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* A COMPARISON OF VARIOUS MEASURES OF UNEMPLOYMENT *
* AND THEIR CORRELATES *
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Summary.

The paper explores the extent to which different measures of unemployment experience computed for the NCDS cohort between the ages of 16 and 23 tend to identify respondents with different characteristics. The nine measures of unemployment defined in Working Paper 16 were initially reduced to five on grounds of conceptual and empirical distinctness, and the highest approximate deciles on these were computed separately for men and women. The overlap between the deciles is presented.

Crosstabulation with age at leaving full time education revealed a complex relationship influenced by rising rates of unemployment during the period studied, and decile scores were recomputed for minimum age school leavers only. For women, the relationship with time spent out of the labour force was also complex, and women minimum age school leavers were subdivided according to their scores on this variable. Overlapping among the highest deciles of the five unemployment measures was recomputed within the three groups so defined, and one of the measures was dropped.

The remainder of the paper compares various characteristics of respondents in the highest deciles of four measures - number of spells of unemployment, unemployment as a percentage of time economically active, length of current unemployment and unemployment before the first job - with each other and with respondents who had never been unemployed. In general there were fewer differences among women minimum age school leavers who had spent six months or more out of the labour force than there were in the other two groups, while patterns of associations for women who had spent less than six months out of the labour force often resembled those found for men.

Unemployment before the first job was not a very good predictor of later unemployment problems, and in several other respects respondents who had been unemployed before their first job resembled those who had never been unemployed more closely than they resembled respondents in the highest deciles of the other unemployment measures. It has been argued that among school leavers who do not immediately find the kind of work they want only the relatively advantaged can afford to look around, while others take whatever jobs are available. Economic circumstances are however now very different from when the NCDS cohort reached 16, and the same argument cannot necessarily be applied to current generations of school leavers.

The number of spells of unemployment and months unemployed as a percentage of time economically active were more closely related to each other than any other pair of measures, but those in the highest decile of the former were a little less likely to have characteristics which would impede their chances of quickly finding another job once they had become unemployed. For women who had spent less than six months out of the labour force, the former was more likely to be associated with service employment, while the latter was associated with employment in manufacturing jobs. In contrast to earlier data from the National Survey of Health and Development (1946 cohort), there was evidence that frequent job changing brought a risk of lengthy unemployment.

Among respondents in the highest decile of current unemployment were a number who had recently become unemployed for the first time, and men from industries recently hit by the recession, especially skilled engineering trades, were prominent.

Childbearing and lone parenthood were importantly associated with unemployment for women, and the relationship merits further study.

Aims of the analysis.

1. There are a variety of ways of summarising the unemployment which any given individual may experience during a particular period of his or her work history. We might count the total number of spells of unemployment, the total number of weeks or months out of work, the length of the longest single unemployment spell, and so on, and we could express any of these in terms of some other measure of work history (for example, total time in the labour market during the period in question). Such summary measures are obviously correlated with each other. The present paper addresses the question of whether they are sufficiently intercorrelated for one to stand in place of any other in a study of unemployment, or whether the different measures tend to identify different groups of people with different histories and different characteristics.
2. Data from NCDS IV are useful for this purpose as the seven year employment histories which they contain cover the same ages (16 to 23) and the same years (1974 to 1981) for all respondents. Thus variations in the relationships between different measures of unemployment consequent upon the larger economic cycle are eliminated, although of course there remain regional variations. The data have the disadvantage that they record work history only up until age 23, an age at which many women are occupied in child care and entrants to many professional jobs have not been long in the labour market, if at all. Patterns observed at this age therefore, are not necessarily reliable indicators of future long term trends.
3. At the request of the Department of Employment, analysis in this paper has been limited to simple crosstabulation. This has restricted the scope of the analysis and made parts of the exposition necessarily lengthy.

Methods.

Choice of measures for comparison.

4. Working Paper 16 defines nine different measures of unemployment. Some of these are alternative versions of similar measures necessitated by particular problems in the data and are by definition very highly correlated with each other. Others although conceptually distinct, behave empirically in a very similar fashion. For example, the total number of months spent

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1. For example, the total number of months unemployed as a proportion of total months economically active is calculated in two versions, PROPUNM1 and PROPUNM2. The former uses an exact definition of months economically active, but has a disproportionate amount of missing information for those with more than four jobs. The latter uses a less accurate measure of economic activity but is not so heavily biased against the frequent job changers.

unemployed, the number of months in the longest single unemployment spell and the mean length of all unemployment spells are highly correlated, because in the NCDS IV sample most of those who have been unemployed have had only one spell of unemployment.

5. For these reasons, the number of measures included in this paper has been reduced to five. Their definitions are given below, together with the names under which they can be found in Working Paper 16¹.

Total number of spells of unemployment.... (NEWN4716)
Total months unemployed in all spells of unemployment (UNEMTIME)
Total months unemployed as a percentage of total months economically active (approximate but unbiased definition of economic activity) (PROPUNM2)
Total months in current (incomplete) spell of unemployment. (CURRUNEM)
Total months in first unemployment spell before first job.(UNMBFRJB)

Calculation of highest deciles.

6. Over half of respondents in NCDS IV have never been out of work, and the majority of those who have been unemployed have had only one spell of unemployment of relatively short duration. Differences among the five measures of unemployment are therefore most likely to be found by examining the highest extreme of their distributions.

7. In order to provide a common standard for comparison, the highest decile on each of the five chosen measures has been computed. This calculation is approximate because only the measure "months employed as a percentage of months economically active" is a continuous variable. Deciles are computed separately for each sex because men in NCDS IV tend to have more unemployment than women.

1. As well as exact derivations of these variables, Working Paper 16 also gives distributions by sex on four of them, in Figures 6 to 9.

8. Cut-off points for the highest deciles in the full sample are given in Table 1 (i). On most measures it is possible to approximate reasonably closely to the decile, but on two measures - the total number of spells of unemployment and the total months in the current unemployment spell - there is no very satisfactory cut-off point for women. Thus only 5.7% and 6.9% respectively of women from the full sample are included in the analysis of these measures.

Overlapping among the five measures in the full sample.

9. Table 2 shows the proportion of those in the full sample who fall into the highest (approximate) decile of any one unemployment measure who also fall in the highest decile on each of the remaining four measures. This figure may be regarded as a rough measure of association between the measures. Thus, for example, of the 655 men who fall into the highest decile of the total number of spells of unemployment, 60% also fall into the highest decile of the total number of months unemployed. (Or in other words, 40% of men who had more than two spells of unemployment were unemployed in total for 12 months or less).
10. Some pattern can be seen among the figures which holds for both men and women. Not surprisingly, the first three measures which summarise employment history over the full seven years between 1974 and 1981 tend to be more closely related to each other than they are to either of the last two measures, which refer to unemployment at two particular points in that period, namely the time of interview (age 23) and the interval before the first job. There is nevertheless a fairly strong relationship between current unemployment and the first three summary measures despite the heavy censoring of the former. In contrast, the association between unemployment before the first job and the remaining four measures tends to be low, and indeed a spell of unemployment of more than one month before the first job is of little value as a predictor (for men) of the length of the current unemployment spell or (for women) of whether the respondent is currently out of work.

Relationship with age at first leaving full-time education.

11. Clearly, the longer a young person is in the labour market, the more he is at risk of accumulating a large number of spells of unemployment or total months unemployed. Table 3 shows the date of first leaving full-time education¹ by sex for respondents in the highest deciles of the five unemployment measures compared with respondents who have had no

1. The derived variable CTAE computed by Dougal Hutchison.

unemployment. As expected, men and women in the highest deciles of the total number of spells of unemployment and total months unemployed tend to have left full time education earlier than respondents who have never been unemployed.

12. When, however, months unemployed are expressed as a percentage of the number of months during which the respondent was economically active between the ages of 16 and 23, the relationship is reversed: among the people in the highest decile of this measure there are rather more than among the never unemployed who have had at least three years of post-compulsory education. Two factors combine to produce this outcome. Firstly, a young person is most vulnerable to unemployment when he first enters the labour market. For respondents who entered the labour market late, this vulnerable period constitutes a greater proportion of the time that they have been economically active up to the age of 23. Secondly, unemployment began to rise very steeply in the autumn of 1979, the earliest date by which cohort members who have completed a higher education course would have expected to start their first job.
13. Growing unemployment nationally also explains the relationship between the date of leaving full time education and the likelihood of a spell of unemployment before the first job. Table 3 shows that minimum age school leavers, who entered the labour market before unemployment began to rise in the autumn of 1974, are in a minority amongst respondents who had a spell of unemployment before their first job, though they formed a majority of respondents in the highest deciles of each of the other four unemployment measures. In contrast, respondents with at least three years of post-compulsory education form a higher proportion of those who were unemployed before their first job than they do of the never unemployed, despite the fact that they tend to have good qualifications.
14. Because of the complexity of the relationship between unemployment and age of leaving full time education, the remainder of the analysis is restricted to respondents who first left full time education at or soon after the minimum legal age of 16, i.e. by August 1974. Decile scores on the five selected measures of unemployment have been calculated separately for this group, and are shown in Table 1 (ii). This sub-sample yields a slightly more satisfactory proportion of women in the highest approximate deciles of the two measures total number of spells of unemployment and total months in current unemployment spell.

Relationship with time spent out of the labour force.

15. As Table 4 (a) shows, men who left full time education at the age of 16 are unlikely to have spent any substantial time out of the labour force. For women, however, this is a significant factor which affects the probability of unemployment in two contrary ways. On the one hand, the longer a respondent spends out of the labour force, the less is the time that she is at risk of unemployment. On the other hand, because NCDS IV data only cover the period up to age 23, women in the cohort who have spent longest out of the labour force are necessarily those who left it at a young age, usually because of pregnancy. Women with early first pregnancies tend to have poor qualifications: among women who left school at the minimum age, 55% of those with no 'O' levels or equivalents had a child by the age of 23 compared with 35% of women with 'O' level standard qualifications or better. For the former group, mean¹ age at the birth of the first child is 20 years and two months; for the latter 20 years and seven months. Thus women in the cohort who have spent longest out of the labour force are more vulnerable to unemployment on account of their lower qualifications.
16. The complex nature of the relationship between unemployment and time out of the labour force is evident in Table 4 (b). Women who have never been unemployed have spent a greater mean number of months out of the labour force than have women in the highest deciles of any of the other measures of unemployment except one, namely the measure which takes account of varying periods of time spent in the labour market by expressing months unemployed as a percentage of months economically active. Women in the highest decile of this latter measure have a mean time out of the labour force some eight months longer than women who have never been unemployed.
17. It is thus impossible to understand the relationship for women among different measures of unemployment without taking into consideration the varying times that women in the highest deciles of the various measures have spent out of the labour force. For this reason, in subsequent tabulations women who first left full time education by August 1974 have been split into two subgroups: those who have spent a total of less than six months out of the labour force, and those who have spent six months or more in this way. As Table 5 shows, this simple two way split eliminates variations among the comparison groups in mean time spent out of the labour force for those who have been out of the labour force for a total of less than six months, although there remains substantial variation in the mean time spent out of the labour force for those who have been out of the labour force for six months or more. Without the use of multivariate techniques,

1. As the data on time out of the labour force are censored the median would have been a more appropriate measure of their central tendency. In the present working paper means have been used only because they can be computed more easily.

this simple two way split is the most that can be done to control for time out of the labour force, as numbers are too small to permit further subdivision of the sample.

Overlapping among the five measures within the analysis groups.

18. Controlling for time out of the labour force and age of leaving full time education affects the degree of association among the five unemployment measures. Table 6 reports the overlap among the five measures recalculated for three sub-groups of the cohort: men who first left full time education by August 1974, women who first left full time education by August 1974 and who have spent a total of less than six months out of the labour force between the ages of 16 and 23, and women who first left full time education by August 1974 and have spent six months or longer out of the labour force between these ages. This table uses the cut-off points for the highest deciles which are given in Table 1 (ii).

19. The most notable difference between the patterns of associations among the measures obtaining in the full sample (Table 2) and within the analysis groups (Table 6) is that in the latter the overlap between total months unemployed and unemployment as a percentage of time economically active is increased to such an extent that their highest deciles (once allowance is made for the different N's) identify virtually the same people. For this reason, subsequent tables present figures only for the latter measure. The highest deciles on the remaining four measures have a sufficiently large proportion of non-overlapping cases to make it worthwhile to retain them as separate measures, although in assessing the statistical significance of observed differences between respondents in their highest deciles the degree of overlap must be taken into account¹.

1. I am grateful to Dougal Hutchison for advice on the method for comparing proportions in overlapping samples. An account of the method together with some illustrations of the size of differences necessary to reach significance is given in the Appendix.

Findings.

20. This section describes in detail the contents of Tables 7 to 19, which compare the characteristics of respondents in the highest deciles of the four unemployment measures and respondents who have never been unemployed. If the reader is content to study these tables without commentary, he should skip to paragraph 50 where discussion of the findings begins.

Industry of current or last occupation.

21. Table 7 gives the Standard Industrial Class (1980 Revision) of the occupation at age 23 of respondents in the highest deciles of the four unemployment measures and of respondents who have never been unemployed. For respondents who were not in employment when interviewed the SIC of the most recent job is given. Many of the differences observable in this table are not large enough to merit comment¹, but some are substantial and some consistent pattern can be seen.
22. For men it is clear from Table 7 that those who were unemployed before their first job are more likely to work in the same industries as never unemployed men than are men in the highest deciles of the other three unemployment measures. As compared with the never unemployed, high scorers on the remaining three measures are under-represented in SIC Division 1 (energy and water) and considerably over-represented in the construction industry. Much employment in the construction industry is of a casual and seasonal nature, but the industry is also very responsive to the larger economic cycle, and in August 1981 its unemployment rate was nearly two and a half times the average for all industries (Employment Gazette 1981).
23. Men in the highest deciles of the number of spells of

1. When the "never unemployed" are compared with respondents in the highest deciles of each of the unemployment measures, the test of statistical significance must be more stringent than for the usual two-way comparisons. An account of the method used is given in the Appendix. I am again grateful to Dougal Hutchison for advice on this point.

unemployment and of unemployment as a percentage of time economically active are also under-represented in SIC Division 3 (metal goods, engineering and vehicles), but among those in the highest decile of current unemployment there are as many in these industries as among the never unemployed. This probably reflects the very rapid decline in these industries which took place during 1979 to 1981, particularly in the West Midlands.

24. Among women the picture is more complex. Because of the smaller sample sizes within the two comparison groups; only the largest of the differences are discussed.
25. Length of time out of the labour force is strongly related to the industry in which women minimum age school leavers work. Those who have spent six months or more out of the labour force are more likely to have their current or last job in SIC Divisions 4 (other manufacturing) and 6 (distribution, hotels and catering, and repairs), and less likely to be found in SIC Divisions 8 (banking etc) and 9 (other services).
26. Like the men, women in the highest decile of current unemployment are more likely to belong to SIC Division 3 than are women in the highest deciles of the number of spells of unemployment or unemployment as a percentage of time economically active, regardless of how long they have spent out of the labour force. Time out of the labour force also does not affect the fact that never unemployed women are more likely than other groups to belong to SIC Division 8. Otherwise there are many fewer differences among the five columns of Table 7 (b) for women who have been out of the labour force for six months or more than there are for women who have spent less than six months out of the labour force. Among the many possible reasons for this is the fact that time out of the labour force is less adequately controlled in the former group (see Table 5), and also the probability that the longer time which the latter group has spent in the labour market has allowed distinctive patterns of employment to develop.
27. Among women who have spent less than six months out of the labour force (Table (b) (i)), those in the highest decile of the number of spells of unemployment are more likely than women in the highest deciles of the other three unemployment measures to belong to SIC Division 6, though the proportion among never unemployed women is the smallest of all. Women in the highest deciles of current unemployment and unemployment as a percentage of time economically active are more likely than other groups to belong to Division 4, whilst Division 9 (other services) contains relatively fewer people from the highest deciles of current unemployment and relatively more from the highest decile of unemployment before the first job.

Condensed KOS heading.

28. Condensed KOS heading of the current or most recent job is reported in Table 8. As with the distribution on SIC, the KOS distribution for men who had been unemployed before their first job falls somewhere between the distribution for men who have never been unemployed and the distributions for men in the highest deciles of the other three unemployment measures. With this proviso, men who have never been unemployed are more likely than men with a history of unemployment to work in professional and related jobs in science, etc. (KOS 4), managerial occupations (KOS 5) and clerical and related occupations (KOS 6). In contrast, men in the highest deciles of the four unemployment measures are more likely than the never unemployed to work in personal service jobs (KOS 9), semi-skilled manufacturing jobs (KOS 13), construction (KOS 14) and transport and warehousing (KOS 15). There are also noticeably larger numbers in the "miscellaneous" group (KOS 16). Men in the highest decile of current unemployment are nearly twice as likely as men in the highest deciles of the number of spells of unemployment or unemployment as a percentage of time economically active to belong to KOS 12 (processing etc. - metal and electrical) - though still less likely than never unemployed men.
29. Never unemployed women who have spent less than six months out of the labour force tend to have different kinds of jobs from never unemployed women with more than six months out of the labour force. The latter group are more likely to work in selling (KOS 7), personal services (KOS 9), materials processing excluding metal and electrical (KOS 11) and various semi-skilled manufacturing occupations (KOS 13). They are less likely to have professional and related jobs in education, welfare and health (KOS 2) or clerical occupations (KOS 6).
30. As with SIC, variation between unemployment measures is greater for women who have been less than six months out of the labour force. Within this group, the KOS distribution for women who were unemployed before their first job is more like the KOS distribution for women who have never been unemployed than any of the other three unemployment measures - this parallels the pattern found for men. For the remaining three measures, the differences between women who have never been unemployed and women with a history of unemployment are very like the differences described above between never unemployed women who have been out of the labour force for less than six months and never unemployed women who have been out of the labour force for six months or more: more of the women with a history of unemployment are to be found in KOS groups 7, 9, 11 and 13, and fewer in KOS groups 2 and 6.

31. Some differences between the three unemployment measures (excluding unemployment before the first job) are worth mentioning: women out of the labour force for less than six months whose unemployment is high as a proportion of their time economically active are particularly unlikely to have clerical jobs, whilst those who have had more than two spells of unemployment are particularly likely to have personal service jobs. Semi-skilled manufacturing jobs are most common for women in the highest deciles of both current unemployment and unemployment as a percentage of time economically active.

Social Class.

32. Table 9, reporting the social class of the current or last job, repeats the pattern found for KOS. The distribution for men who were unemployed before their first job lies somewhere between the distributions for men who have never been unemployed and men in the highest deciles of the other three unemployment measures, and the same is true for women who have spent less than six months out of the labour force. Never unemployed women who have spent six months or more out of the labour force tend to have jobs of lower social class than never unemployed women with less than six months out of the labour force, and there is less variation according to unemployment experience for women who have spent longer out of the labour force. Time out of the labour force and unemployment (on any measure) both tend to be associated with lower social class.

Qualifications, apprenticeships and training courses.

33. Table 10 shows, not unexpectedly, that young men and women in the highest deciles of the four unemployment measures tend to have poorer qualifications than those who have never been unemployed. Once again, people who were unemployed before their first job are on the whole better placed than those in the highest deciles of the other three unemployment measures.
34. Never unemployed men are much more likely than the other groups to have completed an apprenticeship (Table 11), with those who were unemployed before their first job in second place.

1. Using the derived variable GHSQ computed by Richard Ives.

Men in the highest decile of unemployment as a percentage of time economically active are the least likely of all groups to have served an apprenticeship - only 7% did so. Among women, the overall proportion of apprenticeships is too small for any weight to be attached to the differences among the groups.

35. If we consider training courses not associated with an apprenticeship, the most favoured groups among men are again the never unemployed, followed by men who were unemployed before their first job. The proportion of men in the highest decile of the number of spells of unemployment is also surprisingly large. Women who have spent more than six months out of the labour force are considerably less likely than other women to have been on a training course, but for women who have spent less than six months out of the labour force the findings are like those for men.

Job changing.

36. Patterns of job changing are reported in Table 12. Among men the never unemployed are least likely to have had more than one job and most likely to have stayed a long time in their first job, but those who were unemployed before their first job also show a relatively large degree of stability. Not surprisingly, men in the highest decile of the number of spells of unemployment are most likely to have had several jobs. Men in the highest decile of unemployment as a percentage of time economically active also show a good deal of movement between jobs, and their mean stay in their first job is the shortest among all the groups.
37. Among never unemployed women one might expect that those who have spent six months or more out of the labour force would have fewer jobs than women who have spent less than six months. In fact the reverse is the case, and like social class and qualifications, both unemployment and time out of the labour force are negatively correlated with job stability.
38. As on other measures, there is less variation in job stability according to unemployment experience for women who have spent six months or more out of the labour force than there is for women who have spent less than six months. The relationships between job stability and unemployment experience among women who have spent less than six months out of the labour force show a pattern very similar to that found among men.

Social mobility.

39. Social mobility¹ is defined in this context as the change between the social class coding of the first job after first leaving full time education and the first job held at age 23 (or the last job held if the respondent was not in employment when interviewed). Table 13 shows that while men in the highest deciles of the four unemployment measures are nearly as likely as men who have never been unemployed to be upwardly mobile, they are also considerably more likely than men who have never been unemployed to be downwardly mobile. As on other variables, differences between the never unemployed and men who were unemployed before their first job are less marked. The group with most downward mobility are those in the highest decile of unemployment as a percentage of time economically active.
40. For women who have been out of the labour force for less than six months the pattern is essentially the same as for men with the exception that women who were unemployed before their first job are even more likely than never unemployed women to be upwardly mobile (though the difference is not significant). Women who have been out of the labour force for six months or more tend to show less upward mobility and more downward mobility than women who have spent less than six months out of the labour force.

Marriage and marital breakdown.

41. Table 14 records the proportion in each of the groups of interest who have ever been married, together with mean age at first marriage. Both for men, and for women who have spent less than six months out of the labour force, the never unemployed are more likely to have married than those with experience of unemployment. However, men and women in the highest deciles of the four unemployment measures who have married tend to have first done so at a younger age than the never unemployed, the differences being greater for men than for women.

1. The derived variable MOBILITY.

42. For women who have spent six months or more out of the labour force the pattern is different. Not surprisingly, a high proportion in each group have married, particularly so for women who have never been unemployed, but the mean age at first marriage is older for women who have experienced unemployment than it is for never unemployed women.
43. When allowance is made for the differing proportions married (Table 15) it can be seen that men in the highest deciles of the four unemployment measures have a higher rate of marital breakdown than never unemployed men. Once again the difference is less marked for men who were unemployed before their first job. This greater rate of breakdown is partly but perhaps not entirely explained by their younger age at first marriage, and more sophisticated techniques of analysis would be necessary to pursue this question.
44. Marital breakdown rates are higher for women who have spent six months or more out of the labour force than for women who have spent less than six months out of the labour force, and again their younger mean age at first marriage seems relevant. Similarly, although women in the highest deciles of at least two of the unemployment measures appear to have higher rates of marital breakdown than never unemployed women, the significance of this cannot be properly assessed until the effect of their younger age at first marriage has been taken account of.

Fertility and lone parenthood.

45. Despite the fact that the proportion of men in the highest deciles of the four unemployment measures who are married is smaller than the proportion of never unemployed men, Table 16 shows that the former are more likely than never unemployed men to have fathered a child, and at a younger age than never unemployed men. It is possible that men in this age group who have a history of unemployment tend to marry only if a child has already been conceived, but an examination of the sequence of events in both the employment and family formation histories would be necessary to test this hypothesis.
46. Women who have spent less than six months out of the labour force and have experienced unemployment are also more likely to have had a child than women who have never been unemployed, and their mean age at the birth of their first child is also lower than for never unemployed women. Among women who have spent six months or more out of the labour force, the pattern is reversed: more of the never unemployed women have borne a child, and at a younger age than women in the highest deciles of all the unemployment measures except one.

47. Table 17 sheds further light on the relationship between marriage and fertility for women. With the exception of women who were unemployed before their first job, women who have experienced unemployment are more likely than never unemployed women to have spent some time as a lone parent. This is true regardless of time spent out of the labour force, and is particularly marked for women in the highest decile of unemployment as a percentage of time economically active.

Other problems.

48. Table 18 shows an association within all three subgroups between unemployment and problems with literacy and numeracy. This is particularly marked for men and women in the highest decile of unemployment as a percentage of time economically active, but reduced for those who were unemployed before their first job.
49. Table 19 shows a similar pattern for reported health problems and longstanding illness or disability. The relationship between unemployment and ill health is however very complex, and the focus in Table 19 is merely on the relationship between different measures of unemployment.

Discussion.

Patterns of unemployment.

50. As has been seen, relationships among different measures of unemployment in the NCDS cohort are complicated by variations in the date of leaving full time education and, for women, by variations in time spent out of the labour force. Because the present paper is restricted in the methods used to simple crosstabulation, three groups have been defined within which variation on these two factors is either reduced or eliminated. Numbers within these three groups are not large enough for it to be sensible to attach importance to all the differences among unemployment measures that can be observed, but nevertheless some consistent patterns have emerged relating to the four measures of unemployment. These patterns are less clear for women who have spent six months or more out of the labour force than they are either for men or for women with less than six months out of the labour force, for within this group there remains considerable variation in time spent out of the labour force.

Unemployment before the first job.

51. The clearest finding is that for this sample unemployment before the first job is not a very good predictor of later employment problems. The overlap between the highest deciles of this and other unemployment measures is small, and young men and women who were unemployed before their first job have at age 23 jobs which

in their SIC, KOS and Social Class classifications are more like the jobs of people who have never been unemployed than they are like the jobs of people in the highest deciles of the other three measures of unemployment. They are more likely to have completed an apprenticeship or (with one exception) to have been on a training course connected with their job, and less likely to have experienced downward mobility during the seven years since leaving school. They are better qualified than other young people with a history of unemployment and less likely to report health problems or problems with literacy or numeracy. Patterns of marriage and fertility are also distinctive, with lower rates of marital breakdown than other unemployment groups and a lesser incidence of lone parenthood.

52. When members of the cohort left school in 1974 there were many more jobs available than there are now, ten years later. Those who could not immediately find the job they wanted could afford to look around; only boys and girls whose financial need was most urgent or who had no expectation of being able to find anything better were likely to take the first job that was offered, regardless of its suitability. Weir and Nolan (1977) found, for example, in a sample of 16 year old boys leaving school in Scotland in 1975 that the sons of single parents were so anxious to find work that they tended to under-aspire and take the first jobs available, whilst others were prepared to wait.
53. A study of school leavers in the West Midlands in 1979 (Jones et al., 1983) stresses the importance of the different strategies adopted by young people in seeking their first job. Sixteen-year olds who took an unpleasant or poorly paid job to avoid unemployment often left after a while. At a time of steadily rising unemployment this meant a greater risk of unemployment later on, especially as they were then in competition with a new generation of school leavers. Young people who were prepared to undergo a period of unemployment in order to seek out the type of work they wanted were not always disadvantaged in other respects and their subsequent job history was often relatively stable.
54. In the NCDS IV cohort young men and women who had a period of unemployment immediately upon leaving school at age 16 stayed in their first job on average for considerably longer than other young people with a history of unemployment - a mean of 36 months for men and 30 months for women with less than six months out of the labour force, compared, for example, with 13 and 16 months respectively for men and women in the highest decile of unemployment as a percentage of time economically active (Table 12). They were also considerably less likely to continue to change jobs. It seems, therefore, that for 16 year

old school leavers in the NCDS cohort, a spell of unemployment was a price well worth paying for the opportunity to seek the right kind of work. Economic conditions now are however very different from those obtaining in 1974, and no simple inferences can be made about the job search behaviour of current generations of school leavers.

Number of spells of unemployment and unemployment as a percentage of time economically active.

55. The number of spells of unemployment and unemployment calculated as a percentage of the time spent economically active both summarise the unemployment experience of the cohort across the full time span 1974 to 1981, and for this reason they should be more closely related to each other than to the other measures of unemployment. There are, nevertheless, some differences between the men and women in their highest deciles. Those in the highest decile of the former measure have jobs of slightly higher social class, better qualifications, and are more likely to have served apprenticeships or to have been on a training course. Somewhat fewer of them report health problems or problems with literacy or numeracy. Among women there are differences in patterns of marriage, fertility and lone parenthood which are discussed in paragraphs 59 and 60 below. These differences are all such as to affect the chances that someone who becomes unemployed is able to find work again quickly.
56. There is also a link with the industry in which the respondent works. Some parts of the service sector have traditionally offered less secure employment than manufacturing industry, but in recent years the service sector has grown while manufacturing industry has declined (Department of Employment 1982). This means that the chances that someone who has left a service job will find another job in the same sector may be rather better than the chances for his counterpart in manufacturing industry. If this is so, one would predict that while some service sector employees have a greater risk of intermittent unemployment, manufacturing sector employees who lose or leave their job are more likely to face prolonged unemployment. This link is particularly evident for women who have spent less than six months out of the labour force (see Tables 7 and 8).

57. A history of repeated spells of unemployment is bound to be associated with frequent job changing (see Table 12). The relationship between job changing and unemployment is likely to depend on wider economic circumstances, and General Household Survey data show that job changing declines as unemployment grows. In a study using data gathered in 1972 on 26 year olds in the National Survey of Health and Development (1946 cohort), Cherry (1976) found no evidence that men who changed jobs frequently became the long-term unemployed, nor that the time they spent looking for work increased as they got older. The work history data for Cherry's study came however from the high employment years of the sixties and early seventies, and by 1981 matters had clearly changed: 22% of men in the NCDS cohort who left full time education by August 1974 and had changed jobs at least four times by the age of 23 were in the highest decile of unemployment as a percentage of time economically active, compared to only 3% of men who had changed jobs only once or not at all.

Current unemployment.

58. For some of the men and women in the NCDS cohort who were out of work when interviewed at age 23, their current unemployment spell was just the latest in a series of episodes. Others had been made redundant for the first time; indeed of all economically active males in the cohort who left full time education at the minimum age and have experienced unemployment, 20% began their first unemployment spell in 1980 or later. Among this latter group skilled workers in engineering trades are prominent. Thus currently unemployed men tend to be of slightly higher social class than men in the highest deciles of the number of spells of unemployment or unemployment as a percentage of time economically active, to have better qualifications and to be more likely to have completed an apprenticeship and less likely to have changed jobs several times.

The relationship between childbearing and unemployment for women.

59. A woman who attempts to combine a job with the care of a small child is restricted in the choice of job she can take and, having found a suitable job, is likely to find it more difficult than the childless woman to keep it. This factor is clearly of considerable importance in explaining the unemployment histories of women. Among minimum age school leavers in the cohort, 30% of women in the highest decile of unemployment as a percentage of time economically active and 28% of currently unemployed women had a child, compared to only 7% of women who had never been unemployed.

60. The present analysis does not distinguish between unemployment before and after the birth of the first child (though by definition currently unemployed women with a child have returned to the labour market after the birth), and this distinction is clearly crucial in understanding the causes of these women's unemployment. One factor involved in the causation is the absence of a partner, and Tables 15 and 17 show that women's unemployment is often connected with marital breakdown and lone parenthood. This area is worth more detailed study.

Conclusion.

61. Although the preceding paragraphs have concentrated on the differences among the four measures of unemployment, it must not be forgotten that, with the exception of unemployment before the first job, there is still a good deal of overlap between them. Nor are the relationships among the measures likely to remain static: the effects of deepening recession have been noted several times, and current high levels of unemployment and extensive government intervention in the youth labour market will produce quite different patterns of unemployment amongst current generations of school leavers.

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TABLES

Symbols

- * 0.5% or less but greater than 0%
- + The difference between the proportion for the highest decile of the unemployment measure and the proportion for the never unemployed is significant beyond the .05 level (multiple comparisons test).
- The difference between the proportion for the highest decile of the unemployment measure and the never unemployed is significant at the margins of the .05 level (multiple comparisons test).

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Table 1 : Cut-off points for approximate highest deciles on five unemployment measures, by sex

| (i) <u>Full sample</u> unemployment measure | variable name | men | | women | |
|---|---------------|------------------|----------|--------------------------|----------|
| | | cut-off point | N % | cut-off point | N % |
| total number of spells of unemployment | NEWN4716 | >2 spells | 655 10.5 | >2 spells | 357 5.7 |
| total months unemployed in all unemployment spells | UNEMTIME | >14 months | 618 9.9 | >11 months | 602 9.6 |
| total months unemployed as a % of total months economically active (approximate definition) | PROPUNM2 | >24% | 641 10.2 | >22% | 634 10.1 |
| total months in current (incomplete) unemployment spell | CURRUNEM | >1 month | 626 10.0 | all currently unemployed | 434 6.9 |
| total months unemployed before first job | UNMBFRJJB | >1 month | 714 11.4 | >1 month | 692 11.0 |
| (ii) <u>Those who first left full time education by August 1974</u> | | | | | |
| total number of spells of unemployment | NEWN4716 | >2 spells | 513 12.6 | >2 spells | 259 7.0 |
| total months unemployed in all unemployment spells | UNEMTIME | >17 months | 416 10.2 | >14 months | 364 9.8 |
| total months unemployed as a % of total months economically active (approximate definition) | PROPUNM2 | >20% | 414 10.1 | >22% | 374 10.1 |
| total months in current (incomplete) unemployment spell | CURRUNEM | >3 months | 420 10.3 | all currently unemployed | 298 8.0 |
| total months unemployed before first job | UNMBFRJJB | any unemployment | 486 11.9 | any unemployment | 367 9.9 |

Table 2 : Associations among five measures of unemployment, by sex (full sample)

| N | N spells of unemployment % | total months unemployed % | proportion also in highest decile on: | | | |
|-----|-------------------------------------|------------------------------------|---|---------------------------------------|--|--|
| | | | unemployment as % of time econ. active % | current unemployment spell % | unemployment before first job % | |
| 655 | | 60 | 50 | 45 | 28 | |
| 618 | 64 | | 71 | 56 | 27 | |
| 641 | 51 | 68 | | 50 | 35 | |
| 626 | 47 | 55 | 52 | | 17 | |
| 714 | 26 | 24 | 32 | 15 | | |
| 357 | | 67 | 58 | 37 | 31 | |
| 602 | 40 | | 69 | 36 | 25 | |
| 634 | 32 | 66 | | 32 | 33 | |
| 434 | 30 | 50 | 46 | | 15 | |
| 692 | 16 | 21 | 30 | 10 | | |

(a) Men in highest decile of:

total number of spells of unemployment
total months unemployed in all unemployment spells
total months unemployed as a % of total months economically active (approx. definition)
total months in current (incomplete) unemployment spell
total months unemployed before first job

(b) Women in highest decile of:

total number of spells of unemployment
total months unemployed in all unemployment spells
total months unemployed as a % of total months economically active (approx. definition)
total months in current (incomplete) unemployment spell (all currently unemployed)
total months unemployed before first job

Table 3 : Date of first leaving full-time education: comparison among those in the highest deciles of five unemployment measures, by sex

| <u>Date first left full-time education:</u> | never unemployed % | N spells of unemployment % | total months unemployed % | in highest decile on: | | | unemployment before first job % |
|---|--------------------|----------------------------|---------------------------|--|------------------------------|-----------|---------------------------------|
| | | | | unemployment as % of time econ. active % | current unemployment spell % | | |
| <u>(a) Men</u> | | | | | | | |
| before Sept. 1974 | 64 | 79 | 84 | 56 | 79 | 43 | |
| Sept. 1974 - Aug. 1977 | 26 | 18 | 13 | 23 | 13 | 41 | |
| Sept. 1977 or later | 10 | 3 | 3 | 21 | 8 | 16 | |
| Total (N) | 100 (3332) | 100 (655) | 100 (618) | 100 (641) | 100 (626) | 100 (714) | |
| <u>(b) Women</u> | | | | | | | |
| before Sept. 1974 | 58 | 73 | 79 | 59 | 69 | 35 | |
| Sept. 1974 - Aug. 1977 | 30 | 22 | 18 | 23 | 21 | 46 | |
| Sept. 1977 or later | 12 | 5 | 3 | 18 | 11 | 18 | |
| Total (N) | 100 (3606) | 100 (357) | 100 (602) | 100 (634) | 100 (434) | 100 (692) | |

Table 4 : Time out of the labour force (and not in full-time education), by sex: those who first left full-time education by August 1974 only

| | never unemployed | N spells of unemployment | total months unemployed | in highest decile on: | | | unemployment before first job |
|--|------------------|--------------------------|-------------------------|-----------------------------------|--------------------|----------------------|-------------------------------|
| | | | | unemployment as % of econ. active | unemployment spell | current unemployment | |
| (a) Men | | | | | | | |
| mean number of months out of the labour force ¹ | 1 | 2 | 2 | 3 | 1 | | 1 |
| % currently out of the labour force ² | 1 | 3 | 3 | 5 | N/A | | 3 |
| (Total N) | (2127) | (513) | (416) | (414) | (420) | | (486) |
| (b) Women | | | | | | | |
| Mean number of months out of the labour force | 17 | 11 | 12 | 25 | 10 | | 16 |
| % currently out of the labour force | 37 | 28 | 30 | 45 | N/A | | 36 |
| (Total N) | (2103) | (259) | (364) | (374) | (298) | | (367) |

1 The derived variable OLFTIME (which excludes time spent in full time education)

2 The derived variable ECONSTRG

Table 5 : Time out of the labour force (and not in full time education) within control groups: women who first left full time education by August 1974 only

| never unemployed | <u>in highest decile on:</u> | | | | |
|------------------|------------------------------|-------------------------|--|----------------------------|-------------------------------|
| | N spells of unemployment | total months unemployed | unemployment as % of time econ. active | current unemployment spell | unemployment before first job |
| 1 | 1 | 1 | 1 | 1 | 1 |
| 6 | 8 | 8 | 10 | N/A | 7 |
| (1210) | (150) | (194) | (135) | (177) | (200) |
| 41 | 25 | 26 | 39 | 24 | 34 |
| 80 | 55 | 56 | 65 | N/A | 72 |
| (892) | (105) | (167) | (237) | (120) | (165) |

(i) < 6 months out of the labour force

mean number of months out of the labour force
 % currently out of the labour force
 (Total N)

(ii) 6 months + out of the labour force

mean number of months out of the labour force
 % currently out of the labour force
 (Total N)

Table 6 : Associations among five measures of unemployment, by sex and (for women) time out of the labour force: those who first left full time education by August 1974 only

| | N | proportion also in highest decile on: | | | | |
|---|-----|---------------------------------------|---------------------------|--|------------------------------|---------------------------------|
| | | N spells of unemployment % | total months unemployed % | unemployment as % of time econ. active % | current unemployment spell % | unemployment before first job % |
| (a) Men | | | | | | |
| <u>In highest decile of:</u> | | | | | | |
| total number of spells of unemployment | 513 | | 55 | 56 | 42 | 32 |
| total months unemployed in all unemployment spells | 416 | 68 | | 95 | 60 | 32 |
| total months unemployed as a % of total months economically active (approx. definition) | 414 | 69 | 96 | | 58 | 32 |
| total months in current (incomplete) unemployment spell | 420 | 52 | 59 | 57 | | 20 |
| total months unemployed before first job | 486 | 33 | 27 | 27 | 17 | |
| (b) Women | | | | | | |
| (i) <u>< 6 months out of the labour force in highest decile of:</u> | | | | | | |
| total number of spells of unemployment | 150 | | 63 | 48 | 47 | 32 |
| total months unemployed in all unemployment spells | 194 | 49 | | 69 | 49 | 22 |
| total months unemployed as a % of total months economically active (approx. definition) | 135 | 54 | 99 | | 53 | 25 |
| total months in current (incomplete) unemployment spell | 177 | 40 | 99 | 41 | | 15 |
| total months unemployed before first job | 200 | 24 | 54 | 17 | 14 | |

Table 13 : Social mobility¹ between first job and current or last job: comparison amongst those in the highest deciles of four unemployment measures, by sex and (for women) time out of the labour force: those who first left full time education by August 1974 only

| | never unemployed % | N spells of unemployment % | in highest decile on: | | | unemployment before first job % |
|---|--------------------|----------------------------|--|------------------------|-----------------|---------------------------------|
| | | | unemployment as % of time econ. active % | current unemployment % | spell % | |
| (a) Men | | | | | | |
| upwardly mobile | 28 | 24 | 25 | 23 | 24 | 24 |
| no change in social class | 60 | 43 ⁺ | 41 ⁺ | 46 ⁺ | 52 | 52 |
| downwardly mobile | 13 | 33 ⁺ | 35 ⁺ | 32 ⁺ | 24 ⁺ | 24 ⁺ |
| Total (N) | 100 (1580) | 100 (477) | 100 (369) | 100 (365) | 100 | 100 (385) |
| (b) Women | | | | | | |
| (i) < 6 months out of the labour force | | | | | | |
| upwardly mobile | 19 | 17 | 16 | 15 | 22 | 22 |
| no change in social class | 73 | 56 ⁺ | 52 ⁺ | 59 ⁺ | 68 | 68 |
| downwardly mobile | 8 | 27 ⁺ | 31 ⁺ | 26 ⁺ | 10 | 10 |
| Total (N) | 100 (964) | 100 (146) | 100 (122) | 100 (152) | 100 | 100 (164) |
| (ii) 6 months + out of the labour force | | | | | | |
| upwardly mobile | 14 | 16 | 16 | 8 | 15 | 15 |
| no change in social class | 64 | 57 | 55 | 61 | 58 | 58 |
| downwardly mobile | 22 | 27 | 29 | 31 | 27 | 27 |
| Total (N) | 100 (697) | 100 (103) | 100 (197) | 100 (106) | 100 | 100 (143) |

¹ Social mobility is defined as the change between the social class coding (OPCS 1980) of the first job and the current job (or last job if not currently in employment), ignoring any change between Class III NM and Class III M. Those who have had only one employer and have not changed the kind of work they do for that employer are excluded.

Table 14 : Marriage: comparison amongst those in the highest deciles of four unemployment measures, by sex and (for women) time out of the labour force: those who first left full time education by August 1974 only

| | | in highest decile of: | | | | |
|--|------------------|--------------------------|--|----------------------------|-------------------------------|--|
| | never unemployed | N spells of unemployment | unemployment as % of time econ. active | current unemployment spell | unemployment before first job | |
| (a) <u>Men</u> | | | | | | |
| % ever married | 48 | 41* | 40* | 41 | 43 | |
| (Total N) | (2127) | (513) | (414) | (420) | (486) | |
| mean age at first marriage | 21y 4m | 20y 8m | 20y 8m | 20y 7m | 21y 1m | |
| (N ever married) | (1012) | (211) | (166) | (172) | (207) | |
| (b) <u>Women</u> | | | | | | |
| (i) <u>< 6 months out of the labour force</u> | | | | | | |
| % ever married | 59 | 50 | 50 | 47 | 54 | |
| (Total N) | (1211) | (151) | (135) | (177) | (200) | |
| mean age at first marriage | 21y 1m | 20y 7m | 20y 1m | 21y 0m | 21y 1m | |
| (N ever married) | (719) | (75) | (67) | (83) | (108) | |
| (ii) <u>6 months + out of the labour force</u> | | | | | | |
| % ever married | 91 | 63* | 77* | 70* | 79* | |
| (Total N) | (892) | (107) | (239) | (120) | (166) | |
| mean age at first marriage | 19y 1m | 19y 9m | 19y 2m | 19y 9m | 19y 8m | |
| (N ever married) | (808) | (67) | (185) | (84) | (131) | |

Table 15 : Marital breakdown: comparison amongst those in the highest deciles of four unemployment measures, by sex and (for women) time out of the labour force: those who first left full time education by August 1974 only

| | never unemployed | N spells of unemployment | in highest decile of: | | | unemployment before first job |
|--|------------------|--------------------------|--|----------------------------|-------------------------------|-------------------------------|
| | | | unemployment as % of time econ. active | current unemployment spell | unemployment before first job | |
| (a) <u>Men</u> | | | | | | |
| N ever married | (1012) | (211) | (166) | (172) | (207) | |
| % separated or divorced | 5 | 11 | 13 ⁻ | 16 ⁺ | 10 | |
| (b) <u>Women</u> | | | | | | |
| (i) <u>< 6 months out of the labour force</u> | | | | | | |
| N ever married | (719) | (75) | (67) | (83) | (108) | |
| % separated or divorced | 7 | 12 | 16 | 7 | 6 | |
| (ii) <u>6 months + out of the labour force</u> | | | | | | |
| N ever married | (808) | (67) | (185) | (84) | (131) | |
| % separated or divorced | 12 | 16 | 17 | 15 | 7 | |

(a) Men

N ever married
% separated or divorced

(b) Women

(i) < 6 months out of the labour force

N ever married
% separated or divorced

(ii) 6 months + out of the labour force

N ever married
% separated or divorced

Table 16 : Fertility: comparison amongst those in the highest deciles of four unemployment measures, by sex and (for women) time out of the labour force: those who first left full time education by August 1974 only

| | | <u>in highest decile of:</u> | | | | |
|--|------------------|------------------------------|-------------------------------------|----------------------------|-------------------------------|--|
| | never unemployed | N spells of unemployment | unemployment % of time econ. active | current unemployment spell | unemployment before first job | |
| (a) Men | | | | | | |
| % who have had at least one child | 20 | 34 ⁺ | 36 ⁺ | 38 ⁺ | 24 | |
| (Total N) | (2127) | (513) | (414) | (420) | (486) | |
| mean age at birth of first child | 21y 6m | 20y 9m | 20y 9m | 20y 10m | 21y 2m | |
| (N with a child) | (414) | (173) | (149) | (158) | (115) | |
| (b) Women | | | | | | |
| (i) < 6 months out of the labour force | | | | | | |
| % who have had at least one child | 7 | 18 ⁺ | 30 ⁺ | 28 ⁺ | 14 | |
| (Total N) | (1211) | (151) | (135) | (177) | (200) | |
| mean age at birth of first child | 22y 2m | 21y 4m | 20y 7m | 21y 7m | 21y 9m | |
| (N with a child) | (82) | (27) | (40) | (49) | (27) | |
| (ii) 6 months + out of the labour force | | | | | | |
| % who have had at least one child | 93 | 81 ⁺ | 88 | 79 ⁺ | 86 | |
| (Total N) | (892) | (107) | (239) | (120) | (166) | |
| mean age at birth of first child | 19y 11m | 20y 8m | 19y 8m | 20y 4m | 20y 4m | |
| (N with a child) | (831) | (87) | (210) | (95) | (143) | |

Table 17 : Lone parenthood: comparison amongst those in the highest deciles of four unemployment measures by time out of the labour force: women who first left full time education by August 1974 only

| never unemployed % | in highest decile of: | | | | unemployment before first job % |
|--------------------|----------------------------|--|------------------------|---------|---------------------------------|
| | N spells of unemployment % | unemployment as % of time econ. active % | current unemployment % | spell % | |
| 1 | 7 [†] | 13 [†] | 6 ⁻ | 2 | |
| 1 | 3 | 7 | 4 | 2 | |
| (1211) | (151) | (135) | (177) | (200) | |
| 23 | 25 | 33 ⁻ | 27 | 22 | |
| 12 | 17 | 18 | 16 | 11 | |
| (892) | (107) | (239) | (120) | (166) | |

(i) < 6 months out of the labour force

has been or is a lone parent lone parent at time of interview

(Total N)

(ii) 6 months + out of the labour force

has been or is a lone parent lone parent at time of interview

(Total N)

Table 18 : Literacy or numeracy problems amongst those in the highest deciles of four unemployment measures, by sex and (for women) time out of the labour force: those who first left full time education by August 1974 only

| | never unemployed % | N spells of unemployment % | in highest decile of: | | | unemployment before first job % |
|--|--------------------|----------------------------|---------------------------------------|------------------------------|---------------------------------|---------------------------------|
| | | | unemployment % of time econ. active % | current unemployment spell % | unemployment before first job % | |
| (a) <u>Men</u> | | | | | | |
| problems with reading | 6 | 8 | 14 [†] | 12 [†] | 8 | |
| problems with writing or spelling | 14 | 19 | 25 [†] | 23 [†] | 18 | |
| problems with number work or basic maths | 5 | 11 [†] | 16 [†] | 11 [†] | 9 ⁻ | |
| (Total N) | (2127) | (513) | (414) | (420) | (486) | |
| (b) <u>Women</u> | | | | | | |
| (i) < 6 months out of the labour force | | | | | | |
| problems with reading | 2 | 5 | 8 | 7 | 1 | |
| problems with writing or spelling | 6 | 12 | 16 [†] | 13 | 8 | |
| problems with number work or basic maths | 4 | 12 [†] | 12 ⁻ | 8 | 9 | |
| (Total N) | (1121) | (151) | (135) | (177) | (200) | |
| (ii) 6 months + out of the labour force | | | | | | |
| problems with reading | 7 | 11 | 11 | 5 | 5 | |
| problems with writing or spelling | 11 | 14 | 17 | 15 | 15 | |
| problems with number work or basic maths | 7 | 18 | 18 [†] | 11 | 15 | |
| (Total N) | (892) | (107) | (239) | (120) | (166) | |

Table 19 : Health and disability: comparison amongst those in the highest deciles of four unemployment measures, by sex and (for women) time out of the labour force: those who first left full time education by August 1974 only

| | never unemployed % | in highest decile of: | | | | unemployment before first job % |
|---|--------------------|----------------------------|--|------------------------------|--------------|---------------------------------|
| | | N spells of unemployment % | unemployment as % of time econ. active % | current unemployment spell % | | |
| (a) Men | | | | | | |
| describes own health as generally only fair or poor reports limiting long-standing illness or disability (Total N) | 7 (2127) | 17+ (513) | 21+ (414) | 15+ (420) | 12+ (486) | |
| (b) Women | | | | | | |
| (i) < 6 months out of the labour force | | | | | | |
| describes own health as generally only fair or poor reports limiting long-standing illness or disability (Total N) | 9 (1211) | 19- (151) | 21+ (135) | 19+ (177) | 14 (200) | |
| (ii) 6 months+ out of the labour force | | | | | | |
| describes own health as generally only fair or poor reports limiting long-standing illness or disability (Total N) | 16 (892) | 21 (107) | 21 (239) | 22 (120) | 16 (166) | |

APPENDIX.

SIGNIFICANCE TESTING

NCDS IV Working Paper No. 21.

A comparison of various measures of
unemployment and their correlates

Joan Payne March 1984

Acknowledgement. I am grateful to Dougal Hutchison for
advice on the methods described in this
Appendix.

(a) Comparison of proportions in overlapping samples.

When comparing the proportions of respondents in the highest deciles of the various measures of unemployment who have a given characteristic (e.g. the proportion who are married), allowance must be made for the fact that some of the respondents in the highest decile of any one measure also fall into the highest deciles of other measures (see Table 6). The method for comparing proportions in overlapping samples is as follows.

Let A be the sample of those in the highest decile of unemployment measure a, excluding those in the highest decile of unemployment measure b;

let B be the sample of those in the highest decile of unemployment measure b, excluding those in the highest decile of unemployment measure a;

and let C be the sample of those in the highest deciles of both unemployment measure a and unemployment measure b.

Then the variance of the difference between proportion P_1 with a given characteristic among all those in the highest decile of unemployment measure a and proportion P_2 with the same characteristic among all those in the highest decile of unemployment measure b is:

$$\begin{aligned} \text{Var} (P - P) &= \left(\frac{N_a}{N_a + N_c} \right)^2 \times \text{Var } P_a \\ &+ \left(\frac{N_b}{N_b + N_c} \right)^2 \times \text{Var } P_b \\ &+ \left(\frac{N_c}{N_a + N_c} - \frac{N_c}{N_b + N_c} \right)^2 \times \text{Var } P_c \end{aligned}$$

Where N_a , N_b and N_c are the total numbers in samples A, B and C respectively, and P_a , P_b and P_c are the proportions with the given characteristic in samples A, B and C respectively.

The application of this method is clearly time consuming, and only a few illustrative examples have been worked to show roughly the size of differences between proportions that are needed to reach significance at the .05 level. These are set out in the table below. The last two columns of the table show what ^{the} standard error of the difference between P_1 and P_2 would be if no allowance were made for overlap.

The effect of allowing for overlap on the standard error of $P_1 - P_2$ depends both on N_c and P_c . In the examples calculated the effect has been in all cases except one to reduce the standard error. However, the reduction in standard error has changed the significance at the .05 level of $P_1 - P_2$ in only one case.

(b) Multiple comparisons of proportions.

When the proportion P_h with a given characteristic in a sample H is compared with the proportion P_i, P_j, P_k , with the same characteristic in several other samples I, J, K etc., which are all related to each other, then a more stringent test of significance must be applied than for the usual two-way comparison. This is because the chances that at least one of the comparisons $P_h - P_i, P_h - P_j, P_h - P_k$, etc., will reach significance are increased in accordance with the number of related samples that are being compared with P_h . To compensate for this, the 95% confidence intervals for $P_h - P_i, P_h - P_j$, etc. are calculated by multiplying the standard error of $P_h - P_i$ by $\sqrt{\chi^2}$ for the .05 probability level and the appropriate number of degrees of freedom (the number of proportions compared minus one).

In Tables 7 to 19, the proportions with various characteristics in the sample of respondents who have never been unemployed are compared with the proportions with the same characteristics in the samples of respondents in the highest deciles of four related measures of unemployment. The number of degrees of freedom is therefore four, and the appropriate factor by which we should multiply the standard error of the difference between the proportion in the sample of never unemployed respondents and the proportion in the highest decile of any one of the unemployment measures is $\sqrt{9.488}$, i.e. 3.08, instead of the usual 1.96 based on the normal distribution. It is this more stringent test which has been applied in the calculation of the significance levels reported in Tables 7 to 19.

Comparison of proportions in overlapping samples.

| | N_a | P_a | N_b | P_b | N_c | P_c | P_1 | P_2 | <u>allowing for overlap</u> s.e. sig. at (P_1-P_2) .05 level | <u>not allowing for overlap</u> s.e. sig. at (P_1-P_2) .05 level |
|---|-------|-------|-------|-------|-------|-------|-------|-------|--|--|
| (i) <u>Highest decile of no. of spells of unemployment compared with highest decile of unemployment as % of time economically active.</u> | 228 | .36 | 129 | .29 | 285 | .45 | .41 | .40 | .019 | n.s. |
| | 78 | .49 | 62 | .48 | 73 | .51 | .50 | .50 | .041 | n.s. |
| | 32 | .59 | 164 | .84 | 75 | .64 | .63 | .77 | .039 | sig. |
| (a) <u>% ever married (Table 14)</u> | 228 | .27 | 129 | .30 | 285 | .39 | .34 | .36 | .019 | n.s. |
| | 78 | .10 | 62 | .34 | 73 | .26 | .18 | .30 | .033 | sig. |
| | 32 | .72 | 164 | .89 | 75 | .85 | .81 | .88 | .033 | sig. |
| (b) <u>% with a child (Table 16)</u> | 228 | .08 | 37 | .11 | 129 | .13 | .11 | .13 | .017 | n.s. |
| | 38 | .13 | 30 | .23 | 37 | .11 | .12 | .16 | .044 | n.s. |
| | 19 | .10 | 137 | .17 | 48 | .19 | .16 | .17 | .040 | n.s. |
| (c) <u>% separated or divorced (Table 15)</u> | 228 | .27 | 129 | .30 | 285 | .39 | .34 | .36 | .019 | n.s. |
| | 78 | .10 | 62 | .34 | 73 | .26 | .18 | .30 | .033 | sig. |
| | 32 | .72 | 164 | .89 | 75 | .85 | .81 | .88 | .033 | sig. |
| (c) <u>% separated or divorced (Table 15)</u> | 228 | .08 | 37 | .11 | 129 | .13 | .11 | .13 | .017 | n.s. |
| | 38 | .13 | 30 | .23 | 37 | .11 | .12 | .16 | .044 | n.s. |
| | 19 | .10 | 137 | .17 | 48 | .19 | .16 | .17 | .040 | n.s. |

(i) Highest decile of no. of spells
of unemployment compared with
highest decile of unemployment
as % of time economically active.

(a) % ever married (Table 14)

men
women < 6m. out of labour force
women 6m+ out of labour force

(b) % with a child (Table 16)

men
women < 6m. out of labour force
women 6m+ out of labour force

(c) % separated or divorced (Table 15)

men
women < 6m out of labour force
women 6m+ out of labour force

Comparison of proportions in overlapping samples (contd)

| | N_a | P_a | N_b | P_b | N_c | P_c | P_1 | P_2 | allowing for overlap s.e. sig. at (P_1-P_2) .05 level | not allowing for overlap s.e. sig. at (P_1-P_2) .05 level |
|---|---------------------------------|-------|-------|-------|-------|-------|-------|-------|--|--|
| (ii) Highest decile of unemployment as % of time economically active compared with highest decile of unemployment before first job. | 282 | .40 | 354 | .44 | 132 | .40 | .40 | .43 | .028 | .033 |
| | 101 | .47 | 166 | .54 | 34 | .56 | .50 | .54 | .050 | .056 |
| | 170 | .80 | 97 | .85 | 69 | .71 | .77 | .79 | .031 | .042 |
| (a) % ever married (Table 14) | 282 | .38 | 354 | .21 | 132 | .32 | .36 | .24 | .027 | .031 |
| | 101 | .28 | 166 | .09 | 34 | .35 | .30 | .14 | .038 | .046 |
| | 170 | .86 | 97 | .82 | 69 | .91 | .88 | .86 | .031 | .034 |
| (b) % with a child (Table 16) | 113 | .12 | 154 | .08 | 53 | .15 | .13 | .10 | .027 | .033 |
| | 48 | .21 | 89 | .06 | 53 | .02 | .16 | .06 | .034 | .050 |
| | 136 | .21 | 82 | .07 | 19 | .21 | .17 | .07 | .039 | .035 |
| (c) % separated or divorced (Table 15) | men | | | | | | | | | |
| | women < 6m. out of labour force | | | | | | | | | n.s. |
| | women 6m+ out of labour force | | | | | | | | | n.s. |
| (c) % separated or divorced (Table 15) | men | | | | | | | | | |
| | women < 6m out of labour force | | | | | | | | | n.s. |
| | women 6m+ out of labour force | | | | | | | | | n.s. |

(ii) Highest decile of unemployment as % of time economically active compared with highest decile of unemployment before first job.

(a) % ever married (Table 14)

men
women < 6m. out of labour force
women 6m+ out of labour force

(b) % with a child (Table 16)

men
women < 6m. out of labour force
women 6m+ out of labour force

(c) % separated or divorced (Table 15)

men
women < 6m out of labour force
women 6m+ out of labour force

Table 6 (continued)

| N | N spells of unemployment % | total months unemployed % | proportion also in highest decile on: | | |
|-----|-------------------------------------|------------------------------------|---|---------------------------------------|--|
| | | | unemployment as % of time econ. active % | current unemployment spell % | unemployment before first job % |
| 105 | | 69 | 70 | 24 | 42 |
| 167 | 44 | | 90 | 27 | 30 |
| 237 | 31 | 64 | | 21 | 29 |
| 120 | 22 | 38 | 42 | | 13 |
| 165 | 27 | 30 | 42 | 10 | |

(b) Women (continued)

(ii) 6 months + out of the labour
force

in highest decile of:
total number of spells of
unemployment
total months unemployed in
all unemployment spells
total months unemployed as
a % of total months
economically active (approx.
definition)
total months in current
(incomplete) unemployment
spell
total months unemployed
before first job

Table 7 : Standard Industrial Class¹ of current or last job²: comparison amongst those in the highest deciles of four unemployment measures, by sex and (for women) time out of the labour force: those who left full time education by August 1974 only

| | never unemployed % | N spells of unemployment % | in highest decile of: | | | | unemployment before first job % |
|--|--------------------|----------------------------|--|------------------------------|---------------------------------|---------------------------------|---------------------------------|
| | | | unemployment as % of time econ. active % | current unemployment spell % | unemployment before first job % | unemployment before first job % | |
| 0 Agriculture, forestry & Fishing | 4 | 3 | 4 | 2 | 2 | 2 | |
| 1 Energy & water supplies | 6 | 2 ⁺ | 1 ⁺ | 2 ⁺ | 2 ⁺ | 6 | |
| 2 Extraction of minerals & ores other than fuels; manufacture of metals, mineral prods., & chemicals | 5 | 6 | 5 | 6 | 6 | 6 | |
| 3 Metal goods, engineering & vehicles industries | 19 | 12 ⁺ | 11 ⁺ | 19 | 17 | 17 | |
| 4 Other manufacturing industries | 10 | 12 | 15 | 13 | 11 | 11 | |
| 5 Construction | 14 | 25 ⁺ | 24 ⁺ | 23 ⁺ | 16 | 16 | |
| 6 Dist., hotels & catering, repairs | 16 | 17 | 16 | 14 | 15 | 15 | |
| 7 Transport & communication | 8 | 5 | 3 ⁺ | 5 | 6 | 6 | |
| 8 Banking, finance, insurance, business services & leasing | 4 | 2 | 1 ⁺ | 1 ⁺ | 2 | 2 | |
| 9 Other services | 12 | 13 | 14 | 9 | 15 | 15 | |
| Inadequately described & not stated | 2 | 5 | 5 | 6 | 3 | 3 | |
| Total } (N) 3 | 100 (2114) | 100 (513) | 100 (410) | 100 (418) | 100 (486) | 100 (486) | |

1 1980 revision
 2 If the respondent was not working at the time of interview, the last job is taken
 3 N's are slightly smaller because some respondents in the group "never unemployed" and in the highest deciles of "unemployment as a % of time economically active" and "current unemployment spell" have never had a job

(continued overleaf)

Table 7 (continued)

| | never unemployed % | in highest decile of: | | | | unemployment before first job % |
|---|--------------------|----------------------------|--|------------------------------|---------------------------------|---------------------------------|
| | | N spells of unemployment % | unemployment as % of time econ. active % | current unemployment spell % | unemployment before first job % | |
| (b) <u>Women</u> | | | | | | |
| (i) < 6 months out of the labour force | | | | | | |
| 0 Agriculture, forestry & fishing | 2 | 2 | 2 | 1 | 1 | |
| 1 Energy & water supplies | 1 | 0 | 0 | 1 | 2 | |
| 2 Extraction of minerals & ores other than fuels; manufacture of metals, mineral prods., & chems. | 4 | 2 | 4 | 3 | 2 | |
| 3 Metal goods, engineering & vehicles industries | 10 | 3 ⁺ | 4 ⁺ | 8 | 9 | |
| 4 Other manufacturing industries | 14 | 17 | 24 | 24 ⁻ | 14 | |
| 5 Construction | 1 | 1 | 2 | 1 | 1 | |
| 6 Dist., hotels & catering, repairs | 18 | 39 ⁺ | 33 ⁺ | 32 ⁺ | 23 | |
| 7 Transport & communication | 5 | 4 | 2 | 4 | 6 | |
| 8 Banking, finance, insurance, business services & leasing | 18 | 5 ⁺ | 2 ⁺ | 8 ⁺ | 7 ⁺ | |
| 9 Other services | 26 | 26 | 26 | 17 ⁻ | 33 | |
| Inadequately described & not stated | 1 | 1 | 2 | 2 | 2 | |
| Total * | 100 | 100 | 100 | 100 | 100 | |
| (N) | (1211) | (151) | (132) | (174) | (200) | |

Table 7 (continued)

| | never unemployed % | N spells of unemployment % | in highest decile of: | | | unemployment before first job % |
|---|--------------------|----------------------------|--|------------------------------|---------------------------------|---------------------------------|
| | | | unemployment as % of time econ. active % | current unemployment spell % | unemployment before first job % | |
| (b) Women (continued) | | | | | | |
| (ii) 6 months + out of the labour force | | | | | | |
| 0 Agriculture, forestry & fishing | 1 | 1 | 1 | 1 | 1 | |
| 1 Energy & water supplies | 1 | 0 | 0 | 0 | 0 | |
| 2 Extraction of minerals & ores other than fuels; manufacture of metals, mineral prods., & chems. | 3 | 1 | 2 | 4 | 2 | |
| 3 Metal goods, engineering & vehicles industries | 8 | 6 | 10 | 18 | 7 | |
| 4 Other manufacturing industries | 21 | 22 | 22 | 22 | 19 | |
| 5 Construction | 1 | 1 | 0 | 1 | 0 | |
| 6 Dist., hotels & catering, repairs | 32 | 36 | 36 | 26 | 35 | |
| 7 Transport & communication | 2 | 2 | 2 | 2 | 2 | |
| 8 Banking, finance, insurance etc. | 8 | 1 ⁺ | 2 ⁺ | 4 | 4 | |
| 9 Other services | 22 | 24 | 21 | 17 | 25 | |
| Inadequately described etc. | 2 | 6 | 4 | 4 | 5 | |
| Total (N) | 100 (851) | 100 (107) | 100 (231) | 100 (118) | 100 (166) | |

Table 8 : Condensed KOS heading¹ of current or last job: comparison amongst those in the highest deciles of four unemployment measures, by sex and (for women) time out of the labour force: those who first left full time education by August 1974 only

| | never unemployed % | in highest decile on: | | | | unemployment before first job % |
|---|--------------------|----------------------------|--|------------------------------|---|---------------------------------|
| | | N spells of unemployment % | unemployment as % of time econ. active % | current unemployment spell % | | |
| (a) Men | | | | | | |
| 1 Professional and related supporting management; senior national & local gov. managers | 1 | 1 | * | * | 1 | 1 |
| 2 Professional & related in education, welfare & health | 1 | 1 | * | 0 | 1 | 1 |
| 3 Literacy, artistic & sports | 1 | 1 | 1 | 1 | 1 | 1 |
| 4 Professional & related in science, engineering, tech. & similar fields | 5 | 1 [†] | 0 [†] | 1 [†] | | 2 [†] |
| 5 Managerial | 6 | 1 [†] | 2 [†] | 1 [†] | | 3 [†] |
| 6 Clerical and related | 7 | 2 [†] | 2 [†] | 2 [†] | | 6 |
| 7 Selling | 4 | 4 | 4 | 3 | | 4 |
| 8 Security & protective services | 5 | 3 | 2 [†] | 2 [†] | | 4 |
| 9 Catering, cleaning, hairdressing & other personal service | 2 | 9 [†] | 8 [†] | 6 [†] | | 4 |
| 10 Farming, fishing & related | 4 | 5 | 6 | 3 | | 3 |
| 11 Materials processing; making & repairing (exc. metal & elec.) | 11 | 9 | 9 | 8 | | 9 |
| 12 Processing, making, repairing & related (metal & elec.) | 32 | 12 [†] | 12 [†] | 23 [†] | | 27 |
| 13 Painting, repetitive assembling, product inspecting, packaging and related | 4 | 7 | 8 | 8 ⁻ | | 7 |
| 14 Construction, mining & related not identified elsewhere | 6 | 19 [†] | 19 [†] | 16 [†] | | 13 [†] |
| 15 Transport operating, materials moving & storing & related | 9 | 16 [†] | 14 | 12 | | 11 |
| 16 Miscellaneous | 1 | 7 [†] | 11 [†] | 10 [†] | | 4 [†] |
| Inadequately described & not stated | 1 | 2 | 2 | 2 | | * |
| Total (N) | 100 (2114) | 100 (513) | 100 (411) | 100 (418) | | 100 (486) |

1 OPCS 1980

2 See footnote 2 to Table 7

Table 8 (continued)

| | never unemployed % | in highest decile on: | | | | unemployment before first job % |
|---|--------------------|----------------------------|--|------------------------------|-------|---------------------------------|
| | | N spells of unemployment % | unemployment as % of time econ. active % | current unemployment spell % | | |
| 1 Professional & related supporting management; senior national & local gov. managers | 1 | 0 | 0 | 0 | 1 | |
| 2 Professional & related in education, welfare & health | 7 | 3 | 4 | 1* | 10 | |
| 3 Literacy, artistic & sports | 1 | 2 | 2 | 1 | 1 | |
| 4 Professional & related in science, engineering, tech. & similar fields | 1 | 0 | 0 | 0 | * | |
| 5 Managerial | 4 | 3 | 0* | 2 | 2 | |
| 6 Clerical and related | 56 | 26* | 17* | 29* | 44* | |
| 7 Selling | 6 | 11 | 13 | 10 | 12 | |
| 8 Security & protective services | 1 | 1 | 1 | 1 | 2 | |
| 9 Catering, cleaning, hairdressing & other personal service | 6 | 32* | 28* | 22* | 8 | |
| 10 Farming, fishing & related | 1 | 1 | 2 | 0 | 1 | |
| 11 Materials processing; making & repairing (exc. metal & elec.) | 7 | 10 | 15 | 16* | 9 | |
| 12 Processing, making, repairing & related (metal & elec.) | 2 | 2 | 2 | 3 | 1 | |
| 13 Painting, repetitive assembling, product inspecting, packaging and related | 5 | 7 | 14* | 14* | 6 | |
| 14 Construction, mining & related not identified elsewhere | 0 | 0 | 0 | 0 | 0 | |
| 15 Transport operating, materials moving & storing & related | 1 | 1 | 0 | 1 | 2 | |
| 16 Miscellaneous | * | 0 | 0 | 0 | 0 | |
| Inadequately described & not stated | * | 2 | 2 | 2 | 1 | |
| Total | 100 | 100 | 100 | 100 | 100 | |
| (N) | (1211) | (151) | (132) | (174) | (200) | |

(b) Women

(i) < 6 months out of the labour force

- 1 Professional & related supporting management; senior national & local gov. managers
 - 2 Professional & related in education, welfare & health
 - 3 Literacy, artistic & sports
 - 4 Professional & related in science, engineering, tech. & similar fields
 - 5 Managerial
 - 6 Clerical and related
 - 7 Selling
 - 8 Security & protective services
 - 9 Catering, cleaning, hairdressing & other personal service
 - 10 Farming, fishing & related
 - 11 Materials processing; making & repairing (exc. metal & elec.)
 - 12 Processing, making, repairing & related (metal & elec.)
 - 13 Painting, repetitive assembling, product inspecting, packaging and related
 - 14 Construction, mining & related not identified elsewhere
 - 15 Transport operating, materials moving & storing & related
 - 16 Miscellaneous
- Inadequately described & not stated
- Total
- (N)

Table 8 (continued)

| | never unemployed % | N spells of unemployment % | in highest decile on: | | | unemployment before first job % |
|---|--------------------|----------------------------|--|------------------------------|---------------------------------|---------------------------------|
| | | | unemployment as % of time econ. active % | current unemployment spell % | unemployment before first job % | |
| (b) <u>Women</u> (continued) | | | | | | |
| (ii) <u>6 months + out of the labour force</u> | | | | | | |
| 1 Professional & related supporting management; senior national & local gov. managers | * | 1 | * | 0 | 2 | |
| 2 Professional & related in education, welfare & health | 4 | 4 | 2 | 0 | 4 | |
| 3 Literacy, artistic & sports | * | 0 | 0 | 0 | 0 | |
| 4 Professional & related in science, engineering, tech. & similar fields | * | 0 | 0 | 1 | 1 | |
| 5 Managerial | 2 | 2 | 2 | 1 | 1 | |
| 6 Clerical and related | 31 | 16 ⁺ | 16 ⁺ | 22 | 22 | |
| 7 Selling | 14 | 12 | 13 | 8 | 13 | |
| 8 Security & protective services | 1 | 0 | * | 0 | 1 | |
| 9 Catering, cleaning, hairdressing & other personal service | 22 | 31 | 31 | 25 | 27 | |
| 10 Farming, fishing & related | 1 | 2 | 1 | 1 | 1 | |
| 11 Materials processing; making & repairing (exc. metal & elec.) | 13 | 16 | 15 | 16 | 13 | |
| 12 Processing, making, repairing & related (metal & elec.) | 2 | 4 | 4 | 6 | 1 | |
| 13 Painting, repetitive assembling, product inspecting, packaging and related | 10 | 8 | 11 | 14 | 11 | |
| 14 Construction, mining & related not identified elsewhere | 0 | 0 | 0 | 0 | 0 | |
| 15 Transport operating, materials moving & storing & related | * | 3 | 1 | 2 | 2 | |
| 16 Miscellaneous | 0 | 0 | 1 | 1 | 1 | |
| Inadequately described & not stated | 1 | 2 | 3 | 3 | 1 | |
| Total | 100 (851) | 100 (107) | 100 (231) | 100 (118) | 100 (166) | |
| (N) | | | | | | |

Table 9 : Social class ¹ of current or last job ² : comparison amongst those in the highest deciles of four unemployment measures, by sex and (for women) time out of the labour force: those who first left full time education by August 1974 only

| | never unemployed % | N spells of unemployment % | in highest decile of: | | | | unemployment before first job % |
|--|--------------------|----------------------------|--|------------------------|----------------------|---------------------------------|---------------------------------|
| | | | unemployment as % of time econ. active % | current unemployment % | unemployment spell % | unemployment before first job % | |
| (a) Men | | | | | | | |
| I professional | 2 | * | 0 | * | * | * | * |
| II intermediate | 10 | 4 ⁺ | 3 ⁺ | 2 ⁺ | 2 ⁺ | 6 ⁺ | 6 ⁺ |
| III NM skilled non-manual | 13 | 6 ⁺ | 6 ⁺ | 5 ⁺ | 5 ⁺ | 10 | 10 |
| III M skilled manual | 55 | 39 ⁺ | 33 ⁺ | 42 ⁺ | 42 ⁺ | 47 ⁺ | 47 ⁺ |
| IV semi-skilled | 14 | 29 ⁺ | 30 ⁺ | 24 ⁺ | 24 ⁺ | 24 ⁺ | 24 ⁺ |
| V unskilled | 3 | 20 ⁺ | 26 ⁺ | 23 ⁺ | 23 ⁺ | 10 ⁺ | 10 ⁺ |
| Inadequately described and not stated | 4 | 3 | 2 | 3 | 3 | 4 | 4 |
| Total (N) | 100 (2114) | 100 (513) | 100 (411) | 100 (418) | 100 (418) | 100 (486) | 100 (486) |
| (b) Women | | | | | | | |
| (i) < 6 months out of the labour force | | | | | | | |
| I professional | * | 0 | 0 | 0 | 0 | * | * |
| II intermediate | 12 | 8 | 5 ⁺ | 4 ⁺ | 4 ⁺ | 14 | 14 |
| III NM skilled non-manual | 62 | 34 ⁺ | 30 ⁺ | 37 ⁺ | 37 ⁺ | 56 | 56 |
| III M skilled manual | 10 | 12 | 10 | 13 | 13 | 8 | 8 |
| IV semi-skilled | 14 | 38 ⁺ | 47 ⁺ | 41 ⁺ | 41 ⁺ | 18 | 18 |
| V unskilled | 1 | 6 | 6 | 3 | 3 | 2 | 2 |
| Inadequately described and not stated | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| Total (N) | 100 (1211) | 100 (151) | 100 (132) | 100 (174) | 100 (174) | 100 (200) | 100 (200) |

1 OPCS 1980

2 See footnote to Table 7

/Cont.....

Table 9 continued

| | never unemployed % | in highest decile of: | | | | |
|---|--------------------|----------------------------|--|------------------------------|---------------------------------|--|
| | | N spells of unemployment % | unemployment as % of time econ. active % | current unemployment spell % | unemployment before first job % | |
| (b) Women continued | | | | | | |
| (ii) 6 months + out of the labour force | | | | | | |
| I professional | 0 | 0 | 0 | 0 | 0 | |
| II intermediate | 6 | 6 | 4 | 2 | 7 | |
| III NM skilled non-manual | 43 | 24 ⁺ | 28 ⁺ | 28 ⁺ | 34 | |
| III M skilled manual | 12 | 8 | 11 | 15 | 7 | |
| IV semi-skilled | 35 | 54 ⁺ | 45 | 46 | 45 | |
| V unskilled | 4 | 6 | 9 | 6 | 6 | |
| Inadequately described and not stated | 1 | 2 | 2 | 3 | 1 | |
| Total (N) | 100 (851) | 100 (107) | 100 (231) | 100 (118) | 100 (166) | |

(b) Women continued

(ii) 6 months + out of the labour force

- I professional
- II intermediate
- III NM skilled non-manual
- III M skilled manual
- IV semi-skilled
- V unskilled
- Inadequately described and not stated

Total (N)

Table 10 : Highest qualification ever obtained¹: comparison amongst those in the highest deciles of four unemployment measures, by sex and (for women) time out of the labour force: those who first left full time education by August 1974 only

| Highest qualification | (a) Men | never unemployed % | in highest decile of: | | | | unemployment before first job % |
|--|---------|--------------------|----------------------------|--|------------------------------|---------------------------------|---------------------------------|
| | | | N spells of unemployment % | unemployment as % of time econ. active % | current unemployment spell % | unemployment before first job % | |
| above A level standard (inc. high vocational qualifications) | | 9 | 1 ⁺ | 1 ⁺ | 2 ⁺ | 3 ⁺ | |
| A level standard(inc.ONC etc.) | | 23 | 6 ⁺ | 4 ⁺ | 7 ⁺ | 13 ⁺ | |
| 5+ 0 levels/C&G Craft, etc. | | 19 | 9 ⁺ | 6 ⁺ | 12 ⁺ | 17 | |
| 1-4 0 levels(with or without clerical or commercial quals.) | | 15 | 14 | 14 | 11 | 11 | |
| below 0 level standard or none | | 34 | 69 ⁺ | 76 ⁺ | 67 ⁺ | 56 ⁺ | |
| Total (N) | | 100 (2127) | 100 (513) | 100 (414) | 100 (420) | 100 (486) | |
| (b) Women | | | | | | | |
| (i) < 6 months out of the labour force | | | | | | | |
| above A level standard(inc.high vocational qualifications) | | 6 | 1 ⁺ | 0 ⁺ | 1 ⁺ | 6 | |
| A level standard(inc.ONC etc.) | | 5 | 5 | 4 | 1 ⁺ | 6 | |
| 5+ 0 levels/C&G Craft, etc. | | 13 | 9 | 4 ⁺ | 7 ⁻ | 6 ⁺ | |
| 1-4 0 levels(with or without clerical or commercial quals.) | | 35 | 30 | 29 | 27 | 34 | |
| below 0 level standard or none | | 41 | 56 ⁺ | 63 ⁺ | 64 ⁺ | 48 | |
| Total (N) | | 100 (1211) | 100 (151) | 100 (135) | 100 (177) | 100 (200) | |

1 Classified according to the DES order of precedence used in the 1981 General Household Survey /Cont.....

Table 10 continued

| | in highest decile of: | | | | |
|---|-----------------------|----------------------------|--|------------------------------|---------------------------------|
| | never unemployed % | N spells of unemployment % | unemployment as % of time econ. active % | current unemployment spell % | unemployment before first job % |
| (b) <u>Women</u> continued | | | | | |
| (ii) <u>6 months + out of the labour force</u> | | | | | |
| above A level standard(inc.high vocational qualifications) | 1 | 1 | 0 | 1 | 2 |
| A level standard(inc.ONC etc.) | 2 | 1 | * | 2 | 2 |
| 5+ 0 levels/C&G Craft, etc. | 6 | 4 | 4 | 9 | 6 |
| 1-4 0 levels(with or without clerical or commerical quals.) | 28 | 23 | 19 | 23 | 22 |
| below 0 level standard or none | 62 | 71 | 77 | 65 | 68 |
| Total (N) | 100 (892) | 100 (107) | 100 (239) | 100 (120) | 100 (166) |

(b) Women continued
(ii) 6 months + out of the labour force

above A level standard(inc.high vocational qualifications)
A level standard(inc.ONC etc.)
5+ 0 levels/C&G Craft, etc.
1-4 0 levels(with or without clerical or commerical quals.)
below 0 level standard or none

Total
(N)

Table 11 : Apprenticeships and training courses: comparison amongst those in the highest deciles of four unemployment measures, by sex and (for women) time out of the labour force: those who first left full time education by August 1974 only

| | never unemployed % | N spells of unemployment % | in highest decile of: | | | unemployment before first job % |
|--|--------------------|----------------------------|--|------------------------------|---------------------------------|---------------------------------|
| | | | unemployment as % of time econ. active % | current unemployment spell % | unemployment before first job % | |
| (a) <u>Men</u> | 46 | 14 ⁺ | 7 ⁺ | 19 ⁺ | 31 ⁺ | |
| completed recognised trade appren. been on at least one training course in conjunction with a job (but not as part of an apprenticeship) | 31 (2127) | 28 (513) | 20 ⁺ (414) | 20 ⁺ (420) | 29 (486) | |
| (Total N) | | | | | | |
| (b) <u>Women</u> | 5 | 4 | 1 ⁺ | 4 | 2 | |
| (i) <u>< 6 months out of the labour force</u> | 32 (1211) | 28 (151) | 16 ⁺ (135) | 19 ⁺ (177) | 26 (200) | |
| completed recognised trade appren. been on at least one training course in conjunction with a job (but not as part of an apprenticeship) | | | | | | |
| (Total N) | | | | | | |
| (ii) <u>6 months + out of the labour force</u> | 4 | 2 | 1 ⁺ | 3 | 2 | |
| completed recognised trade appren. been on at least one training course in conjunction with a job (but not as part of an apprenticeship) | 14 (892) | 15 (107) | 14 (239) | 15 (120) | 17 (166) | |
| (Total N) | | | | | | |

(a) Men
completed recognised trade appren. been on at least one training course in conjunction with a job (but not as part of an apprenticeship)
(Total N)

(b) Women
(i) < 6 months out of the labour force
completed recognised trade appren. been on at least one training course in conjunction with a job (but not as part of an apprenticeship)
(Total N)

(ii) 6 months + out of the labour force
completed recognised trade appren. been on at least one training course in conjunction with a job (but not as part of an apprenticeship)
(Total N)

Table 12 : ¹ Job changing: comparison amongst those in the highest deciles of four unemployment measures, by sex and (for women) time out of the labour force: those who first left full time education by August 1974 only

| | never unemployed | in highest decile of: | | | | unemployment before first job |
|--|------------------|--------------------------|--|----------------------------|-------------------------------|-------------------------------|
| | | N spells of unemployment | unemployment as % of time econ. active | current unemployment spell | unemployment before first job | |
| (a) <u>Men</u> | | | | | | |
| % with one job only | 38 | 1 [†] | 6 [†] | 14 [†] | 28 [†] | |
| % with five or more jobs | 9 | 64 [†] | 49 [†] | 36 [†] | 22 [†] | |
| mean number of months in first job | 52 | 15 | 13 | 24 | 36 | |
| (Total N) | (2127) | (513) | (414) | (420) | (486) | |
| (b) <u>Women</u> | | | | | | |
| (i) <u>< 6 months out of the labour force</u> | | | | | | |
| % with one job only | 42 | 1 [†] | 5 [†] | 16 [†] | 30 [†] | |
| % with five or more jobs | 7 | 56 [†] | 28 [†] | 29 [†] | 14 | |
| mean number of months in first job | 50 | 16 | 16 | 28 | 39 | |
| (Total N) | (1211) | (151) | (135) | (177) | (200) | |
| (ii) <u>6 months + out of the labour force</u> | | | | | | |
| % with one job only | 27 | 3 [†] | 15 [†] | 14 [†] | 18 | |
| % with five or more jobs | 9 | 52 [†] | 19 [†] | 21 [†] | 17 | |
| mean number of months in first job | 25 | 11 | 10 | 21 | 16 | |
| (Total N) | (892) | (107) | (239) | (120) | (166) | |

¹ A change of job is defined here as a change of employer; a change in the nature of the work done for the same employer is ignored.