight Irish people is obese and every second person is overweight[93] 'There has been an alarming increase in both diabetes and obesity in the past ten years' according to Professor John Nolan of Trinity College, Dublin, a consultant endocrinologist, speaking at the launch of a new study on obesity. An international study carried out in 13 countries found that Ireland had one of the highest proportions of overweight teenagers[94]. An all-Ireland survey, undertaken in 2001 and 2002, found that of 18,000 children, one in three 4 year olds were overweight[95].

'Obesity-related type 2 diabetes is presenting at younger ages than in the past, and is now seen in young teenagers in Ireland'[96] (Type 2 diabetes is usually more common in obese people over the age of 40). Ireland was one of the first countries to report type 2 diabetes in young people[97]. In 2003 Professor Nolan[98], stated that 'Ireland will drown in diabetes' if the current trend continues, warning that obesity-related conditions such as polycystic ovary syndrome would reach epidemic proportions. He had seen a doubling of the number of patients referred to him in the previous three years.

The medical director of the VHI (Voluntary Health Insurance) is also alarmed. In 2003[99] she described childhood obesity as a time bomb and said that obesity was storing up problems for future health care provision. Indeed, the Irish environment has been called 'obesegenic' by a principal investigator in an international study on childhood obesity[100] referring to the fact that 'most families had two cars and used a remote control for their TV.'

Obesity is an important risk factor for heart disease, blood pressure, stroke, diabetes, and increases the risk of cancers of the breast, bowel, womb, ovary and prostate. Mortality as a result of cardiovascular disease is almost 50% higher in obese patients than in those of average weight, and is 90% higher in these with morbid obesity, which is defined as a Body Mass Index greater than 40. If the Body Mass Index is greater than 30, there is also an increased risk of diabetes, if it is over 40, there is a 90% chance. (The Body Mass Index takes into account an adult's weight and height to gauge total body fat, and thus whether they are obese.)

A 2003 study showed that the average Irish schoolchild eats 50% less fresh fruit and vegetables than he or she did five years ago and that they spend 15 hours a week watching television.[101] The Central Statistics Office reported that the proportion of primary school children walking to school declined from 47% in 1981 to 26% in 2002 even though most children lived near their schools. The proportion of children being driven increased from 19.7% in 1981 to 50.3% in 2002, with most of the increase occurring since 1991[102]. Obesity is causing pressure on health services and a special clinic

treating children with diabetes stopped taking new referrals because it was unable to cope with the numbers attending[103].

In a nationwide survey of general practitioners[104] 68% indicated that their workload had increased due to the surge in obesity. Studies in countries where the prevalence of obesity is similar to Ireland indicate that its direct costs are between 2% and 6% of the national health care budget. Despite this drain on resources and the fact that a 2003 survey[105] showed that 44% of young people knew somebody with an eating disorder, no research has been carried out to date in Ireland on the incidence these complaints[106]. A task force has been established by the Minster for Health to examine the country's obesity problem[107].

It will be interesting to see if the task force reaches the same conclusion as Lord Haskins, food advisor to the British government, who stated at a conference on food in Dublin in 2004 that obesity [108] 'is not an ignorance issue, it is a despair issue.... If you could solve the problem of poverty, you would solve 80% of diet problems. The 20% of middle-class people who eat too much can be left to sort it out for themselves'.

H. Other signs that health deteriorated

More prescriptions issued to people on low incomes

The only data available on the number of prescriptions written in Ireland refers to people whose income is low enough for them to have been able to obtain a medical card. It is astonishing that no record is kept of prescriptions issued to non-medical card holders. However, as can be seen from Figure 17, although the number of people covered by the medical card system in the years 1985-2001 declined as incomes rose, the total number of prescriptions issued went up, as did the number of items per prescription. This could indicate that the health of those on lower incomes had declined. The recent report from the Institute of Public Health on inequalities found that people on lowest incomes were 52% less likely to be very satisfied with their health.

A report[109] in 2002 found that medical card holders had higher incidences of cardiovascular disease, stroke, hypertension, asthma, osteoarthritis, skin cancer and all other cancers,

The poor get sicker

Medical Cards, Scripts and Prescription Items ('000s), 1985-2001

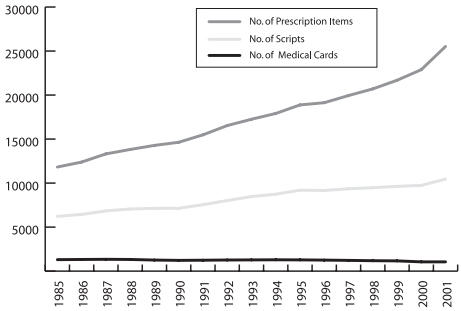


Figure 17 *shows that although the numbers of people holding medical cards (the bottom line) declined somewhat between 1985 and 2001, they were issued with more prescriptions by their doctors (the middle line) and that these prescriptions had more drug requisitions on them, so that the number of items dispensed rose as shown by the top line. In fact, the number of items per prescription rose from 1.9 in 1985, to 2.05 in 1995 and 2.44 in 2001. This suggests that the health of the average medical card holder deteriorated over the period.*

underactive thyroid, kidney stones, osteoporosis, gallstones, duodenal and gastric ulcers, and diabetes. A further report[110] found that 52.9% of medical card holders suffered from one or more health conditions, in contrast to 22.7% of private insurance holders. It is interesting to note that only 13.9% of medical cardholders said that their health was excellent, in contrast to 36.2% of those who had private insurance. In another study, 90% of those without medical cards reported both better health and quality of life whereas the corresponding figures for medical card holders were only 70% and 60% respectively. Professor Cecily Kelleher, one of the authors, commented that the difference was due to medical card status and was not related to whether their sample lived in an urban or a rural area.[111]

In 2002, €50 million were spent on anti-depressants and mood stabilizers, up a staggering €42 million since 1993. Department of Health figures indicated that more than one in six medical card holders was taking anti-depressants[112].

More people with longstanding illnesses

The number of people carrying a long-term illness card rose steadily between 1992-2001; from 14.2 per 1000 in 1992, to 17.7 in 1996 and to 22.9 in 2001. This card has been issued since

1991 to those with illnesses such as diabetes, epilepsy and spina bifida. (The full list comprises hydrocephalus, muscular dystrophy, parkinsonism, acute leukaemia, multiple sclerosis, diabetes insipidus, diabetes mellitus, cerebral palsy, haemophilia, cystic fibrosis, phenylketonuria, mental handicap and mental illness.)

More cancers in men

The 2003 report of the National Cancer Registry states that allowing for the effects of population change and ageing, the overall true risk of developing cancer is increasing by 0.6% per annum for men but is not increasing for women [113].

Conclusion

The only major instances of improved health I could find to set against the catalogue of decline we have just reviewed was in mortality from two great causes of death in Ireland, cancer and heart disease, but the statistical information is not adequate to allow us to say whether the gains were shared equally by all sections of society. As a result, I can definitely say as a public health doctor that the health of some sections of the Irish population deteriorated seriously during the high growth years. Moreover, I think that the deterioration is likely to accelerate in future because the full effects of prolonged stress and the recent changes in lifestyle have not yet become apparent.

I also believe that the shifts in relative income brought about by economic growth were largely responsible for the deterioration. The evidence is convincing and could become absolutely conclusive if proper statistics were kept. I will comment more widely at the end of the next section.

Part Two

A. Did growth improve the social environment?

'The concept of social capital ... couldn't be simpler. Do you trust people? How many clubs, societies or social groups are you a member of? If your child gets sick, do you have support to call on? Basically how much social contact do you have in your life? These social ties, according to research, will help you live longer and are probably worth money to the economy' a submission from Cork County Council included in a 2003 National Economic and Social Forum (NESF) report[114] states. Unfortunately, however, besides damaging physical and mental health, the increase in income inequality during the high-growth period appears to have depleted social capital by diminishing people's sense of belonging and their feelings of community and reducing the cohesiveness of society as a result.

More and more research shows that people living in unequal societies tend to have lower rates of involvement in community activities and lower levels of trust and that these reductions have inescapable psychosocial effects. Low levels of social capital have been found to be associated with relative deprivation and violent crime, including homicide (that is, murder and manslaughter), assault and robbery. In fact, Wilkinson[115] writes that the association between unequal income distribution and both homicide and violent crime is even stronger than it is for mortality.

In a US study[116] income inequality was found to be linked with decreased social capital when that was assessed according to the number of groups to which people belonged and their level of social trust as reflected by their responses to the question 'Do you think most people would take advantage of you if they got the chance?' There was also a strong correlation between income inequality, firearms offences and homicide. In another American study[117] of over 32,000 men, it was found that strong social networks (as measured by membership of church or community groups, having more than six friends), led to lower mortality by reducing deaths from cardiovascular disease, accidents and suicide. This study also found that strong social networks were associated with a reduced incidence of stroke, and were also found to possibly prolong the survival of men with established coronary heart disease. Similar results were found in a study based on data from 39 US states, where it was found that income inequality led to increased mortality via lowered social capital[118].

While researching his book *'Bowling Alone'*[119], Robert Putnam found that social capital had declined in the US, due to pressures of time and money, especially in two-income families; the distance traveled to work, and the time spent watching television. His review of the research into the effects of this decline led him to state that, statistically speaking, the evidence for the health consequences of social disconnectedness was as strong today as the link between smoking and cancer was at the time of the first Surgeon

Decline in the public's confidence in Irish Institutions

	% Trusting each institution 'a great deal' to be honest and fair 2001	% Trusting each institution 'a great deal' to be honest and fair 2004	Change
The Gardai	23%	14%	-39%
The Church	18%	9%	-50%
Supermarkets	14%	7%	-50%
The Legal system	12%	5%	-58%
The health service	11%	7%	-37%
The media	9%	3%	-67%
The government	9%	3%	-67%

Table 7 *shows the extent to which the public's confidence in Irish institutions deteriorated between 2001 and 2004.*

General's report on smoking. He writes that more than a dozen large studies over the past twenty years have shown that people who are socially disconnected are between two and five times more likely to die from all causes compared with individuals who have close ties with family, friends and the community. The more integrated a society is, he says, the less likely people are to die prematurely or to get heart attacks, strokes, cancer, and depression. It is therefore not surprising that the Irish study by Patricia Casey[120] I mentioned earlier found that people who had difficulty in getting practical help from their neighbours were more likely to have depressive disorders. Furthermore, it has been found that people who have infrequent contact with their friends are 31% less likely to have to have excellent or very good mental health and 24% less likely to have a high general mental health score[121].

Social capital may improve our health by stimulating the immune system and buffering stress. As Robin Stott says[122] 'Health is as much a collective as an individual value, more dependent on networks than genes'.

(i) Democratic participation and social capital reduced

If one accepts the evidence that increased inequality damages social capital, the implications of the widening incomes gap in Ireland are profound. We can expect to find that, besides poorer health, violence has increased, that people have become more isolated and trust each other less. We might also find that a change Kawachi[123] predicts has come about and that the lower levels of social trust have spilled over to create a lack of trust and confidence in government and that this has led to lower voter turnouts.

So what actually happened during the high growth years? The NESF survey did find that both interpersonal trust and levels of election turnout had declined during the 1990s and that only 25% of the survey's respondents agreed with the statement 'most people can be trusted'. Moreover, the 2004 Amarach study[124] referred to earlier reported that the number of people who trusted institutions such as the Gardai, the legal system, the church, media, government, health service and supermarkets 'a great deal' to be honest and fair had fallen between 2001 and 2004. This can be seen in table 7.

This lack of trust has an impact on health. The Institute of Public Health[125] has reported that compared to those who trust most of their neighbours, people who do not trust most of their neighbours are 24% less likely to have excellent or very good general health and 20% less likely to have a very good quality of life.

Voter turnout in presidential, local, general and European elections certainly shows a downward trend and that in 2002 was the lowest in the history of the state despite the polling stations being open for the longest time ever (15 hours) and government campaigns to encourage people register to vote. The higher turnout in the 2004

elections may have been associated with three separate votes taking place on the same day. The Institute of Public Health's report[126] 'Inequalities in perceived health – A report on the All-Ireland Social Capital and Health Survey', did not assess voting patterns; however, in the US, 90% of people in families with incomes over $75,000 tend to vote in presidential elections, but only half with incomes under $15,000. The result is that politicians become more interested in issues affecting the affluent, in turn narrowing the circle of social concern and political responsibility[127].

In 2003, social capital was reported[128] to be so low in some disadvantaged communities in Ireland that some families were unable to engage in any activities outside their homes because of low incomes, a lack of social supports and a fear of crime. The NESF study reported that half of those surveyed had not made a social visit in the previous four weeks excluding those to family members and other relatives. A startling 82.5% had not attended a public meeting, and only 5.5% had joined an action group of any kind in the previous year. Furthermore, the report added that surveys had shown that the number of people prepared to volunteer had declined from 38.2% in 1992 to 35.1% in 1994 and 33.3% in 1997/8. 'Increased work pressure, commuting and other factors are beginning to impinge on patterns of social contact and network support' it reported, echoing Putnam's US findings.

The extra traveling time to work was confirmed by the CSO's 2002 *Statistical Report.* Workers on average traveled 9.8 miles from home to work in 2001, up from 6.7 miles six years earlier while those living in rural areas travelled over twice as far as their counterparts had done twenty years before. Rural-based workers travelled over twice as far to work in 2002 as they did in 1982. The time taken by the extra travel left less for social activities. Putnam found this too and reported an inverse relationship between the two time uses.

(ii) Membership of voluntary organizations declines

The Irish have gone for a 'work hard, play hard' ethos, which leaves little place for altruism beyond the immediate family'. Amarach report 2002

When a sample of Irish people was asked in 1989 what they would do if they had more money, 48% replied that they 'would help a good cause,' followed by 'enjoy myself more'. When the same question was asked in 2001, however, the order was reversed and only 25% said they would help a good cause while the proportion saying that they would enjoy themselves more had risen to 57%[129].

After I read in the NESF report that eighty percent of the population was not involved in local community groups or in any type of volunteering, I asked a sample of voluntary organizations if they had problems recruiting members. The results were disturbing. None reported an increase in membership in recent years.

- The Irish Girl Guides Association reported a 'dramatic drop' in membership and in the number of adult volunteers since 1990.
- The Scouting Association also reported a decline in membership since 1990.
- The Irish Red Cross said that it found it more difficult to recruit volunteers and that their numbers were down.
- Both the Lions and Rotary clubs reported a reduction in membership
- The St. Vincent de Paul society noted that the time commitment that members gave was less than in previous years.
- The Parent Teacher Association reported that both participation levels and membership numbers had decreased over the last five years.

Again, this reflects the US experience. According to Putnam, the American groups whose membership is rising most rapidly are those in which the only commitment is to pay a subscription and receive a newsletter. He notes that the bonds of loyalty in this situation are to symbols, leaders or ideals and not to other people. This also has significance for health; there is evidence[130] that those who have not been actively involved in local organizations are 37% less likely to be very satisfied with their health and 20% less likely to have a very good quality of life.

(iii) Criminal offences increase

Recorded crime, apart from murder, fell between 1995 to 2000, as can be seen in Figure 18. This could have been because it became easier for potential offenders to fulfill their economic aspirations by getting a job in the legitimate economy. A British Home Office study found[131] that when the economy grew and more jobs were created for relatively poorly-educated young men the number of offences grew at a slower pace, but when the economy slowed, the crime rate caught up with its long-term rising trend line. This might be the reason that the most recent garda reports

shown that total offences in the ten 'headline offences' categories (homicide, assaults, sexual offences, arson, drug offences, theft, burglaries, robberies, fraud and 'other') went up by 18% in 2001 and by a further 22% in 2002[132], years in which the growth rate had slowed down. Certainly, homeless young men who could have obtained work at the height of the boom were finding it very difficult to do so as a result of the slowdown, Fr. Peter McVerry told a conference in Dundalk in March 2004.

While theft, drug dealing and burglary might be 'economic' offences, murder and manslaughter generally aren't and Wilkinson[133] cites a study which found that income inequality accounted for 35% of the difference in homicide rates between the 46 US states for which there was data. A similar relationship seems to hold in Ireland as Irish murder rates increased very significantly in the high growth decade. They rose from 0.69 per 100,000 in 1994 to 1.08 in 2000 and 1.43 in 2001. In the latter year, 52 murders took place, a far cry from Ireland in 1949 when just one murder was recorded[134].

Dr. Ian O'Donnell, the author of a major report on murders in Ireland, *Unlawful Killing, Past and Present* states[135] that 'contributory factors cited as possible explanations for the increase in the murder rates, include the rise in alcohol consumption, dissatisfaction among those left behind by the Celtic Tiger, demographic changes and the rise in gangland feuding'. He adds: 'An unequal society creates a context for violent crime.'

Prosecutions for public order offences increased by 161%[136] between 1996 and 2001. Intoxication in a public place and threatening, abusive or insulting words or behaviour were the most frequent charges and accounted for almost 80 per cent of proceedings taken in 2001. Between 1996 and 2001 the number of public order related referrals to the Garda Juvenile Diversion Programme grew by 162 per cent; almost identical to the growth in proceedings taken. The most striking change was in referrals for intoxication in a public place, which increased seven-fold. In a survey of 27 garda divisions undertaken in 1997[137] by the Garda Research Unit, it was found that alcohol was a factor in 88% of public order cases, 54% of criminal damages and 48% of offences against the person.

In the light of the rise in these crimes, it is not surprising that a Garda survey[138] revealed in

Murder rate up, other crime down

All Crime & Murder Rates 1990-2000

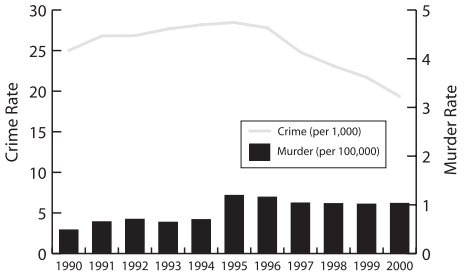


Figure 18 *shows that, while the murder rate increased in the second half of the 1990s, the incidence of other crimes declined between 1990 and 2000 when allowance is made for the rise in population. (The crime data is per thousand people and uses the scale on the left while the murder rate is per 100,000 people and uses the scale on the right.) This decline in crime could have been because the potential criminals found that they had more legitimate opportunities open to them.*

2002 that a quarter of people felt unsafe walking in their neighbourhoods after dark. 44% of the respondents said they felt less safe than six years previously and the same number also said that crime was rising in their areas. 84% of the respondents believed that crime was rising in Ireland as a whole. An Irish study found that people who feel unsafe after dark are 56% less likely to be free of longterm illness[139] compared to those who feel otherwise. This illustrates the link between social capital and health. Even young people were concerned. In a survey[140] of 1000 people aged 15-24, 77% said in 2003 that they were concerned about the level of crime and street violence. Their level of concern was marginally higher in Dublin.

(iv) More people become homeless

The rapid rise in house prices during the boom years meant that number of people who could not afford housing rose almost fourfold between 1993 and 2002. Furthermore, the number of families assessed as needing social housing increased by 70% in the past six years[141]. This figure almost certainly understates the situation. The Focus Ireland website points out that it does not necessarily include those who are involuntarily sharing with family or friends or not accessing services for the homeless. Furthermore, it states that many single people do not register for housing waiting lists as they know that will be given a low priority.

Housing lists lengthen and homelessness goes up

Homelessness & Social Housing Waiting Lists 1989-2002

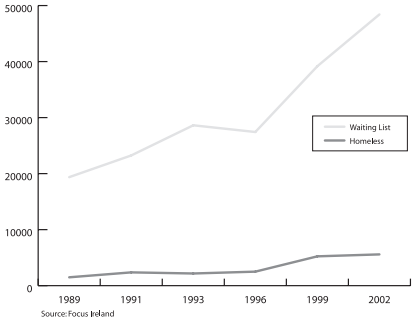


Figure 19 *shows that the number of people who were on a waiting list for social housing rose more rapidly than previously during the high growth years. The number of homeless people, the lower line, which had been stable, also began to increase during that period.*

Speaking at the launch of Focus Ireland's annual report in 2003, Sister Stanislaus Kennedy[142] stated that despite government commitments to halve homelessness by the end of 2005, more people were homeless than was the case when the commitment was given in 1999. People were also spending longer periods homeless and those who were 'sleeping rough' were younger. The average time spent in B&B accommodation had shot up from twenty days in 1993 to an average of 18 months. She described the worsening homelessness figures in the wake of fifteen years of 'unprecedented economic growth' as 'nothing short of disgraceful'. The number of families on local authority housing lists had increased from 39,000 families in 1999 to almost 48,500, she said. In March 2004, the number of people sleeping rough in Dublin was reported[143] to be at an all-time high.

'The recent cuts in the rent allowance system, in particular, have already made it even harder than before for the most vulnerable to keep a roof over their heads,' Declan Jones, Focus Ireland's Chief Executive[144] said in 2003, adding that 85% of people on the housing list were struggling to survive on €15,000 or less a year. Every budget since 1997 had seen the better-off getting more than the less well-off, he commented.

He was right. A quarter of all houses built in 2003 were second (holiday) homes. Many of these were subsidized by tax reliefs[145] and their construction had the effect of pushing up land prices, making it harder for young people to buy their first home.

House prices soar and become less affordable

Average New House Prices, 1994-2002

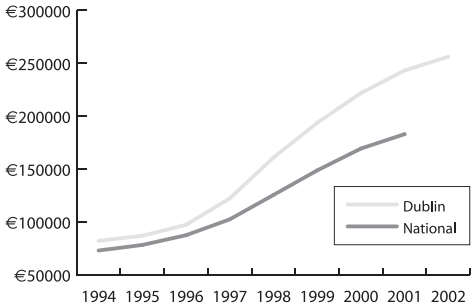


Figure 20 *Although average incomes increased by around 73% between 1994 and 2002, house prices rose by much more than that as the graph shows. They were up by roughly 250% nationally and by 300% in the Dublin area.*

B. Did the physical environment improve?

When a country's economy doubles in size, almost everything changes in some way and many of these changes will have an effect on the population's health.

(1) Air quality

(i) Nitrogen oxide emissions.

The number of vehicles registered in Ireland increased by 68% between 1990 and 2001 and this contributed half of the 9% rise in Ireland's nitrogen oxide emissions[146] between 1995 and 2000, bringing them up to 125,000 tonnes a year. Much of the balance came from power stations. Nitrogen oxides trigger asthmatic attacks, croup in children, and in the longer term, cause reduced lung function. They also contribute to ground level ozone, a respiratory irritant. It will be necessary for Ireland to reduce nitrogen oxide emissions by 51% by 2010 to comply with EU directives. The European Environment Agency report *Environmental Signals 2002* released in 2004 finds that Ireland is not on target to achieve this goal.

(ii) Particulate emissions

Increased traffic also led to an increase in particulate emissions. When fossil fuels are burned, tiny particles are released in the fumes, especially those from diesel engines. Because they are so small, the particles can penetrate far down into the respiratory tract and cause both respiratory and cardiovascular disease. Exposure to particulate matter is now the largest threat to health from air pollution in Western cities[147]. Long-term exposure to particulate matter is associated with a reduction in life expectancy of 1-2 years and even short-term variations in particulate matter are associated with adverse health effects at low levels of exposure. Although EU legislation requires that the air should not exceed more than 50 micrograms of particulates per cubic metre more than 35 times in a calendar year, the air in some Dublin streets exceeded this level 76 times in 2000.

Vehicle numbers soar

New Vehicles Registrations 1992-2002

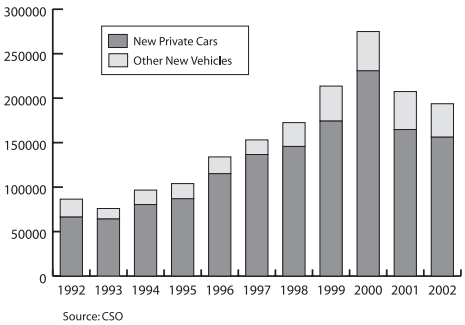


Figure 21 *shows that the number of motor vehicles purchased each year rose rapidly during the high-growth years and fell back as the rate of growth began to moderate. The result, of course, was a massive increase in road congestion.*

(iii) Volatile organic compounds

Volatile organic compounds (VOCs) are released by road traffic, paints and organic solvents. Although emissions from vehicles are reduced by catalytic converters, the benefits of fitting them have been offset by the huge increase in vehicle numbers. VOCs interact with nitrogen oxides in the presence of sunlight to form low-level ozone, a respiratory irritant that also retards plant growth. Ireland needs to reduce its emissions of solvents and benzene by 37,000 tonnes from the 87,000 tonnes released in 2001 to comply with EU directives[148].

(iv) Sulphur dioxide

Sulphur dioxide is associated with asthma and with cardiac disease. It is produced largely from the combustion of fossil fuels, particularly in power stations. Ireland is now one of the three worst emitters of sulphur dioxide in the EU, releasing 131,489 tonnes in 2000. It will be necessary to reduce this to no more than 42,000 tonnes a year by 2010 if we are to comply with the UN Gothenburg Protocol and EU limits.

(v) Greenhouse gas emissions

On a per capita basis, Ireland's greenhouse emissions are amongst the worst in the world. As can be seen from figure 22, the energy demand from a growing economy caused our carbon dioxide emissions to begin to rise so rapidly in the mid nineties that by 2001 they were well over twice the 13% increase on its 1990 emissions level the country had been allocated by its EU partners under the Kyoto Protocol. These emissions contribute to the alarming build up of these gasses worldwide, and the warming they help produce will seriously affect the health of many people, particularly in the poorest areas of the world. Ireland will be affected too and we can expect to see an increase in heat-related deaths and in cases of food poisoning.

Carbon dioxide emissions increase

Carbon Dioxide Emissions per Capita, 1950-2000

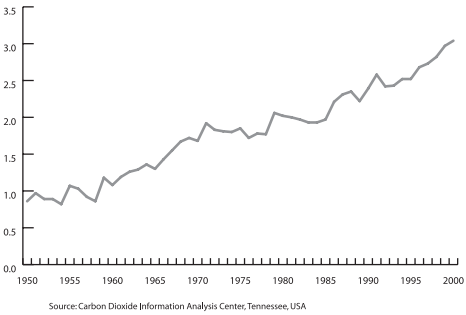


Figure 22 *The average Irish person's emissions of carbon dioxide have tripled since 1950, rising from one tonne per person to three. It took thirty-five years to reach the two-tonne mark, and, as growth accelerated, only fifteen to add the other tonne. These emissions will have to be reduced to slow down global warming. This will require a complete restructuring of the way the economy works.*

Economic growth increases oil demand

Annual Oil Consumption Per Capita

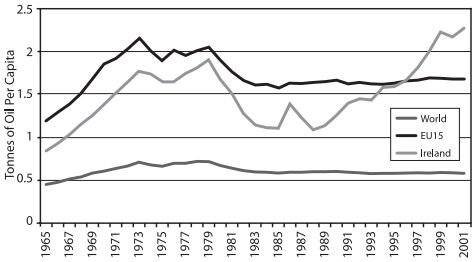


Figure 23 *shows that until the mid 1990s, Irish oil consumption was below the EU average. It doubled between 1989 and 2001, while that of the EU and the world, as a whole remained unchanged. In 1996, Ireland's oil consumption per capita exceeded the EU average, and continued to rise rapidly during the high growth years. The country is now one of the most oil-dependent in the world.*

Source: Amarach[149]

(vi) Industrial and agricultural chemicals

Economic growth meant the increased use of chemicals in industry and agriculture. Although chemical production is increasing in the EU, very little is known about the health and environmental effects of most of the vast numbers of chemicals being made and used. The report of the UK's Royal Commission on Environmental Pollution[150] issued in June 2003 found that only forty of the more than 30,000 synthetic chemicals currently available on the UK market have been subject to a systematic risk assessment. 'We are conducting a huge and unacceptable experiment on ourselves and the environment' Sir Tom Blundell, the Commission's chairman, said.

The Pesticide Control Service of the Department of Agriculture reported in 2004 that in 2002, 29.7% of 551 samples of food contained quantifiable residues of pesticides, and 1.3% of the total sampled had levels exceeding the regulatory limits. The investigators said they would like to increase the number of pesticides for which they were testing and to broaden the range of food products they covered.

While we may know the levels of pesticides on some fruit and vegetables, we do not know the levels of pesticides that the Irish population is carrying in its body tissues. Many pesticides and other chemicals are chlorinated chemicals and these are particularly worrying because not only are they are not easily broken down but the body is unable to excrete them and they accumulate in our body fat. Exposure to chlorinated chemicals has been linked to depressed immune systems, reduction in sperm counts, altered fertility and some adult cancers. In children they have also been associated with low birth weight, genital abnormalities and impaired neurological development. It is difficult to get an accurate picture of the amounts of chlorinated chemicals Ireland imports as there have been frequent code changes for different chemicals and the records have only been computerized since the early 1990s. It is also difficult to estimate the impact these chemicals might be having, as Ireland does not keep a national database of congenital malformations.

Dioxins and PCBs, both chlorinated chemicals, were found in human and animal food in Belgium in 1999 and 2000. Phthalates, which have an oestrogenic effect, exceeded permitted concentrations in children's toys in Denmark in 2001 and 2002. Another class of persistent organic pollutants, flame-retardant chemicals, were found in human milk in Sweden 2000[151]. Yet Ireland has still to ratify the Stockholm Agreement on the phasing out of persistent organic pollutants. Although a survey of dioxins in human breast milk in Ireland showed low levels of dioxins and PCBs, we need to measure levels in fatty tissue as well since the level in breast milk falls in the course of each lactation as the concentration in the mother's body is reduced.

(vii) Domestic chemicals present dangers

The link between environmental estrogens and cancer is well documented. Many detergents contain alkyl phenols which mimic the female sex hormone estrogen and have been associated, along with some other chlorinated organic chemicals, with genito-urinary problems and some types of cancers. The origin of these compounds includes domestic and industrial effluents, leachate from solid waste disposal sites, agricultural leachate and urban run-off [152]. Breast cancer is the commonest cancer in women, and prostate cancer (having overtaken lung cancer) is now the commonest cancer in men, see figure 24. In other words, the commonest cancers in both sexes are hormonally related. The levels of synthetic hormone mimicking chemicals in both the water supply and in the tissues of the Irish people are

unknown but some information should be available in 2005 after a study coordinated by Teagasc has been completed [153].

Commonest types of cancer increase

Crude Cancer Rates per 100,000 population 1994-2001

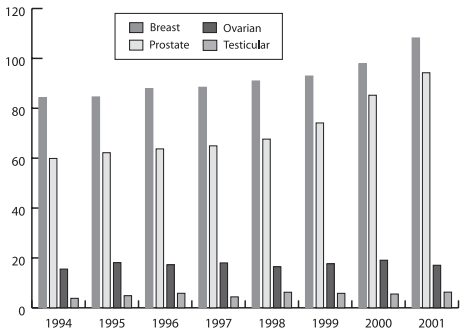


Figure 24 *shows that the number of cases per 100,000 people of the two commonest types of cancer - breast and prostate – have increased steadily over the past few years. Both these cancers are hormone-related and the rise could be due to the increase in synthetic hormones in the environment as a result of increased chemical use.*

THE HEALTH BENEFITS OF A MORE EGALITARIAN SOCIETY

Improvements in health

Even a modest reduction in income inequality could have an important impact on population health, including infant mortality, homicide, and deaths from cardiovascular disease and cancers. Recent research from workers at the London School of Health and Tropical Hygiene indicates that eliminating socio-economic inequalities would save almost 13,000 deaths from cancer in the U.K. every five years and almost certainly save more lives in the next decade than innovative treatments[154]. In Ireland, North and South, the Institute of Public Health estimates that there could be 6,000 fewer premature deaths every year if the overall death rate could be reduced to that of the highest socio-economic grouping, or 5,400 if it could be reduced to the EU average[155] And in Canada it is estimated that 23% of the years of life lost prematurely before the age of 75 can be attributed to income differences. The disease responsible for most of these deaths is heart disease as a result of social exclusion[156].

The Robin Hood Index [157] is sometimes used to measure the income gap between rich and poor. A reading of 30 on the index means that the top 10% of the population enjoys 30% of national income. Researchers at Harvard have found that the index is so closely correlated with the overall age-adjusted death rate in the US that each percentage point increase in the index is associated with an increase of 21.7 deaths per 100,000 population each year. The Robin Hood index was also positively correlated with infant mortality, cancers and coronary heart disease – so much so, in fact, that the Harvard team stated that reducing inequality from 30% to 25% would cut the number of deaths from coronary heart disease by a similar amount. Strong associations were also found between the index and causes of death amenable to medical intervention.

Strangely, another measure of inequality in the distribution of income, the Gini coefficient, where 0 signifies perfect equality and 100 means that one person holds all the income, does not show any correlation with health. This could have been because the coefficient gives great weight to changes around the middle of the income distribution and little to changes at the extremes.

Inequality causes reduced life expectation for the wealthy as well as the impoverished: the more unequal the society, the worse are the life chances of everybody in that society. Researchers at the Harvard School of Public Health in the US found that moving from a state with high social capital to one with very little social capital increased one's chance of low to middling health by roughly 40-70%. Indeed, the researchers worked out that if one wanted to improve one's health, moving to a high social capital state would do almost as much good as stopping smoking.

Inequality is not an accident

I want to end as I began, with a speech by an Irish political leader to a group of visiting Americans. Five months before Mr. Ahern boasted of Ireland's transformation to President Clinton, his deputy, Mary Harney, the Tanaiste, (Deputy Prime Minister) made her famous 'Berlin or Boston' speech in Dublin to a group of American lawyers. This is part of what she said:

> Political and economic commentators sometimes pose a choice between what they see as the American way and the European way. They view the American way as being built on the rugged individualism of the original frontiersmen, an economic model that is heavily based on enterprise and incentive, on individual effort and

Table 8 Between Berlin and Boston

	Proportion of national income received by poorest 10% of population	Proportion of national income received by richest 10% of population (Robin Hood Index)	Proportion of children living in households with income less than 50% of median income	GDP per capita (Dollars)
United States	1.8%	30.5%	22.5%	35,935
Ireland	2.5%	27.4%	16.8%	28,662
Germany	3.3%	23.7%	10.7%	26,233

Source: www.nationmaster.com and CIA Fact Book

> with limited government intervention. They view the European way as being built on a strong concern for social harmony and social inclusion, with governments being prepared to intervene strongly through the tax and regulatory systems to achieve their desired outcomes.
>
> Both models are, of course, overly simplistic but there is an element of truth in them too. We in Ireland have tended to steer a course between the two but I think it is fair to say that we have sailed closer to the American shore than the European one. Look at what we have done over the last ten years. We have cut taxes on capital. We have cut taxes on corporate profits. We have cut taxes on personal incomes. The result has been an explosion in economic activity and Ireland is now the fastest-growing country in the developed world.

She then went on to ask the question that I have been asking in this paper 'And did we have to pay some very high price for pursuing this policy option?' she asked. 'Did we have to abandon the concept of social inclusion?' Her answer was quite different from mine: 'The answer is no: we didn't.'

The evidence assembled in this paper suggests that Ireland in fact has paid, is paying and will continue to pay a very high price for adopting American ways and moving closer to Boston. The table shows where Ireland was positioned in relation to Ms. Harney's two marker countries during the high growth period she felt so proud about.

Tax and budgetary policy

The move towards American levels of inequality was no accident but deliberate government policy. "A dynamic liberal economy like ours demands flexibility and inequality in some respects to function" the Minister for Justice, Michael McDowell, said in 2004. So, in spite of all the international evidence of the harmful effects of allowing the distribution of income to become more unequal, the governments of which Ms. Harney was a leading member shifted income to the better-off. As the ESRI[158] stated in 2002: 'On balance, budgets over the past 10 to 20 years have been more favourable to high income groups than low income groups, but particularly so during periods of high growth. During Ireland's recent growth spurt, budgetary policy acted to reinforce income gains for the higher income groups, while involving losses for those in the lower income groups. Measured against the neutral benchmark, tax cuts raised the incomes of top income earners by more than 12 per cent over the years 1995 to 2001; but welfare increases lagged 2 percentage points behind wage growth'.

The effects of these policies are well described by Kawachi[159] even though he did not have the Irish model in mind.

> The more unequal the distribution of income, the longer and harder families need to work to keep from slipping behind on the economic ladder. The greater the disparities in wealth and income, the greater the effort expended by producers of goods and services in catering to the spending habits of the rich – more space on first class seats on commercial airlines, building bigger cars, more spacious houses and so on. As the consumption pattern of the rich become more normative, the more ordinary families need to spend to keep up with the average standard of living. The harder families work to pay for lifestyles beyond their means, the less time we invest in maintaining family and community ties. The more caught up we become in competitive spending, the less regard we have for the external costs our habits impose on the social and physical environment'.

In cutting taxes, Ireland was leading an international trend. Figure 25 shows that all OECD countries except Japan cut the proportion of national income that governments spent in the past ten years but that as a proportion of its 1993 revenue share, the Irish cuts were proportionately deeper than anywhere else. The result was a big increase in poverty among welfare recipients as the following table shows.

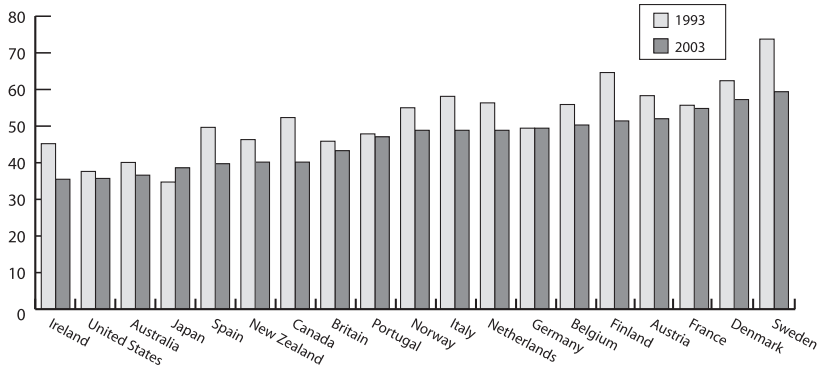
Percentage of persons in receipt of welfare benefits/assistance living in poverty.

Welfare benefit	1994	2001
Old age benefit	5.3%	49%
Unemployment benefit/assistance	23.9%	43.1%
Illness/disability	10.4%	49.4%
Lone Parent's allowance	25.8%	39.7%
Widow's pension	5.5%	42.1%

Source: Conference of Religious In Ireland (CORI)

Governments spend less of national income

Government spending as % of GDP

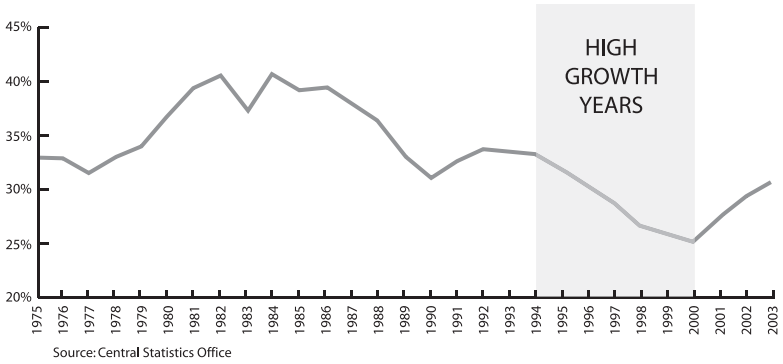


Source: OECD

Figure 25 *shows that Ireland cut state spending by proportionately more than comparable nations in the period between 1993 and 2003.*

Less scope for income redistribution

Gross government current expenditure as a % of GNP, 1975-2003e



Source: Central Statistics Office

Figure 26 *The share of national income taken by the Irish government fell sharply during the high-growth years. This left the better-off with more of their earnings, thus widening the gap between rich and poor, particularly as social welfare payments were not increased in step with other groups' higher earnings.*

Source: John Lawlor and Colm McCarthy, "Browsing Onwards: Irish Public Spending in Perspective", *Irish Banking Review,* Autumn, 2003.

The tax-cutting strategy was deliberately designed to maintain the rate of economic growth by increasing the country's international competitiveness. So as to limit the wage increases sanctioned under the various national wage agreements, the government would undertake to cut income taxes, thus increasing the employees' take-home pay. However, as low-paid workers paid little tax, they could not benefit as much as the more-highly-paid from this arrangement. Moreover, as many of them, such as those in the clothing trade, were in direct competition with workers in low wage economies overseas, there was little scope for their employers to raise their wages directly. Others, such as those in the hotel and catering trade and in retailing, saw their wages kept down by the government-sanctioned importation of workers from Eastern Europe, India, China and the Philippines. The tax changes were one of the reasons the richest 10% of the population increased their share of the national income by about 1.4% during the high-growth years, while, as we saw in figure 6, the poorest 10% saw its share shrink by just under 0.4%.

In short, a system was created in which costs were kept down at the expense of the weakest people in society and, since the tax base had been cut, social welfare payments could not be increased to compensate. This led to the situation we noted in Table 2 - the growth of the number of employed people living on less than half the national median wage. That table also showed that the proportion of the unemployed, the sick and the old who lived in relative poverty rose significantly too.

Thus, if the Robin Hood Index works in Ireland in the way it does in Boston, this means that the cost Ms. Harney mentioned was something like 1,200 additional premature deaths a year, to say nothing of the extra ill-health, violence, stress, and social breakdown the income shift caused.

Conclusion

Essentially, by setting the achievement of economic growth rather than its citizens' welfare as its primary target, successive governments have run the country for the benefit of the economy rather than for the people. If this continues, as the 2004 CORI report, *Priorities for Fairness* states: 'The government's current policy focus will ensure that substantial numbers of people are condemned to live in social exclusion and substantially larger numbers of people will be forced to accept a poor quality of life for the foreseeable future'

Personally, I believe that the best way to counteract income inequality and promote the nation's health would be to introduce a basic income for all Irish residents. There could be three rates, child, adult and retired. The latter rate would also be paid to those unable to work through ill-health. The adult rate would not be

Social welfare gets smaller share of national income

Expenditure as a % of GNP Individual Headings 1975-2003e

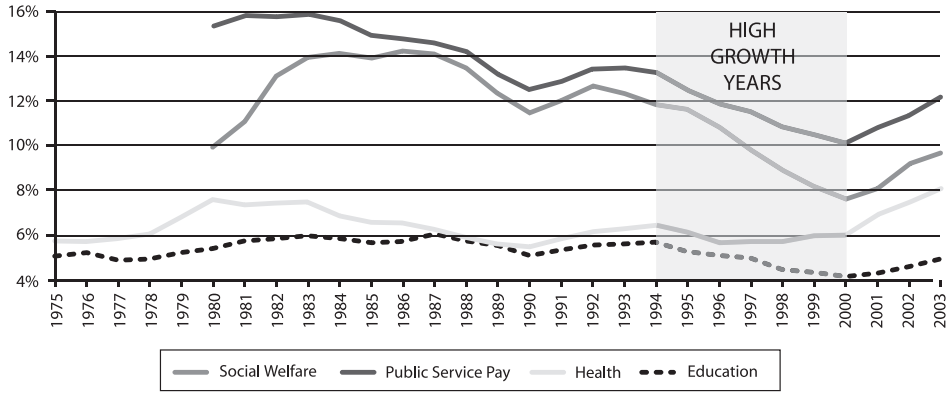


Figure 27 *shows that state spending on social welfare and public service pay fell appreciably as a proportion of national income during the high growth years. The reduction in the social welfare bill was in part due to less people being unemployed but another factor was that payments were allowed to fall in relation to average incomes.*

Adapted from: John Lawlor and Colm McCarthy, "Browsing Onwards: Irish Public Spending in Perspective", *Irish Banking Review,* Autumn, 2003

worth less than the current package of benefits received by people who are unemployed and the retired rate would be at least equal to the state pension. The big advantage of this sort of arrangement is that it puts everyone in society on the same side. At the moment, taxpayers see social welfare benefits as being paid out of their taxes and consequently resist higher benefit levels. Once a basic income was introduced, however, those in work would begin calling for higher basic income payments just as loudly as those who were unemployed.

It is not possible to prove the relationship between inequality and ill-health as conclusively as it is to test a relationship in the physical sciences. Nevertheless, for me, the weight of the international evidence is compelling. Accordingly, I believe the greatest public health challenge of our time is to scrap a system which puts the achievement of economic growth so far ahead of human welfare that it thinks it unimportant to keep adequate statistics to show the damage it is doing.

'We took the tough decisions and we developed a new model – the Irish model - to manage our affairs' the Taoiseach, Bertie Ahern, told the Fianna Fail ardfheis in March 2004. He continued: 'That is why Ireland today is becoming a better, fairer and more prosperous nation.'

It is hard to see how 'better' and 'fairer' could be correct. The system Mr. Ahern's government runs is depleting our true wealth - our health, our society and our environment. It must be changed. The object of our economy should be to maximize our health and quality of life. It must not be run just to generate wealth and maximize consumption purely to avert the onset of unemployment and recession.

Other people in Feasta are examining how such a change can be brought about, addressing issues such as the way money is created and the development of economic systems that are fairer to people and the planet. Meanwhile, it is to our shame that we cannot more accurately quantify the true price that we paid for allowing the Celtic Tiger the free run of our land and that our leaders can still get away with boasting about the progress they and their tiger have made.

Recommendations

Our economic system, by polarizing income distribution in the interests of economic growth, is the greatest single threat to everyone's health and wellbeing, not just that of the least well off. Income inequality is also a threat to our physical and social environments, which also affect our health The great rise in feelings of stress in the years coinciding with our economic boom, the increase in suicide, the increase in perinatal mortality in babies born into families on lower incomes, the increase in alcohol abuse, the rise in obesity, the increase in drug use, and evidence for the need to reduce our levels of pollutants in the environment, all indicate that something is going seriously wrong.

Here is what I believe needs to be done to correct the situation:

1. The effects of changes in income distribution on health and well-being need to be measured much more carefully. Irish statistics are totally inadequate at present. We need regular census data on income, income inequality, occupation, social position and health. The Hospital In-Patient Enquiry System should collect such information and disease registries should be established to do so too. "The section on income categories in the provisional census form for the 2006 census is welcome, but 60,000 euros as the top income level in a country where income is polarized is a little low.
2. We also need to measure other indicators of health such as the levels of industrial chemicals in our bodies and the prevalence of depression, asthma, diabetes and other illnesses, on a regular basis. We need to ask meaningful questions about health in the census, and we also need to encourage other countries (not all in the EU) to follow suit.
3. While the government is committed to reducing absolute poverty, it only monitors relative poverty and, as the latter has such a grave impact on health, this needs to change. The National Anti-Poverty Strategy must not only adopt the targets[160] outlined by its working group for reducing the disparities of health between rich and poor but also carry out a Health Impact Assessment for the economic system as a whole.

4. It is necessary to look again at health education, which currently tends to focus on the individual's health behaviour rather than the social determinants of health. Research has shown that health behaviour, though not unimportant, has a relatively small impact on overall health inequalities.[161]
5. The introduction of a basic income should be seriously considered as a way of reducing inequality and rewarding work that the present economic system does not appreciate. As James Robertson says in *Transforming Economic Life, A Millennial Challenge*[162], what we need is 'a vision of a people-centered society in which the amounts that people and organizations are required to pay to the public revenue are based on the value they subtract by their use or monopolization of common resources; and in which all citizens are equally entitled to share in the annual revenue so raised, partly by way of services provided at public expense and partly by way of a citizen's income. The citizens of such a society will be more equal with one another in esteem, capability and material conditions of life than now'.
6. Finally, we need to examine the reasons why our economic system needs continuous economic growth if it is not to collapse. The study should include the problems associated with creating money by lending it into circulation rather than putting it the economy in other ways.

Acknowledgements.

I am greatly indebted to Richard Douthwaite for his help with this article. I would also like to thank Andrew Butt for preparing the graphs and for his helpful comments on the data and its interpretation. I am grateful too to the Garda Press Office and the Central Statistics Office for their help and for the trouble they took in preparing figures for me.

Endnotes

1 Remarks made by Bertie Ahern to President Clinton and members of the Oireachtas, Guinness Storehouse, Dublin, 12 December, 2000
2 Central Statistics Office, Statistical Year Book, 2003
3 'Ireland ranks as the most globalized of 62 states due to exports', *Irish Times* 8-1-2003
4 'Three out of four report life is more stressful' *Irish Times* 9-10-2001
5 SLAN survey Department of Health 1999
6 'Student Futures' from the Amarach website www.amarach.com
7 'Celtic tiger did not improve quality of life, study finds' *Irish Times* 9-11-2002
8 Policy Implications of Social Capital No. 28 NESF, Dublin, Table 8.1, p.100
9 www.amarach.com
10 Urban-rural differences in the occurrence of female depressive disorder in Europe—evidence from the ODIN study. Lehtinen V. et al *Soc Psychiatry Psychiatr Epidemiol*, June 2003 vol.38(6) pp283-9
11 'One in 3 Dublin women hit by depression' *Sunday Times* 22-7- 2003.
12 Eurobarometer 57
13 Eurobarometer 47
14 'Mental illness study results 'frightening'' *Irish Times* 9-1-2004 and 'Young men face 'frightening suicide risk'' Irish Independent 9-1-2004
15 As 9
16 Monitoring Poverty trends in Ireland, Results from the Living in Ireland survey ESRI, Dublin, 2003 Policy research series No 51
17 'State's engines for tackling poverty are failing those on the margins' *Irish Times* 25-8-2000
18 CORI website 19-7-03
19 Irish Banking Review Summer 2004 page 7
20 Monitoring Poverty Trends in Ireland Results from Living in Ireland survey 2001 ESRI
21 Helen Johnson, Director Combat Poverty Agency Press Release 7-10-2003
22 '2.8 billion euros needed to help socially excluded- SVP' *Irish Times* 11-11-2003
23 'A League Table of Child Poverty in Rich Nations' UNICEF June 2000
24 'Poverty eroding quality of family life'. Combat Poverty Agency, Dublin, 2002
25 Health of our Children, report of the Chief Medical Officer, Department of Health, Dublin, 2002.
26 PHD expert says 'data observatory needed of health' *Medicine Weekly* 26-11-03
27 Adverse socioeconomic conditions in childhood and cause specific adult mortality: prospective observational study Davey-Smith G. et al, *British Medical Journal* 1998 316:1631-1635
28 Socioeconomic determinants of health: Stress and the biology of inequality Brunner E. *British Medical Journal* 1997 314:1472.
29 Implications of European Public Health 2001 page 41 Institute of Public Health in Ireland
30 Central Statistics Office Statistical Year Book 2003
31 'Harsh reminders why the Irish farmer wants a life' *Irish Times* 29-7-2003
32 'A career choice that makes no economic sense' *Irish Times* 30-7-2003
33 As 31
34 Monitoring Poverty Trends and exploring poverty dynamics in Ireland ESRI PRS41 pages 89-90
35 'A mechanism converting psychosocial stress into mononuclear cell activation' Bierhaus A. et al *Proceedings of the National Academy of Sciences* February 18, 2003 vol. 100 no. 4 |
36 Stress and peptic ulcer: life beyond helicobacter Levenstin S *British Medical Journal* 1998 316 538-541
37 'Self reported stress and risk of stroke' Truelson T. Boysen G. Stroke 2003 34 856
38 'Does stress cause cancer? There's no good evidence of a relation between stressful events and cancer. Mc Gee R. *British Medical Journal* 1999;319:1015-1016

39 Chronic stress and age-related increases in the proinflammatory cytokine IL-6 Kiecolt-Glaser J et al Proceedings of the National Academy of Sciences 22-7-2003 Vol 100 No. 15 9090-95

40 'Work stress and risk of cardiovascular mortality: prospective cohort study of industrial employees. Kivimaki M. et al *British Medical Journal* 2002 325:857-860

41 'Depressed patients have higher heart risk' *Irish Medical News* 8-3-2004

42 'Life-course exposure to job strain and ambulatory blood pressure in men' Landsbergis P. et al. *American Journal of Epidemiology* 2003 157 998-1006

43 'Interaction of workplace demands and cardiovascular reactivity in progression of carotid atherosclerosis: population based study' Everson et al *British Medical Journal* 1997 314 553 –558

44 As stated Dept. of Health Website Health Statistics Jan 2004 Section B

45 Eurostat 2003 as reported in "Irish are top of EU baby league" *Irish Times* 6-3-2003

46 'Irish look forward to longer lives' *Irish Times* 24-6-2004

47 'Martin boasts of success in fighting killer disease' *Irish Times* 24-2-2004

48 *The Ecology of Health*, Schumacher Briefing No.3 Green Books. Totnes 2000, page 10

49 Richard Wilkinson, *Unhealthy Societies*, Routledge London, 1997

50 Richard Wilkinson, 'Income distribution and mortality: A 'natural' experiment', *Sociology of Health and Illness*, vol. 12, No. 4, 1990, pp. 319-412.

51 *The Health of Nations: Why inequality is bad for your health*, Ichiro Kawachi, New Press, New York 2003

52 For a contrary view see Mackenbach 'Income inequality and population health' *British Medical Journal* 2002 324 1-2

53 R. Douthwaite, *The Growth Illusion*, Lilliput Press, Dublin 2000 page 102

54 Wilkinson R. 'Class mortality differentials, income distribution and trends in poverty', 1921-1981 *Journal of Social policy* vol 18, No. 3, pp.307-35G.D. Smith, et al, 'Socio-economic differentials in health and wealth. Widening inequalities in health - the legacy of the Thatcher years', *British Medical Journal*, 1993, Vol. 307, pp1085-6. from *The Growth Illusion* Douthwaite R. Lilliput Press 2000 page 108

55 'The height and weights of adults in Britain' Knights I. 1984 cited in *The Growth Illusion*, Douthwaite R. Lilliput Press, Dublin, 2000 page 108

56 'Two-tier system puts poor to the top of sickness list' *Irish Times* 1-12-00

57 'The Health of our children' Department of Health 2002

58 'Inequalities in Mortality 1989-1998' Institute of Public Health in Ireland

59 Personal communication 10-3-2004

60 'Inequalities in Health Hard facts' TCD Department of Community Health and General Practice 2001

61 'The child is father to the patient' *The Economist* June 14th-20th 2003 page 85-86

62 'Trend analysis and socio-economic differentials in infant mortality in the Southern Health Board, Ireland (1988-1997'). Ryan CA et al. *Irish Medical Journal* 2000 Oct 93(7) 204-6

63 'Quality of Life in Europe An illustrative report European Foundation for the Improvement of Living and Working Conditions' page 55

64 Inequalities in Perceived Health A report on the All Ireland Social capital and health survey Dublin Institute of Public Health in Ireland 2003 Balanda K. Wilde J.

65 'Ireland's drink problem' Professor Ian Robertson Professor of Psychology TCD *Irish Times* 10-12-02.

66 'Suicide rate in adolescents trebles in just one decade' *Medicine Weekly* 1-10-03

67 'Suicide level higher than RTA deaths' *Irish Medical News* 30-9-2003

68 'Ireland has second highest suicide rate worldwide among young males' *Medicine Weekly* 26-11-03

69 1 October 2003 *Medicine Weekly*

70 'Suicides being under-reported' Irish Medical Times 16-8-02

71 'Suicide rates don't show full extent of despair' *Irish Medical News* 7-1-2

72 'Rate of suicide in young females has doubled in past ten years' *Medicine Weekly* 13-3-02

73 'Blame everything on the box' *Irish Times* 1-11-02.

74 '55% of young people know of peer suicide attempts' *Irish Times* 20-9-03

75 'One fifth of adolescents at risk of developing psychiatric disorder – Mater study' *Medicine Weekly* 19-2-2000

76 'Teenage girls top new parasuicide tables' *Medicine Weekly* 16-10-02

77 'Pre-teen depression rise alarms doctors', *Sunday Times* 16-5-04

78 '4.5 million euros allocated for suicide prevention' *Medicine Weekly* 25–2-2004

79 'Mental Wealth' *Consumer Choice* August 2003 page 319

80 Interim report of Strategic Task Force on alcohol Department of Health 2002 page 5

81 How much do we drink? *Irish Times* 21-11-03

82 'Time to ban alcohol advertising, minister' *Irish Times* 10-3-2004

83 'Irish Drinking Culture – The results of drinking and drinking related harm' – a European Comparison Department of Health 2003

84 'Conference told of increase in binge drinking' *Irish Times* 10-10-02

85 Department of Health 2002

86 'Teenage Alcohol, Smoking and Drug use in the Mid-West region' Mid Western Health Board 2003

87 'Drinking and drugs drive teachers out of the classroom' John Walshe *Irish Independent* 6-4-04

88 'Current trends in substance misuse in Ireland' *Irish Psychiatrist* Vol 5 Issue 1 Feb/Mar 2004

89 42% of 14 year olds 'consume alcohol' *Irish Times* 14-11-03

90 O'Neill M et al 'Adolescent Alcohol Misuse- searching for a solution' *Irish Medical Journal* October 2003 Vol 96 No 9279-280

91 'Study links obesity to social classes' Sophie Blakemore, *Birmingham Post* 2-3-04

92 'Obesity and cardiovascular disease' Daly S. and O'Shea D. *Irish Medical Times* 8-8-2003

93 'Reducing obesity rates by half could cut cancers by 36,000' *Medicine Weekly* 17-3-04

94 'Body Mass Index and Overweight in Adolescents in 13 European Countries, Israel, and the United States' Lissau I et al *Arch Pediatr Adolesc Med*, Jan 2004; 158: 27 - 33.

95 'One-third of 4-year-olds overweight, study finds' *Irish Times* 25-3-2004

96 'Five year European diabetes study announced' *Irish Times* 10-1-04

97 'Child obesity is no longer just 'American problem' *Sunday Tribune* 3-3-03

98 'Warning that Ireland 'will drown in diabetes''. *Irish Medical News* 7-10-03

99 'Irish children are health 'time-bomb'' *Irish Medical News* 2-10-03

100 'Environment 'key to obesity'' *Irish Times* 6-11-03

101 'Irish children are health 'time bomb'' *Medicine Weekly* 24-9-03.

102 'Only 8.8% go to work by bus or train' *Irish Times* 16-10-03

103 'Children's diabetes clinic halts intake due to demand' *Irish Times* 23-12-2003

104 'GPs indicate obesity has increased their workload' *Medicine Weekly* 7-11-03
105 '42% of females 'always tying to lose weight' *Irish Times* 20-10-03
106 Personal e-mail from BodyWhys, an organization dealing with eating disorder, 4-11-03
107 'Task force planned to target obesity' *Irish Times* 25-12-2003
108 'Fat tax' no way to tackle obesity – expert *Irish Times* 18-6-4
109 Statistical release, Quarterly National Household Survey, 30-5-2002
110 'Medical card holders sicker than others' *Irish Times*, 6-12-2002
111 'Health level 'better' for non-medical card holders' *Irish Times*, 28-3-2000
112 300,000 patients on anti-depressants *Irish Times* 18-5-2004
113 Annual report of the National Cancer Registry 2002
114 'The Policy Implications of Social Capital', National Economic and Social Forum report No. 28 p. 30
115 As 49
116 Social capital, income inequality, and firearm violent crime Kennedy BP et al *Soc Sci Med* 1998 Jul;47(1):7-17
117 'A prospective study of social networks in relation to total mortality and cardiovascular disease in men in the USA'. *Journal of Epidemiology and Community Health* 1996;50:245-51
118 Social capital, income inequality, and mortality Kawachi I. et al *American Journal of Public Health* 1997 87 1491-8
119 *Bowling Alone* New York: Simon & Schuster, 2000
120 As 10
121 As 64
122 Address to AGM of Irish Doctors' Environmental Association, Crumlin, 14-2-04
123 Socioeconomic determinants of health : Health and social cohesion: why care about income inequality? Kawachi I. , Kennedy BP, *British Medical Journal* 314 5 April 1037-40 1997
124 As 9
125 As 64
126 http://www.apsanet.org/ps/dec95/putnam.cfm
127 Personal communication 17-7-2004
128 *Poverty Today*, No 2, p. 3, Summer 2003, Combat Poverty Agency
129 See ref "The Politics of Inequality" and discussed in 'Settling for less than we wanted, but more than we had' Fintan O'Toole *Irish Times* 20-4- 2002
130 As 64
131 Trends in crime and their interpretation Home Office Research Study No. 119 (1990) from page 141 Field S. Douthwaite R. *The Growth Illusion* Lilliput Press, Dublin, 2000
132 'FG describes figures as 'national emergency' *Irish Times* 4-4-03
133 As 49, page 156
134 'That was then, this is now; Change in Ireland 1949-1999', CSO, Dublin 2000.
135 'Sharp rise in murder rate could be linked to increased drinking' *Irish Times* 29-10-02
136 'Public order offences in Ireland' page 21 National Crime Council 2003
137 'Think before you drink Alcohol policy A public health perspective' August 2003 Department of Health page 88
138 '25% feel unsafe out walking at night' *Irish Times* 2-10-02.
139 As 64
140 '77% worry about crime, street violence' *Irish Times* 20-9-03
141 'Housing need' Cornerstone page 2 Issue No. 15 2003
142 'Homeless figures 'a disgrace' says Sr. Stanislaus' *Irish Times* 24-7-03
143 'Figures show 237 homeless people sleep rough in Dublin' *Irish Times* 25-3-2004
144 'State needs 1b for homelessness crisis, says Focus' *Irish Times* 27-11-03
145 'Housing: A growing trend towards inequality' Burns M. *Working Notes* Issue 48 June 2004
146 *Environment in Focus* EPA, Dublin, 2002.
147 *Europe's environment the third assessment* European Environment Agency, Brussels, 2003
148 As above
149 'Ireland's alarming reliance on oil' Gerard O' Neill in *Before the Wells Run Dry*, edited by Richard Douthwaite. Feasta and Tipperary Institute, 2003
150 www.rcep.org.uk
151 National Resources Defense Council www.ndrc.org website 10-4-04
152 'The mutagenic, carcinogenic and genotoxic potential of oestrogenic chemicals from Irish effluents' Kathryn Quinn, Dr. Cepta Brougham, Athlone Institute of Technology
153 'Cancer and endocrine disrupting compounds' *Medicine Weekly* 14 –1- 2004.
154 'How many deaths have been avoided through improvements in cancer survival?' Richards M et al *British Medical Journal* 2000; 320 895-898
155 'All-Ireland report highlights socioóeconomic obstacles still facing health services' *Medicine Weekly* 27-7-01.
156 www.yorku.ca/wellness/heart.pdf
157 'Income distribution and mortality: cross sectional ecological study of the Robin Hood Index in the United States' Kennedy BP et al *British Medical Journal* 1996;312:1004-1007
158 *The distributive impact of budgetary policy A medium term view* Tim Callan, Mary Keeney, John Walsh, ESRI Dublin, 2002.
159 *The Health of Nations Why inequality is harmful to your health* Kawachi I. Kennedy BP. New Press New York 2002
160 The targets are the reduction of the gaps between the lowest and highest socio-economic groups by at least 10% for circulatory diseases, cancers, injuries and poisoning by 2007. There are also targets for reducing the gap in life expectancy and the gaps in birth weight.
161 *Quality of life in Europe an illustrative report*, European Foundation of the Improvement of Living and Working Conditions, Dublin, page 59
162 James Robertson *Transforming Economic Life A Millennial challenge* Schumacher Briefing No. 1 Green Books, Totnes, 1998.

HomeNews

Social funding must rise to reduce poverty

JOE HUMPHREYS

The Government will have to increase spending on social protections such as unemployment benefit and the old-age pension if it wants to reduce relative income poverty in Ireland, a new report from the ESRI suggests.

However, funding a Danish-style welfare system would require at a 10 per cent increase in income tax.

The study, published today, confirms that Ireland has the highest level of relative income poverty in Europe with 21 per cent of the population living on less than 60 per cent of median income in 2001.

Median income is the midpoint on the income scale, with equal numbers on greater incomes above and on smaller incomes below. In 2001, a single person earning less than €150 per week was said to be in relative income poverty.

Moreover, relative income poverty has increased in Ireland since 1995 in contrast to most European countries, including the UK, Portugal and Greece.

The report, *Why Is Relative Income Poverty So High In Ireland?*, found that differences in age and employment profiles, household composition and single parenthood did not explain much of the variation between member-states. Rather, the disparity was linked to contrasting tax and welfare regimes in Ireland and the EU.

PERCENTAGE OF PEOPLE EXPERIENCING RELATIVE INCOME POVERTY

Percentage of Persons below 60 percent of Median Income

	1995	1997	1999	2001
Sweden	-	8%	8%	9%
Denmark	10%	10%	10%	10%
Finland	-	8%	11%	11%
Germany	15%	12%	11%	11%
Netherlands	11%	10%	11%	11%
Austria	13%	13%	12%	12%
Luxembourg	12%	11%	13%	12%
Belgium	16%	14%	13%	13%
France	15%	15%	15%	15%
UK	20%	18%	19%	17%
Spain	19%	20%	19%	19%
Italy	20%	19%	18%	19%
Greece	22%	21%	21%	20%
Portugal	23%	22%	21%	20%
Ireland	19%	19%	19%	21%
EU average	17%	16%	15%	15%

Source: ESRI / Eurostat 2004 © IRISH TIMES STUDIO

Prof Brian Nolan, a co-author of the report, said relative income poverty was now "a key indicator at EU level", measuring "risk of poverty" rather than absolute levels of poverty in member-states. While it was up to the Government to decide whether or not to tackle relative income poverty, he said, "we do have to decide what sort of socio-economic model, what sort of society, we want to end up as".

He said social welfare recipients had seen "real improvements" in their living standards in recent years. But this had not stopped them from lagging further behind the rest of society in terms of relative income poverty.

The report found that the imposition of a "Danish-type" social welfare system in Ireland would have a "very substantial" impact on reducing the number of people at risk of poverty.

If no other economic indicators changed the reduction in relative income poverty would be in the order of 7 per cent, bringing Ireland to below the EU average for "poverty risk".

But funding such a welfare system would lead to an increase in income tax rates of 10-11 per cent.

The report noted that Ireland spent least in Europe in 2001 on social protection as a proportion of GDP at 14.6 per cent compared to an EU average of 27.5 per cent.

The study also highlighted differences in spending priorities with 43 per cent of social protection spending in Ireland going to healthcare compared to just 24.8 per cent to the elderly and 5.2 per cent to disabilities.

In contrast, Denmark apportioned 38 per cent of its social protection spending to the elderly and 12.5 per cent to disabilities.

Were a Danish-style welfare system to be introduced in Ireland, the report said, both the old-age non-contributory pension and the carer's allowance would rise from about €93 to €129.17 a week, and both disability benefit and unemployment benefit would rise from €89.52 to €194.13 a week.

Ireland has the highest level of relative poverty in the EU-15 according to an ERSI report *Why is Relative Poverty So High In Ireland?* which was published while this issue of the *Feasta Review* was being typeset. This summary of the report appeared in the *Irish Times* on September 16, 2004.