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DRINKING AMONG POST-PRIMARY SCHOOL PUPILS

Mark Morgan and Joel W. Grube

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GENERAL SUMMARY

Previous Research

While nearly all countries have minimum drinking ages (either 16, 18 or 21 years) for consumption of alcohol, the vast majority of young people in every country experiment with alcohol long before they reach the legal age limit. On the basis of earlier work, it seemed that rates of prevalence of drinking among Irish youth were between those of high consumption countries (like France) and low consumption countries (like Israel). This earlier work had also suggested that there was a sizeable minority of young Irish people who were total abstainers, and given that a great many of those who drank have been drunk at least once, the problem in Ireland was as much the *pattern* of drinking as opposed to actual numbers who drink. There were also indications that the age at which young people begin to drink had decreased somewhat over the last few years. Finally, there was no indication that any one drink is especially popular with young people as opposed to adults.

The Present Study

Since the principal source of information on underage drinking and other substance use has been the ESRI 1984 survey carried out by the authors, the present work sought to extend this in a number of respects. A major interest was in finding out what changes, if any, had occurred since then in the prevalence and pattern of drinking behaviour. In addition, a number of additional aspects of factors associated with alcohol use were added, particularly matters relating to access and location of drinking. Also, a sample of nearly 2,000 young people in High School in California was surveyed at the same time. Information was sought on ethnic origin and religion in this sample so that comparison could be made across countries.

The schools selected from the Dublin area were the same as those in the 1984-85 ESRI survey. The Californian sample consisted of eight public and three parochial schools in three counties in the San Francisco Bay area. An examination of details of the age, gender and social background suggested that the samples were representative of young people of this age in post-primary schools.

The survey instrument was designed to measure a wide range of variables relating to drinking. Included were measures of age of first

drinking, frequency of drinking during the past year, type of beverage consumed, frequency of having felt drunk, as well as perceptions of consequences that follow drinking. In addition, there was a range of questions on normative beliefs, ease of access to various kinds of drinks as well as items designed to measure self-esteem, deviant behaviour and bonding to school and religion.

In the Dublin sample, only two children were omitted because of parental refusal. The questionnaire was administered in students' regular classroom settings, and students were assured of confidentiality and anonymity.

Prevalence of Drinking

Nearly four-fifths of the students in post-primary schools in Dublin had consumed alcohol at some time in their lives. This is a very substantial increase since 1984, particularly among 17 year olds and over. The number of young people who do not drink before age 18 (evident even in 1984) has declined precipitously.

There are also striking increases in the number of drinks consumed on any given occasion and an even greater increase in the number who reported getting drunk. For example, in 1984, 38.7 per cent of the students reported being drunk at some time in their lives, while the present figures show that half of the students had felt drunk during the previous year. Furthermore, there are increases at every age group and especially at the high levels of frequency of having felt drunk. Thus, in 1984, less than 29 per cent of the 17 year olds said that they been drunk six times or more. In the present study, 44 per cent said that they had been drunk this frequently.

In comparison to an American sample, the level of drinking was higher among the Dublin sample with regard to every measure of drinking that was used. This pattern represents a striking reversal of what obtained until a decade ago. An Irish-American subsample tended to be mid-way between the Dublin sample and the remaining American sample, on most of the measures of frequency and consumption.

While there are significant differences between Dublin boys and girls in relation to various measures of drinking, these differences have diminished considerably since the 1984 survey. This change is largely due to the remarkable increases in drinking by girls. For some measures, the prevalence rates for young women had increased quite dramatically. For example, there had been a substantial increase (almost double) in the number of girls who felt drunk at some time. In fact, the number of girls who reported being drunk six times or more, increased from 7.7 per cent to 17.8 per cent. It is especially noteworthy that these increases occurred despite the question in the present survey being somewhat more restrictive than the question posed in 1984.

Consistent with the earlier findings, there was no association between socio-economic factors and the drinking of their offspring among the Dublin sample. These findings are consistent with the preponderance of research showing the relative unimportance of such factors for drinking and indeed for other kinds of substance use.

Influences on Drinking

The normative influences on respondents' drinking were shown to be quite strong. Both parental drinking and perceived parental approval were related to reported current drinking. Similarly, peer drinking and peer approval were shown to be associated with alcohol consumption. Furthermore, this relationship was especially true for close friends as opposed to other friends or young people of the same age.

As regards beliefs about consequences, there was a significant association between drinking and beliefs in the likelihood of consequences related to drinking. This was true for both positive consequences (e.g., "being popular with friends" and "having a good time") as well as negative consequences (e.g., "getting a hangover" and "becoming an alcoholic"). There was also an association with evaluation of these consequences, that is the perception of the importance of each of these consequences, but this association was not as consistent as the perception of the likelihood of these same consequences.

It was also shown that bonding to religion was related to current drinking. However, only some aspects of self-esteem were related to drinking. In the case of problem behaviour, it seemed that while there were significant differences for all problem behaviour, the greatest differences were found for behaviour of a relatively less serious type. Thus, there were major differences for "lying to parents and teachers" as well as "cutting classes". On the other hand, behaviour like vandalism (although being statistically different across drinking categories) did not show differences of the same magnitude, possibly due to the fact that these are low-frequency behaviour.

The multivariate analysis of influences suggested that while various domains of influence are related to the prediction of adolescent drinking, normative influences (relating to influences of parents and peers) are uniquely important in the sense that the influence of the normative domain persists even when other domains of influence are controlled. Secondly, within the realm of peer influences, it seemed that the drinking behaviour of friends is especially important. In contrast, the relationship between perceived drinking or approval of same-age peers was not especially important. It was also shown that perceived access relates to

drinking. When other factors are controlled the effect of perceived access is much weaker, but it still has significant effects. Adolescents who perceive alcohol as easier to obtain, drink more frequently and consume greater amounts per occasion.

Explanations of Increases in Drinking

Given that the main outcome of the present study was quite unexpected, the problems in explaining these are all the more difficult. Our general strategy in attempting to account for the increase in prevalence rates was to consider a number of hypotheses for which some data were available either in the present study or from some other source. In general, we have simply tried to eliminate some of the possibilities and say whether the data are more or less consistent with various explanations. While the account we have given of the increase is not fully satisfactory, nevertheless we can eliminate some explanations, while for other the data offer some support.

Is the increase due to a greater per capita consumption of alcohol in the country? One reason for the dramatic increase in alcohol consumption in the country would be that there was a great increase in drinking in the overall consumption in the country, i.e., among adults. However, there is no indication from the information on per capita consumption that such an increase took place (Conniffe and McCoy, 1993).

Is the increase part of a greater increase in substance use by young people? While it may be the case that there was no major increase in alcohol consumption in the country, there may have been an increase in the use of other substances by young people. This might be the case especially for illegal substances and for cigarettes. The evidence from the present research does not support such a contention. For one thing, there was evidence of a small but consistent decline over all age groups in the uptake of cigarette smoking. In addition, the numbers who indicated that they were smoking regularly had dropped somewhat.

The picture about the use of illegal substances is somewhat less clear. The major point emerging from the comparison of the two surveys was that there was an increase in the number of young people who used marijuana. However, some features of the results suggest that this was not a factor in bringing about the greater increase in drinking. First, the median age for the beginning use of marijuana was 15 years while the corresponding age for alcohol was lower than this.

Another possibility examined was that the increase was due to a greater occurrence of anti-social behaviour. There was no evidence from our findings that this was the case.

How important are normative influences like disapproval of parents and peers? Over the years since the first survey there would seem to have been a major change in normative support for adolescent drinking. What is particularly of interest is that the percentage of parents and peers who are perceived as strongly disapproving has dropped during this time. In relative terms the change for peers was somewhat more dramatic than for parents. In fact, there was a drop of about one-third in the number of "best friends" and "friends" who were perceived as strongly disapproving of drinking by the respondents in this survey. Thus, the conclusion seems warranted that the change in normative support over the years is likely to have been one of the factors that influenced the increase in drinking.

What was the effect of changing beliefs about consequences? Another factor that may have had an influence on the changing pattern of consumption were the changes that may have occurred in the beliefs that young people held regarding the consequences that may happen to them personally as a result of drinking excessively. There was evidence for fairly dramatic changes in relation to such beliefs. Specifically, there were major declines in the numbers who thought that negative consequences would occur to them as a result of drinking. Similarly, students were now more likely to believe that "positive" consequences would occur to them like "feeling good". As in the case of normative influences, the changes in beliefs about consequences seem to have been an important factor in the pattern of underage drinking.

How important was perceived availability of alcohol? While the earlier survey had not included items on perceived access to alcohol, the information from the present work gives an interesting picture of availability. In an absolute sense it would seem that many of the young people thought that they could get alcohol without too much difficulty. However, it was also true that the American group indicated for them that it would be even easier to obtain alcohol. The other complicating factor is that the outlets for obtaining alcohol were many and varied as were the locations for its consumption. This pattern suggests that when particular avenues of access are closed off, then others will be used. While the role (if any) played by greater perceived access is hard to pinpoint, the data suggest that it may be one of many factors.

Implications for Prevention

Based on the substantial increase in drinking among adolescents over the last seven years, it was argued that there was a particular need for a national policy to combat underage drinking. While such a policy will have

a community and family base as well as dimensions targeting the supply of alcohol, it was suggested that new school initiatives could play an important role in preventing the onset of early drinking and/or drinking problems. Some of the recent and relevant research on the various school models were examined. It was concluded that there was some merit in each of the approaches.

With new curricular developments at post-primary schools, it seemed that Social and Health Education programmes can make a claim for inclusion. Within the Social and Health area a number of programmes have been developed to target substance use. Particular attention was given to the *Substance Abuse Prevention Programme* developed by the Departments of Health and Education, since that programme incorporates several of the features that have been shown to be most effective in earlier research. Other issues examined include the possibility of having a skills-based programme in Health Education and the necessity to have co-ordination between school and community work.

Chapter 1

INTRODUCTION AND OVERVIEW

Misuse of alcohol has important social and personal consequences. There is a considerable amount of evidence that drinking is involved in a great many automobile accidents, in family violence and in youthful crime.

While it is difficult to quantify the exact contribution of alcohol misuse to car crashes, it is worth noting that there is a relatively greater number of fatal accidents during the hours associated with drinking (9.00 p.m. - 2.00 a.m). An awareness of this problem had prompted a series of measures to deter drunken driving. Largely because of the introduction of objective measures of drinking (blood and urine tests), the prosecutions and convictions for drunken driving rose sharply during the 1980s. The number of prosecutions doubled during the 1980s, while the number of convictions trebled (Gárda Siochána, 1990). There are also firm indications that alcohol misuse is a significant contributory factor in a large proportion of adult pedestrian accidents (Clark, 1971; Clayton, Booth and McCarthy, 1977).

There is also evidence that excessive alcohol intake is a contributory factor in a great many incidents of domestic violence. Again, the precise nature of the relationship is hard to specify. A study of a sample of incidents of domestic violence suggested that alcohol was a factor in over 70 per cent of these incidents (Morgan and Fitzgerald, 1992).

While there is only limited evidence on the association between youthful alcohol consumption and similar negative consequences, the international literature provides evidence relating to the association between excessive drinking and youthful crime, being a victim of a crime, and rape and sexual assault. In the United States a Department of Justice survey showed that over 31 per cent of youth under 18 years in State-operated juvenile institutions were under the influence of alcohol at the time of the offence. Dodge (1990) reports that in a national survey of college students who recently had been victims of a crime, one half had been drinking (or using drugs) before the crime was committed. In relation specifically to rape and sexual assault, a survey of students at a southwestern (US) university showed that 55 per cent of sexual assault perpetrators and 53 per cent of sexual assault victims admitted to being under the influence of alcohol at the time of the assault (Muehlenhard and Linton, 1987).

The ESRI 1984-85 Substance Use Survey

In 1984, the ESRI, with funding from the Commission of the European Communities, undertook a study of the social psychological factors related to substance use among Dublin post-primary schools. There were two main objectives of this study. First, it was intended to obtain estimates of the prevalence of smoking, drinking and other drug use. Secondly, it was intended to gain an understanding of the variables and processes related to the acquisition and maintenance of these behaviours.

The sample consisted of 24 randomly selected schools in the greater Dublin area. There were almost 3,000 students in the survey which was carried out in the three phases between April 1984 and May 1985. The main findings of the survey were published in two ESRI reports, *Smoking, Drinking and Other Drug Use Among Dublin Post-Primary School Pupils,* by Grube and Morgan (1986) and *The Development and Maintenance of Smoking, Drinking and Other Drug Use,* by the same authors (1990). These reports focused on the prevalence rates and on the factors associated with initiation to, and maintenance of, substance use.

As regards alcohol use, the survey showed that almost two-thirds of the students had consumed an alcoholic beverage at some time in their lives, nearly half had done so within the previous month and over one-third were regular drinkers. Furthermore, about two-thirds of those who ever drank had been drunk at least once. These results indicated that in comparison with other countries, there was a relatively higher percentage of lifetime abstainers in that sample. However, the number of current drinkers is between the rates for high consumption countries and those for low consumption countries.

This research also showed that drinking among adolescents, while heavier among males, was relatively independent of socio-economic factors. There was a moderately strong relationship between parental drinking and reported drinking and a much stronger relationship with peer drinking. Perceived parental disapproval was modestly related to drinking, and peer disapproval was somewhat more strongly related to such behaviour.

Students who drank were more likely to believe that such behaviour was more likely to lead to positive personal consequences and less likely to lead to negative personal consequences. Drinkers also valued the positive consequences of these behaviours more than did other students and they also rated the negative consequences less. A related finding was that there was an association between attitude (or overall evaluation of drinking) and the actual behaviour of drinking.

Bonding to family was related to lower amounts of drinking, and students who rated school as important and indicated a commitment to doing well were also less likely to be regular drinkers. Furthermore, bonding to religion was associated with lower rates of substance use. In line with previous studies, it was shown that young people who drink had been involved in a range of other problem behaviours including lying, having damaged property, and stealing.

The 1991-1993 Longitudinal Study of Drinking Among American and Irish Adolescents

The present report draws on the first phase of the results of a longitudinal study of drinking and other substance use among a sample of Irish and American youth. This study, which is described in detail in Chapter 3, is concerned with broad questions about the factors associated with influences on drinking. From the point of view of the present report, it is of particular significance that the Irish component of the survey was carried out in the same schools as the 1984 survey. Given that a great many items were the same, the results allowed for an examination of several questions relating to changes in drinking patterns among young people over the years.

Thus, the comparison with the prevalence rates for 1984 as well as a comparison with the same-age American adolescents comprises the main features of the present report. In addition, a number of additional questions are examined: What accounts for the changes that have occurred in drinking patterns among adolescents since 1984? What is the relationship between perceived access to alcohol and drinking behaviour? How do influences change over the years of adolescence (early vs. later years)? How do peers influence drinking, and which group of the various reference groups are especially important?

Organisation of this Report

The remainder of this report is concerned with describing the background and results of a survey which (i) compares drinking behaviours among post-primary students with those of students from the same schools, measured seven years earlier, (ii) examines the factors associated with alcohol use, especially the changes that have occurred in patterns of drinking and (iii) compares results with an American sample of High-School students, including a subsample of Irish Americans.

Chapter 2 reviews the literature on extant studies of prevalence of drinking among adolescents, with particular reference to relatively recently published work. Comparisons are made between Ireland and various other

countries on the various measures that are utilised. The main factors (demographic, social and personality) associated with adolescent drinking are also described. Chapter 3 is concerned with the methodology of the study. Chapter 4 focuses on the main results regarding prevalence of drinking, with particular reference to the 1984 figures and those in the American study, as well as indicating the influences of the major demographic factors. Chapter 5 is concerned with the major social and personal influences on adolescent drinking. Such influences are examined by means of both univariate and multivariate analyses. Chapter 6 is concerned with hypotheses about the remarkable changes in drinking that were found to have occurred between 1984 and 1991. Finally, Chapter 7 puts forward conclusions and recommendations.

Chapter 2

PREVALENCE OF DRINKING AMONG YOUNG PEOPLE AND ASSOCIATED FACTORS

The present chapter will examine the prevalence of drinking by Irish youth as evident in earlier studies. The issue of how prevalence is measured is first considered and comparisons are made between estimates of youthful drinking emerging from Irish studies and those from studies in the United Kingdom, other EU countries as well as from the United States and Canada. The relationship between the estimates emerging from surveys of youthful drinking and those from other sources (estimates of national consumption) is also examined.

This chapter will also focus on the literature on a variety of factors associated with drinking among young people. These will include demographic factors, with particular attention to gender and social background influences as well as the findings relating to social influences, including parental and peer influences. The effects of a variety of other influences including attitude, beliefs about consequences, aspects of personality and perceived availability are also considered.

Measures and Classification

Because the many studies in this area have used different questions, samples, and ages, it is often difficult to make firm judgements as to whether a problem of drinking among youth is more serious or less so in one country or time, as opposed to another. In particular, many studies fail to provide vital information on question wording and on the age-structure of the sample, thus making comparisons problematic.

There are a number of commonly used measures that provide worthwhile guidelines in making such comparisons. The first of these is *lifetime prevalence rate*, i.e., the percentage of young people who have *ever* had a drink. This relatively simple measure is one of the best indicators of trends and has the advantage of being strongly related to other measures (Johnston, O'Malley and Bachman, 1990).

The second valuable indicator is *current prevalence rate*, i.e., the percentage who have had a drink within an interval specified in the survey (usually one month). Yearly prevalence rate is also a valuable measure, i.e., the numbers who have had a drink within the last year. On the other hand, typical levels of consumption (amounts consumed, frequency of drinking) are quite difficult to compare across studies.

With regard to abuse/problem drinking, the percentage who report having *felt drunk* is another valuable point of comparison. As in the case of other measures, comparisons are made easier if the time-interval is also specified, e.g., lifetime, one year, or one month. Finally, the *age* at which young people have their first drink (or have felt drunk) also provides a useful basis for comparison across populations. Obviously, age of beginning is especially significant in the context of the regulation of drinking through minimum age laws.

Prevalence of Drinking

Ireland. One of the earliest studies was conducted in 1970 by O'Rourke, *et al.* (1971). This study involved a large sample of post-primary schools students in the Dublin area. The results indicated that about three-quarters of the students had a drink at *sometime* in their lives. In addition to this item, the O'Rourke, *et al.*, survey enquired as to whether students were currently drinkers. Just over half of the respondents identified themselves as current drinkers and of these about one-quarter considered themselves to be regular drinkers.

The survey by O'Connor (1978) featured a sample of 18 to 21 year olds from the Dublin area. These young people were compared with matched samples of English and Anglo-Irish living in England. Her results indicated that 82 per cent of the Dublin sample had drunk at some time in their lives. However, her data also indicated that there were *fewer* current drinkers in the Dublin sample and also that drinking was initiated at a much later stage among this group.

The ESRI studies by Grube and Morgan (1986, 1990) focused on drinking prevalence, type of drink consumed and age of drinking among a sample of 3,000 Dublin post-primary school pupils. The data collection for these studies was carried out in three phases: February, 1984, April, 1984 and March 1985. While there are some differences over the three phases of the survey (due largely to the ageing of the cohort), the picture of youthful drinking is relatively consistent across the phases. Just under two-thirds of the sample reported that they consumed a drink at some time in their lives. As might be expected, the number of drinkers increased considerably with age. Thus, while less than half the 13 year olds had tried a drink, almost 80 per cent of the 17 year olds had tried an alcoholic beverage. Just under half of the sample were *current drinkers* in the sense that they had drunk in the previous month. Again, as would be expected, age was related to current drinking. The data also showed that certain alcoholic beverages were more popular than others. Beer was by far the

most popular, wine and spirits were somewhat less popular and cider was considerably less popular. Interestingly, however, a substantial majority of those who drank had tried out more than one kind of beverage.

These studies also enquired on the frequency of having felt drunk. A relatively large number (38.7 per cent) reported that they had felt drunk at least once, while a minority (14.7 per cent) reported that they had felt drunk at least six times. Again, the frequency of reporting having felt drunk increased with age and this was especially so for those reporting having felt drunk six times or more. In fact, 28.9 per cent of the 17 year olds fell into this latter category.

Studies by Johnson (1987) and Johnson, *et al.* (1990) provide extensive information on drinking in the early teen years in the Galway area. The results of the 1990 study showed that 31.1 per cent of 13 year old boys and 11.2 per cent of girls had drunk alcohol at some time in their lives. The corresponding percentages for age 14 years were 31.6 and 24.4 for boys and girls, respectively. When respondents were asked about age of first drinking, it emerged that the mean age of first drinking was 11.96 years. Interestingly, this age is lower than in the previous Johnson study and lower than that found in the ESRI study.

As regards current drinking, the Johnson study showed that about 10 per cent of those *who had ever taken a drink* now drink several times a month and 7.1 per cent drink every weekend. It also emerged that almost half of those who had ever taken a drink have experienced some effect, ranging from feeling moderately high to having memory losses. About one-third of those who drank obtained the alcohol without their parents' knowledge and a slightly smaller percentage bought the alcohol themselves. Another interesting feature of the results related to the actual drinks that were most popular. The most popular drink was beer (i.e., lager, stout, ale) which was tried out by about three-quarters of those who had ever drunk. Next most popular was wine (about 40 per cent) and spirits (roughly 40 per cent as well). Finally, about one-quarter of those who had ever drunk, had tried cider. Interestingly, this order of preference is exactly the same as that emerging in the ESRI study. Johnson (1991) also reports on a survey of 827 second year students in September 1990, based on a country-wide sample of post-primary school students. Essentially, this work confirmed the picture emerging from the earlier studies in Galway.

Two smaller scale studies in Dublin and Cork, respectively, have confirmed the picture of adolescent drinking emerging above. The study by Tubridy and O'Neill (1990) found in a survey of seven South Dublin schools, that 86 per cent of the pupils had drunk alcohol, and that 16 per cent drank once a week. The study of 787 Cork adolescents by O Fathaigh

(1990) found that 78 per cent had drunk alcohol at some time. Furthermore, about half of the sample reported feeling drunk on at least one occasion.

Northern Ireland is different from many other countries in that a significant minority of adults do not drink alcohol at all. For example, in 1986, one-third of the adults in Northern Ireland were total abstainers. However, there are indications that this minority is becoming smaller. The study by Sweeney, Gillan and Orr (1989) found that nearly 70 per cent of the population drink from time to time. These researchers also found that the likelihood of being a drinker decreased with age. While about 80 per cent of those under 30 years were drinkers, only half of those over 65 indicated that they drink. Interestingly, Catholics and Protestants were about equally likely to be drinkers or abstainers. Two relatively recent studies give a comprehensive picture of adolescent drinking in Northern Ireland. The DHSS report on *Drinking Among School Pupils in Northern Ireland* (1989) was conducted in a sample of rural and urban areas throughout Northern Ireland, while a study by McAteer (1991) focused on the nature of drinking among 12 to 17 year olds in Belfast. The DHSS study reports a lifetime prevalence rate of 60 per cent while the McAteer study found a prevalence rate of 67.5 per cent. As might be expected, there was a strong association between age and drinking prevalence. The DHSS study was based on a random sample of the students all over the province, while the McAteer study is based on a sample from West Belfast. This may be the main reason (apart from question wording) why the prevalence rates are higher in McAteer's work.

The DHSS study in Northern Ireland was similar in design and phrasing to those carried out in England, Wales and Scotland. A comparison with other parts of Great Britain suggests that young people in Northern Ireland were less likely to have tasted alcohol. However, it also emerged that when they do drink they are more likely than their counterparts in Great Britain to be frequent drinkers. It is noteworthy that there is still a significant minority of young people in Northern Ireland who have never had a full drink of alcohol. The question on lifetime prevalence is somewhat different to that used in earlier studies cited above (it refers to ever having a "proper drink of alcohol"). If that can be taken as being equivalent to a full drink of an alcoholic beverage, then the conclusion is warranted that 16 per cent of the boys at age 17 years and 26 per cent of the girls have never had a full drink. This would suggest that Northern Ireland has a substantial minority of young people who have not tried alcohol. This contrasts with other countries in the Western world and

indeed with the Republic of Ireland where this minority is declining.

The Belfast study also enquired about sources for alcohol. The respondents were given a list of sources and asked to state if they bought alcohol from them "always", "often", "sometimes", or "never". It emerged that the majority of the adolescents bought alcohol from off-licences. In fact, one-third of the overall sample and one-third of current drinkers said that they always bought alcohol from off-licences. In contrast, only 3 per cent of the sample said they bought alcohol in a pub.

Both Northern Ireland studies enquired about choice of drinks. Overall, beer tended to be most popular, followed by cider and spirits. Wine tended to be less frequently consumed. The DHSS study found that spirit drinking among girls in Northern Ireland was at a much higher level than among young people of both sexes in England, Scotland and Wales.

The McAteer and the DHSS studies provide information on usual location for drinking. A public place (e.g., street or park) was the most favoured location, with nearly half of the regular drinkers saying that they drink there "always" or "often". There was also a tendency for younger drinkers to select "public place" as their most favoured venue, while the 16 and 17 year olds tended to select other locations. Interestingly, the least likely place was "at home" or at "home of relatives". Thus, it was clear that the initial socialisation to alcohol took place outside parental or adult controls. It is interesting that these studies have found that in comparison to similar questions put to young people in England, Scotland and Wales, the Northern Ireland adolescents were much more likely to indicate that they drank in locations away from parental (or adult) controls such as in parks and derelict buildings.

In addition, the McAteer (1991) study asked those respondents who had consumed alcohol in the week prior to the study to complete a "drink diary", to indicate what they consumed on each drinking occasion. The responses were translated into Standard Alcohol Units and the resulting pattern of drinking was examined in the light of the Guidelines suggested by the Royal College of Physicians (1987). (This latter report on the medical consequences of alcohol abuse has estimated the safe limit of alcohol is 21 and 14 units per week for men and women respectively.) Applying these adult norms to the Belfast adolescents, it was shown that nearly 50 per cent of the males who drank in the week preceding the survey, consumed over the health limit of 21 units. Furthermore, an almost identical percentage of women consumed over the female health limit of 14 units. The study acknowledges the danger of applying adult norms to teenagers, but suggests that the data provide a convenient demarcation for heavy drinking.

Great Britain. The study by Marsh, Dobbs and White (1987) was aimed at providing national estimates in Great Britain on the numbers of young people aged 13 to 17 years who drink alcohol, how much they drink, and some of the circumstances of their drinking. The results showed that in England and Wales over 80 per cent of 13 year old boys and 75 per cent of 13 year old girls have had a drink at some time in their lives. These figures increase to 88 and 87 per cent for boys and girls, respectively, at 14 years of age. At age 15 years, 92 per cent of the boys and 91 per cent of the girls have had an alcoholic drink.

In Scotland the pattern is somewhat different. It seems that Scottish adolescents start drinking later than do their peers in England and Wales. At age 13 years, 71 per cent of the Scottish boys and 57 per cent of the Scottish girls have drunk alcohol. By age 14 years the difference between Scotland and the rest of Britain is significantly less: 87 per cent of the boys and 79 per cent of the girls had drunk alcohol. By age 15 the corresponding percentages were 91 and 88 for boys and girls, respectively. Interestingly, a minority of Scottish young people at age 16 and 17 remain total abstainers.

The second World Health Organisation (WHO) study (Mendoza, *et al.*, 1991) reports somewhat higher figures for Scotland and Wales. This latter study indicated that 93 per cent of Welsh boys and 95 per cent of Welsh girls had tried an alcoholic drink at age 13 years, while among 15 year olds the corresponding percentages were 98 and 97 for boys and girls, respectively. This same study reports figures of 90 and 87 per cent for Scottish boys and girls respectively at age 13, and 97 and 98 per cent, respectively, at age 15 years. These figures are much higher than those reported in the Marsh, *et al.*, study and may reflect the particular question that was posed. The WHO study seems to have asked if the respondents had "tried" alcohol. Such a question would allow students who had a tiny sip to answer in the affirmative, thus increasing the numbers substantially. Most other studies have specifically excluded a "taste" or a "sip" and have only included those who have drunk a full drink of alcohol.

The survey by Marsh, *et al.*, was also concerned with current drinking. Again, the frequency of drinking increased sharply as they grew older. In England and Wales, over half of the 13 year olds *who ever drank*, drank only a few times in the year: 50 per cent of the boys and 63 per cent of the girls fell into this category. Among the 15 year olds this proportion of occasional drinkers fell to 22 per cent for boys and 31 per cent of the girls and among the 17 year olds they fell further to 13 per cent and 21 per cent. At the other end of the scale, 29 per cent of the 13 year old boys (of those who

ever drank) and 11 per cent of the girls said they drank at least every week. At age 14, the girls had caught up somewhat, with 24 per cent of them drinking weekly compared to 34 per cent of the boys. At age 17, drinking at least weekly seemed to be almost the norm: 54 per cent of the girls and 61 per cent of the boys tended to drink weekly. Finally, 9 per cent of the 17 year old boys are drinking almost every day (in the England and Wales sample).

The survey by Marsh, *et al.*, provides information on regular drinking in Scotland, England and Wales. The results indicated that the Scottish youngsters drink less than do their peers in England and Wales. Thus, among 13 year olds in Scotland, 14 per cent of the boys and 7 per cent of the girls drink weekly, compared to 29 per cent and 11 per cent in England and Wales. Among the 17 year olds the gap is just as wide: 47 per cent of the boys and 36 per cent of the girls drink weekly in Scotland compared with 61 per cent and 54 per cent in England and Wales.

About two-thirds of the Marsh, *et al.*, sample reported that they had felt a "little drunk" at least once during the past year (England, Scotland and Wales combined). A smaller number reported having felt "very drunk", but about half of the oldest boys fell into this category. Interestingly, girls report incidents of drunkenness that were only a little less frequent than those reported by boys. Furthermore, a comparison of the figures reported by Marsh, *et al.*, with those reported by Hawker (1978) suggests that the picture in the mid-1980s was very similar to that obtaining 10 years earlier.

Mainland Europe. The first World Health Organisation collaborative study (Aaro, *et al.*, 1984) provides lifetime and monthly prevalence rates for adolescents aged 11.5, 13.5 and 15.5 years in Austria, Finland and Norway. Among the Austrian sample, 64 per cent, 83 per cent and 93 per cent had drunk sometime at each of the sampled ages. The corresponding monthly figures were 10 per cent, 20 per cent and 24 per cent, respectively. In Finland the lifetime rates were 35 per cent, 54 per cent and 74 per cent for the 11.5, 13.5 and 15.5 year olds, respectively. For monthly prevalence, the Finnish adolescents reported rates of 6 per cent, 16 per cent and 32 per cent at the three age-groups. Finally, in Norway, 48 per cent of the 13.5 year olds and 75 per cent of the 15 year olds had tried an alcoholic drink at some stage in their lives and 12 per cent and 37 per cent, respectively, had drunk within the past month. (No figures are available for the 11.5 year-old Norwegian sample.)

The second WHO study (Mendoza, *et al.*, 1991) presents information on lifetime prevalence in Belgium, Spain, Hungary, Israel, Sweden, and Switzerland (in addition to the countries already mentioned). Again, the information was collected from samples of 500 boys and 500 girls in each

country. There were considerable differences between the countries. In Belgium, 89 per cent of boys and 87 per cent of girls reported having tried alcohol at age 11 years, while at age 13 the percentages were 90 and 92 per cent for boys and girls. Among the Belgian 15 year olds, the percentages were 91 and 94 per cent for boys and girls, respectively.

The figures for Spain are slightly lower on average, according to the WHO study. Among the 11 year olds, the lifetime rates were 78 per cent and 67 per cent for boys and girls, respectively, while the corresponding figures for 13 year olds were 91 and 87 per cent. No figures were given for the Spanish 15 year olds. As regards Hungary, complete information is provided for each sample of both boys and girls. At age 11, 61 per cent of boys and 53 per cent of girls had tried alcohol, while at 13 years, 82 per cent of both boys and girls had tried out a drink. By age 15 years, the lifetime prevalence rates were 93 and 94 per cent for boys and girls, respectively.

Just over 82 per cent of Israeli boys and 66 per cent of Israeli girls had tried alcohol at age 11 years. By age 13 the corresponding percentages were 84 and 73, respectively, while among the 15 year olds, 93 per cent of boys and 86 per cent of girls had sampled alcohol. The figures for Sweden are somewhat lower, especially at the younger ages. For 11 year olds, just over 66 per cent of the boys and nearly 51 per cent of the girls had tried alcohol, while at age 13 years, the corresponding figures were 79 and 75 per cent for boys and girls, respectively. At age 15 years, the figures indicated that 92 per cent of both boys and girls had tried alcohol.

The figures for Switzerland are somewhat lower. At age 11 years, 51 per cent of the Swiss boys and 41 per cent of the girls had tried alcohol, and at age 13 years, 75 and 60 per cent for boys and girls respectively. At age 15 years, the lifetime prevalence rates were 85 and 79 per cent for boys and girls.

As mentioned above, it must be borne in mind that the question posed in the WHO study is somewhat different from what is commonly regarded as the appropriate phrasing, viz., the question specified "trying" alcohol - an expression that may have caused those respondents who had merely taken a taste or a sip to answer in the affirmative. This may account for the fact that the lifetime rates are substantially higher than those reported in other studies in these countries.

Lifetime prevalence rates as well as previous month's drinking prevalence levels are also available for young people in France and Israel (Kandel, Adler and Sudit, 1981). In general, rates of adolescent drinking seemed to be relatively high in France and relatively low in Israel. In France, the lifetime drinking rates were 84 per cent for cider, 80 per cent

for beer, 79 per cent for wine and 75 per cent for spirits. The previous month's drinking rates were 35 per cent, 54 per cent, 54 per cent and 48 per cent for the four beverages, respectively. Although questions concerning cider were not asked of the Israeli adolescents, they had lifetime rates of 70 per cent for beer, 63 per cent for wine, and 52 per cent for spirits. The corresponding rates for the previous months were 27 per cent, 27 per cent and 22 per cent.

United States. The ongoing surveys of substance use (including drinking) among high school seniors (e.g., Johnston, *et al.*, 1984, 1985, 1990) provide excellent estimates of adolescent drinking in the United States. The prevalence figures obtained in these studies have been quite stable over the last decade in suggesting that on average, 92 per cent of high school seniors in that country have taken an alcoholic drink at some time in their lives. Similarly, current drinking rates have been quite stable, although there has been a small drop since 1983 (from 69 per during the previous month to 64 per cent). Furthermore, these surveys indicate that many of the high school seniors who did drink, claimed that they did so to the point of intoxication. Just over 45 per cent of those who did drink said that they usually got "very high" or "moderately high" when drinking. Furthermore, there are indications that American youths start drinking at a relatively young age. About half of the high school students had their first drink before age 14 years.

For other age-groups, the *National Household Survey on Drug Abuse* (US Dept of Health and Human Services, 1990) provides information on rates of use of various substances, including alcohol. The most recent of these surveys has shown that lifetime rates of alcohol use were 41 per cent for the 12-17 year old age group. Furthermore, there was evidence of a substantial drop in this figure since 1982. The percentages for 1982, 1985, and 1988 were 52, 51 and 45 per cent, respectively. The same surveys have shown a similar drop in current (previous month's) use of alcohol, from 30.2 per cent in 1982 to 24.5 per cent in 1990.

Canada. Information on the situation regarding youth and alcohol in Canada is available in the several studies by the Addiction Research Foundation of Ontario and in the report of various surveys by Eliany (1989). A Gallup poll in 1986 showed that 45 per cent of young people between 12-14 years had drunk alcohol in the last year, while the corresponding figure for those aged 15 to 17 years was 82 per cent. This national poll also indicated that 18 per cent of the 12-14 year olds had drunk an alcoholic beverage in the last month while the figure for 15-17 year olds is over 56 per cent. Finally, the figures for weekly or more

frequent use for the two groups were 4 and 22 per cent, respectively.

Surveys reported by Eliany (1989) indicate relatively high levels of drunkenness among young people in Canada. In national samples aged between 12 and 18 years, 12 per cent reported having felt drunk at least once a month. Data from New Brunswick and Ontario suggest that among the same age group about 22 per cent admitted to having 5 to 6 drinks on at least one occasion during the previous month.

There are some indications of trends relating to youthful alcohol consumption and in general there is a suggestion that in Ontario, at least, there was a small decline in the proportion of heavy drinkers and problem drinkers over the years. For example, among youth age 12 to 17 years, there was a decline from 55 per cent (in 1981) to 45 per cent (in 1986) in those having three drinks or more on a given occasion.

Australia. A study by Homel, *et al.* (1984) provides extensive data on adolescent drinking in Australia. In that country lifetime prevalence rates were 70 per cent, 82 per cent, 87 per cent, 89 per cent and 91 per cent for the 13 to 17 year olds, respectively. These rates are relatively high by international standards. Rates for the previous month were 39 per cent, 53 per cent, 63 per cent 73 per cent and 74 per cent for the corresponding age groups. Similarly, relatively high percentages of young Australians reported having felt drunk at some time.

Factors Affecting Alcohol Use by Youth

Demographic Factors

Gender. In the extant literature a consistent picture emerges regarding gender differences. Overall, the indications are that the greatest differences are at the highest levels of consumption. Thus, it would seem that there are minimal differences between boys and girls as regards lifetime prevalence, greater differences as regards current drinking and major differences in relation to heavy consumption of alcohol.

For example, the study by Grube and Morgan (1986) found that there were only minor differences in lifetime prevalence rates between boys and girls, particularly among those aged 16 years and over. However, there were much larger differences in relation to current drinking and rather larger differences again in relation to reports of having felt drunk. Thus, nearly half of the boys reported having felt drunk but only just over a quarter of the girls. Furthermore, the difference in the percentage who reported having felt drunk is of about the same magnitude from age 13 to age 17

years. The difference between the sexes was especially pronounced for the number who felt drunk on six occasions or more. A similar pattern of gender differences has been found in the work of O'Connor (1978) in Ireland, in that of Johnston, *et al.*, (1984, 1985) in the United States and in the work of Homel, *et al.* (1984) in Australia.

Socio-economic and Related Factors. As regards socio-economic factors, there is a remarkably small relationship between such factors and drinking behaviour among youth. The Grube and Morgan (1986) study found no association between various measures of drinking and father's or mother's occupational status. In other studies small negative associations have been found (e.g., Johnston, *et al.*, 1985), indicating a greater tendency for those young people of lower socio-economic status to drink somewhat more, while in some others no association has been found (e.g., Keyes and Block, 1984). Finally, few studies have found a small positive association between socio-economic factors and drinking. The recent American study by Martin and Pritchard (1991) found that among white males there was a tendency for those of higher socio-economic status to drink rather frequently and to consume a larger quantity per drinking episode.

Social Influences

Parental Influences. There are at least three ways in which parents may influence the drinking behaviour of their children. The first way is through example. It might be that those parents who themselves tend to drink will, by their example, lead their offspring to practise this same behaviour. A second possible way is through their attitudes to their children's drinking, specifically the extent to which they disapprove of such behaviour. Finally, there is a less direct influence, viz., relationship between parents and child, relationship between parents, etc. The extent to which parental *example* might influence children's drinking has been researched extensively. The study by Grube and Morgan (1986) found that those young people who reported that parents drank were likely to drink themselves. There was also a suggestion in this study that the influence of the mother was especially important. There is, however, an indication that there may be differences between countries in the importance of parental example. Adler and Kandel (1981) found a strong association between parental drinking and adolescent drinking in Israel (where, incidentally, consumption was relatively low). On the other hand, this same study showed that there was a stronger association of drinking and parental example in the United States and in France. In contrast, Bank, *et al.* (1985) found a moderately strong relationship between parental drinking and that of their offspring in France and Australia (countries that have a relatively high consumption

level) but not in the United States and Norway.

There is considerable evidence that parental *disapproval* tends to be associated with level of alcohol use. The Grube and Morgan (1986) study found that in general, perceived disapproval of drinking by parents tended to be related to lower levels of drinking. There was a suggestion in the study by Akers, *et al.* (1979) that a curvilinear relationship existed between parental attitude and adolescent drinking, with higher levels of drinking being associated with both indifference and with extreme disapproval. In other words, the best outcome (in terms of low consumption of alcohol) was brought about where parents tended to have moderate, rather than extreme, attitudes towards children's drinking.

In the context of the effects of parental disapproval on adolescent attitude use, a study by Atkin and Atkin (1986) is of particular interest. This study found that teenagers tend to underestimate the extent of parental disapproval of their use of alcohol. In a survey of 1,700 Michigan high school students and their parents, it was found that 85 per cent of parents strongly disapproved of their teenager getting drunk, 81 per cent strongly disapproved of party-going and 68 per cent strongly disapproved of their teenager having a few drinks with friends. In contrast, 49 per cent, 39 per cent and 29 per cent of teenagers perceived their strong parental disapproval of these activities. Similarly, this study showed that parents consistently underestimated the frequency of drinking and driving with a drinking driver by their teenager. Furthermore, parents reported that they had a high frequency of communication about alcohol-related matters with their teenager and that they closely monitored the activities of children at weekends. In contrast, the majority of teenagers reported a low frequency of communication about their drinking and perceived little or no chance that their parents could detect their drinking. Thus, parental expectations, disapproval and overall attitudes frequently may not be communicated to their offspring.

Peer influences. Of all the factors that have been thought to be related to drinking among youth, perhaps more attention has been given to peer influences than to any other. There is a general belief that such influences are extremely important in relation to drinking, and indeed in relation to other forms of substance use (e.g., cigarette smoking and illicit drug use). Certainly, there seems to be a strong association between friends' drinking and reported drinking. In the Grube and Morgan (1986) study, of those students who reported that none of their friends were drinkers, 82 per cent were themselves non-drinkers. In contrast, if their good friends were

drinkers, only 22 per cent were non-drinkers. Other studies like that of Bank, *et al.* (1985) found that peer drinking was a strong predictor of reported drinking in the United States, France, Norway and Australia.

While these studies have established a strong association between peer behaviour (drinking) and reported drinking, there are a number of problems of interpretation of such findings. For one thing, there may be an element of misperception in the reports of the young drinkers resulting in their seeing greater support for their own behaviour among their friends than actually exists. Another possibility is that some of the apparent peer influence is due to *selective friendships*. It may be that young people may become friends with each other on the basis of their common behaviour. In other words, the friendships may result from drinking as opposed to causing it. The study by Morgan and Grube (1991) attempted to disentangle these influences. The results suggest that part of the apparent influence of friends may be due to selective friendship. However, peer example is still a factor in initiation to drinking. Another interesting point to emerge from this latter study is that peer disapproval is not a major influence, relative to the other parent and peer factors discussed here.

Some other recent studies have also addressed the question of how peer influence is actually mediated. The work of Sellers and Winfree (1990) was designed to test the extent to which the acquisition of favourable or unfavourable *definitions* underlie peer influences. They argue that an individual learns, in close intimate interactions, evaluations of behaviour as either appropriate or inappropriate, good or bad. Drinking is more likely to occur when people develop a greater balance of favourable to unfavourable definitions of that behaviour. The results of the Sellers and Winfree study among American high school students were largely supportive of the view that an exposure to an excess of definitions that favour drinking are likely to increase the chances of alcohol use.

Attitudes and Beliefs about Consequences

Attitudes. A useful procedure for assessing attitudes is to ask young people how pleasant or unpleasant they considered drinking to be and how they thought they would like or dislike it. As might be expected the consistent outcome in this research is that people who have a favourable attitude towards drinking are more likely to drink than are those who have a less favourable attitude. The survey by Grube and Morgan (1986) found a strong association between drinking and attitude. The same pattern has been found in other studies, i.e., more favourable attitudes tend to be associated with more frequent drinking behaviour (e.g., Akers, *et al.*, 1979; Adler and Kandel, 1981).

Beliefs about Consequences. An important question concerns the extent to which attitudes to drinking (and indeed drinking behaviour) are determined by beliefs about the consequences of drinking. Such beliefs consist of two components. On the one hand, there may be differences in the likelihood that drinking will lead to particular consequences (expectancy), and secondly there may be differences in how such consequences are evaluated. The general finding in this research is that drinkers are more likely to believe that positive consequences (e.g., feeling relaxed) are likely to come about as a result of drinking, and furthermore, drinkers are more likely to judge such positive consequences as being of greater importance than do non-drinkers (Grube and Morgan, 1986). Conversely, as regards negative consequences (e.g., getting into trouble with parents or police), drinkers are inclined to believe that such outcomes are less likely to occur to them than are non-drinkers. In addition, they are also less inclined to believe that such consequences are important. This pattern of beliefs has been found to predict drinking in a number of countries in both cross-sectional (Akers, *et al.*, 1979) and in longitudinal research (Bauman, *et al.*, 1985).

It has also been shown that among adults, expectancies are better predictors of quantity-related drinking variables (including usual quantity consumed per occasion) than of frequency of drinking occasions (Leigh, 1989). This outcome may be due to the fact that the effects of drinking are felt only after a certain number of drinks. Thus, initiating a drinking episode may be influenced by other factors, while the amount drunk may be heavily influenced by the individual's desire to experience particular subjective effects, which may in turn be influenced by beliefs about the consequences of drinking.

It is important to realise that there is an important difference between *personal* beliefs regarding alcohol consequences and *general* beliefs regarding consequences. The significant beliefs are those that relate to what may happen to "me" as a result of "my" drinking, rather than the consequences of alcohol for others. This point is illustrated in a recent study by Oei, Hokin and Young (1990). This study examined the relative effectiveness of general statements regarding alcohol consequences and personal-related beliefs in predicting drinking among 283 drinkers. "Self" statements predicted drinking behaviour accurately as measured by consumption while other statements did so less effectively.

Behaviour and Personality Factors

Problem Behaviour and Alcohol. There is considerable evidence that there is a strong relationship between drinking and various kinds of problem

behaviour. For example, several studies have shown that young people who drink tend to be involved in other deviant kinds of behaviour like illicit drug use and truancy (Jessor and Jessor, 1977). In addition, in those studies that have examined attitudes towards deviance, it has been shown that acceptance of deviant behaviour tends to relate strongly to drinking behaviour (Brook, *et al.*, 1984).

The recent study by McAteer (1991) examined the association between alcohol and "joy-riding". She found that joy-riding was more than twice as likely to occur among regular drinkers than among the non-drinkers. However, there is a particular problem with this comparison since it asked respondents if they went joy-riding *after drinking* and such behaviour was obviously more likely to occur among regular drinkers. More relevant is the analysis of the association of alcohol and joy-riding among drinkers. A comparison of occasions when drinking vs. occasions when not drinking indicated that joy-riding was about twice as likely to occur on those occasions when the young person had been drinking.

It has often been suggested that adolescent problem behaviours (smoking, drinking, stealing, etc.) form a single dimension that reflect a general underlying tendency to non-conformity or deviance. In support of this general deviance hypothesis, it has been shown that there is a positive correlation between a wide range of problem behaviours and that such behaviours appear to be influenced in a similar fashion by the same variables (Donovan and Jessor, 1978). These latter researchers have demonstrated by means of factor analysis that there is a single common factor underlying problem behaviours, including being drunk, illegal drug use, shoplifting and vandalism. Moreover, conventionality loaded on this factor but in a negative direction. Furthermore, Osgood, *et al.* (1988) found that a single dimension of general deviance accounts for the majority of the covariance among specific problem behaviours and that this factor is predictive of involvement in these behaviours at a later point in time.

Grube and Morgan (1990b) noted that the available evidence for the general deviance hypothesis is based almost exclusively on research with samples of adolescents and young adults in the United States and that the findings may, therefore, be specific to certain cultural contexts. This hypothesis was examined in the context of the data from the earlier substance use survey with Dublin adolescents. A series of maximum likelihood, confirmatory factor analyses, showed that three specific factors were necessary to account for the covariation among problem behaviour measures. These factors corresponded to: (i) substance use (drinking, smoking and illegal drug use), (ii) relatively minor problem behaviours (swearing, lying), and (iii) more serious problem behaviours (stealing,

vandalism). Contrary to the general deviance hypothesis, a second order factor representing general deviance accounted for only 14 per cent of the variance in substance use as opposed to 74 per cent of the variance in minor and serious behaviour problems. Grube and Morgan interpreted these findings as indicating that substance use among Irish adolescents was relatively independent of a general tendency towards deviance.

Restraining Factors. If an individual has a commitment to a conventional social institution, then they are less likely to engage in behaviours that are deviant and rebellious. In the context of drinking, this idea has been explored in relation to commitment to family, school, church and religion. The basic idea is that to the extent that an individual values membership of those institutions, he or she will be less likely to be involved in various kinds of antisocial behaviour. While drinking *per se* is not illegal, under-age drinking is illegal and is therefore likely to be influenced by adherence to the norms of such institutions.

The available literature strongly supports the finding that commitment to school, whether measured by academic aspiration, self-reported grade or frequency of absences from school, is consistently and negatively related to drinking behaviour. In addition, Akers, *et al.* (1979) found that actual school grades related strongly and negatively to alcohol consumption. The studies in France and Israel point to a similar conclusion. The ESRI study found that students rated importance of school and their rating of own academic achievement were both negatively related to drinking (Grube and Morgan, 1986).

In line with this viewpoint, there is evidence that college graduates show a drinking pattern that is different from that of non-graduate dropouts. A recent study by Crowley (1991) showed that college graduates were more frequent drinkers of alcohol but tended to drink less quantity per drinking day than the others of the same age. Furthermore, sex differences were smaller among college graduates. In addition to supporting the social bonding view, this study had implications for generalising from results obtained on limited samples.

A number of studies have also focused on the question of the extent to which commitment to religion exerts an inhibitory influence on drinking behaviour. Again, the trend of these results strongly suggests that commitment to religion exerts a restraining influence on such behaviour. Thus, O'Connor (1978) showed that adherence to religious values was associated with lower levels of drinking among 18-21 year olds in Dublin. The same conclusion is warranted on the basis of the information presented by Bachman, *et al.* (1985). Finally, a study by Jessor and Jessor

(1977) reports a negative relationship between commitment to religion and frequency of drunkenness among adolescents.

There is also an indication that a strong commitment to family can bring about a tendency to drink rather less. The recent study by Martin and Pritchard (1991) found that those young adults who had a relatively greater commitment to their families tended to drink less frequently and also to drink lesser amounts.

Perceived Availability

The concept of perceived availability is defined as the extent to which an individual believes that he or she has (i) access to alcohol, and (ii) the resources with which to obtain it. Perceived access simply refers to the difficulty or ease that an individual thinks there would be in obtaining alcohol. Perceived access will vary depending on a variety of social circumstances. In general, adolescents tend to believe that access to legal drugs (alcohol and cigarettes) is easy, while they perceived access to illegal substances was less certain. However, even when access is perceived as easy, availability may be limited by lack of resources.

A small number of studies have examined the availability of alcohol in Ireland. The recent work of Johnson, *et al.* (1990) suggests that many of the 13-15 year olds in that study bought alcohol themselves, either in the supermarkets, pubs, or off-licences. Another group (roughly one-third) reported taking alcohol from home without their parents' knowledge. The studies by Johnson, *et al.*, and Grube and Morgan (1986) examined the extent to which young people had the resources (pocket money) to obtain alcohol. Both studies are in agreement in suggesting the vast majority had the resources to allow at least for a modest consumption of alcohol. Furthermore, the Grube and Morgan study found that having the resources (i.e., pocket money) was indeed related to frequency of drinking. This outcome ties in with the results of the work by Johnston, *et al.* (1985) who found that perceived availability is an important predictor of alcohol use by American adolescents.

Summary and Conclusions

On the basis of this relatively brief survey of these countries, a number of conclusions seem warranted. First, while all the countries surveyed have minimum drinking ages (either 16, 18 or 21 years) for consumption of alcohol, the vast majority of young people in every country have experimented with alcohol long before they reach the legal age limit. Secondly, while there have been a number of studies in Ireland, there are only a few that allow comparisons with overseas studies. Furthermore, no

studies seem to have used the same measures of drinking across a number of years. Thirdly, on the basis of previous studies, it would seem that in comparison with other countries, the number of current drinkers among Irish youth is between the rates of high consumption countries (like France) and low consumption countries (like Israel). Fourthly, given that (at least up the end of the 1980s) there was a sizeable minority of young Irish people who are total abstainers, and given that a great many of those who drank have been drunk at least once, the problem in Ireland is as much the *pattern* of drinking as opposed to actual numbers who drink. Fifthly, the age at which young people begin to drink has decreased somewhat over the last few years. Finally, there is no indication that any one drink is especially popular with young people as opposed to adults.

The review of the major factors associated with alcohol use among youth suggests that: (i) youthful drinking is largely independent of social background, (ii) while girls are as likely as boys to have experimented with alcohol, more boys than girls drink heavily, (iii) parents influence their children in a variety of ways in relation to alcohol use. On the other hand, much of the apparent influence of peers is due to selective friendships, rather than to direct influence, (iv) beliefs about the consequences of drinking have an impact on attitudes to drinking, (v) being prone to "problem behaviour" is associated with drinking among young people, (vi) the perceived availability of alcohol strongly influences the likelihood that a young person will experiment with drink.

Chapter 3

METHODOLOGY

The present chapter describes the research methodology used in this study and considers some general issues relating to research on alcohol use in cross-national studies. The following areas are considered: (i) pilot tests of the questionnaire and instructions; (ii) characteristics of the samples; (iii) the final survey instrument; and (iv) the administration of the survey. Finally, some general matters relating to reliability and validity of self-reports of drinking are considered as well as some matters relating to problems with cross-national studies.

Pilot Studies

A series of pilot tests were undertaken in the eight months before the survey in order to develop and refine the survey instruments and data collection procedures and to provide initial tests of the cross-cultural equivalence of the measures. These pilot studies were conducted in two Dublin schools and in two schools in the San Francisco Bay Area of California, in the winter of 1990 and in the early months of 1991.

Prior to the pilot work, draft questionnaires were developed on the basis of: (i) the theoretical focus of the present work, (ii) the format of the questionnaires used by the authors in the previous study (e.g., Grube and Morgan, 1986; 1990a), (iii) the particular needs of the present study, especially the requirement to have items that would be equally well understood by Irish and American children.

During these pilot studies, the original draft questionnaires went through considerable change. Among the modifications were the following: (i) the most common positive and negative consequences that the students associated with drinking were identified, (ii) the format of the questionnaire was simplified so that all age groups were likely to be able to understand the items, (iii) the questionnaire was shortened so that its completion would not take any longer than a class period.

Samples

The subjects were 1,983 post-primary students from the greater Dublin area and 1,925 high school students from the San Francisco Bay area. The sampling followed a two-stage process. First, at each research site a sample of schools was obtained and then a specific year/grade level was selected on a random basis within each school for the study. All students within the

selected grade were considered eligible for inclusion in the study with the exception of special education students, and (in the United States) non-English speaking students. The first phase of the study took place in April and May of 1991.

The schools selected from the Dublin area were the same as those in the ESRI 1984-1985 survey. In that study the basis for the sample was the official Department of Education list of post-primary schools. Boarding schools and schools for special education were omitted and the schools were stratified for gender composition, size and type of school (secondary/comprehensive, community or vocational). In the earlier study, 24 schools had participated and letters were sent to 22 of these asking them to participate in this study. The reason for omitting two of the original schools was that one had closed and the other had been drastically changed by an amalgamation with another school. Of the 22 schools to which letters were sent, all except two agreed to participate. The reason for these refusals was the same in both schools. We had sought to survey examination classes (Leaving Certificate or Junior Certificate) and the schools were reluctant to have any disruption to classes for such students. (It should be borne in mind that this survey took place only weeks before these examinations.)

In seeking replacements at that late stage, it was decided that it would not be realistic to seek examination classes. Hence it was decided to ask the replacement schools to allow us to survey non-examination classes. Thus, while the replacement schools were matched on relevant characteristics with the original schools, the actual classes surveyed are one year younger. This has implications for the distribution of ages within the sample.

As noted above, within each selected school all students from the appropriate class level were eligible for inclusion in the study. Thus, for any given school, the respondents consisted of all of the first year class or all of the second year class or all of Leaving Certificate class, etc.

The sample in the United States consisted of eight public and three parochial schools drawn from Alameda, Contra Costa and San Mateo counties in the San Francisco Bay Area. The total population of the target counties is 2.5 million. The target counties are predominantly working and middle class in make-up and their economic base is largely manufacturing, wholesale trade, government and services. The populace is relatively heterogeneous in ethnic make-up comprising 68 per cent Caucasian, 13 per cent Black, 11 per cent Hispanic and 7 per cent Asian. The parochial high schools were included to increase the number of Irish American students in the sample in order to allow for comparisons between Irish and

Table 3.1: *Comparison Between Irish and Irish-American Adolescents*

	N	*Per cent*
Characteristics of Dublin Sample		
	Gender	
Male	992	50.7
Female	963	49.6
	Age Group	
13 years or younger	169	8.9
14 years	504	26.7
15 years	257	13.6
16 years	397	21.0
17 years and older	561	29.7
	Father's Level of Education	
Primary School	439	24.2
Intermediate or Group Cert.	421	23.2
Leaving Certificate	454	25.1
Some College	132	7.3
College Graduate	149	8.2
Postgraduate	216	11.9
	Mother's Level of Education	
Primary School	483	25.9
Intermediate or Group Cert.	475	25.5
Leaving Certificate	569	30.6
Some College	126	7.0
College Graduate	105	5.8
Postgraduate	104	5.6

Table 3.1: *Continued*

	N	*Per cent*
Characteristics of American Sample		
	Gender	
Male	934	49.8
Female	942	50.2
	Age Group	
14 years or younger	47	2.5
15 years	457	24.1
16 years	557	29.4
17 years	362	19.1
18 years and older	472	24.9
	Father's Level of Education	
Less than 8th Grade	36	2.0
Eighth Grade	17	1.0
Some High School	100	5.4
High School Graduate	310	17.0
Tech/Trade School	90	4.9
Some College	265	14.1
Junior College Graduate	107	5.8
College Graduate	525	28.4
Postgraduate/Professional School	402	21.4
	Mother's Level of Education	
Less than 8th Grade	47	2.6
Eighth Grade	18	1.0
Some High School	79	4.1
High School Graduate	392	20.5
Tech/Trade School	70	3.7
Some College	346	18.2
Junior College Graduate	139	7.3
College Graduate	516	27.1
Postgraduate/Professional School	297	15.5

Irish-American adolescents. Details relating to the age, gender and parental education of the samples are shown in Table 3.1.

Survey Instrument

On the basis of the pilot studies and the relevant literature, a final survey instrument was devised. The format was relatively simple, with respondents being asked to tick a box for each question. Written instructions assured the respondents of anonymity and confidentiality. Furthermore, the respondents were asked specifically not to put their names on the questionnaires.

The questionnaire was designed to measure a wide range of variables relating to drinking. These variables included past behaviours, attitudes, normative beliefs, expectancy value beliefs, subjective availability, general deviance, stress, personality and values as well as socio-demographic characteristics.

Subjects were asked if they had ever had a full drink of any alcoholic beverage (beer, cider, wine or spirits) and if so, at what age they had first drunk and with whom. Further questions enquired as to how frequently they had each of these drinks during the last year (not at all - every day) and how many times during the last 12 months they had enough drink to feel drunk (none - every day). Further questions focused on frequency of drinking and being drunk over the last month as well as on the usual number of drinks that they consumed on any one occasion.

Another series of items sought information on expectancy-value beliefs, viz., beliefs about the likelihood that drinking will have particular *personal* consequences and evaluation of these consequences. These beliefs were examined by asking respondents how likely they thought that each of 11 consequences would occur to them, if they were to drink (very likely - very unlikely) and then to evaluate each of these consequences (like very much - dislike very much). Some of these consequences were negative and indicated potentially harmful consequences of alcohol (e.g., getting a hangover, feeling sick, harming health), while others were "positive" in the sense that they referred to partially desirable effects of drinking (e.g., feeling relaxed, feeling happy, having a lot of fun, forgetting problems).

Students were also asked about the actual consequences of alcohol that they had experienced. Specifically, they were asked how frequently a list of negative consequences had actually occurred to them. These consequences included "got into trouble with parents" and "gone to school while feeling drunk".

The measures of normative beliefs were concerned with the perceptions of the extent to which respondents drink themselves and with

the extent that they approve/disapprove of respondent's drinking. Specifically, students were asked whether their mother, father, best friend, other good friends, students at my school, students at other schools would disapprove if the respondent were to have two or three drinks of an alcoholic beverage (disapprove very strongly - would not disapprove). They were also asked how often each of these people have drunk over the past 12 months (not at all, one or two times, every day). For parents, there was also a "no such person" option.

For each of the alcoholic beverages (beer, cider, wine, spirits) respondents were asked about ease of access. They were asked to indicate how easy or difficult it would be to get them, if they wanted to (very easy - very difficult). Similar measures were obtained for cigarettes and illegal drugs.

Self-esteem was measured by asking the students how satisfied they were with various aspects of their lives, including family, school and friends. School items include "my teachers expect too much of me", and family items included "No one pays much attention to me at home". These items were in the Likert format (strongly agree - strongly disagree).

Deviant behaviour was measured by asking about the extent to which students had been involved in various kinds of problem behaviours over the last 12 months. Specifically, the items focused on the frequency with which they had lied to a teacher, lied to a parent, damaged other people's property, stole things from a shop, hit someone, cut classes, cheated in school and stole money. For each behaviour the respondents were asked to indicate how often they have done each of these things over the last year (never - more than 10 times).

A further series of questions pertained to parents, religious and school bonding. Students were asked how frequently they go to church, how much they like religious services and how important religion was in their lives. With regard to school, a number of items focused on the importance of school achievement to the respondent. Finally, four items were included on the degree to which students followed rules laid down by parents and the importance that they attached to such rules.

Finally, some background information was sought. Questions of this nature asked the student's date of birth, gender, and religion. Mother's and father's level of education was established by asking respondents what was the highest level of education that their mother and father had completed. Finally, three items were included solely as part of a self-generated identification code that was used to link each student's questionnaire over the three phases: number of older brothers, number of older sisters and first letter of mother's first name.

Parental Permission

The procedures about obtaining permission were different at the two research sites. In the American schools, parental consent forms were sent to all the potential students. The accompanying letter explained the purpose of the study and invited parents to agree to the participation of their offspring in the study. Only those students whose parents had formally consented to their child's participation, actually completed the questionnaire. Overall, 63 per cent of the students returned the consent form and participated in the study.

In Dublin, a similar letter was sent through schools explaining the purpose of the study. Parents were also given a letter, which they might return if they wished that their child be omitted from the study. Only those children were omitted from the study if the parents specifically requested that this should be the case. Otherwise, all children participated in the study. In fact the number of refusals was minimal; only two children were excluded from the study because of parental refusal.

The differences in the procedures at the two sites have their origin in the requirements of the two school systems and in the Government regulations regarding research. It is also worth noting that in all schools, the principal was sent an advance copy of the questionnaire in seeking his or her permission to let the survey go ahead in each school.

Survey Administration

It was arranged with the participating schools that all pupils would be tested at the same time and in students' regular classroom settings. However, two schools in the US opted for assembly administration. In the Dublin schools the questionnaires were administered by trained and experienced interviewers from The Economic and Social Research Institute, and in California by staff from the Prevention Research Center.

Before each testing session began, the non-participating students were initially identified and these students were assigned work by the class teacher and/or asked to go to the library. The interviewer then explained the purpose of the study, and reassured students as to the anonymity and confidentiality of their responses to the survey. It was emphasised that for the study to be worthwhile it was important that they tell the truth on all the questions. They were told that if they did not want to tell the truth they should skip a question and go on to the next one, rather than not telling the truth. Other instructions concerned the changing of answers, once they had been marked and how to follow arrows in the directions (skips).

Respondents were asked to fill the survey on their own and not to discuss it with neighbours. It was emphasised that this was a chance to express their own opinions.

In classrooms where there were special problems (students with learning problems), students were encouraged to answer what they could. Since the survey was confined to a class period, interviewers were instructed not to read all the questionnaire aloud; rather they could read a few items if asked.

Interviewers were given guidelines on the answering of questions from students. These included information on the purpose of each question, the definition of various kinds of alcoholic beverages, and explanations of various expressions that might come about as a result of limited vocabulary proficiency. However, the interviewers were instructed not to try to give an explanation of a question and not to define the terms used in the various items other than as provided in the protocols.

Issues of Reliability

A major concern in this area of research is the extent to which adolescent self-reports of alcohol use can be considered reliable and valid indicators of actual drinking. Only if the reports can be considered reliable and valid can the findings regarding both prevalence and associated factors be regarded as valuable. Reliability concerns the degree to which the measures are influenced by unsystematic or random error. Two ways of measuring reliability are commonly used: internal consistency and test-retest reliability. Internal consistency refers to the extent to which responses to related items within the same instrument agree with one another, while test-retest reliability refers to the extent to which an individual's responses are stable over time.

In the present study the degree of consistency between reported lifetime use of alcohol and current alcohol use was extremely high. The percentage of respondents who said that they had never had an alcoholic drink, but indicated that they had in fact drunk one within the last month was 0.3 per cent. This figure compares favourably with the existing work in this area. For example, Single, *et al.* (1975) calculated the number of respondents whose response to lifetime prevalence questions at the second phase of a panel study were inconsistent with their responses over a first phase. The rate of inconsistent responding ranged from 0.4 to 3.4 per cent for the various substances listed - figures that were comparable with those observed for other questions unrelated to alcohol or drug use.

The consistency among related items measuring drinking behaviour is quite high. For "ever having had an alcoholic drink" (4 items), the reliability coefficient was .81, while of frequency of drinking during the past month (4 items), the coefficient was .84. Finally, for number of drinks

usually consumed on a given occasion (4 items), the corresponding coefficient was .85.

The present phase of the study did not attempt to establish test-retest reliabilities. However, the earlier survey by Grube and Morgan (1986) found a test re-test reliability of .72 over a one-month period. This compares favourably with the similar estimates of reliability for substance use. Plant and his colleagues report a test-retest reliability of .80 for smoking and .60 for drinking (Plant, Peck and Samuel, 1985).

Issues of Validity

A detailed discussion of the matters related to the validity of self-report of adolescent substance use is found in Grube and Morgan (1986). That review of the literature gave rise to the following conclusions relating to validity. First, such reports appear to have good validity under conditions of anonymity and confidentiality. While some under- and over-reporting may occur, agreement between simple verbal reports and other measures of alcohol use is generally quite good. Furthermore, in those studies in which discrepancies have occurred, there are reasons for suspecting that the alternative or criterion measures may themselves lack validity. A particularly important consideration is the extent to which the respondents to a survey really believe that their answers are truly confidential and anonymous. Many studies that report poor validity for self-report measures (or improved validity for techniques like the procedures such as the "bogus pipeline") appear to be those which have not carefully implemented conditions of anonymity and confidentiality.

Chapter 4

PREVALENCE AND TRENDS IN ALCOHOL CONSUMPTION

The present chapter describes the prevalence of drinking among Dublin post-primary school pupils in 1991. Comparisons are made between the rates emerging from the present study and those of the 1984 study. Further comparisons are made between the results from Dublin and those of the American sample, as well as those of the Irish-American sub-sample. This chapter also examines the relationship between demographic characteristics (age, gender and social background) and prevalence of drinking among both the Irish and American samples.

Prevalence of Drinking

Lifetime Prevalence: The percentages of post-primary pupils who reported that they ever had a whole drink of alcohol are shown in Table 4.1 for each age group from age 13 and younger to age 17 and older. In that table the corresponding percentages for the 1984 survey are also shown as well as the data from the American sample. Since the American data consist of information from high school seniors, only data from 14 year olds and older are available and the information is given for the four comparable age groups (14 to 17 years).

Table 4.1: *Lifetime Prevalence of Drinking*

Age Group	*Dublin 1984*	*Dublin 1991*	*United States 1991*
13 years and younger	45.0	(235)	-
	58.4	(122)	
14 years	57.9	68.9	61.6
	(363)	(356)	(45)
15 years	65.7	78.3	67.1
	(328)	(195)	(328)
16 years	73.6	80.0	77.4
	(459)	(335)	(428)
17 years or older	79.2	92.7	83.9
	(513)	(492)	(674)
Total	65.0	77.9	76.9
	(1,898)	(1,500)	(1,475)

Note: Main table entries are row percentages.
Numbers in parentheses are cell sizes.

It can be seen from this table that nearly four-fifths of the 1991 Dublin sample had drunk alcohol at some time in their lives. It can also be seen that the number of drinkers increased considerably with age, Chi-square (4) = 147.23 , $p < .001$. Thus, while just over half of the 13 year olds had tried out a drink, this figure was nearly 93 per cent at age 17 years.

In comparison with the 1984 figures, there are fairly substantial increases in the overall number who had consumed a drink, and an increase among every age group. Overall, the percentage who reported ever having a drink increased from 65 per cent in 1984 to 77.9 per cent in 1991. Perhaps the most dramatic change is among the 17 year olds, specifically in terms of the decline in abstainers. In the 1984 survey, there was a significant minority of this age-group who had not drunk at any time. In 1991 this minority had dwindled to just over 7 per cent.

It is especially interesting that the rates of prevalence of 13 year olds in 1991 is similar to the rates for 14 year olds in 1984. Similarly, the rates for 14 year olds in 1991 is similar to that of 15 year olds in 1984. Furthermore, the prevalence for 16 year olds in 1991 is similar to that for 17 year olds and older in 1984. This suggests that there may be cross-cohort modelling, that is, younger adolescents tend to imitate the behaviour of those who are just a year older. The implications of such cross-cohort modelling will be taken up again in the final chapter relating to recommendations.

The comparison with the United States figures is interesting. At each comparable age group, the Irish adolescents have a higher lifetime prevalence. Thus, while US adolescents had *higher* prevalence than our 1984 figures, the *1991 Dublin figures are higher than for the present American rates.* Interestingly, even the 18 year olds and over in the United States had lower prevalence rates than the Dublin 17 year olds (85 per cent for the American 18 year olds).

When we divide the US sample by cultural and ethnic identity, it was found that those adolescents who considered themselves to be "Irish-American" had a somewhat higher prevalence of drinking than the other Americans. This turned out to be about 5 - 10 per cent higher among the group with Irish identification than among the others; a level of prevalence which is in fact closer to the present Dublin sample.

Specific Alcoholic Beverages. Table 4.2 shows the lifetime prevalence rates for beer, cider, wine and spirits, and the corresponding prevalence rates for the previous month (i.e., numbers who reported having had a drink of that beverage during the previous month) for the 1991 Dublin students. A number of aspects of this table are noteworthy. First, it is clear that some types of beverage are drunk more frequently than are others. Beer

Table 4.2: *Prevalence Rates for Specific Alcoholic Beverages, 1991*

	Beer		*Cider*		*Wine*		*Spirits*	
Age Group	*Ever*	*Previous Month*	*Ever*	*Previous Month*	*Ever*	*Previous Month*	*Ever*	*Previous Month*
13 years	35.0	16.0	25.0	14.8	35.0	13.1	24.8	13.1
	(56)	(27)	(40)	(25)	(56)	(22)	(39)	(22)
14 years	50.6	23.8	36.1	18.2	46.6	16.3	33.7	15.5
	(243)	(120)	(169)	(91)	(216)	(82)	(158)	(78)
15 years	68.0	36.3	50.0	25.4	57.1	26.2	52.7	26.9
	(166)	(93)	(118)	(65)	(136)	(67)	(126)	(69)
16 years	65.0	40.2	50.3	21.2	60.4	23.1	61.7	33.9
	(251)	(159)	(190)	(84)	(233)	(91)	(237)	(134)
17 years	84.1	60.1	67.0	24.2	74.3	27.6	79.2	47.5
	(459)	(328)	(352)	(136)	(396)	(154)	(430)	(261)
Total	64.7	39.3	49.2	21.3	58.2	22.1	55.2	29.8
	(1,175)	(727)	(869)	(391)	(1,037)	(416)	(990)	(564)

(including stout and lager) tends to be drunk most frequently; nearly two-thirds of the sample had tried beer at some time in their lives, while nearly 40 per cent had drunk beer during the previous month. Wine and spirits were next most popular (with over half the sample having tried each of these) and somewhat less than half the students had drunk cider.

What is most remarkable is the striking increase over the corresponding figures for 1984 (not shown here). For both lifetime rates and previous month's rates, a substantial increase in prevalence emerges in such a comparison. Thus, while just over 45 per cent of the 1984 sample had tried beer at some time in their lives, nearly 65 per cent of the 1991 sample had drunk beer. In the case of wine, the increase was from 44.8 per cent in 1984 to 58.2 per cent in 1991. The corresponding figures for cider and spirits were 34.7 per cent and 38.7 in 1984, and these had risen to 49.2 and 55.2 per cent, respectively. Another interesting point is that there was some change in the order of preference. Beer was most likely to be drunk in 1984 and cider least likely. That remains the position in 1991. However, spirits have moved to being second most popular in 1991 (from being third in popularity in 1984).

Those students who reported that they drank, were asked at what age they had tried their first drink of each of the alcoholic beverages listed. This information is shown in Table 4.3 for each age group. Obviously this information must be read in conjunction with Table 4.2, since the information on age of first drinking is relevant only for those who have

Table 4.3: *Median Age of First Consumption of Various Drinks*

	Beer	*Cider*	*Wine*	*Spirits*
Age 13 or less	11	12	11	11
14 years	12	12	12	13
15 years	12	13	12	13
16 years	14	14	13	14
17 years and over	15	15	14	15

tried a drink. There has been some misunderstanding of this matter in media reports of surveys in the sense that age of first drinking of 13 year olds had been compared with that of 17 year olds. It has not been understood that a younger age group will almost inevitably have a lower median (or mean) age of first drinking than an older age group, when the median is calculated for those who have consumed a drink at some time in their lives.

It can be seen from Table 4.3 that the median age for first drinking each of the beverages is low. A comparison with the earlier report indicates that there has been a drift downwards in the age at which young people are beginning to drink.

Respondents were also asked about the number of drinks of each alcoholic beverage that they usually consumed at any one occasion. A substantial number of the sample (particularly among the older age group) reported that they drank large quantities on any given occasion. Among the 17 year olds, 35.2 per cent of the group reported that they usually consumed drinks or more, when they drank beer. The corresponding figures for cider, wine and spirits were 12.3 per cent, 7.2 per cent and 18.5 per cent.

In comparison to the 1984 figures (not shown here), the trend is towards drinking more on any given occasion. For example, in the case of beer, 23.6 per cent of 17 year olds reported drinking 5 drinks or more in the 1984 survey, while in the present work the figure is more than 1.5 times that figure.

In contrast, the amount consumed by American adolescents is much less. For example, only 13 per cent of the American 17 year olds say that they drank 5 or more drinks of beer on any occasion - a figure which is less than one-third of that for Dublin adolescents. When the American sample is divided into Irish-Americans vs. others, it emerges that the Irish-Americans are again mid-way between the Dublin and the other American

Table 4.4: *Frequency of Having Felt Drunk During Previous Year*

	Number of Times Drunk			
Age Group	*Never*	*1-2 times*	*3-5 times*	*6 times or more*
		Dublin Adolescents		
13 years	77.5	13.0	3.6	6.0
	(131)	(22)	(6)	(10)
14 years	68.6	18.1	5.0	8.2
	(345)	(91)	(25)	(41)
15 years	53.2	19.9	7.8	18.8
	(136)	(51)	(20)	(48)
16 years	46.1	13.9	9.8	30.3
	(183)	(55)	(39)	(120)
17 years	26.9	17.1	11.2	48.8
	(141)	(96)	(63)	(251)
Total	50.2	16.7	8.1	24.9
	(946)	(315)	(1513)	(470)
		American Adolescents		
15 years	65.6	16.5	8.9	8.9
	(290)	(73)	(39)	(39)
16 years	60.7	18.0	7.7	13.5
	(327)	(97)	(41)	(73)
17 years	45.9	20.1	11.9	22.0
	(162)	(71)	(42)	(78)
Total	57.7	18.2	9.5	14.6
	(779)	(241)	(122)	(190)

respondents. Specifically, nearly 20 per cent of the Irish-American 17 year olds said that they drank 5 or more drinks of beer on any one occasion.

Intoxication. Table 4.4 shows the percentage of young people in each age group who reported that they had felt drunk at some time during the previous year (the percentages are for the total sample and not just for those who had indicated that they had a drink at some time). Data are given for both Dublin and American respondents. From this table it can be seen that almost half of the Dublin adolescents reported that they had been drunk at some time during the previous 12 months. As might be

expected, there is a strong and significant association of reports of feeling drunk and age, Chi-square (40) = 387.95, $p < .001$. Thus, only about a quarter of the 13 year olds but three-quarters of the 17 year olds reported feeling drunk at some stage during the previous year. There was also a big increase with age in the numbers who reported being drunk 6 times or more, from 6 per cent of 13 year olds to 48.8 per cent of 17 year olds.

It can also be seen that the numbers of American adolescents who reported being drunk is substantially less at the corresponding age levels. This is especially the case with regard to numbers who reported that they had been drunk 6 times or more. It can be seen that the numbers in this category are twice as great among the Dublin youth. A comparison of the Irish-Americans with the non-Irish-Americans showed that the former had very slightly higher prevalence of being drunk. However, these differences were not very great and the Irish-Americans did not come close to the prevalence rates reported by the Dublin adolescents.

The question posed of the 1984 sample was slightly different since it enquired about the frequency of feeling drunk *at any time* in their lives. Thus, since the time-frame in the present question is more restricted, we should expect that it should yield lower figures. In fact, the comparison of the two sets of figures shows a substantial increase. In 1984, 38.7 per cent of the students reported being drunk at some time in their lives, while the present figures show that half of the students had felt drunk during the previous year. Furthermore, there are increases at every age group and especially at the high levels of frequency. Thus, in 1984, less than 29 per cent of the 17 year olds said that they been drunk 6 times or more. In the present study, 48.8 per cent of 17 year olds said that they been drunk 6 times or more in the previous year.

Consequences of Drinking. Table 4.5 shows the number of Dublin adolescents who experienced a variety of consequences of drinking. From this table it can be seen that they most frequently reported "getting sick" and "failing to remember what happened while drinking". For each of these, about one-third of the respondents reported that they had experienced such consequences. Somewhat lesser numbers had got into trouble with parents over drinking and indicated that they had ridden a bicycle while drunk. Finally, a rather smaller number had experienced the symptoms of "passing out", "missing school" or "gone to school drunk". The large numbers who had experienced such consequences is consistent with the numbers who had reported feeling drunk. This is the first time in the authors' work that items concerning effects of alcohol have been included.

When the reports of the consequences of the Dublin adolescents are

Table 4.5: *Numbers Experiencing Consequences of Alcohol Misuse*

	No	*Yes*
In trouble with parents about drink	80.6	19.4
	(1599)	(384)
In trouble with Gardai about drink	92.3	7.7
	(1830)	(153)
Missed school because of drinking	95.0	5.0
	(1883)	(99)
Got sick while drinking	67.1	32.9
	(1329)	(654)
Gone to school feeling drunk	90.5	9.5
	(1794)	(189)
Unable to remember things while drinking	67.2	32.8
	(1332)	(651)
Passed out while drinking	90.0	10.0
	(1784)	(199)
Ridden a bicycle after drinking	85.0	15.0
	(1685)	(298)

compared to those of the American sample, there were relatively few overall differences. In general, the Irish rates for particular consequences were about 2 to 3 per cent higher. Given the age difference, this suggests a relatively higher experience of the consequences of drinking among the Dublin students.

Current Drinking. In order to describe current drinking, the students were categorised according to their drinking behaviours during the month prior to the survey. Non-drinkers were defined as those who reported that they had not consumed any alcoholic beverages during the previous month and occasional drinkers as those who had reported consuming only one type of beverage and on not more than three occasions. Finally, regular drinkers consisted of those who had consumed more than one type of drink or who had drunk on more than three occasions.

As might be expected, the current drinking rates are considerably lower than lifetime rates, as is shown in Table 4.6. Somewhat more than half of the Dublin respondents had drunk during the previous month and just less than one-third were regular drinkers. As might be expected, there was a significant association between age and drinking category, with older students being more likely to be occasional or regular drinkers; Chi-Square

(8) = 243.49, p <. 001. Thus, just over 12 per cent of the 13 year olds were regular drinkers in comparison to 53 per cent of the 17 year olds. Over the age groups, there is a particularly big increase in the numbers of regular drinkers between age 16 and 17 years. Conversely, there is a drop-off in the number of non-drinkers and indeed in the number of occasional drinkers at this time.

The percentages of current drinkers for the United States sample is also shown in Table 4.6. In line with the previous findings, the level of drinking for the American sample is substantially lower than for the Irish sample (taking age into account). Thus among the age group 15 to 17 years, there are substantially greater numbers of non-drinkers among the American sample. Conversely, there is a higher proportion of regular drinkers among the Dublin sample.

In comparison with the 1984 Dublin figures, there has been a decline

Table 4.6: *Current Drinking by Age Group*

Age Group	*Non-drinkers*	*Occasional Drinkers*	*Regular Drinkers*
		Dublin	
13 years	74.6	3.0	12.4
	(126)	(22)	(21)
14 years	64.1	19.4	16.5
	(323)	(98)	(83)
15 years	51.4	17.9	30.7
	(132)	(46)	(79)
16 years	44.8	24.2	31.0
	(178)	(96)	(123)
17 years	28.2	18.7	53.1
	(158)	(105)	(298)
Total	48.6	19.4	32.0
	(917)	(367)	(604)
		United States	
15 years	63.0	15.9	21.1
	(278)	(70)	(93)
16 years	59.1	17.8	23.0
	(318)	(96)	(124)
17 years	52.6	17.3	30.1
	(185)	(61)	(106)

Table 4.7: *Lifetime Drinking Prevalence for Males and Females*

	Dublin		*United States*	
Age Group	*Males*	*Females*	*Males*	*Females*
13 years or less	54.8 (40)	53.5 (46)	-	-
14 years	74.2 (164)	65.5 (171)		
15 years	85.0 (130)	68.4 (67)	69.0 (138)	67.6 (165)
16 years	84.2 (128)	76.4 (181)	78.2 (190)	76.7 (224)
17 years or older	94.9 (300)	90.3 (214)	82.1 (151)	83.3 (145)
Total	83.3 (762)	73.9 (679)	-	-

in the number of non-drinkers (about 4 per cent), an increase (from 11.6 to 19.4) in the number of occasional drinkers and a decrease of about 4 per cent in the number of regular drinkers. Overall, however, the change in relation to this particular measure is not especially striking. This might be considered surprising given the evidence of increasing drinking in terms of the other indicators. However, there is no contradiction when it is realised that the measures that have shown the greatest increase are those that concern *quantity* rather than frequency. It will be remembered that the most striking increases were seen in relation to feeling drunk and number of drinks consumed. On the other hand, the measures of current drinking related to frequency and are thus reflective of a different aspect of consumption. There is some evidence that these aspects (quantity and frequency) are largely independent of each other (Bucholz and Robins, 1989).

Background Characteristics and Drinking

Gender. Table 4.7 shows the lifetime prevalence of drinking for boys and girls at each age. A significantly greater number of Dublin boys than girls

had drunk alcohol at some time in their lives, Chi-Square (4) = 74.21, $p < .001$. On the other hand, the difference is not very substantial. For example, at age 17 years and older, over 90 per cent of the girls had had a drink at some time in their lives compared to just under 95 per cent of the boys.

The corresponding figures for lifetime prevalence in 1984 were 73.6 per cent for boys and 56.8 per cent for girls. Thus, there has been a relatively greater rise in the prevalence for girls. The earlier survey had indicated large differences at the younger age groups and relatively smaller differences among older age groups. There is some support for a continuance of a decline in this gender difference among older age groups, especially among the 17 year olds.

The breakdown of lifetime prevalence for American boys and girls, also shown in Table 4.7, indicates minimal differences between the sexes for lifetime rates. This suggests that cultural factors are the major influence on gender-associated differences. This is borne out in the comparison of Irish-Americans with Americans from other backgrounds. This comparison showed that there were relatively greater differences (about 5 per cent) between boys and girls among the Irish-American sample than among the Americans.

Table 4.8 shows the percentage of Dublin boys and girls who had reported having felt drunk during the previous year. It can be seen that boys reported feeling drunk more frequently during the previous 12 months than was the case with girls. Overall, 55 per cent of the boys compared with 44.4 per cent of the girls had felt drunk at some time during the previous year. The difference between boys and girls is greatest in relation to the numbers who have felt drunk frequently. In fact, nearly twice as many boys as girls reported feeling drunk on 6 or more occasions during the previous year.

The American data (not shown in this table) show much smaller gender differences. About 48 per cent of the boys in the American sample and roughly 46 per cent of the girls reported being drunk at some time during the previous year. Furthermore, the small differences between boys and girls were evident at all ages. Even these small differences between boys and girls in the American sample disappear when the effects of the Irish-Americans is removed. In fact, among the non-Irish-Americans there are no gender differences in relation to frequency of having felt drunk.

The comparison of the present Dublin gender differences with the corresponding figures for 1984 is especially interesting. A number of features have changed. First, while there had been a slight increase in the number of boys who have been drunk (at least once), there had been a

Table 4.8: *Frequency of Having Felt Drunk During Previous Year by Age and Gender*

Age Group	*Never*	*Number of Times Drunk* *1-2 times*	*3-5 times*	*6 times or more*
		Boys		
13 years	80.0	14.7	(1.3)	4.0
	(60)	(11)	(1)	(3)
14 years	68.0	16.7	5.4	10.1
	(151)	(37)	(12)	(27)
15 years	50.0	20.5	7.7	21.2
	(78)	(32)	(12)	(34)
16 years	36.1	15.5	9.7	38.6
	(56)	(24)	(15)	(60)
17 years	22.4	13.2	8.5	55.8
	(71)	(42)	(27)	(177)
Total	45.0	15.8	7.2	32.0
	(416)	(146)	(67)	(296)
		Girls		
13 years	76.2	12.0	4.3	7.7
	(60)	(11)	(4)	(7)
14 years	70.1	18.5	4.4	7.0
	(190)	(50)	(12)	(19)
15 years	60.0	20.0	4.6	15.4
	(57)	(19)	(4)	(15)
16 years	52.8	12.6	10.1	24.3
	(126)	(30)	(24)	(58)
17 years	33.3	22.5	14.6	29.6
	(80)	(54)	(35)	(71)
Total	55.6	17.4	8.8	17.8
	(523)	(164)	(83)	(170)

substantial increase (almost double) in the number of girls who felt drunk at some time. In fact, the increase in the number of girls who reported being drunk 6 times or more, was relatively greater, from 7.7 per cent to 17.8 per cent. It is especially noteworthy that these increases occurred despite the question in the present survey being somewhat more restrictive than the question posed in 1984.

Table 4.9 shows the percentage of Dublin boys and girls who had tried specific beverages at some time in their lives. The greatest difference between boys and girls was in relation to cider and beer. For both of these beverages, substantially more boys than girls had tried them at some time.

Table 4.9: *Lifetime Prevalence Rates for Specific Alcoholic Beverages by Gender*

	Gender		
Beverage	*Boys*	*Girls*	*Chi-square*
Cider	57.2	41.1	46.92***
	(541)	(363)	
Beer	74.7	55.3	77.32***
	(723)	(504)	
Wine	62.4	54.2	12.57***
	(590)	(486)	
Spirits	59.7	51.5	12.21***
	(565)	(467)	

*** $p < .001$.

For both wine and spirits, the gender difference was not very great (although statistically significant).

It is interesting to compare the gender differences on specific beverages with those obtaining in the 1984 survey. For boys, there has been an increase averaging about 12 per cent for the drinks asked. However, for girls the increase is substantially greater and is on average nearly 20 per cent. Given that the girls' drinking was well below that of boys', this increase must be regarded as relatively greater. Thus, while boys are relatively more likely than girls to have tried out various drinks, the gap has become relatively smaller over the years.

Table 4.10 shows the *current* drinking status of boys and girls in each age group for Dublin students. It would seem that there are substantial differences in the number of regular drinkers among boys and girls, with boys drinking more frequently. However, in the occasional drinking category girls outnumber boys, especially in the higher age groups. Relatively small differences are apparent in relation to the number of non-drinkers. In contrast, boys and girls in the United States (not shown) differ very little if this type of categorisation is used.

Compared with the corresponding figures for Dublin in 1984, the pattern has not changed dramatically, except in relation to the number of non-drinkers among the females. The number of girls in this category has fallen by over 8 per cent. It is worth noting again that the current drinking measure is a measure of frequency and that such a measure is largely independent of measures of quantity of consumption. It would seem to be these latter measures that again yield the greatest changes from the earlier survey.

Table 4.10: *Current Drinking by Age and Gender*

Age Group	*Non-drinkers*	*Occasional Drinkers*	*Regular Drinkers*
		Boys	
13 years	78.7	12.0	9.3
	(59)	(9)	(7)
14 years	61.9	17.9	20.2
	(138)	(40)	(45)
15 years	48.4	15.3	36.3
	(76)	(24)	(57)
16 years	40.0	20.6	39.4
	(62)	(32)	(61)
17 years	21.1	15.8	63.1
	(67)	(50)	(200)
Total	43.4	16.7	39.9
	(402)	(155)	(370)
		Girls	
13 years	71.7	14.1	14.1
	(66)	(13)	(13)
14 years	66.4	20.7	12.9
	(180)	(56)	(35)
15 years	55.6	22.2	22.2
	(55)	(22)	(22)
16 years	48.3	26.5	25.2
	(115)	(63)	(60)
17 years	37.5	22.5	40.0
	(90)	(54)	(96)
Total	53.8	22.1	24.0
	(506)	(208)	(226)

Overall, the present findings show substantial gender differences on the various measures of drinking among the Dublin sample, with only minor differences among the US sample. However, the most striking feature of the results is that even among the Dublin students, the gender gaps have narrowed considerably in recent years especially in relation to quantity of consumption and the number who had felt drunk.

Table 4.11: *Current Drinking by Father's Level of Education*

	Drinking Category		
	Non-Drink	*Occas. Drink*	*Regular Drinker*
		Dublin Sample	
Father's Level of Education			
Primary Education Incomplete	39.3	14.3	46.4
	(11)	(4)	(13)
Primary Education only	46.5	20.7	32.8
	(191)	(85)	(135)
Intermediate Certificate	47.5	19.2	33.3
	(200)	(81)	(140)
Leaving Certificate	50.2	19.2	30.6
	(228)	(87)	(139)
Some University or College	49.2	23.5	27.3
	(65)	(31)	(36)
University Degree	53.7	10.7	35.6
	(80)	(16)	(53)
Post-graduate Degree	43.1	19.9	37.0
	(93)	(43)	(80)
Chi-square (12) = 16.00, ns.			
		American Sample	
Primary School only	52.9	22.0	25.0
	(27)	(10)	(14)
Some High School	38.5	28.1	33.3
	(37)	(27)	(32)
Completed High School	47.0	19.9	33.1
	(142)	(60)	(100)
Technical Training	49.4	15.7	34.8
	(44)	(14)	(31)
Some College	59.1	17.5	23.3
	(152)	(45)	(60)
Completed Junior College	51.9	17.0	31.1
	(55)	(18)	(33)
College Graduate	57.5	16.5	26.0
	(292)	(84)	(132)
Graduate Studies/Professional	59.5	14.4	26.2
	(232)	(56)	(102)
Total	54.5	17.5	28.0
	(981)	(314)	(504)
Chi-square (16) = 32.86, $p < .025$			

Parents' Level of Education. Table 4.11 presents a breakdown of drinking categories by father's level of education. Among the Dublin sample, the association between father's level of education and children's drinking was not significant, Chi-Square (12) = 16.00, $p > .05$. On the other hand, in the American sample, the association, while not especially strong, does reach statistical significance. In general, the children of fathers with a relatively low level of education tend to be more likely to be regular drinkers than is the case with children of fathers with higher levels of education. However, it must be stressed that the association is neither consistent nor robust.

The corresponding information for mother's level of education is shown in Table 4.12. Again, the association is not significant in the case of the Irish sample. For the American sample, there is a modest association that just reaches the 5 per cent level of statistical significance. However, the association is not substantively great nor is it especially consistent across the various levels of parental education.

It is interesting to compare the present findings with those in the 1984 survey. The earlier survey had sought information on father's occupation and also on whether or not the mother was in employment outside the home. An analysis of the association between father's occupational status and drinking category showed no significant association. Furthermore, the association between mother's working status and drinking behaviour was not statistically significant. The 1984 survey also found a similar pattern with regard to both cigarette smoking and use of illicit substances.

Furthermore, there is little evidence from the international literature that socio-economic factors are systematically related to drinking behaviour. Thus, the studies carried out in Scotland (Aitken, 1980) and in France and Israel (Kandel, Adler and Sudit, 1981) have failed to demonstrate any relationship between socio-economic factors and adolescent substance use.

Summary and Conclusions

Nearly four-fifths of the Dublin sample had consumed alcohol at some time in their lives. This is a very substantial increase since 1984, particularly among 17 year olds and over. The number of young people who do not drink before age 18 (evident even in 1984) has declined precipitously. There are also striking increases in the number of drinks consumed on any given occasion and an even greater increase in the number who reported getting drunk.

In comparison to an American sample, the level of drinking was higher among the Dublin sample with regard to every measure of drinking that was used. This pattern represents a striking reversal of what obtained until

Table 4.12: *Current Drinking by Mother's Level of Education*

	Drinking Category		
	Non-Drink	*Occas. Drink*	*Reg.Drinker*
		Dublin Sample	
Mother's Level of Education			
Primary Education Incomplete	30.8	25.6	43.6
	(12)	(10)	(17)
Primary Education only	50.5	18.9	30.6
	(224)	(84)	(136)
Intermediate Certificate	44.6	19.4	36.0
	(212)	(92)	(171)
Leaving Certificate	49.7	21.3	29.0
	(283)	(121)	(165)
Some University or College	52.4	12.7	34.9
	(66)	(16)	(44)
University Degree	49.5	14.3	36.2
	(52)	(15)	(38)
Post-graduate Degree	42.3	25.0	32.7
	(44)	(26)	(34)
Chi-square (12) = 20.05, ns.			
		American Sample	
Primary School only	63.1	16.4	20.5
	(37)	(10)	(14)
Some High School	44.9	17.9	37.2
	(35)	(14)	(29)
Completed High School	52.7	18.4	28.8
	(203)	(71)	(111)
Technical Training	48.5	13.2	30.2
	(33)	(9)	(26)
Some College	47.2	22.7	30.1
	(158)	(76)	(101)
Completed Junior College	54.1	17.0	28.9
	(73)	(23)	(39)
College Graduate	59.8	14.9	25.3
	(300)	(75)	(117)
Graduate Studies/Professional	58.7	16.8	24.5
	(168)	(48)	(70)
Total	54.4	17.6	27.9
	(1007)	(326)	(517)
Chi-square (14) = 27.47, $p < .05$			

a decade ago. An Irish-American subsample tended to be mid-way between the Dublin sample and the remaining American sample, on most of the measures of frequency and consumption.

While there are significant differences between Dublin boys and girls in relation to various measures of drinking, these differences have diminished considerably since the 1984 survey. This change is largely due to the remarkable increases in drinking by girls. For some measures, the prevalence rates for young women almost doubled. In contrast to the Irish sample, the differences between boys and girls were minimal on most measures, for the American adolescents.

Consistent with the earlier findings, there was no association between socio-economic factors and adolescents' drinking among the Dublin sample. Among the American adolescents, there was a very small association with parents' level of education. These findings are consistent with the preponderance of research showing the relative unimportance of such factors for drinking.

Chapter 5

NORMATIVE INFLUENCES AND BELIEFS ABOUT CONSEQUENCES: A UNIVARIATE AND MULTIVARIATE ANALYSIS

In the first part of this chapter, the relationship between normative influences, beliefs about consequences on the one hand, and drinking behaviour on the other, is examined, using a univariate analysis. The second part of the chapter will consider a number of questions related to the interaction of various factors in predicting drinking, using multivariate analyses. Since the earlier reports (1986, 1990) considered general questions relating to the prediction of drinking behaviour, the present chapter will focus on a number of specific developments of the earlier work. The following issues are given particular attention: How does the relative importance of the various influences change over the years of adolescence? Within the realm of peer group influences, which group is especially important? How does perceived access influence drinking, taking other factors into account?

Univariate Analysis

Normative Influences

Perceived Parental and Peer Drinking. Table 5.1 shows the current drinking status of students as a function of perceived parental drinking. For each parent, the following categorisation was used to define regularly

Table 5.1: *Current Drinking by Perceived Parental Drinking*

	Drinking Category		
	Non-drinker	*Occas. Drinker*	*Reg. Drinker*
Mother Drinks	43.2	20.5	36.3
	(501)	(238)	(421)
Mother Non-drinker	55.5	17.5	27.0
	(448)	(141)	(218)
Father Drinks	44.2	19.5	36.2
	(588)	(260)	(482)
Father Non-drinker	57.5	17.6	25.0
	(343)	(105)	(149)

drinking: parents were considered regular drinkers if they drank once a month or more often. It can be seen from Table 5.1 that there is indeed a significant association between children's drinking and that of parents; Chi-square (2) = 29.88, $p < .001$ for mother's drinking and for Father's drinking Chi-square (2) = 31.82, $p < .001$.

The association between parental drinking and children's drinking was also observed in the 1984 survey. However, in that study and in numerous other studies the association between parental example and children's drinking has tended to be rather weak. For example, O'Connor's (1978) study found only a moderate association between parental drinking and that of their young adult offspring in Irish and English samples.

Table 5.2 shows the association between friends' and peers' drinking and respondent's own drinking. The study by Morgan and Grube (1991) drew attention to the fact that the extant literature on "peer-group

Table 5.2: *Current Drinking by Perceived Peer Drinking*

	Drinking Category		
	Non-drinker	*Occas. Drinker*	*Reg. Drinker*
Best Friend Drinks	14.9	22.0	63.1
	(110)	(162)	(465)
Best Friend a Non-drinker	68.9	16.9	14.2
	(823)	(202)	(169)
Other Good Friends Drink	21.1	20.8	58.1
	(177)	(175)	(488)
Other Good Friends Non-drinkers	68.5	18.0	13.5
	(770)	(202)	(152)
Most Students at School Drink	35.5	20.0	44.5
	(403)	(227)	(506)
Most Students at School Non-drinkers	65.8	18.1	16.2
	(557)	(153)	(137)
Most Same-Age Students Drink	35.8	20.6	43.6
	(406)	(234)	(494)
Most Students are Non-drinkers	65.3	17.2	17.6
	(554)	(146)	(149)

influence" used markedly different reference groups in relation to "peers". The results generally supported the reasoning of that paper. It can be seen from Table 5.2 for each reference group that there was a significant association between peer drinking and reported drinking. In general, the relationship tended to be stronger in the case of "close" peers. Thus, the association with best friend's drinking is very strong, Chi-square (2) = 613.68, $p < .001$. In fact, if the best friend drinks, there was four times a greater chance of the respondent being a regular drinker than if the best friend was a non-drinker. Conversely, if the best friend was a non-drinker, it was about four times more likely that the respondent would be a non-drinker than if he/she was a regular drinker. When a similar analysis was carried out in relation to other good friends, the association emerged as quite strong and significant, Chi-Square (2) = 519.45, $p < .001$. As can be seen from Table 5.2, if the respondent reported that other good friends drank, the chance that respondent would be a regular drinker was almost four times as great than was the case if the other good friends were non-drinkers. Conversely, if other good friends were reported as non-drinkers the probability of respondent being a non-drinker was about three times as great.

There was also a significant association between perceived drinking by student's schoolmates and reported drinking, Chi-Square (2) = 213.28, $p < .001$. If respondent said that most of the students in his/her school were drinkers, then there was nearly three times a greater chance that the respondent would fall into the regular drinking category. Conversely, if the respondents perceived that most of their classmates were non-drinkers, then it was almost twice as likely that they themselves would be non-drinkers.

There was also a significant association between the perceived drinking of same-age students in general, and respondent's own drinking, Chi-Square (2) = 191.29, $p < .001$. If a student indicated that most of same-age students were drinkers, then it was more than twice as likely that he or she would drink regularly. On the other hand, if a student reported that most same-age students were non-drinkers then it was almost twice as likely that he/she would also be a non-drinker.

As the above analysis is univariate, it does not allow for attempting to separate the distinctive influence of any particular reference group. The distinctive contribution of each of the groups will be taken up in Chapter 7.

Perceived Parental and Peer Approval

Table 5.3 shows the current drinking of the students as a function of parental approval of their drinking. From this table it can be seen that there is a significant relationship between mother disapproval/approval

Table 5.3: *Current Drinking by Perceived Parental Approval*

	Drinking Category		
	Non-drinker	*Occas. Drinker*	*Reg. Drinker*
Mother Disapproves	56.2	18.9	24.9
	(870)	(293)	(386)
Mother Does Not Disapprove	19.0	20.5	60.5
	(79)	(85)	(251)
Father Disapproves	56.0	18.9	25.2
	(821)	(277)	(369)
Father Does Not Disapprove	24.7	19.3	56.1
	(114)	(89)	(259)

and reported drinking, Chi-Square (2) = 227.43, $p < .001$. If the mother was seen not to disapprove of the child's drinking, there was more than twice the probability that the young person would be a regular drinker. On the other hand, if the mother was seen to disapprove of the child's drinking, there was nearly three times a greater chance that the young person would be a non-drinker.

There was also a significant association with perceived father approval, Chi-Square (2) = 174.08, $p < .001$. If the father was perceived as not disapproving of the child's drinking, it was twice as likely that the young person would fall into the regular drinking category. On the other hand, if the father was thought to disapprove of the child's drinking, there was more than twice the chance that the young person would be a non-drinker.

The association between reported drinking and peer approval/disapproval of drinking is shown in Table 5.4. As in the case of peer drinking, the association is shown for best friend, other good friends, classmates and people of the same age. The association between reported drinking and best friend approval is strong and significant, Chi-Square (2) = 255.59, $p < .001$. Those students who reported that their best friend did not disapprove of their drinking were more than five times more likely to be regular drinkers than was the case if students indicated that the best friend disapproved. Conversely, if the best friend disapproved, the student was over twice as likely to be a non-drinker.

There was also a significant association between approval/disapproval of other good friends and reported drinking, Chi-Square (2) = 185.27, $p < .001$. In general, the pattern was very similar to that of best friend approval.

Table 5.4: *Current Drinking by Perceived Peer Approval*

	Drinking Category		
	Non-drinker	*Occas. Drinker*	*Reg. Drinker*
Best Friend Disapproves	84.0	8.7	7.2
	(337)	(35)	(29)
Best Friend Does Not Disapprove	39.3	21.8	39.0
	(585)	(324)	(580)
Other Good Friends Disapprove	79.6	12.4	8.1
	(296)	(46)	(30)
Other Good Friends Do Not Disapprove	41.3	20.6	38.1
	(642)	(321)	(593)
Most Students at School Disapprove	74.7	10.3	15.0
	(174)	(28)	(30)
Most Students at School Do Not Disapprove	44.8	20.2	35.0
	(786)	(354)	(613)
Most Same-age Students Disapprove	70.5	12.9	16.5
	(158)	(29)	(37)
Most Students Do Not Disapprove	45.6	20.0	34.5
	(802)	(351)	(606)

If the other good friends were perceived as not disapproving, the chances were nearly five times greater that the respondent would be a regular drinker, than was the case if other good friends were perceived as disapproving. However, if the best friend disapproved, it was about twice as likely that the student would be a non-drinker.

The pattern for the more remote peer groups was in the same direction although the association was considerably weaker. When the student indicated that most students at his/her school would not disapprove, it was more than twice as likely that he/she would be a regular drinker: Chi-Square (2) = 73.40, $p < .001$. On the other hand, if a student

saw others in school as disapproving, it was nearly twice as likely that he/she would be a non-drinker. As can be seen from Table 5.4, there is a significant (but relatively weaker) association between reported drinking and the perceived approval of "students my age, in general", Chi-Square (2) = 50.33, $p < .001$. If the respondent thought that most same-age peers would not disapprove, the chances of their being a regular drinker were just about twice as great as was the case if same-age peers were perceived as disapproving. Similarly, if same age peers were perceived as disapproving, there was nearly twice the probability that respondents would indicate that they were non-drinkers.

Expectancy-Value Beliefs

Respondents were asked to indicate how likely it was that a specific list of 11 consequences would happen to them personally, as a result of drinking alcohol. Students gave their opinion on a five-point scale (Very Likely - Very Unlikely). Table 5.5 shows the mean rating of likelihood for each of these consequences in each of the drinking categories together with F value associated with the Analysis of Variance.

From Table 5.5 it can be seen that there was a general tendency for regular drinkers, compared with non-drinkers, to estimate that negative consequences were less likely (e.g., getting into trouble with the Gardai), while also estimating that positive consequences were more likely (feeling

Table 5.5: *Mean Rating of Drinkers and Non-drinkers in Perceived Likelihood of Consequences of Drinking*

	Drinking Category			
Consequence	*Non-drinker*	*Occ. Drinker*	*Reg. Drinker*	*F*
Feel relaxed	3.14	2.52	2.12	110.81***
Get in trouble with Gardai	3.28	3.91	4.13	70.27***
Harm health	2.27	3.08	3.48	110.89***
Feel happy	2.73	2.08	1.95	80.28***
Forget my problems	2.87	2.73	2.62	4.22*
Not be able to stop	3.38	3.92	3.90	31.18***
Get a hangover	2.47	3.32	3.64	116.86***
Feel more outgoing	2.59	2.20	1.95	37.56***
Do something I would regret	2.64	3.10	3.28	38.13***
Have a lot of fun	2.73	2.03	1.74	133.06***
Feel sick	2.30	3.32	3.74	233.79***

* $p < .05$ ** $p < .01$ *** $p < .001$

relaxed). In general, occasional drinkers tended to give estimates that were intermediate.

As well as the distinction between positive and negative consequences, it is possible to draw a distinction between long-term and short-term consequences. Earlier work by Grube, McGree and Morgan (1984) has shown that this distinction was especially important in relation to cigarette smoking by primary school pupils. However, this dimension does not seem to be especially important in the context of the perception of drinking consequences. For example, both long-term consequences (harming health) and short-term consequences (feeling sick) show highly significant differences associated with drinking status.

Respondents were also asked how much they would like/dislike it (seven-point scale from "like very much - dislike very much") if any of these consequences were to happen to them personally as a result of drinking alcoholic beverages. The results for this analysis are shown in Table 5.6. From this table it can be seen that there was a general tendency for regular drinkers to evaluate the potential "positive" consequences more positively and the negative consequences more negatively than did non-drinkers. However, it can be seen that a significant difference was not found for two of the consequences and for three others the difference only just reached significance. In general, the items that do not yield significant differences

Table 5.6: *Mean Rating of Drinkers and Non-drinkers on Likelihood of Consequences of Drinking*

	Drinking Category			
Consequence	*Non-drinker*	*Occ. Drinker*	*Reg. Drinker*	*F*
Feel relaxed	2.99	2.24	1.84	104.78***
Get in trouble with Gardai	6.29	6.59	6.29	5.52*
Harm health	6.04	6.35	6.17	3.90*
Feel happy	2.81	1.98	1.71	112.42***
Forget my problems	2.92	2.50	2.18	23.37***
Not be able to stop	6.15	6.24	5.81	8.46**
Get a hangover	5.85	5.97	5.82	.73
Feel more outgoing	2.92	2.51	1.98	44.58***
Do something I would regret	6.01	6.07	5.83	2.03
Have a lot of fun	2.56	1.91	1.47	114.30***
Feel sick	6.07	6.33	6.10	3.5

* $p < .05$ ** $p < .01$ *** $p < .001$

are those which are at the extremes in terms of evaluation, i.e., being regarded by most respondents as very good or very bad. Thus, doing "something I would regret" and "getting a hangover" yielded no differences since so many respondents regarded these as events that they would dislike very much. Similarly "getting into trouble with the Gardai" and "harming health" is something that would be regarded as something disliked by the vast majority, and these consequences barely reached significance.

Problem Behaviour

Respondents were asked how frequently during the past year they had been involved in a list of problem behaviours, including lying to a teacher or parent, taking money that did not belong to them, stealing from shops and damaging other people's property. It was explained that some people may do these things very often and other people not at all. They were asked to indicate how frequently they had done each thing on a five-point scale ranging from "never" to "more than ten times".

The mean scores on the problem behaviours are shown in Table 5.7. From this table it can be seen that regular drinkers compared to non-drinkers reported a greater frequency of performance of each of these behaviours. Furthermore, occasional drinkers reported levels of problem behaviour that were intermediate in frequency. In general, it would seem that while there were significant differences for all problem behaviours, the greatest differences were found for those behaviours of a relatively less serious type. Thus, there were major differences for lying to parents and teachers as well as cutting classes. On the other hand, behaviours like vandalism (although being statistically different across drinking categories)

Table 5.7: *Problem Behaviour and Drinking*

	Drinking Category			
Behaviour	*Non-drinker*	*Occ. Drinker*	*Reg. Drinker*	*F*
Lied to a teacher	2.38	3.04	3.28	140.51***
Lied to parents	2.73	3.18	2.69	103.09***
Purposely damaged property	1.35	1.51	1.86	40.33***
Stolen from shops	1.24	1.49	1.69	34.02***
Hit someone	1.85	1.92	2.40	33.61***
Cut classes	1.35	1.81	2.64	211.92***
Cheated in school	1.71	1.86	2.41	65.96***
Stolen money	1.49	1.71	2.12	62.73***

* $p < .05$ ** $p < .01$ *** $p < .001$

did not show differences of the same magnitude. It would seem that this difference is due to the frequency and gravity of the problem behaviour. Stealing and vandalism occurred with relatively low frequency among the sample, resulting in lesser scope for differences related to drinking to appear.

Self-Esteem. Many theories would suggest that there should be a relationship between self-esteem and drinking behaviour. The proposal has been made that rebelliousness at adolescence in part derives from a negative self-image and that drinking is motivated by acceptance by the peer group. In other words, low self-esteem results in a greater need for a sense of belongingness to the peer culture which in turn results in a greater likelihood of drinking. In many respects, such thinking is broadly in line with social control theory discussed below.

Some research has suggested that there is a need to focus on specific areas of self-esteem (Shoemaker, 1980). The work of Hare (1977) indicates that children and adolescents make distinctions between various dimensions of self-esteem. Specifically, both Hare (1977) and Shoemaker

Table 5.8: *Self-Image and Drinking Category*

Item	*Non-drinker*	*Occ. Drinker*	*Reg. Drinker*	*F*
I know my parents are proud of me	1.78	2.09	2.17	32.03***
My parents know they can depend on me	1.85	2.19	2.32	50.04***
No one pays attention to me at home	4.12	3.97	3.95	4.76**
My parents would trade me for another	4.63	4.54	4.38	9.90***
Other people wish they were like me	3.29	3.40	3.21	3.85*
I am not as popular as others my age	3.05	3.36	3.48	25.44**
I wish I were a different kind of person so that I could have more friends	4.04	4.08	4.13	1.27
Other people think I am a lot of fun	2.32	2.28	2.05	16.71***

Note. Scores are based on a Likert scale; 1 - strongly agree; 5 = strongly disagree.

* $p < .05$ ** $p < .01$ *** $p < .001$

(1980) found evidence of distinction between home and peer self-esteem. This distinction has been utilised in the present study, using four items to measure "home" self-esteem and four to measure "peer" self-esteem.

Respondents were asked to indicate their agreement or disagreement with statements relating to self-esteem (five-point scale, "Strongly Agree - Strongly Disagree"). The mean scores for each item are shown in Table 5.8, together the associated level of significance. Overall, it can be seen that the differences, while significantly different for seven of the eight items, are not substantially very large. Furthermore, the pattern of the difference is interesting. For the first four items, which have dealt with self-esteem in the context of the home, the non-drinkers tend to have a higher self-esteem score, i.e., they tend to agree more strongly with positive statements about themselves and disagree more strongly with negative statements. However, on other items which are based on self-esteem in relation to peers, there is no consistent pattern in the items.

This pattern of results suggests that the self-image is not related in a straightforward way to drinking behaviour. Rather, the crucial factor is the *basis* of the self-esteem. This thinking is in line with recent thinking about self-esteem, viz., that different aspects of self-esteem related differently with various outcomes in achievement (Marsh, *et al.*, 1985). There had been considerable debate concerning the extent to which the self-concept was dominated by a "general factor of global self-esteem or whether it should be considered as multi-dimensional and differentiated. While there is some evidence that overall self-esteem is an important construct, the indications are increasingly pointing to multi-dimensionality. Furthermore, the evidence suggests that this differentiation increases with age" (e.g., Marsh, *et al.*, 1985).

Social Bonding. Social control theory (Kaplan, Martin and Robbins, 1984; Hirschi, 1969) proposes that people are constrained from involvement in deviant behaviour to the extent that they are bonded to conventional institutions of society like the family, school and church. The weakening of social bonds is thought to result in a loss of motivation to conform to the norms of such conventional institutions. This weakening leads in turn to an increase in the acceptance of the norms of deviant groups and in this way self-esteem can be restored. Thus, the social control model predicts that to the extent that bonding to traditional social institutions is weakened the greater is the likelihood that an individual will engage in deviant behaviours, including drinking.

In the present study, social bonding was measured by three items focusing on bonding to religion. An example of one of the items to gauge

such bonding is "How important religion is in your life?" (Very important - very unimportant).

The mean scores for each drinking group are shown in Table 5.9. From this table it can be seen that all three items are negatively related to drinking. In each case, the non-drinkers' score has a higher mean score on bonding than has the regular drinkers'. Furthermore, the occasional drinkers tend to have an intermediate score.

The present work extends the findings of Grube and Morgan (1986) and with a different set of measures. The earlier study showed that self-rating of school achievement and a rating of the importance of school achievement tended to be negatively associated with alcohol use (bonding to school). It also showed that more successful relationships with parents were associated with non-drinking, as was a higher level of perceived importance for these relationships (bonding to family).

Table 5.9: *Bonding to Religion and Drinking Behaviour*

Item	*Non-drinker*	*Occ. Drinker*	*Reg. Drinker*	*F*
Frequency of Church attendance	4.99	4.48	3.88	62.25***
Liking going to Church	2.95	3.30	3.51	44.39***
Importance of religion in my life	2.75	3.06	3.37	34.25***

* $p < .05$ ** $p < .01$ *** $p < .001$

Conclusion of Univariate Analyses

The present chapter examined various normative influences on adolescent drinking as well as the influence of beliefs and personality factors. In the normative domain, both parental drinking and parental approval were related to reported current drinking. Similarly, peer drinking and peer approval were shown to be associated with reported drinking and this relationship was especially true for close friends. As regards beliefs about consequences, there was a significant association between drinking and beliefs in the likelihood of consequences related to drinking (both positive and negative). There was also an association with evaluation of these consequences, but this association was not as consistent as the perception of the likelihood of these same consequences. Finally, while bonding to religion was related to current drinking, only some aspects of self-esteem and problem behaviour were related to consumption.

Multivariate Analyses

Measures of Beliefs, Behaviours and Attitudes

The information and analyses in this chapters have considered only individual items from the survey in comparing young people who were regular drinkers with those who were occasional drinkers or non-drinkers. The important question arises as to the extent to which the individual items reflect the underlying constructs that are thought to be important in adolescent substance use. To examine this question a series of Principal Component factor analyses were conducted, using the Harris-Kaiser ortho-oblique rotations (Harris and Kaiser, 1964). These analyses were conducted on subsets of items based on the theoretical relationship between the items. Thus, separate analyses were carried out for normative influences, expectancy value beliefs and bonding to religion.

It was predicted that the normative influence measures would yield four conceptually distinct measures as follows: (i) parental approval/disapproval of drinking, (ii) peer approval/disapproval, (iii) perceived parental drinking, and (iv) perceived peer drinking. As regards the beliefs about consequences, it was predicted that there would be four belief dimensions: (i) likelihood of positive consequences, (ii) likelihood of negative consequences, (iii) evaluation of the positive consequences, and (iv) evaluation of the negative consequences.

Commonality Analysis of Domains of Predictors

An important question concerns the overall magnitude of the relationship of the various domains of influence on drinking (normative influences, beliefs about consequences and social bonding). Equally important is the extent to which any of these domains contributes uniquely to the prediction of drinking. An equally important point concerns the extent to which such relationships change during adolescence. There are grounds for thinking that there may be developmental changes in the relative strengths of the various influences in the course of the initiation to drinking as has been found with other substances. In studies of cigarette smoking, it has been shown that normative influences are relatively more important in the earlier stages of initiation, while chemical (nicotine) regulation is more important in the maintenance of smoking (Leventhal and Cleary, 1980). There are also indications that older adolescents may be less susceptible to normative influences than are younger adolescents. Some developmental studies of conformity to peer pressure point in this direction. A number of studies have shown that conformity behaviour increases from childhood to early adolescence and then declines in later adolescence (Costanzo and Shaw, 1966).

Commonality analysis seems particularly appropriate for examining such developmental questions. Commonality analysis is a method of variance partitioning that identifies the proportion of variance that may be attributed uniquely to a predictor variable and that which is shared with other variables (Pedhazur, 1982). The unique contribution of a predictor variable is defined as the variance attributable to it when entered last in the regression equation, i.e., when other domains of influence are controlled.

The results of the commonality analysis shown in Table 5.10 are for two dependent variables, viz., frequency of drinking and quantity consumed on any given occasion. Frequency of drinking is a measure of how often the respondent reported having a whole drink of alcohol during the previous year, from "not at all" to "every day" for the types of alcoholic beverages discussed in earlier chapters. Quantity consumed referred to the number of drinks usually consumed by respondents on those occasions when they drank the alcoholic drink in question.

There are a number of points about Table 5.10 that are worth noting. First, the overall predictability of drinking increases from age 13 to 15 years and then drops a little (shows an inverted-U relationship) with age. Secondly, while total association between normative influences and drinking follows roughly the same pattern, the distinctive contribution of normative influences is quite different and tends to be greatest in the early and late adolescence and lower in mid-adolescence. Thirdly, the domain of influence relating to beliefs about consequences predict less well than do normative factors. This is true in terms of total association and is more especially true with regard to unique association. Furthermore, while the total association of this domain shows the inverted-U association with age, the distinctive contribution shows no clear pattern that is consistent across both measures of drinking. Fourthly, the prediction of bonding to religion is less good than the other domains, the pattern is clear, i.e., an increase in prediction up to mid-adolescence followed by a decline. Finally, there is a fair degree of consistency in the relative influence of the various domains in the case of both frequency of drinking and quantity consumed.

Moderating Influences of Age: Frequency of Drinking

The analysis described above was concerned with *broad domains* of influence. The relationship between the specific predictors within each domain was also examined over the various age levels, with frequency of drinking and quantity consumed as the dependent variables. "Frequency of drinking" was the number of times that the respondents reported having a drink during the previous 12 months (nine-point scale ranging from "not at all" to "every day").

Table 5.10: *Total Association an Unique Contribution of Each Category of Predictors at Each Age*

	Age Group				
	13	*14*	*15*	*16*	*17*
			Frequency of Drinking		
			Total Association		
Normative Factors	.21**	.45**	.38**	.38**	.41**
Beliefs about Consequences	.14**	.21**	.33**	.28**	.24**
Bonding to Religion	.01	.18**	.18**	.08**	.06**
All Predictors	.32**	.51**	.51**	.47**	.47**
			Unique Contribution		
Normative Factors	.17**	.23**	.10**	.17**	.22**
Beliefs about Consequences	.10**	.01*	.08**	.08**	.06**
Bonding to Religion	.01	.03**	.04**	.01	.01
			Quantity Consumed		
			Total Association		
Normative Factors	.25**	.40**	.42**	.34**	.32**
Beliefs about Consequences	.27**	.27**	.44**	.39**	.25**
Bonding to Religion	.06**	.22**	.17**	.15**	.07**
All Predictors	.42**	.49**	.58**	.53**	.41**
			Unique Contribution		
Normative Factors	.12**	.15**	.08**	.09**	.14**
Beliefs about Consequences	.15**	.02**	.11**	.14**	.07**
Bonding to Religion	.00	.04**	.03**	.02*	.00

* $p < .05$ ** $p < .01$

Within each domain of predictors the patterns of changes over the years in the strength of influences were tested in a series of hierarchical regression analyses (i.e., Pedhazur, 1982). The critical question was whether using separate regression equations for each group would add significantly to the proportion of variance accounted for compared to that obtained when a common regression coefficient is used. To carry out this

test a set of product vectors (age x target variables) was generated to represent these interactions. The test of significance was carried out by testing the increment in the proportion of variance resulting from the addition of the product vector interactions to the regression equation. For this analysis the scores were centred around the mean, i.e., in deviation form.

Table 5.11 shows the correlations of the various influences with drinking at each age, and Table 5.12 shows the significance of the interaction of age with the various influences, with frequency of consumption during the previous year as the dependent variable. From these tables it can be seen that the presence and nature of interactions of influence with age varies across the different domains. Religious-bonding influences tend to be curvilinear but the relationship is not statistically significant. On the other hand, beliefs about positive and negative consequences tend to follow a curvilinear pattern, increasing through middle adolescence and then decreasing. The exception to this pattern within this domain of influence was in relation to the evaluation of negative consequences, with regard to which a stable pattern was found across the years.

Although there was a significant interaction between each of the four normative influences, the pattern was of an increase for all of the

Table 5.11: *Correlations of Influences with Drinking Frequency at Each Age*

	Age Group				
	13	*14*	*15*	*16*	*17*
Parental Drinking	.01	.05	.31**	.24**	.28**
Parental Approval	.06	.17**	.29**	.28**	.35**
Peer Drinking	.45**	.62**	.56**	.57**	.58**
Peer Approval	.21*	.31**	.38**	.38**	.31**
Likelihood of Positive Consequences	.28**	.31**	.34**	.30**	.28**
Likelihood of Negative Consequences	.29**	.33**	.42**	.40**	.28**
Evaluation of Positive Consequences	.16*	.29**	.41**	.38**	.33**
Evaluation of Negative Consequences	.32**	.28**	.27**	.20**	.25**
Bonding to Religion	.14*	.36**	.37**	.30**	.25**

* $p < .05$ * * $p < .01$

Table 5.12: *Interaction of Age and Influences Relating to Frequency of Drinking*

Influence	*Trend Over Age Groups*	*Influence x Age Interaction F*
Parental drinking	Increase	20.65**
Parental approval	Increase	7.15*
Peer drinking	Stable	2.23
Peer approval	Increase	4.78*
Likelihood of positive consequences	Curvilinear	4.48*
Likelihood of negative consequences	Curvilinear	4.40*
Evaluation of positive consequences	Curvilinear	22.13**
Evaluation of negative consequences	Stable	1.17
Bonding to religion	Curvilinear	1.28

* $p < .05$ ** $p < .01$

influences, with the exception of peer example. In the case of peer example, there was a tendency for the relationship to be stable over the years. On the other hand, the correlation of parental example, parental approval and peer approval with frequency of drinking tended to increase over the years.

Moderating Influences of Age: Quantity Consumed

The analysis of age x influences just described took "frequency of drinking during the previous year" as the dependent variable. Equally important is the information regarding the factors that predict quantity consumed on any given occasion. For this, the analysis was carried out using the number of drinks consumed at any one time (from "none" to "six or more") as the dependent variable. Since four types of drinks were listed, the dependent variable was the average quantity consumed for all four types. The relevant information is shown in Tables 5.13 and 5.14.

There are some important differences between the age by influence interactions with quantity consumed as the dependent variable as opposed to frequency of drinking. As regards the parental influences, both example and approval tend to increase at first and then level off in contrast to the situation with frequency of drinking which shows a consistent increase from age 13 to 17 years. As in the case of frequency of drinking, peer example tends to be a stable influence, while peer approval shows a significant increase with age in the case of frequency of drinking, but tends to be stable

Table 5.13: *Correlations of Influences with Quantity Consumed at Each Age*

	Age Group				
	13	*14*	*15*	*16*	*17*
Parental Drinking	.02	.07	.27**	.22**	.22**
Parental Approval	.04	.12*	.33**	.29**	.34**
Peer Drinking	.45**	.56**	.53**	.53**	.51**
Peer Approval	.32**	.32**	.39**	.49**	.31**
Likelihood of Positive Consequences	.36**	.36**	.36**	.27**	.27**
Likelihood of Negative Consequences	.40**	.33**	.45**	.47**	.28**
Evaluation of Positive Consequences	.22*	.37**	.49**	.40**	.32**
Evaluation of Negative Consequences	.28**	.23**	.23**	.23**	.22**
Bonding to Religion	.21*	.38**	.41**	.35**	.28**

* $p < .05$ ** $p < .01$

Table 5.14: *Interaction of Age and Influences Relating to Quantity Consumed on Any Occasion*

Influence	*Trend Over Age Groups*	*Influence x Age Interaction F*
Parental Drinking	Increase, then stable	7.50*
Parental Approval	Increase, then stable	2.40
Peer Drinking	Stable	.69
Peer Approval	Stable	2.83
Likelihood of Positive Consequences	Stable	1.88
Likelihood of Negative Consequences	Stable	3.26
Evaluation of Positive Consequences	Curvilinear	13.78**
Evaluation of Negative Consequences	Stable	1.69
Bonding to Religion	Curvilinear	3.74*

* $p < .05$ ** $p < .01$

with quantity consumed as the dependent variable.

There are also some differences that emerge with regard to beliefs about consequences. The most important of these is with regard to the shape of the relationship with age. In the case of quantity consumed, three of the four aspects of beliefs about consequences are stable while there is a curvilinear relationship with age with frequency of drinking as the predicted outcome.

Finally, bonding to religion shows much the same pattern as in the case of frequency of drinking, except that the curvilinear relationship-interaction is now statistically significant.

Peer Influences

The study by Morgan and Grube (1991) has gone some way to clarifying the nature of peer group influence on substance use among adolescents. This latter study demonstrated that "peer group" influence was not an appropriate term for the influence processes, since the key reference groups were not same-aged peers but rather the few individuals who were identified as friends. In other words, there seemed to be a direct relationship between closeness and peer/friend influence in the sense that the group of age-mates who were psychologically closer to the individual seemed to have a relatively greater influence.

Another point emerging from the Morgan and Grube study is that behavioural example was a rather more powerful factor in mediating peer influences than was approval. In other words, if the best friend was a substance user (drinker, smoker, etc.) there was a greater likelihood that the respondent would report regular use of the same substance than if the best friend was seen to be approving but not using that substance. As might be expected there was correlation between perceived approval of friends and actual use by friends. However, the effect of actual use was found even having controlled for perceived approval by friends.

That work on peer influence was incomplete in a number of ways. For one thing, only three reference groups (best friend, other good friends and most people of my age) were included. Thus, the present study included the following groups: (i) best friend, (ii) other good friends, (iii) people my age at my school and (iv) people of my age at other schools. The other addition to this study was that the option of "no such person" was added. This might be especially relevant in relation to best friend, since some young people might not see themselves as having a best friend.

Table 5.15 shows the correlation between a variety of peer influences and frequency of drinking as well as quantity consumed. It can be seen from this table that the correlations between friend influences and the

Table 5.15: *Correlations Between Peer Influences and Drinking*

	Frequency of Drinking	*Quantity of Alcohol Consumed*
Best Friend's Approval	.39**	.42
Other Good Friends' Approval	.35**	.38**
Approval of Students my age at my School	.19**	.23**
Approval of Students my age at Other Schools	.20**	.23**
Best Friend's Drinking	.66**	.62**
Other Good Friends' Drinking	.62**	.60**
Drinking of Students my age at my School	.35**	.34**
Drinking of Students my age at Other Schools	.34**	.33**

* $p < .05$ ** $p < .01$

various measures of consumption are much stronger than the correlations between perceived behaviour and approval of remote peer groups and consumption. Thus, the correlations between drinking of best friend and that of the respondents are .66 and .62 for frequency and quantity typically consumed, respectively. On the other hand, the correlations of drinking with perceived drinking of young people of my age in other schools are .34, and .33 for frequency and quantity consumed.

The other point that emerges strongly from Table 5.15 is that the association between reported drinking is much stronger for peer/friend behaviour (drinking) than in relation to peer/friend approval. This general finding is similar to what has been found in the Morgan and Grube (1991) study.

As might be expected, the various measures of friend/peer influence are related to each other. The important question arises, therefore, about the extent to which any one aspect of influence is uniquely influential. To answer this question, the influence of each friend/peer factor was examined, while controlling for the influence of the other peer factors. The outcome of this analysis is shown in Table 5.16. From this table it can be seen that friends' drinking was uniquely important in the sense that they had an incremental influence above and beyond the other peer influences.

Table 5.16: *Increment in Prediction of Specific Peer Influences Over Other Peer Influences*

	Frequency of Drinking		
	Unique Effect	*F*	*Significance*
Best Friend's Approval	.01	6.63	p < .01
Other Good Friends' Approval	.00	.03	ns
Approval of Students my age at my School	.00	.37	ns
Approval of Students my age at Other Schools	.00	.85	ns
Best Friend's Drinking	.05	150.64	<.001
Other Good Friends' Drinking	.02	50.65	<.001
Drinking of Students my age at my School	.00	.17	ns
Drinking of Students my age at Other Schools	.00	.06	ns
	Quantity Typically Consumed		
Best Friend's Approval	.01	29.01	p < .001
Other Good Friends' Approval	.00	.38	ns
Approval of Students my age at my School	.00	2.13	ns
Approval of Students my age at Other Schools	.00	2.19	ns
Best Friend's Drinking	.02	75.65	< .001
Other Good Friends' Drinking	.03	85.62	< .001
Drinking of Students my age at my School	.00	.54	ns
Drinking of Students my age at Other Schools	.00	1.63	ns

Access

The question of the association between availability and drinking *within* and between countries merits attention. Table 5.17 below shows the correlation between perceived ease of access to various drinks and the frequency of drinking of each one as well as the association of perceived access with quantity of drinking of each beverage. Information for both Irish and American samples is shown.

A number of features of Table 5.17 are particularly striking. First, the correlations in all cases are positive and significant. In other words, there is a tendency for young people who perceive alcohol to be available to be more likely to drink. Secondly, the size of the correlations is higher for the Irish students in relation to frequency of drinking than it is in the case of quantity consumed. Thirdly, the correlations tend to be higher in the case of the Irish sample, particularly in relation to frequency of drinking.

Table 5.17: *Perceived Access and Drinking*

	Frequency of Drinking				*Quantity Consumed*			
	Dublin Sample							
	Beer	*Cider*	*Wine*	*Spirits*	*Beer*	*Cider*	*Wine*	*Spirits*
Access to Beer	.49**	.29**	.33*	.43**	.34**	.35**	.27**	.30**
Access to Cider	.48**	.32**	.32**	.42**	.35**	.36**	.31**	.30**
Access to Wine	.38**	.19**	.34**	.35**	.18**	.15**	.32**	.18**
Access to Spirits	.45**	.26**	.32**	.44**	.29**	.16**	.14**	.38**
	American Sample							
	Beer		*Wine*	*Spirits*	*Beer*		*Wine*	*Spirits*
Access to Beer	.27**		.17**	.24**	.25**		.20**	.25**
Access to Wine	.23**		.23**	.24**	.21**		.22**	.23**
Access to Spirits	.32**		.23**	.36**	.30**		.26**	.37**

** $p < .01$

The role of access to alcohol was examined in association with the influence of other factors. An important question concerns the extent to which access to alcohol brings about an increment in the prediction of drinking above that of relevant parent and peer influences. This question was examined for each alcoholic beverage (quantity and frequency) for both the American and Dublin sample.

To answer this question, regression analyses were carried out in which parent and peer influences (both example and approval) were first entered. At the last step, the perceived access to the drink in question was entered and the increment in prediction was calculated. The information thus obtained is shown in Table 5.18.

It can be seen in Table 5.18 that the perceived access to the alcoholic beverages yielded a statistically significant increment in prediction for each drink, for both quantity and frequency and for both Irish and American samples. Thus, it can be said that the additional increment is consistently found. The second point that emerges is that perceived access adds about the same increment for both frequency of drinking and quantity consumed. The third point that emerges is that the increment, while statistically significant in all cases, is not substantial except in the case of access to spirits for the American sample. In the latter case, it can be seen that for both frequency of drinking and for quantity consumed, there was an R square increment of more than 5 per cent.

Table 5.18: *Increment in Prediction of Perceived Access Over Social Influence Factors*

	R^2 *Increment*	*F*	*Significance*
		Dublin Sample	
		Frequency of Drinking	
Access to Beer	.01	41.26	<.001
Access to Cider	.01	14.06	<.001
Access to Wine	.03	55.34	<.001
Access to Spirits	.02	54.40	<.001
		Quantity Consumed	
Access to Beer	.01	32.09	<.001
Access to Cider	.01	15.98	<.001
Access to Wine	.02	41.64	<.001
Access to Spirits	.02	47.85	<.001
		American Sample	
		Frequency of Drinking	
Access to Beer	.02	35.76	<.001
Access to Wine	.02	46.08	<.001
Access to Spirits	.05	107.73	<.001
		Quantity Consumed	
Access to Beer	.01	30.42	<.001
Access to Wine	.05	42.18	<.001
Access to Spirits	.05	119.50	<.001

Conclusions on Multivariate Analysis

The analyses reported in this chapter lead to a number of conclusions. First, it would seem that while various domains of influence are related to the prediction of adolescent drinking, normative influences (relating to influences of parents and peers) are uniquely important in the sense that the influence of the normative domain persists even when other domains of influence are controlled. Secondly, within the realm of peer influences, it would seem that the drinking behaviour of friends is especially important. In contrast, the relationship between perceived drinking or approval of same-age peers is not especially important. When other factors are controlled the effect of perceived access is much weaker, but it still has significant effects. Adolescents who perceive alcohol as easier to obtain, drink more frequently and consume greater amounts per occasion.

Chapter 6

INCREASE IN DRINKING PREVALENCE: AN EXAMINATION OF SOME HYPOTHESES

What is most striking about the results described in the earlier chapters is the increase in drinking compared with the survey seven years earlier. For example, there was an increase in the number of young people who indicated that they ever tried an alcoholic drink from 65 per cent in 1984 to 77.9 per cent in 1991. It was especially noteworthy that in the earlier survey, over 20 per cent of those aged 17 years and older had not tried an alcoholic drink, the corresponding figure had dropped to just over 7 per cent.

On all other relevant indicators, there was a substantial increase. The number who had consumed each of the alcoholic beverages listed (beer, cider, wine and spirits) had increased in each case. There was also an increase in the number of drinks that were usually consumed on any drinking occasion. In line with this, a great many more respondents indicated that they had felt drunk, particularly on 6 or more occasions. The data indicated that the change in drinking had been relatively greater among girls but that the increase was roughly the same for young people from all kinds of social backgrounds.

The comparison with the sample of high-school students in the United States is also of great interest. It emerged that while the prevalence of drinking among young people in the United States had been higher than for Dublin in 1984, the prevalence rates in Dublin seven years later are substantially higher than the American levels. In other words, the level of drinking among American adolescents had remained relatively stable over the years and the rate among young Irish people had increased dramatically.

Below we consider a number of approaches to the explanation of this phenomenon. We will first examine the question of whether this increase in drinking among adolescents has been accompanied by an increase in the consumption of alcohol by *adults*. Second, the extent to which changes in rates of alcohol consumption are associated with changes in the use of *other substances and other problem behaviours*, will be looked at. A third section of the chapter examines the extent to which specific influences related to alcohol may have changed, with particular reference to *perceived approval by parents and peers as well as beliefs about consequences of drinking*. Given that the evidence emerging suggests that the change over the years may be

specifically related to alcohol, the issue of *access* is examined in a fourth section, particularly the question of where students got the alcohol and the location in which it was consumed.

Is the Increase an Artifact of Sample Differences?

The simplest level of explanation that has to be considered is that the increase in drinking is related to a change in the nature of the sample. For example, the mean age might be greater and since drinking is known to be related to age, this factor might account for the difference.

However, this was not the case. In terms of age and gender, a comparison of the 1984 sample with that of 1991 shows that they were comparable in all respects. Obviously, a major control for these changes is that the same schools were used in 1991 as in the earlier work. There was no indication that the intake to any of the schools has changed dramatically in a way that the observed changes could be explained. Thus, the changes cannot be explained in terms of sampling differences.

Is the Increase a Reflection of Greater Alcohol Consumption in the Country?

One possible explanation for the increase in the level of adolescent drinking is that it was a reflection of a greater level of drinking in the country generally. In other words, it might the case that the per capita consumption of alcohol increased dramatically during this time and that this was reflected in the ages at which young people were beginning to drink and the amount and frequency of consumption. This explanation focuses on *alcohol* consumption *per se*, rather than changes in youth culture.

The study by Conniffe and McCoy (1993) presents a detailed account of the consumption of alcohol over most of the years in question. Their results indicated that per capita alcohol consumption in Ireland reached a peak at the end of the late 1970s. Between the late 1970s and mid-1980s consumption declined but has risen slightly again since then. However, there is nothing in the figures on per capita consumption to suggest a major increase between 1984 and 1991. Thus, the figures seem to suggest that the consumption of alcohol in the society generally hardly accounts for the increase described above.

While the figures on per capita consumption do not suggest a general increase in the country, it might be asked why the increase is not reflected in such figures. The most likely answer is that the consumption of adolescents while socially significant does not account for a large percentage of the alcohol consumed in the country.

Is the Increase in Drinking Accompanied by an Increase in the Use of Other Substances?

One line of explanation of the increase in drinking is that it is part of a broader phenomenon that includes higher levels of usage of a range of other substances, particularly illegal drugs. In the present study, as in 1984, information was collected on lifetime prevalence of use of a range of substances. The earlier study had indicated that marijuana and solvents were the most widely used of the illegal substances. However, it was also clear from the 1984 study that the prevalence of the use of such substances was much lower than for most other countries. Could it be that there was a general increase in such substances and that the difference in relation to drinking is but one indication of this?

To answer this question, comparisons were made between the lifetime prevalence of use of various substance in 1984 and 1991. For six of the substances the format of the question was precisely the same as in the earlier survey, viz., marijuana, solvents, cocaine, heroin, barbiturates and amphetamines. For each of these, the respondents were asked if they had ever used the substance in question and they were also given a list of names by which these substances would be commonly know to them, e.g., grass, pot and hash in the case of marijuana. However, there were changes in relation to the item on hallucinogens. In the 1991 study, respondents were asked about hallucinogens and listed in this category were LSD and magic mushrooms. In contrast, in the 1984 study, these substances were listed separately. The other major difference is that tranquillisers were not listed in the earlier survey.

The information in Table 6.1 shows that for some substances there was little or no change, especially for those substances that are regarded as the more serious drugs. However, for some others there are substantial increases. This was the case for solvents and more so in relation to marijuana. In fact, the lifetime prevalence for the use of marijuana has almost doubled, while the increase for solvents, while not being as dramatic, was quite substantial.

As well as lifetime prevalence, a worthwhile comparison can also be made on the basis of the numbers who have used a particular substance within the last month. The 1984 questionnaire included a question on use of these substance "within the last month", while the 1991 data asked about use over the last twelve months but *use over the last month* can be inferred since one option in this question was "once a month or more frequently".

The comparison of current prevalence is shown in Table 6.2. From this it can be seen that marijuana was the only substance with greater

Table 6.1: *Lifetime Prevalence of Illegal Drugs*

	1991	*1984*
Marijuana	25.1	13.2
Solvents	18.9	12.9
Cocaine	2.2	1.5
Tranquillisers	3.1	- *
Hallucinogens	5.9	- *
LSD	- *	2.7
Barbiturates	2.2	2.7
Heroin	1.4	1.2
Amphetamines	2.9	3.3
Psilocybin	- *	4.0

* Item not included.

Table 6.2: *Current Prevalence of Illegal Drugs*

	1991	*1984*
Marijuana	9.2	5.9
Solvents	3.8	5.0
Cocaine	0.3	0.7
Tranquillisers	0.6	- *
Hallucinogens	0.7	- *
LSD	- *	1.2
Barbiturates	1.1	1.4
Heroin	0.8	0.7
Amphetamines	1.3	1.4
Psilocybin	- *	1.2

* Item not included.

current prevalence than was the case in 1984. The increase for marijuana was rather substantial; from less than 6 per cent to over 9 per cent. The current rates of use of other substances tended to be rather similar to the rates in 1984 and in some cases there was a reduction. It is of particular interest that the current use of solvents was slightly less than in the earlier survey.

Taken together, these figures suggest that the real change in illegal drug use over the years has occurred in relation to marijuana. There was little indication of an overall move to a greater acceptance of such substances among young people. Rather, there was an increase in use of marijuana as well as alcohol. An important question, therefore, arises as to the extent to which these increases are associated with each other. To what extent can be it be said that the increase in use of marijuana and alcohol are linked?

One of the other questions posed in the survey may provide the beginnings of an answer to this question. Respondents were asked how frequently (over the last year), that they had used marijuana with alcohol and also the frequency with which they had used drugs, other than marijuana, with alcohol. The results indicated that 7.9 per cent of the respondents said that they used marijuana while drinking alcohol in the previous year, the corresponding figure for other drugs (all together) was only 3.2 per cent. This raises the question of the causal sequence involved, whether the increase in marijuana use may be attributed to the increase in the level of drinking, or vice-versa.

An indication of the causal sequence can be found in the age at which young people began to use the various substances. The median age for beginning marijuana use was over 15 years. This is much earlier than the median age for first use of alcohol and is also earlier than for the use of inhalants (13 years).

Thus, it would seem that while there has been an increase in marijuana use among young people, there has not been an associated increase in the use of illegal substances. Furthermore, while there seems to be an association of the use of marijuana with drinking, the increase in marijuana use seems to be as much a *consequence* of increases in rates of drinking as a cause.

Was the Increase Accompanied by a Change in Level of Smoking of Cigarettes?

While illegal drugs may not have been an important part of the increase in drinking patterns, it might be that increased use of the other major legal drug (tobacco) was associated with this change. This question not only has a bearing on the explanation of the increase in drinking, but is also of considerable interest in its own right since the continuing uptake of cigarette smoking by young people is one of the major health prevention issues of recent times.

Table 6.3 shows the lifetime prevalence of smoking at each age-group in 1984 and 1991. Two points emerge from this table. First, it can be seen that there is a decrease in the numbers who have tried smoking at each age. Secondly, there is a relatively greater decline at ages 13 and 14 years.

Table 6.3: *Lifetime Smoking Rates by Age in 1984 and 1991*

Age Group	*1984*		*1991*	
	Yes	*No*	*Yes*	*No*
13 years and younger	51.9	48.1	45.7	54.3
14 years	64.8	35.2	52.3	47.7
15 years	70.0	30.0	66.3	33.7
16 years	73.2	26.8	62.5	37.5
17 years and older	73.6	26.4	69.8	30.2
All age groups	67.1	32.9	61.1	38.9

Table 6.4: *Current Smoking in 1984 and 1991*

Age Group	*Non-smoker*	*Occasional Smoker*	*Regular Smoker*
		1984	
13 years or less	73.1	14.4	12.5
14 years	63.2	14.9	21.9
15 years	61.1	14.1	24.8
16 years	57.3	11.7	30.9
17 years or more	61.0	9.0	29.9
All age groups	62.9	12.7	24.4
		1991	
13 years or less	81.0	7.7	11.2
14 years	74.6	14.1	11.3
15 years	67.3	15.6	17.1
16 years	64.0	15.9	20.2
17 years or more	54.0	16.9	29.1
All age groups	65.8	14.9	19.2

The current smoking at each age group is shown in Table 6.4. From this it can be seen that in general there is an increase in the number of nonsmokers, this decline is greater at the younger age groups. Actually there seems to a small increase in nonsmokers at age 17 years. However, there is a reduction in the number of smokers at every other age.

The present data suggest that smoking among younger people may be losing favour. The studies by O'Rourke and his colleagues (e.g., O'Rourke, *et al.*, 1971), had found that 68 per cent of young people in post-primary schools had smoked at some time in their lives in 1970. Ten years later the figure was stable at nearly 70 per cent. In the 1984 survey by the authors, the rate of prevalence of lifetime smoking was 67.1, again indicating that the rate had remained stable. The fact that the present data show a drop of about 6 per cent is encouraging, given that this drop is especially evident among the younger age groups.

Taken together with the information on illegal substance abuse, these results do not indicate that there has been a great increase in substance use generally. Rather, it would seem that the increase is largely confined to adolescent drinking.

Is the Increase in Drinking Accompanied by Increases in the Occurrence of Other Problem Behaviours?

In the present research and in the earlier survey, questions were asked about the extent of occurrence of problem behaviours. A comparison with 1984 on these same questions would indicate the extent to which problem behaviours had increased and this might suggest the kind of change that had occurred in the intervening period.

From Chapter 5, it will be recalled that regular drinkers compared to non-drinkers reported a greater frequency of performance of each of a range of problem behaviours. Furthermore, occasional drinkers reported levels of problem behaviour that was intermediate in frequency. It was also shown that while there were significant differences for all problem behaviours, the greatest differences were found for those behaviours of a relatively less serious type. Thus, there were major differences for lying to parents and teachers as well as cutting classes. On the other hand, behaviours like vandalism (although being statistically different across drinking categories) did not show differences of the same magnitude. It was suggested that this difference is due to the frequency and gravity of the problem behaviour since stealing and vandalism occurred with relatively low frequency. In addition to the present work, many American studies have shown a link between alcohol use and a variety of problem behaviours including running away from home, stealing, beating up another person,

arguing with parents and skipping school.

While the questions asked about anti-social behaviour were similar in 1984 and 1991, there was a difference in relation to the time scale asked about. In the earlier survey, no time scale was included while in the later study, respondents were asked to indicate the frequency of the behaviour in question with respect to the previous 12 months. The comparison shown in Table 6.5 indicates a remarkable similarity between the results of 1984 and 1991. Given that a lesser percentage of respondents said they stole in 1991, it could be argued that the figures here do not indicate a substantial rise in anti-social behaviour.

Table 6.5: *Frequency of Problem Behaviours in 1984 and 1991*

	1984			*1991*		
	Never	*1-2 times*	*> 2 times*	*Never*	*1-2 times*	*> 2 times*
Lied to Teacher	10.1	31.4	58.5	10.4	34.8	55.8
Lied to Parents	10.6	33.2	56.2	7.1	32.2	60.7
Purposely damaged property	60.6	24.2	15.4	62.3	24.1	13.6
Stolen something	43.9	32.9	23.2	56.2	26.8	16.3

Is the Increase Due to Changes in Normative Influences?

As noted in Chapter 2, there is considerable evidence that parental *disapproval* tends to be associated with level of alcohol use. Studies in this area have found that in general, perceived disapproval of drinking by parents tends to be related to lower levels of drinking. In some cases a curvilinear relationship between parental attitude and adolescent drinking has been found, with higher levels of drinking being associated with both indifference and with extreme disapproval. There is also evidence that teenagers tend to underestimate the extent of parental disapproval of their use of alcohol in the same way that parents frequently underestimate the extent of drinking by their children.

The importance of peer normative influences has also been discussed at length in the earlier chapter. It was shown that the norms set particularly by close friends are especially important in influencing behaviour.

The items on parental and peer approval in 1984 and 1991 are very similar. Both sought to get an indication of parental and peer approval on a five-point scale. There are, however, two minor differences. The first of these is labelling of the points on the scale. In 1984, the scale was; "disapprove extremely" (1), "disapprove very much" (2), "disapprove" (3),

"disapprove slightly" (4), and "would not disapprove" (5). In 1991, the corresponding items were; "disapprove very strongly" (1), "disapprove strongly" (2), "disapprove" (3), "disapprove a little" (4), and "would not disapprove" (5). The second difference was that the focus of the question was made somewhat more specific; "if you were to drink alcoholic beverages" (1984), and "if you were to have two or three drinks of an alcoholic beverage" (1991).

It would seem reasonable that since "disapprove" was the midpoint in both scales, the scales should be collapsed from five-point to a three-category scale to give (i) strong disapproval, (ii) disapproval, and (iii) little disapproval. Table 6.6 shows the comparison for the two surveys.

From this table, it would seem that there has been a major change in the perceived normative support for alcohol consumption by young people. As might be expected, it was found in both surveys that the level of disapproval of peers was substantially lower than that of parents. However, it is especially interesting that the percentage of parents and peers who are perceived as strongly disapproving has dropped in the period between the two surveys. Conversely, the numbers who showed little disapproval has increased over the years.

Table 6.6: *Parental and Peer Disapproval of Drinking in 1984 and 1991*

	1984			*1991*		
	Strong	*Disapprove*	*Little*	*Strong*	*Disapprove*	*Little*
Mothers' Perceived Disapproval	69.1	14.5	16.4	60.2	19.6	20.2
Fathers' Perceived Disapproval	68.0	14.9	17.1	57.8	16.4	25.8
Best Friends' Disapproval	18.3	12.8	68.9	12.2	10.9	76.9
Other Good Friends' Disapproval	13.5	11.3	75.1	8.9	11.1	80.0

The pattern of change for the disapproval of fathers and mothers is somewhat similar. The number who were perceived as strongly disapproving of the drinking of their offspring showed a drop of about 10 per cent. However, the number of fathers who were seen as showing little disapproval increased quite substantially from just over 17 per cent to nearly 26 per cent while the corresponding increase for mothers was less than 4 per cent (from 16.4 to 20.2 per cent).

The change in the perceived disapproval of peers is interesting in that in mirrors that of parents. In relative terms, the change is perhaps ever more dramatic for peers than that for the parents. Specifically, there was a fall-off of about one-third in the number of best friends and friends who were perceived as strongly disapproving. Given that only a minority of peers was perceived to be in this category in the earlier study, this change may be all the more significant.

Of the various changes that have been examined so far, those pertaining to normative climate are the most consistent. How reasonable is it, therefore, to propose that the changes in the perceived norms are likely to have contributed to the substantial increase in drinking? One factor is worth noting before coming to any conclusion. Because the information was obtained from the respondents, the direction of the effect is in doubt, i.e., the increase in drinking was responsible for the perception of greater social support rather than vice versa. There is ample evidence of what is referred to as the "false-consensus effect" that this can happen. The false consensus effect refers to the tendency to overestimate the extent to which people behave in the same way as oneself. However, this effect tends to be largely related to behaviour rather than to the extent to which approval is involved. In addition, it is not clear why the effect should have increased to such an extent over the years.

Thus, the changes in normative support (or at least lack of serious disapproval) seems a viable candidate in the explanation of the increase in alcohol consumption. However, the extent to which it is a full explanation is less certain. In addition, the relative importance of parents and peers is less certain.

Another aspect of normative support that is worthy of attention is the perception of parental and peer drinking. This feature has received considerable attention in the cross-sectional and longitudinal studies of adolescent drinking and, as was clear from Chapter 2, there is considerable support for viewing it as an important influence. Before examining the evidence for changes in the perception of the respondents in 1984 and 1991, a few aspects are worth considering. First, the evidence on consumption studies mentioned above (Conniffe and McCoy, 1993) suggests that there was no increase in national consumption per capita over the relevant years. Thus, any changes in perceptions will be grounded in the perceptions of the young people involved. A second point is that there *was* an increase in the drinking of young people. Thus, changes in the perceptions in relation to these can be regarded as a reflection of a process that actually occurred.

It would seem reasonable to add the figures for "once a week" and

"more often" for 1984 and also to add "1-2 times a week" and "more often" for 1991 and then compare the figures that are added, since in each case they can be considered to refer to "once a week or more often". The pattern of results shown in Table 6.7 resulting from this addition apparently shows a decline in the perceived drinking of parents and peers. However, there may be a crucial difference between the phrasing of the questions in the two surveys. The 1984 question merely asked about how often the people *have* a drink each week, while the 1991 question asked about the number they have had each week over the last year. A common sense view is that there should be no major differences between these. However, the evidence strongly indicates that the more specific the point of reference the greater the correspondence with behaviour. Thus, when people are asked about a specific period, they tend to respond differently from when they are asked about "typical" behaviour. Because of this difficulty in interpretation, the results cannot be said to have a great bearing on the extent to which there were changes in normative influences over these years.

Table 6.7: *Perceived Drinking of Parents and Peers in 1984 and 1991*

	1984		*1991*	
	Once a week	*More often*	*1-2 times a week*	*More often*
Mother's Drinking	25.8	14.8	28.5	8.4
Father's Drinking	24.8	36.2	32.9	18.9
Best Friend's Drinking	14.7	7.8	15.3	6.6
Other Friends' Drinking	20.0	8.5	16.0	4.6

How Important Are Changes in Expectations?

The extent to which drinking behaviour is influenced by beliefs about the consequences of drinking was examined in Chapter 4. The general finding in this research is that drinkers are more likely to believe that positive consequences (e.g., feeling relaxed) are likely to come about as a result of drinking, and furthermore, drinkers are more likely to judge such positive consequences as being of greater importance than do non-drinkers (Grube and Morgan, 1986). Conversely, as regards negative consequences (e.g., getting into trouble with parents or police), drinkers are inclined to believe that such outcomes are less likely to occur to them than are non-drinkers. In addition, they are also less inclined to believe that such consequences are important.

Since the changes in drinking over the years reflect both quantity and frequency of drinking, it could reasonably be expected that there may be changes in either or both aspects of expectancy. The comparison shown in Table 6.8 is for the perception of the likelihood that particular consequences would occur as a result of drinking. Of these consequences, two are long-term and negative (harming health and getting into trouble), one refers to short-term negative consequences (feeling sick) and two are short-term "positive" consequences.

Table 6.8: *Perception of Likelihood of Consequences of Drinking in 1984 and 1991*

	1984		*1991*	
	Likely	*Unlikely*	*Likely*	*Unlikely*
Harm health	60.9	15.7	43.1	39.2
Feel sick	43.3	35.6	42.4	41.6
Get into trouble	36.4	37.3	20.2	62.5
Forget problems	60.7	20.4	42.8	35.3
Feel happy (feel good)	38.5	39.8	61.9	18.5

The results show that there are remarkably strong changes in relation to some of the consequences. Specifically in relation to "harming health", there is a drop from over 60 per cent to just over 43 per cent in the number of young people who think that this is a likely consequence of their drinking. Conversely, the number who thought that harming their health was unlikely to occur to them has increased from under 16 per cent in 1984 to nearly 40 per cent seven years later. Given that "getting into trouble with police" is also a long-term negative consequence, it would be expected that the pattern would be similar. This turned out to be the case. Again the changes were quite dramatic. In 1984, well over one-third of the respondents were of the opinion that they were likely to get into trouble if they were to drink, while the number who took that view had fallen to just one-fifth seven years later. There was an equally dramatic change in the percentage who thought that it was unlikely that they would get into trouble; the increase was from 37.3 to over 62.5 per cent.

"Feeling sick" after drinking is one of the negative short-term consequences that may occur. Unlike the long-term negative consequences, there were no major changes in relation to the perception of the likelihood of this happening from 1984 to 1991. The only minor change was the relatively greater number (an increase of about 5 per cent)

who thought it unlikely that they would get sick as a result of alcohol consumption.

With regard to "positive" consequences, it might be expected, given the decline in the perceived probability of negative consequences, that there would be an increase in the perceived likelihood that such an outcome would occur. This is indeed the case with one of the consequences (feeling happy/good). There was a rise in the number who judged that this was likely, from under 40 per cent in 1984 to over 60 per cent in 1991 and an equally substantial decline in the percentage who thought it unlikely that they would feel good/happy. However, the pattern of results for "forgetting about problems" is entirely different and opposite to what was predicted. A closer examination shows that in 1984 the respondents were to judge how likely it was that drinking would *help* them to forget their problems while in 1991 they merely judged how likely it was they would forget their problems if they drank. It looks as if this difference in phrasing made a big impact on the students' perceptions.

Is the Increase Due to the Decline in the Importance of Conventional Social Institutions?

As noted in Chapter 2, the bonding to conventional social institutions has the effect of making students less likely to drink or use other substances. This could be taken as supporting the social control viewpoint which suggests that adolescents will be constrained from engaging in deviant behaviours (like underage drinking), if they are bonded to conventional institutions like the church, family and school. If there were a decline in the motivation to conform to any of these institutions, then there might be an increase in the likelihood of drinking during adolescence.

It is unfortunate that much less information was gathered on bonding to conventional social institutions in the 1991 survey than was the case in the earlier survey. In fact, on only one, but extremely important, matter was parallel information gathered, viz., the importance of religion in the young people's lives. The comparison of the 1984 and 1991 data indicates strong similarity across the two surveys. In 1984, only 20 per cent of the respondents said that religion was unimportant/very unimportant in their lives while in 1991 the corresponding figure was 17 per cent. Thus, there is no evidence that the change in drinking behaviour was linked to any decline in the perceived importance of religion in people's lives.

Is the Increase in Drinking Due to Increased Availability?

On the issues of perceived access, there is no comparative information

across the two surveys since questions on access and availability were not included in the 1984 survey. Some detailed information was sought in the 1991 work and since parallel information was included for the American sample, the comparison may be illuminating.

Respondents were asked to indicate how easy or difficult it would be to get various alcoholic drinks if they wanted to do so. The results for each of the four types of alcoholic drinks are shown in Table 6.9 for the Dublin respondents and for the corresponding beverages for the American students.

Two aspects of that table are of particular interest. In an absolute sense it is clear that many of the Dublin respondents thought it would be easy to get the drinks that were listed, if they wanted to. Moreover, the indications were that there is no major difference in ease of access to the various drinks. While a somewhat smaller percentage thought that it would be difficult to get spirits, only 30 per cent of the sample thought it would

Table 6.9: *Perceived Ease of Access to Alcoholic Drinks*

	Very Easy	*Easy*	*Unsure*	*Difficult*	*Very Difficult*
			Dublin Adolescents		
Beer	24.9	32.3	16.1	15.3	11.4
	(493)	(641)	(318)	(303)	(227)
Cider	24.9	31.0	18.0	14.4	11.7
	(493)	(615)	(357)	(286)	(232)
Wine	24.0	30.0	21.0	13.7	11.4
	(476)	(594)	(414)	(272)	(226)
Spirits	21.7	26.5	20.6	15.2	15.9
	(431)	(526)	(410)	(301)	(315)
			American Adolescents		
Beer	34.0	41.1	11.9	8.9	4.1
	(649)	(787)	(224)	(171)	(77)
Wine	32.4	39.3	15.0	8.5	4.6
	(619)	(754)	(288)	(160)	(87)
Spirits	28.4	29.8	18.5	12.2	11.0
	(532)	(564)	(347)	(234)	(206)

be difficult or very difficult to get such drinks. It has to be stressed that these questions were concerned with perceived ease of getting such drinks. Nevertheless, the figures do indicate that access to alcoholic beverages was perceived to be relatively easy.

On the other hand, it is particularly interesting to note that the Americans students perceived it to be much easier than their Irish counterparts to get access to the various drinks. Indeed, the differences are quite large, in this respect. For example, nearly three times as many Irish students thought that it would be very difficult for them to get beer and wine compared to American students.

Location of Drinking and Circumstances of Purchase. A question of considerable interest in relation to access is where alcohol is typically consumed and where and by whom the alcohol is purchased. These questions were included in the 1992 (Phase 11) of the study and since they are of particular interest, the responses are examined here. The pattern of answers should indicate not only whether access to alcohol is easy but also suggest measures that should be considered in relation to restrictions of purchases.

Three questions were asked. The first concerns the location of drinking, the second with the person who purchased (or otherwise obtained) the alcohol on that occasion and the third with where the alcohol was obtained. Since it might be expected that on many occasions people would obtain it in many different locations and drink in several places, the question asked about the most recent time on which alcohol was consumed during the last 12 months.

The information on the location of drinking is shown in Table 6.10. In looking at this table two considerations should be borne in mind. First, the locations indicated are not exclusive. For example, a bar might be located in a club or disco. The second point is that students may have drunk in more than one location on any given occasion, e.g., in a public park and later in a friend's house. For these reasons the percentage add up to well over 100. However, they give an indication of the relative popularity of locations.

What is most striking about Table 6.10 is the fact that a great many locations are mentioned and that no single place accounts for over 30 per cent of the total. It would seem that the locations fall under three broad headings. The first of these might be called licensed premises including bars, night clubs and discos. The second category involves homes, either the young person's own home or that of their friends. A final important

Table 6.10: *Locations of Drinking on Last Occasion*

Location	*Percentage*
Own Home	15.6
Someone Else's Home	19.1
In Street	14.7
School Grounds	2.7
Sporting Events	3.7
Public Park	13.7
Bar	29.3
Night Club/Disco	18.6
Restaurant	4.8
Run-down Building	3.3
Car	2.7
Other Location	8.7

category is comprised of public areas, including streets and parks.

The respondents were also asked from where the drink was obtained (as opposed to where it was consumed). Again, the same three categories emerged. In about 55 per cent of the cases the alcohol was obtained from bars/discos, in another 30 per cent from home/friends' homes or from parents, while in the remaining 15 per cent the alcohol was got from a variety of other sources.

Finally, the students were asked about the person *from whom* they got the alcohol. The most interesting aspect of the response to this question was that only about one-third said that they themselves bought the alcohol. In another third the alcohol was bought by friends, while in the remaining instances the alcohol was got in other ways, e.g., strangers bought it, stole from home, etc.

These findings suggest that the question of access and location is an extremely complex one. An important point is that the location of drinking/person obtaining the alcohol, was dependent on age. Thus, there was a relatively greater tendency for people who were 15 to drink in locations other than pubs. Similarly, relatively younger respondents tended to get the alcohol from other people as opposed to buying it for themselves. Overall, while we have no definite indication that access to alcohol is easier or more difficult than it was some years ago, we can say with some certainty that it is not especially easy for youngsters to obtain alcoholic beverages. The drift of the data seems to suggest that this is not the most important

factor of the increase. On the other hand, it will be recalled from Chapter 5 that *perceived access* had an incremental effect on consumption over and above other factors related to drinking.

Summary and Conclusions

The increase in drinking among adolescents did not seem to be due to artifacts relating to sample or similar factors. Neither was there evidence that it was associated with an increase in the level of alcohol consumption in the country generally. It did not seem to be the case that there was a massive increase in the use of other substances. In fact, there was a small decline in the level of the uptake of smoking among young people. The evidence reviewed here seemed to be consistent with a change in the normative climate surrounding alcohol consumption by young people. In particular the indications were that in comparison to the earlier survey, young people saw relatively less disapproval by their parents and peers and perceived these to be more likely to approve of their drinking. There were no firm indications that access to alcohol was especially easy or that this was an important factor in the increase in drinking.

Chapter 7

CONCLUSIONS AND RECOMMENDATIONS FOR PREVENTION

The picture emerging from the present study suggests a number of conclusions. First, the level of drinking among adolescents in Ireland has increased very considerably over a period of seven years. This was especially the case in relation to being drunk. Related to this is the finding that the significant minority of young people who traditionally did not try out alcohol until they were adults, has declined significantly. Secondly, the gap between boys and girls has narrowed considerably. For some measures the prevalence rates for girls have nearly doubled since 1984. Thirdly, the pattern of the increase in drinking is similar across all socio-economic groups. Fourthly, the change in drinking cannot be attributed to any one type of alcoholic beverage. Fifthly, the initiation to alcohol seems to take place at younger ages compared with seven years ago.

It must be borne in mind that the problems which Ireland has in this regard are shared by all countries that have gathered systematic information on adolescent drinking. However, it is also true that in those countries that have gathered information on trends, no dramatic increase like that described above has been apparent in any of them. In fact, there is evidence that drinking is decreasing (slightly) among young people in the United States and in some other countries (Johnston, *et al.*, 1990). The fact that our schools, age groups, questions, procedures and definitions are almost identical to the earlier study suggests that the observed increase is not due to any population or procedural difference. Finally, the present findings from the United States are very similar to those for other studies, especially other research carried out in California (e.g., Skager and Austin, 1992).

A number of hypotheses regarding the cause for this increase in drinking were examined. There were no indications that the increase was due to a general change in the pattern of anti-social behaviour or to an increase in use of other substances. In fact, it was noteworthy that there was a small decline in the take-up of cigarette smoking by the present cohort. Furthermore, while there was an increase in the use of marijuana, this increase seemed to be due as much to the association with drinking than vice versa. What was especially noteworthy is that the perceived norms and beliefs surrounding the use of alcohol by young people had become more favourable than among the earlier cohort.

It is our view that a systematic policy approach to dealing with these problems is urgently needed. The two earlier reports in this series dealt respectively with education programmes and initiatives that attempt to reduce supply of various substances. Below we examine recent developments in relation to prevention of alcohol misuse, in the light of considerations arising from the policies proposed in the recently published Green Paper.

Education for a Changing World

We have singled out alcohol for particular attention for several important reasons. The increase in the consumption of alcohol among young people, the relatively early age of onset as well as the development of norms supportive of the youthful drinking, all suggest that there is a need for concerted action.

Our expectation is that tackling this problem will be a relatively difficult one. Even in comparison with smoking the prevention of drinking problems is greater if only because of the nature of the message. At least with cigarettes the message was clear; no number of cigarettes can be regarded as good. Thus, the answers to the questions of when someone should start and how many they smoke were clear since they were "never" and "none". The message for alcohol is open to misinterpretation. To wait until "mature" or "old enough" is a difficult idea to promote. The additional difficulty that there may be a level of drinking which is either good or harmless (at worst) makes the message even more open to misinterpretation.

Alcohol Control Policies

Conniffe and McCoy (1993) propose that a national alcohol policy should have two components, viz., an emphasis on reducing the *availability* of alcohol and on reducing the *demand* for alcohol. They note that prices and taxation can indeed affect the demand for alcohol. However, they are of the view that because of differences between socio-economic groupings and regions, a general price increase would be insensitive and undiscriminating. They cite the example of beer, which would require a huge price increase to reduce consumption. Furthermore, since beer drinking is most relevant among lower income groups, such price increases would bear most heavily on such groups. Worse still, they suggest that even within such groups, the substantial price increase would bring about a reduction of consumption mainly through its effect on moderate rather than problem drinkers.

Rather than a general price increase, Conniffe and McCoy found evidence that price policy could help to achieve a switch from drinks with a higher alcohol content to drinks with a lower alcohol content. Extending this argument to low alcohol beers, they argue that it should be possible to reduce average chemical intake through relative pricing policy.

Conniffe and McCoy acknowledge that no single approach (like pricing policies) is likely to bring about a reduction in the demand for alcohol. Indeed this is a view with which we concur, based on the data reported here. More generally, we would argue that approaches which focus on supply only can only have limited success. While much of the public debate has centred on ways of reducing the supply of alcohol to young people through interventions like ID cards and other kinds of support for minimum age laws, the pattern of information on access and supply indicate that such measures can have only limited success. Two features of our results are especially noteworthy. The first is that Irish adolescents took the view that alcohol was relatively difficult to get in comparison with their American counterparts.

Thus, there is the question of how easy it might be to further reduce access given such perceptions. The other point is that many young people did not rely on ways of obtaining alcohol that are easily targeted by legal means. It was especially noteworthy that many young people consumed alcohol in locations that are in some ways beyond the domain of law. Consequently, while the enforcement of the law certainly has a role to play, over-reliance on legal remedies is inappropriate. Educational interventions need to be given attention in the school curriculum.

Below we consider some of the recent evidence and thinking relating to alcohol education programmes. While the focus will be on attempting to identify the components of such programmes that enhance their effectiveness, we recognise that like any other approach, educational interventions *of themselves*, can have only a limited impact on the problem.

On the other hand, undue pessimism is entirely inappropriate. For several years there has been despair about the continuance of the smoking habit in the population especially among young people. Indeed one of the main reactions that greeted our 1986 report was that it showed the folly of trying to prevent smoking since obviously young people were untouched by campaigns. Yet this reaction now seems to have been inappropriate. The evidence of the present report is that the effort focused on smoking prevention is beginning to pay off. It is also worth noting that the first efforts to prevent smoking onset were quite unsuccessful.

Recent Developments in Alcohol Education

Educational approaches to alcohol education frequently fail to specify the nature of the behaviour change that is supposed to take place as a result of the intervention. In many instances, the model of behaviour change is implicit or represents a gross over-simplification of the state of knowledge regarding the factors that impinge on behaviour change. However, it is fair to say that many current approaches are based on one of five conceptualisations of behaviour change, viz., (i) the knowledge/attitudes model, (ii) values/decision-making model, (iii) self-efficacy/social competency model, (iv) the normative education approach and, (v) the risk-focused interventions.

The knowledge/attitudes model suggests that if knowledge about the negative consequences of alcohol use is assimilated, then less favourable attitudes towards use of alcohol should ensue. In turn, these negative attitudes should result in a decreased likelihood of drinking. While this model of behaviour change had a particularly strong influence on research in the 1950s and 1960s and while it has an intuitive plausibility, the recent social-psychological literature has shown that this view provides an incomplete picture of the events determining behaviour. The greatest difficulty for the model is that attitudes and behaviour are less than perfectly related. Two factors seem to be especially important in this regard. First, attitudes are only one of the influences on behaviour. Thus, the behaviour of drinking alcohol will be influenced by an array of other variables (normative pressures, etc.) in addition to the attitude to alcohol. The second point is that attitudes can be expected to change behaviour only in those cases where there is a correspondence between the measured attitude and the specific behaviour. In other words, changes in overall attitude to drinking may not change the specific intention that a person may have to drink on a particular occasion. It may be easier to bring about negative attitudes to alcohol than it is to change attitudes in relation to specific personal habits. In addition, there is considerable evidence that knowledge and information about alcohol are quite unrelated to consumption. In fact, the study by McAteer (1991) indicated that a higher percentage of current drinkers claimed to have received alcohol education than did the non-drinkers.

The *decision-making model* focuses on the individual and attempts to increase self-awareness of a range of values and the way in which alcohol can serve in promoting or preventing the fulfilment of those values. The central idea is to prevent alcohol use through a self-examination of values. Essentially, young people are required to ask themselves whether drinking is consistent with a variety of beliefs and values, which they themselves

regard as important. This approach has been used in a variety of other contexts, including drug education, health education, moral education, and interpersonal problem-solving.

While some evaluations of the decision-making model have been quite dismissive (e.g., Moskowitz, 1989); there may be considerable value in exploring the potential of this approach with some students. However, it may be more effective with an older age group or with people who are relatively bright. Certainly there are important educational philosophical grounds in having such a component in a programme in the sense that it is essentially non-directive and contrasts with the didactive style of older approaches.

One of the most recently developed models assumes that individuals develop problems with alcohol because they lack particular social skills. This thinking has been heavily influenced by Bandura's self-efficacy theory (Bandura, 1986) which proposes that behaviour is heavily influenced by feelings of efficacy regarding the behaviour in question. Application of the self-efficacy model have mainly involved (i) teaching skills to reduce social influences that increase the probability of drinking, e.g., resisting peer pressure, (ii) modelling health-promoting behaviours, and (iii) teaching more general intrapersonal and interpersonal life-skills, e.g., coping and communication skills.

With regard to the self-efficacy model, it is worth noting that the various ideas that make up the model have been formalised only in the last few years. Thus, there has been little chance to systematically test the various ideas that are central to it. Secondly, unlike some other ways of thinking, the model places emphasis on *skills* as well as knowledge and attitudes. Several lines of evidence are now converging to indicate that an emphasis on knowledge of itself is unlikely to bring about behaviour change. As indicated above, knowledge is only one of the determinants of behaviour.

The results of evaluations of the social-competency model have shown greater success when such interventions are led by peers (Botvin, *et al.*, 1987). This may reflect either better learning of skills from peers or greater awareness of norms antithetical to alcohol use as a result of peers' versus teachers' demonstrations.

One extremely important point about the social influence strategies (i.e., the social skills/competency approach) is whether the skills learned generalise to other domains. There are two versions of this issue. On the one hand, it would be important to know whether the skills learned in the context of combatting substance use transfer to other contexts that do not involve substance use. For example, the social skill of assertiveness might

be expected to generalise to other domains, e.g., withstanding bullying, coping with manipulation, etc. While this transfer has been assumed to occur in many programmes, it seems not to have been empirically tested.

Much more empirical attention has been given to the second question, viz., the extent to which programmes focusing on one substance generalise to another, without any specific material on the second substance. Ellickson and Bell (1990) sought to extend the social influence model of smoking prevention to alcohol and marijuana. Overall, the results showed a modest success. In addition to the reductions in smoking, modest reductions in drinking for students at three risk levels were observed immediately after the peer-led version of the programme, but disappeared at a one-year follow-up. However, the curriculum was associated with significant reductions in both initiation and later use of marijuana. The researchers speculated that the apparent effectiveness of the social influence approaches for tobacco and marijuana may reflect generalised norms against those two substances, while for alcohol, social influence in training is less effective because society has not developed a consensus against its use.

On the other hand, Biglan, *et al.* (1987) found no generalisation of an anti-smoking programme to alcohol or marijuana. Thus, the question of whether such programmes transfer to other substances, is unresolved at the moment.

One important finding of the present study concerns the possibility that younger adolescents may be especially influenced by the behaviour of older peers (see Chapter 4). If that turns out to be the case, then social skills approaches would need to take this into account in selection of peer leaders and in the conduct of the role-plays that are a central feature of this approach.

Normative education approaches take as their point of departure the consistent relationship found between normative support and drinking (as well as other substance use). Thus, normative education curricula are designed to make salient to young people that the norms regarding alcohol use are conservative. The components often include the provision of evidence that alcohol use is not as widespread among peers as children may think, encouragement for young people to make public commitments not to drink, the depiction of alcohol use as socially unacceptable and the use of peer leaders to teach the curriculum.

An example of normative education is the work of Hansen and his colleagues (Hansen and Graham, in press). This work has shown that a programme designed to correct the erroneous perceptions among students about the prevalence and acceptability of alcohol, actually deterred the

onset of use of drinking. Specifically, it was shown that normative education reduced the incidence of drunkenness and the prevalence of alcohol problems among students in Junior High Schools in California. Furthermore, Hansen and Graham have demonstrated that normative education was more effective than resistance skill training in reducing the onset of drinking behaviour.

While these initial tests of the effects of normative education are promising, some considerations about the nature of peer influence are worth considering. First, the available evidence would suggest that information about same-age peers should have relatively little influence compared to the closer peer group (friends and the "best friend"). A second consideration is the bias that tends to cause people to see their opinions and behaviours as more typical than they actually are. The very large literature on this "False-consensus effect", has shown that such beliefs are not easily modified and may have a deeper significance for the individual who holds them. Thus, it may well be that the "establishment of conservative norms" may indeed be an effective means of reducing drinking, the real difficulty may well be in *how* such norms can be established.

On the other hand, the normative education approach has one important implication for teachers, parents, etc. In the writers' experience, many efforts to combat the onset of drinking often begin with the information that the problem in question (i.e., underage drinking) is widely prevalent. This may unwittingly undermine any subsequent benefit that the advice/attempt to persuade may otherwise have had.

One of the most promising approaches to the prevention of adolescent alcohol and other drug problems is through a risk focused approach (Hawkins, Catalano and Miller, 1992). Such an approach requires a number of steps: (i) identification of high-risk factors for alcohol abuse, (ii) identification of the strategies that are effective in reducing such risk factors, and (iii) application of such methods to high-risk and general population studies. For example, low family bonding, problem behaviours, tolerance of deviance and perceived peer approval have all been shown (in the present report among others) to be related to substance abuse. If strategies could be identified to reduce these factors, then by implication these same strategies could be used to prevent substance abuse.

It must be admitted that few studies (if any) have gone through all of the steps required in this approach. Moreover, many risk factors are either not amenable to modification (genetic factors) or extremely difficult to change (parental behaviour). However, various studies taken together testify to the promise of the approach. There is considerable evidence that

aggression and other problem behaviours in the primary school years are associated with increased risk of drug-use during the adolescence. In turn, it has been suggested that educational strategies designed to enhance social competencies of youngsters during childhood might reduce the risk of later drug abuse (Hawkins *et al.*, 1992). For example, it might be that children who are aggressive and disruptive are rejected by their peers because they are deficient in basic interpersonal skills that can be taught.

Social competence promotion approaches have used a number of methods. For example, socially rejected youths have been taught social interaction skills to increase the frequency of their social interactions (Ladd and Asher, 1985). However, while such programmes have been tested in relation to their effects on short-term outcomes such as adjustment at school and relationship with peers, only a small number of studies have examined effects on later substance use.

However, a few studies which have measured alcohol-related outcomes have yielded promising results. Lochman (1988) examined the effects of an anger management programme during school hours for boys identified as aggressive by their teachers. The programme included role-playing, goal-setting, social-problem solving skills as well as modelling of alternative ways of coping with anger-arousing situations. Three years later, the boys in the programme were found to have significantly lower rates of alcohol and marijuana use compared to a matched group of adolescent boys.

The risk-focused approach to prevention of alcohol problems merits attention. A "risk-focused" basis is not concerned with short-term consequences of quick and easy manipulations. Rather, it attempts to prevent the onset of problems by addressing the developmental factors that are crucially related to substance-abuse problems. The real difficulties with the approach lie in the fact that the factors being addressed are extremely difficult to control since they involve matters like parental behaviours, enhancement of school-achievement and learning to use alternatives to aggression.

Substance Abuse Prevention Programme

The recent curriculum package on Substance Abuse Prevention (SAP) Programme produced by the Departments of Education (Psychological Services and the Department of Health (Health Promotion Unit)), has the advantage of taking elements of several of the models of behaviour change into account. Thus, sections of the materials are concerned with the information regarding various substances' *consequences*. For example, in relation to alcohol, various consequences are described including "....staggering, double vision, less control and more extreme responses

(being aggressive, picking fights, crying more easily)...". Furthermore, the consequences of alcoholism for a family are described at another point "... effects of alcoholism spread throughout a family. Children are the real innocent sufferers of the alcoholic parent. They observe a home life that is often very different from that of their friends. ... they feel the resentment, rage and hopelessness of the parents. It can be a baffling, complex and frightening experience".

Perhaps the most significant influence on the SAP programme is the self-knowledge decision-making tradition. Several of the lessons have as their objective the understanding and expressions of feelings. The introduction to this section sets out the rationale for these aspects of the programme. "... without an active effort to bring out feelings into the open, they often remain hidden. Many people are not even aware of their feelings - they may feel uncomfortable or uneasy but they cannot identify the source. Frequently people lack the words to express how they are feeling. This seems to be particularly true of boys". The section on the development of self-esteem is guided by the same tradition. The rationale for the section on self-esteem is "... a strong, clear sense of self and a high level of self-esteem are a vital basis for the development of responsible autonomous behaviour".

The SAP programme also contains important elements of the self-efficacy model. In particular, a number of units are aimed specifically at the development of assertiveness. This latter concept is defined as a communication skill that teaches individuals to "... express their feelings and opinions and beliefs directly and honestly. Assertive individuals learn to stand up for their rights without violating the rights of others. Assertive behaviour does not humiliate, threaten, dominate, degrade, or use coercion or guilt". The basic strategy for this component is to introduce concepts in the context of experiences that are familiar to students, and subsequently to apply such skills in specific situations with direct relevance for substance abuse.

This programme is currently being piloted in eight schools. An evaluation involving a comparison of pupils in control schools is also taking place. The results should provide directions for future development and refinement of the programme.

Potential for Mass Media/Community Interventions

As noted above, one possibly fruitful approach to prevention is through changing social norms. Such changes have been discussed at classroom and school level. However, there is also potential for changing norms at community level through the mass media. This raises the

question of the effects of exposure to alcohol-related messages in the media. The effects of messages designed to enhance attitudes to alcohol as well as those promoting a cautious or negative attitude have been examined in a relatively small number of studies.

The available research does not seem to provide definitive evidence regarding the effects of advertising. A relatively small number of studies have addressed the relationship between exposure to alcohol advertising and drinking by young people. A series of studies by Atkin and his colleagues provide support for the view that there is indeed a relationship between exposure to such advertising and alcohol consumption. Thus, in one study measures of exposure to advertising were directly related to heavy drinking, problem drinking and drinking in hazardous circumstances (while driving) among young people up to 22 years of age (Atkin, Hocking and Block, 1984). Furthermore, these relationships remained even when significant demographic variables and perceptions about drinking by parents and peers were controlled. Another study demonstrated that adolescents who were heavily exposed to advertising were more likely to agree that drinkers possessed valued attributes such as being attractive, athletic or successful (Atkin and Block, 1981). Other studies have shown that young drinkers are more likely to be exposed to alcohol advertisements, are more accurate in identifying brands of beer and are more favourably disposed towards these advertisements than are non-drinkers (Aitken, Eadie, Leather, McNeill and Scott, 1988). Similarly, it has been shown that children who have more favourable beliefs and intentions about drinking are more aware of advertising (Wallach, Cassady and Grube, 1990),

Grube and Wallach (in press) reasoned that simple exposure to alcohol advertising was hardly sufficient to bring about attitude and behaviour change. Rather, they proposed advertisements should have significant effects on behaviour only when they are attended to and remembered. They also proposed that alcohol advertising should influence drinking behaviour largely through its effects on other mediating variables, specifically its effects on increasing favourable beliefs about drinking and undermining beliefs concerning the negative consequences of drinking. These hypotheses were examined in a survey of 468 5th and 6th grade school children, focusing specifically on television. In addition to exposure and awareness of advertising, this study also included an index of exposure to drinking in fictional television programmes.

The results indicated that beer advertising had a significant effect on these young people. Specifically, awareness of beer advertising had an indirect influence on intentions to drink as an adult that was mediated

through an increase in positive beliefs about drinking. Furthermore, these effects were maintained even when the reciprocal effects of knowledge and beliefs on awareness were controlled. Interestingly, the advertising effects did not influence beliefs about the negative aspects of drinking - an outcome which is hardly surprising given that such advertisements generally ignore such problems as drinking and driving, problem drinking, etc.

While studies of the effects of anti-drink advertisements are harder to locate, there is some work on the effects of a campaign designed to encourage negative attitudes towards the use of illegal drugs. Results of one such evaluation indicated that saturation advertising was accompanied by significant normative changes over a one-year period (Black, 1989). Young people generally were more negative in their attitudes towards drugs, viewed drug users less positively and perceived less drug use among their friends compared to one year previously. Moreover, in areas that received saturation coverage, more children reported conversations about drugs with their parents and teachers. It is, however, worth noting that teenagers aged 13 to 17 years showed the fewest changes associated with saturation coverage, although even these became more positive in their perception of non-users and perceived greater risks from marijuana and cocaine use.

A related important consideration is the extent to which community action can be supportive and helpful in preventing the onset of drinking. The potential of a community intervention is illustrated in a recently completed study in Wexford town (Wexford Community Action Programme, 1992). This study involved efforts to reduce both the supply of alcohol as well as the demand. Thus, the efforts to reduce demand focused on education prevention strategies in schools as well as parental workshops. In addition, the Voluntary Identification Card scheme was bolstered and workshops were held for bar staff. There was also a series of community meetings to promote the project.

The evaluation of the project was based on attitudes, beliefs and behaviours of a sample of 300 children from the town in comparison with a similar sample from a matched town which did not have such an intervention. The results showed that the community intervention was associated with less positive beliefs about alcohol as well as less perceived support for drinking. Whether these results are due to the actual intervention or to the readiness of a community to confront the problem, is difficult to say. However, the results are promising and indicate the potential of community-based interventions. While this study demonstrated the potential in this regard, it also showed the practical

difficulties of mobilising public opinion. Underage drinking may be of some concern to a great number of people; however, there are no groups for whom it is *the* single greatest concern.

It is also appropriate to draw attention to the pilot project on *Parent Education on Alcohol, Drugs and Family Communication.* This programme has been developed by the Health Promotion Unit in conjunction with the Cork Social and Health Education Project of the Southern Health Board. This programme focuses not only on the various substances but also on the skills that help young people deal with the social situation as encountered in their own community. In addition, several important dimensions of parenting are dealt with, including communication, conflict resolution and development of self-control. There would seem to be grounds for development and evaluation of this approach.

Green Paper Proposals

The Government Green Paper "Education for a Changing World" proposes a wide range of measures to foster the development of health-promoting schools. Among the initiatives that are put forward is the "Health Promoting School Project". This programme, which is part of a network of schools throughout Europe, will involve relevant community health personnel and will have a particular emphasis on the prevention of life style diseases. The Green Paper also refers to a variety of other initiatives - the Substance Use Prevention Project, Child Abuse Prevention Programmes and HIV/AIDS Prevention Project.

A number of comments on these proposals are in order. While the development of initiatives of this kind are naturally to be welcomed, there is a danger that a proliferation of programmes competing with each other may not last in the competition with other subjects in the timetable. The experience of post-primary schools in the past is that subjects which are introduced have great difficulty in surviving with the traditional examination subjects. The probability of such initiatives surviving is lessened if there are competing pilot programmes within the same general area, i.e., substance use. Since so many of the programmes have as their basis the development of social skills and self-esteem, it may be more appropriate to accommodate new programmes within such a context.

It is very important to realise the contribution that social and health education can make to a balanced curriculum. Despite the emphasis on broad educational aims in the Junior Certificate programme, in practice the pressure of examinations has the effect of narrowing the broad aims so that only the cognitive domain is relevant. Affective aims are hard to target in traditional classrooms; these aims do not sit easily with "high-stakes"

examinations. The programmes that are aimed at social and health educational objectives offer a new range of experiences with an emphasis on dimensions that are quite untouched by traditional examination subjects.

A final point is that there is a need to co-ordinate school and community efforts. Most of the programmes which have had some success have tried to link together community and school efforts so that there is a change in the general "ethos". In fairness, the Green Paper acknowledges this and talks of a need for "... developing a school policy on personal and social education in conjunction with staff and parents" (p.131).

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APPENDIX A

FACTOR ANALYSIS OF BELIEFS, ATTITUDES AND VALUES

Drinking Beliefs

The factor pattern matrix for the measures of normative influences are shown in Table A.1. The entries in this table, or factor loadings, can be interpreted as standardised regression coefficients predicting the observed variables from the underlying factors or latent variables. From Table A.1 it can be seen that the hypotheses concerning the structure of normative beliefs were substantially correct. Each of the survey items loaded significantly (> .60) on the expected factor and no item loaded on more than one factor.

The first factor in Table A.1 relates to the respondents' beliefs about how much their friends and peers would approve of their drinking alcohol, while the second factor is indicative of the perceptions of frequency of students', friends and peers' drinking. The items loading on the third and

Table A.1: *Oblique Rotated Factor Patterns for Normative Influences Related to Drinking*

	Factor			
Measure	*I*	*II*	*III*	*IV*
Mother's Drinking	.13	.12	*.87*	.09
Father's Drinking	.14	.11	*.87*	.09
Best Friend's Drinking	.14	*.73*	.34	.08
Other Good Friends' Drinking	.16	*.78*	.30	.05
Drinking of Students in my School	.19	*.83*	.03	.07
Drinking of Students in Other Schools	.18	*.80*	.02	.04
Mother's Disapproval	.05	.07	.06	*.88*
Father's Disapproval	.08	.08	.10	*.87*
Best Friend's Approval	*.73*	.23	.34	.04
Other Good Friends' Approval	*.72*	.23	.36	.05
Approval of Students at my School	*.89*	.16	.00	.06
Approval of Students at Other Schools	*.88*	.14	.00	.06
Cumulative Variance	.38	.51	.64	.75

fourth factors concerned the perceptions of parents' and friends'/peers' drinking, respectively.

The factor pattern for the items concerning beliefs about the consequences of drinking are shown in Table A.2. In this table, the first factor is comprised of items relating to the evaluation of the potential negative consequences of drinking (getting a hangover, getting in trouble

Table A.2: *Oblique Rotated Factor Patterns for Beliefs About Consequences Related to Drinking*

	Factor			
Measure	*I*	*II*	*III*	*IV*
Feel Relaxed (likelihood)	.04	.19	.37	*.57*
Feel Happy (likelihood)	.02	.26	.13	*.79*
Forget My Problems (likelihood)	.07	.14	.28	*.70*
Feel More Friendly (likelihood)	.01	.30	.02	*.63*
Have a Lot of Fun (likelihood)	.15	.33	.16	*.69*
Get Into Trouble with Gardai (likelihood)	.18	.12	*.69*	.03
Harm My Health (likelihood)	.01	.18	*.68*	.05
Not Be Able To Stop Drinking (likelihood)	.24	.00	*.55*	.08
Get a Hangover (likelihood)	.00	.08	*.76*	.02
Do Something I Regret (likelihood)	.06	.07	*.73*	.08
Feel Sick To My Stomach (likelihood)	.05	.13	*.74*	.14
Feel Relaxed (evaluation)	.00	*.74*	.20	.20
Feel Happy (evaluation)	.00	*.83*	.16	.25
Forget My Problems (evaluation)	.04	*.71*	.11	.22
Feel More Friendly (evaluation)	.01	*.77*	.08	.22
Have a Lot of Fun (evaluation)	.03	*.81*	.15	.21
Get Into Trouble With Gardai (evaluation)	*.74*	.01	.04	.00
Harm My Health (evaluation)	*.74*	.02	.03	.03
Not Be Able To Stop Drinking (evaluation)	*.73*	.04	.06	.08
Get a Hangover (evaluation)	*.72*	.08	.05	.04
Do something I regret (evaluation)	*.78*	.03	.03	.09
Feel Sick To My Stomach (evaluation)	*.72*	.05	.04	.05
Cumulative Variance	.24	.41	.52	.58

with Gardai). The second factor represents an evaluation of the potential "positive" consequences of drinking (feeling relaxed, forgetting my troubles). The third and fourth factors correspond to the likelihood of negative consequences and positive consequences of drinking, respectively.

Deviant Behaviour

The measures of deviant behaviour consisted of self-reports of the frequency with which students engaged in a range of behaviours. The expectation was that the factor analysis should give rise to two factors, corresponding respectively to minor and more serious forms of deviant behaviour. It can be seen that lying to parents and teachers and cutting classes/cheating in school comprise the factor relating to minor forms of deviance, while damaging other people's property, stealing things and hitting someone in a fight make up the factors underlying the more serious form of deviance. Interestingly, an item on stealing money that did not belong to you, split between the two factors.

Table A.3: *Oblique Rotated Factor Pattern for Anti-Social Behaviour*

Item	*Factor*	
	I	*II*
Lied To A Teacher	*.79*	.17
Lied To A Parent	*.78*	.13
Purposely Damaged Other People's Property	.28	*.72*
Stolen Things	.14	*.75*
Hit Someone During A Fight	.08	*.76*
Cut Class or Skipped School	*.66*	.13
Cheated In School	*.56*	.32
Taken Money That Did Not Belong To You	.41	.46

APPENDIX B

Survey of Post-Primary Students

PLEASE DO NOT PUT YOUR NAME ANYWHERE ON THIS SURVEY

IR-I
March 7, 1991

INSTRUCTIONS

- Please do not put your name anywhere on this survey. Your answers are strictly confidential. We have no way to match your name with your survey. Your parents, teachers, or other authorities will never see your answers. We are interested in group averages only and not in any individual's answers.
- For the study to be worthwhile, it is important that you tell us the truth on all of the questions. If you do not want to answer a question, please skip it and go to the next one rather than not telling the truth.
- Some questions will ask you about your parents. Unless the question says <u>not</u> to, please think of the people you live with most of the time. This may be stepparents, grandparents, foster parents, or someone else.
- If you live with one parent only, just think of that person when a question asks about your parents.
- If you want to change an answer once you've marked it, please erase it or draw a slash through it. Then mark your new answer and draw a circle around it like this:

C-1 What is your sex? (Please tick one box.)

1 [✓] Male

2 [✓] Female

- Whenever you see an arrow, follow the directions next to the answer you have marked. Sometimes the direction will tell you to go to the very next question. Sometimes it will tell you to skip ahead to another question. For example:

Q-10 Have you **ever** smoked a whole cigarette (more than just a puff or two)? (Please tick one box and follow the direction next to it.)

1 [ ] YES ----------> **GO TO THE NEXT QUESTION (Q-11)**

2 [ ] NO ----------> **GO TO Q-14 AT TOP OF NEXT PAGE**

If you had smoked a cigarette, you would tick the box next to "YES" and go to the very next question, Q-11. If you had never smoked, you would tick "NO" and go to Q-14 at the top of the next page.

This is a three year study of how opinions and behaviours change over time. Many of you will be asked to fill out surveys again next year and the year after. Because your name is not on the questionnaire, we need another way to match today's survey with those you will fill out later. The next six questions make up a code that will help us match your surveys over time without telling us who you are.

C-1 What is your sex? (Please tick one box.)

1 [ ] Male
2 [ ] Female

C-2 Fill in Number

a. How many older brothers (not stepbrothers) do you have? (If you have none, write "none") ..... _____

b. How many older sisters (not stepsisters) do you have? (If you have none, write "none") ..... _____

C-3 Fill in Number

a. How many younger brothers (not stepbrothers) do you have who were born before January 1, 1991? (If none, write "none") ..... _____

b. How many younger sisters (not stepsisters) do you have who were born before January 1, 1991? (If none, write "none") ..... _____

C-4 What is the first letter of your mother's or stepmother's first name? (Tick the box next to the pair of letters that includes the first letter of her name. For example, if your mother's first name is Nancy, tick the box by the letters "M, N".)

1 [ ]	A, B	6 [ ]	K, L	11 [ ]	U, V
2 [ ]	C, D	7 [ ]	M, N	12 [ ]	W, X
3 [ ]	E, F	8 [ ]	O, P	13 [ ]	Y, Z
4 [ ]	G, H	9 [ ]	Q, R	14 [ ]	NO MOTHER OR STEPMOTHER LIVING WITH ME
5 [ ]	I, J	10 [ ]	S, T		

C-5 What is the first letter of your middle name? (If you have no middle name, tick the last box "No Middle Name". If you have more than one middle name, think of the name right after your first name.)

1 [ ]	A, B	6 [ ]	K, L	11 [ ]	U, V
2 [ ]	C, D	7 [ ]	M, N	12 [ ]	W, X
3 [ ]	E, F	8 [ ]	O, P	13 [ ]	Y, Z
4 [ ]	G, H	9 [ ]	Q, R	14 [ ]	NO MIDDLE NAME
5 [ ]	I, J	10 [ ]	S, T		

C-6 On what date of the month were you born? (Tick the box next to the group of dates containing the date of the month on which your birthday falls.)

1 [ ]	1, 2, 3	4 [ ]	10, 11, 12	7 [ ]	19, 20, 21
2 [ ]	4, 5, 6	5 [ ]	13, 14, 15	8 [ ]	22, 23, 24
3 [ ]	7, 8, 9	6 [ ]	16, 17, 18	9 [ ]	25, 26, 27
				10 [ ]	28, 29, 30, 31

Q-1 We would like to ask you some general questions about your opinions toward school. Please read each statement and tell us how much you agree or disagree with it. (Just tick **one** box under the answer for each statement that best expresses how you feel.)

	STRONGLY AGREE 1	AGREE 2	UNSURE 3	DISAGREE 4	STRONGLY DISAGREE 5
a. IT IS IMPORTANT TO ME TO ALWAYS FOLLOW THE RULES AT SCHOOL	[ ]	[ ]	[ ]	[ ]	[ ]
b. NO MATTER HOW HARD I TRY, I NEVER DO AS WELL IN SCHOOL AS I WOULD LIKE	[ ]	[ ]	[ ]	[ ]	[ ]
c. I AM USUALLY PROUD OF HOW I DO IN SCHOOL	[ ]	[ ]	[ ]	[ ]	[ ]
d. MY TEACHERS EXPECT TOO MUCH FROM ME	[ ]	[ ]	[ ]	[ ]	[ ]
e. SCHOOL IS HARDER FOR ME THAN IT IS FOR MOST PEOPLE	[ ]	[ ]	[ ]	[ ]	[ ]

Q-2 Next we'd like to ask about your opinions toward your family and yourself. How much do you agree or disagree with the following statements?

	STRONGLY AGREE 1	AGREE 2	UNSURE 3	DISAGREE 4	STRONGLY DISAGREE 5
a. OTHER PEOPLE WISH THEY WERE LIKE ME	[ ]	[ ]	[ ]	[ ]	[ ]
b. I AM NOT AS POPULAR AS OTHER PEOPLE MY AGE	[ ]	[ ]	[ ]	[ ]	[ ]
c. NO ONE PAYS MUCH ATTENTION TO ME AT HOME	[ ]	[ ]	[ ]	[ ]	[ ]
d. I WISH I WERE A DIFFERENT KIND OF PERSON BECAUSE THEN I WOULD HAVE MORE FRIENDS	[ ]	[ ]	[ ]	[ ]	[ ]
e. IF THEY COULD, MY PARENTS WOULD TRADE ME FOR ANOTHER CHILD	[ ]	[ ]	[ ]	[ ]	[ ]
f. OTHER PEOPLE THINK I AM A LOT OF FUN TO BE WITH	[ ]	[ ]	[ ]	[ ]	[ ]
g. I KNOW MY PARENTS ARE PROUD OF ME	[ ]	[ ]	[ ]	[ ]	[ ]
h. MY PARENTS KNOW THAT THEY CAN DEPEND ON ME	[ ]	[ ]	[ ]	[ ]	[ ]

Q-3 How much do you agree or disagree with the following statements?

		STRONGLY AGREE	AGREE	UNSURE	DISAGREE	STRONGLY DISAGREE
		1	2	3	4	5
a.	I ALWAYS FOLLOW THE RULES MY PARENTS HAVE MADE FOR ME	[ ]	[ ]	[ ]	[ ]	[ ]
b.	MY PARENTS HAVE A VERY STRICT RULE THAT I AM NOT TO DRINK ALCOHOLIC BEVERAGES AT ALL	[ ]	[ ]	[ ]	[ ]	[ ]
c.	MY PARENTS WOULD NEVER FIND OUT ABOUT IT IF I WERE TO DRINK ALCOHOL	[ ]	[ ]	[ ]	[ ]	[ ]
d.	MY PARENTS HAVE MADE IT VERY CLEAR TO ME WHAT THEIR RULES ARE ABOUT ME DRINKING	[ ]	[ ]	[ ]	[ ]	[ ]
e.	IT IS IMPORTANT TO ME TO ALWAYS DO WHAT MY PARENTS TELL ME TO DO	[ ]	[ ]	[ ]	[ ]	[ ]

Q-4 Here is a list of things that some people may do very often and other people not at all. How often in the **past 12 months** have **you** done each of the following things?

How often in the **past 12 months** have you . . .

		NEVER	ONCE OR TWICE	3-6 TIMES	7-10 TIMES	MORE THAN 10 TIMES
		1	2	3	4	5
a.	LIED TO A TEACHER	[ ]	[ ]	[ ]	[ ]	[ ]
b.	LIED TO A PARENT	[ ]	[ ]	[ ]	[ ]	[ ]
c.	PURPOSELY DAMAGED OTHER PEOPLE'S PROPERTY	[ ]	[ ]	[ ]	[ ]	[ ]
d.	STOLEN THINGS FROM A STORE OR SHOP	[ ]	[ ]	[ ]	[ ]	[ ]
e.	HIT SOMEONE DURING A FIGHT	[ ]	[ ]	[ ]	[ ]	[ ]
f.	CUT CLASSES OR SKIPPED SCHOOL ALTOGETHER	[ ]	[ ]	[ ]	[ ]	[ ]
g.	CHEATED IN SCHOOL	[ ]	[ ]	[ ]	[ ]	[ ]
h.	TAKEN MONEY THAT DID NOT BELONG TO YOU	[ ]	[ ]	[ ]	[ ]	[ ]

Q-5 Overall, how much would each of the following people disapprove if you were to have two or three whole drinks of an alcoholic beverage? (Tick one box for each. If you are unsure, make your best guess.)

By alcoholic beverages we mean **beer** (stout, ale, lager), **cider** (Stag, etc.), **wine, wine coolers,** or **spirits** (vodka, gin, whiskey, etc.).

		DISAPPROVE VERY STRONGLY	DISAPPROVE STRONGLY	DISAPPROVE	DISAPPROVE A LITTLE	WOULD NOT DISAPPROVE	NO SUCH PERSON
		1	2	3	4	5	6
a.	MY MOTHER OR STEPMOTHER	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
b.	MY FATHER OR STEPFATHER	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
c.	MY BEST FRIEND	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
d.	MY OTHER GOOD FRIENDS	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
e.	MOST STUDENTS MY AGE AT MY SCHOOL	[ ]	[ ]	[ ]	[ ]	[ ]	
f.	MOST STUDENTS MY AGE AT OTHER SCHOOLS	[ ]	[ ]	[ ]	[ ]	[ ]	

Q-6 How often did each of the following people have at least one whole drink (more than a sip or taste) of beer, cider, wine, wine cooler, or spirits during the past 12 months? (If you are unsure, make your best guess.)

		NOT AT ALL	1-2 TIMES IN THE PAST 12 MONTHS	3-5 TIMES IN THE PAST 12 MONTHS	6-10 TIMES IN THE PAST 12 MONTHS	ABOUT ONCE A MONTH	2-3 TIMES A MONTH	1-2 TIMES A WEEK	SEVERAL TIMES A WEEK	EVERY DAY	NO SUCH PERSON
		1	2	3	4	5	6	7	8	9	98
a.	MOTHER OR STEPMOTHER	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
b.	FATHER OR STEPFATHER	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
c.	BEST FRIEND	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
d.	OTHER GOOD FRIENDS	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
e.	MOST STUDENTS MY AGE AT MY SCHOOL	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
f.	MOST STUDENTS MY AGE AT OTHER SCHOOLS	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	

Q-7 How likely or unlikely is it that each of the following things would happen to <u>you personally</u> if <u>you</u> were to drink <u>2 or 3 whole drinks</u> of beer, cider, wine, wine cooler, or spirits?

If I were to have 2 or 3 whole drinks of beer, cider, wine, wine cooler, or spirits, I would . . .

		VERY LIKELY 1	LIKELY 2	UNSURE 3	UNLIKELY 4	VERY UNLIKELY 5
a.	FEEL RELAXED	[ ]	[ ]	[ ]	[ ]	[ ]
b.	GET INTO TROUBLE WITH THE GARDA	[ ]	[ ]	[ ]	[ ]	[ ]
c.	HARM MY HEALTH	[ ]	[ ]	[ ]	[ ]	[ ]
d.	FEEL HAPPY	[ ]	[ ]	[ ]	[ ]	[ ]
e.	FORGET MY PROBLEMS	[ ]	[ ]	[ ]	[ ]	[ ]
f.	NOT BE ABLE TO STOP DRINKING	[ ]	[ ]	[ ]	[ ]	[ ]
g.	GET A HANGOVER	[ ]	[ ]	[ ]	[ ]	[ ]
h.	FEEL MORE OUTGOING OR FRIENDLY	[ ]	[ ]	[ ]	[ ]	[ ]
i.	DO SOMETHING I'D REGRET	[ ]	[ ]	[ ]	[ ]	[ ]
j.	HAVE A LOT OF FUN	[ ]	[ ]	[ ]	[ ]	[ ]
k.	FEEL SICK TO MY STOMACH	[ ]	[ ]	[ ]	[ ]	[ ]

Q-8 How much would you like or dislike it if each of the following things happened to <u>you personally</u> as a result of drinking alcoholic beverages?

		LIKE VERY MUCH 1	LIKE 2	LIKE A LITTLE 3	NEITHER LIKE NOR DISLIKE 4	DISLIKE A LITTLE 5	DISLIKE 6	DISLIKE VERY MUCH 7
a.	I FELT RELAXED	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
b.	I GOT INTO TROUBLE WITH THE GARDA	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
c.	I HARMED MY HEALTH	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
d.	I FELT HAPPY	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
e.	I FORGOT MY PROBLEMS	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
f.	I WAS UNABLE TO STOP DRINKING	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
g.	I HAD A HANGOVER	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
h.	I FELT MORE OUTGOING OR FRIENDLY	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
i.	I DID SOMETHING I REGRETTED	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
j.	I HAD A LOT OF FUN	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
k.	I FELT SICK TO MY STOMACH	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

Q-9 Suppose you wanted to get each of the following things. How easy or difficult do you think it would be for you to get them?

		VERY EASY	EASY	UNSURE	DIFFICULT	VERY DIFFICULT	NEVER HEARD OF IT
		1	2	3	4	5	8
a.	CIGARETTES	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
b.	BEER (STOUT, ALE, LAGER)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
c.	CIDER (STAG, ETC.)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
d.	WINE	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
e.	WINE COOLERS	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
f.	SPIRITS	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
g.	MARIJUANA OR HASHISH (WEED, GRASS, POT, HASH)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
h.	INHALANTS (SNIFFING GLUE, PAINT, PETROL, ETC.)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
i.	COCAINE (CRACK, COKE, ROCK)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
j.	TRANQUILIZERS (VALIUM, LIBRIUM, THORAZINE, ETC.)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
k.	HALLUCINOGENS (LSD, ACID, MUSHROOMS, PEYOTE, ETC.)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
l.	BARBITURATES (SEDATIVES, DOWNERS, BARBS)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
m.	HEROIN OR OTHER NARCOTICS	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
n.	AMPHETAMINES (ICE, SPEED, CRANK)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
o.	PCP (ANGEL DUST)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

The next questions concern smoking, drinking, and other drug use. Remember, your parents, teachers, or other authorities will never see your answers. Please try to be as truthful as you possibly can.

Q-10 First of all, have you ever smoked a whole cigarette (more than just a puff or two)? (Please tick one box and follow the direction next to it.)

1[ ] YES ----------> GO TO THE NEXT QUESTION (Q-11)

2[ ] NO ----------> GO TO Q-14 AT TOP OF NEXT PAGE

Q-11 How old were you the first time you ever smoked a whole cigarette? (If you are unsure, make your best guess.)

_____ YEARS OLD

Q-12 Did you smoke at least one whole cigarette during the last 12 months? (Please tick one box and follow the direction next to it.)

1[ ] YES ----------> GO TO THE NEXT QUESTION (Q-13)

2[ ] NO ----------> GO TO Q-14 AT TOP OF NEXT PAGE

Q-13 Overall, about how many cigarettes did you smoke during the past 30 days?

1[ ] NONE
2[ ] ONLY A FEW, LESS THAN 1 EACH WEEK
3[ ] 1-2 EACH WEEK
4[ ] 3-5 EACH WEEK
5[ ] 1-2 A DAY
6[ ] 3-5 A DAY
7[ ] 6-10 A DAY
8[ ] 11-15 A DAY
9[ ] 16-20 A DAY
10[ ] MORE THAN 20 A DAY

Q-14 Have you **ever** had a **whole drink** (more than a sip or taste) of any of the following alcoholic beverages?

		YES	NO
		1	2
a.	BEER (STOUT, ALE, LAGER)	[ ]	[ ]
b.	CIDER	[ ]	[ ]
c.	WINE	[ ]	[ ]
d.	WINE COOLER	[ ]	[ ]
e.	SPIRITS (VODKA, GIN, WHISKEY, ETC. OR MIXED DRINKS MADE WITH SPIRITS)	[ ]	[ ]

IF YOU HAVE NEVER HAD A WHOLE DRINK OF BEER, CIDER, WINE, WINE COOLER, OR SPIRITS, GO TO Q-22 AT THE TOP OF PAGE 12.

Q-15 How old were you the first time you **ever** had a **whole drink** of each of the following? (If unsure, make your best guess.)

		YEARS OLD	NEVER
			98
a.	BEER	_____	[ ]
b.	CIDER	_____	[ ]
c.	WINE	_____	[ ]
d.	WINE COOLER	_____	[ ]
e.	SPIRITS	_____	[ ]

Q-16 On the average, about how often did you have a **whole drink** of each of the following during the **past 12 months**?

		NOT AT ALL	1-2 TIMES IN THE PAST 12 MONTHS	3-5 TIMES IN THE PAST 12 MONTHS	6-10 TIMES IN THE PAST 12 MONTHS	ABOUT ONCE A MONTH	2-3 TIMES A MONTH	1-2 TIMES A WEEK	SEVERAL TIMES A WEEK	EVERY DAY
		1	2	3	4	5	6	7	8	9
a.	BEER	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
a.	CIDER	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
b.	WINE	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
c.	WINE COOLER	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
d.	SPIRITS	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

IF YOU HAVE NOT HAD A WHOLE DRINK OF BEER, CIDER, WINE, WINE COOLER, OR SPIRITS IN THE PAST 12 MONTHS, GO TO Q-21 AT THE TOP OF PAGE 11

Q-17 Those times when you drank each of these alcoholic beverages in the past 12 months, about how **much** did you **usually** have at any one time?

		NONE	LESS THAN ONE	ONE	TWO	THREE	FOUR	FIVE	SIX OR MORE
		1	2	3	4	5	6	7	8
a.	BEER (GLASSES OR BOTTLES)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
b.	CIDER (GLASSES OR BOTTLES)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
c.	WINE (GLASSES)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
d.	WINE COOLER (BOTTLES)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
e.	SPIRITS (SHOTS OR MIXED DRINKS)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

Q-18 On the average, how many times in the **past 12 months** have you had enough to drink to make you feel drunk?

1 [ ] NONE IN THE PAST 12 MONTHS
2 [ ] ONCE OR TWICE
3 [ ] 3-5 TIMES
4 [ ] 6-10 TIMES
5 [ ] ABOUT ONCE A MONTH
6 [ ] 2-3 TIMES A MONTH
7 [ ] 1-2 TIMES A WEEK
8 [ ] 3-4 TIMES A WEEK
9 [ ] 5-6 TIMES A WEEK
10 [ ] EVERY DAY

Q-19 How often did you have a **whole drink** of each of the following alcoholic beverages in the **past 30 days**?

		NOT AT ALL	ONCE	2-3 TIMES	1-2 TIMES A WEEK	3-4 TIMES A WEEK	5-6 TIMES A WEEK	EVERY DAY
		1	2	3	4	5	6	7
a.	BEER	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
b.	CIDER	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
c.	WINE	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
d.	WINE COOLER	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
e.	SPIRITS	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

IF YOU HAVE NOT HAD A WHOLE DRINK OF BEER, CIDER, WINE, WINE COOLER, OR SPIRITS IN THE PAST 30 DAYS, GO TO Q-21 AT THE TOP OF PAGE 11

Q-20 On the average, how many times in the **past 30 days** have you had enough to drink to make you feel drunk?

1 [ ] NONE
2 [ ] 1-2 TIMES
3 [ ] 3-4 TIMES
4 [ ] 5-6 TIMES
5 [ ] 7-8 TIMES
6 [ ] 9-10 TIMES
7 [ ] MORE THAN 10 TIMES

Q-21 How often has each of the following things **ever** happened to you?

How often have you...

		NEVER	ONCE	2-3 TIMES	4-5 TIMES	6-9 TIMES	10 OR MORE TIMES
		1	2	3	4	5	6
a.	GOT INTO TROUBLE WITH YOUR PARENTS BECAUSE OF YOUR DRINKING	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
b.	GOT INTO TROUBLE WITH THE GARDA BECAUSE OF YOUR DRINKING	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
c.	MISSED SCHOOL BECAUSE OF DRINKING	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
d.	GOT SICK TO YOUR STOMACH WHILE DRINKING	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
e.	GONE TO SCHOOL FEELING DRUNK	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
f.	BEEN UNABLE TO REMEMBER SOME OF THE THINGS YOU DID WHILE DRINKING	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
g.	PASSED OUT WHILE DRINKING	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
h.	DRIVEN A CAR OR MOTORCYCLE WHILE DRINKING OR JUST AFTER DRINKING	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
i.	RIDDEN A BICYCLE JUST AFTER DRINKING	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

Q-22 The next questions are about your use of other drugs **not given to you by a doctor**. Have you **ever** used any of the following drugs?

		YES	NO
		1	2
a.	MARIJUANA OR HASHISH (WEED, GRASS, POT, HASH)	[ ]	[ ]
b.	INHALANTS (SNIFFING GLUE, PAINT, PETROL, ETC.)	[ ]	[ ]
c.	COCAINE (CRACK, COKE, ROCK)	[ ]	[ ]
d.	TRANQUILIZERS (VALIUM, LIBRIUM, THORAZINE, ETC.)	[ ]	[ ]
e.	HALLUCINOGENS (LSD, ACID, MUSHROOMS, PEYOTE, ETC.)	[ ]	[ ]
f.	BARBITURATES (SEDATIVES, DOWNERS, BARBS)	[ ]	[ ]
g.	HEROIN OR OTHER NARCOTICS	[ ]	[ ]
h.	AMPHETAMINES (ICE, SPEED, CRANK)	[ ]	[ ]
i.	PCP (ANGEL DUST)	[ ]	[ ]

IF YOU HAVE NEVER USED ANY OF THESE DRUGS, PLEASE GO TO Q-27 ON THE TOP OF PAGE 14.

Q-23 How old were you the very first time you used each of the following? (Fill in the blank for each with the correct age or tick the box under "never" if you have never tried it.)

		YEARS OLD	NEVER
			98
a.	MARIJUANA OR HASHISH	_____	[ ]
b.	INHALANTS	_____	[ ]
c.	COCAINE	_____	[ ]
d.	TRANQUILIZERS	_____	[ ]
e.	HALLUCINOGENS	_____	[ ]
f.	BARBITURATES	_____	[ ]
g.	HEROIN OR OTHER NARCOTICS	_____	[ ]
h.	AMPHETAMINES	_____	[ ]
i.	PCP	_____	[ ]

Q-24 How often have you used each of the following drugs during the **past 12 months**? (Please tick one answer for each drug.)

		1 NOT AT ALL	2 1-2 TIMES IN THE PAST 12 MONTHS	3 3-5 TIMES IN THE PAST 12 MONTHS	4 6-10 TIMES IN THE PAST 12 MONTHS	5 ABOUT ONCE A MONTH	6 2-3 TIMES A MONTH	7 1-2 TIMES A WEEK	8 SEVERAL TIMES A WEEK	9 EVERY DAY
a.	MARIJUANA OR HASHISH	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
b.	INHALANTS	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
c.	COCAINE	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
d.	TRANQUILIZERS	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
e.	HALLUCINOGENS	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
f.	BARBITURATES	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
g.	HEROIN OR NARCOTICS	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
h.	AMPHETAMINES	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
i.	PCP	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

Q-25 How many times in the **past 12 months** have you used marijuana or hashish at the same time that you were drinking alcohol?

1 [ ] NONE
2 [ ] 1-2 TIMES
3 [ ] 3-4 TIMES
4 [ ] 5-6 TIMES
5 [ ] 7-8 TIMES
6 [ ] 9-10 TIMES
7 [ ] MORE THAN 10 TIMES

Q-26 How many times in the **past 12 months** have you used drugs **other** than marijuana or hashish at the same time that you were drinking alcohol?

1 [ ] NONE
2 [ ] 1-2 TIMES
3 [ ] 3-4 TIMES
4 [ ] 5-6 TIMES
5 [ ] 7-8 TIMES
6 [ ] 9-10 TIMES
7 [ ] MORE THAN 10 TIMES

Q-27 Next, we would like to ask you a few background questions to help us know more about the students we have in our survey.

In what month were you born?

1 [ ] JANUARY	5 [ ] MAY	9 [ ] SEPTEMBER
2 [ ] FEBRUARY	6 [ ] JUNE	10 [ ] OCTOBER
3 [ ] MARCH	7 [ ] JULY	11 [ ] NOVEMBER
4 [ ] APRIL	8 [ ] AUGUST	12 [ ] DECEMBER

Q-28 In what year were you born?

1 [ ] 1970	4 [ ] 1973	7 [ ] 1976
2 [ ] 1971	5 [ ] 1974	8 [ ] 1977
3 [ ] 1972	6 [ ] 1975	9 [ ] OTHER (Please specify:_____)

Q-29 What is the **highest** level of education your father or stepfather completed? (If you are unsure, make your best guess.)

1 [ ] DID NOT COMPLETE PRIMARY SCHOOL
2 [ ] PRIMARY SCHOOL
3 [ ] INTERMEDIATE OR GROUP CERTIFICATE
4 [ ] LEAVING CERTIFICATE
5 [ ] SOME UNIVERSITY
6 [ ] UNIVERSITY GRADUATE
7 [ ] POST-GRADUATE DEGREE OR PROFESSIONAL QUALIFICATION AT UNIVERSITY
8 [ ] NO FATHER OR STEPFATHER LIVING WITH ME

Q-30 What is the **highest** level of education your mother or stepmother completed? (If you are unsure, make your best guess.)

1 [ ] DID NOT COMPLETE PRIMARY SCHOOL
2 [ ] PRIMARY SCHOOL
3 [ ] INTERMEDIATE OR GROUP CERTIFICATE
4 [ ] LEAVING CERTIFICATE
5 [ ] SOME UNIVERSITY
6 [ ] UNIVERSITY GRADUATE
7 [ ] POST-GRADUATE DEGREE OR PROFESSIONAL QUALIFICATION AT UNIVERSITY
8 [ ] NO MOTHER OR STEPMOTHER LIVING WITH ME

Q-31 Which of the following best describes your own religion?

1 [ ] CATHOLIC
2 [ ] CHURCH OF IRELAND (PROTESTANT)
3 [ ] METHODIST
4 [ ] PRESBYTERIAN
5 [ ] OTHER PROTESTANT (Specify: _____)
6 [ ] JEWISH
7 [ ] OTHER RELIGION (Specify: _____)
8 [ ] NO RELIGION

Q-32 How often do you go to church or religious services?

1[ ] LESS THAN ONCE A YEAR OR NEVER
2[ ] ONCE OR TWICE A YEAR
3[ ] SEVERAL TIMES A YEAR
4[ ] ABOUT ONCE A MONTH
5[ ] TWO OR THREE TIMES A MONTH
6[ ] ABOUT ONCE A WEEK
7[ ] MORE THAN ONCE A WEEK

Q-33 How much do you like or dislike going to church or religious services?

1[ ] LIKE VERY MUCH
2[ ] LIKE
3[ ] UNSURE
4[ ] DISLIKE
5[ ] DISLIKE VERY MUCH

Q-34 How important or unimportant is religion to <u>you</u> personally in your everyday life?

1[ ] VERY IMPORTANT
2[ ] IMPORTANT
3[ ] SOMEWHAT IMPORTANT
4[ ] SOMEWHAT UNIMPORTANT
5[ ] UNIMPORTANT
6[ ] VERY UNIMPORTANT

Q-35 Compared with other families in Ireland, how rich or poor would you say your family is?

1[ ] RICH
2[ ] ABOVE AVERAGE
3[ ] A LITTLE ABOVE AVERAGE
4[ ] ABOUT AVERAGE
5[ ] A LITTLE BELOW AVERAGE
6[ ] BELOW AVERAGE
7[ ] POOR

Thank you for your help. If you have any questions or comments, please feel free to write them in the space below.

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