

# *Towards the Identification of Educational Priority Areas in Dublin*

AGNES BREATHNACH

---

*Précis:* This paper is concerned first with the causes of educational disadvantage, secondly, with the examination of certain characteristics of the home backgrounds of disadvantaged children, thirdly, and especially, it attempts to identify the areas of Dublin in which these homes are concentrated. In this way it is hoped that Educational Priority Areas may be established. An examination and evaluation of Educational Intervention Programmes will be the subject of a separate paper.

## *I. The Causes of Disadvantage*

ACCORDING to a definition developed at a UNESCO meeting on the disadvantaged (Passow, 1970), a child is described as disadvantaged if

because of social or cultural characteristics . . . he comes into the school system with knowledge, skills and attitudes which impede learning and contribute to a cumulative academic deficit. The disadvantage may persist throughout school life and contribute to restricting later economic opportunities.

The main purpose of this paper is not to present a comprehensive treatment of the causes of educational disadvantage, hence only brief reference will be made to factors which have known causal relationships with educational retardation. However, it is hoped that reference to these factors will help explain why certain environmental variables, which are used at a later stage in the analysis, are frequently shown in the research literature to be associated with poor academic performance. The causal factors which will be referred to are (i) malnutrition,

(ii) stimulus deprivation, and (iii) emotional insecurity. They are not necessarily independent of each other.

(i) *Malnutrition*

Malnutrition, either during the pre-natal stage, or in the very early years of life, has been found to have a direct connection with poor IQ performance. Children who are small and puny at birth are more likely to show signs of mental retardation than children of average weight. Van Der Eyken (1974) explains that "the early development of the human brain, in comparison to the rest of the body, depends on the large intake of protein in the first years of life . . . deprivation of protein at this time, and in the minerals and vitamins associated with growth, imply that subsequent IQ might be impaired". Other writers have also drawn attention to the dangers of nutritional deficiencies in child-bearing women, and in young children for subsequent IQ development. Tussing (1973) in a discussion on poverty research programmes in the United States proffers dietary and environmental factors, rather than hereditary ones, as more promising explanatory variables of the negative relationship often noted between poverty and intelligence. Stones (1966) commenting on Burt's (1961) finding that children from poor and overcrowded homes are more likely to suffer from severe educational handicap, stresses the poverty-induced effects of under-nourishment, illness and lack of sleep.

(ii) *Stimulus Deprivation*

Extreme retardation in the physical and psychological development of children in a foundling home was ascribed by Spitz (see Beach, 1954) to the almost total absence of stimulus in their environment. Many other studies, particularly of orphanage-raised infants who typically show decrements in measured intellectual functioning, suggest that early experience is very important for development and growth. According to Bowlby (1965), psychological learning theory holds that a child, initially retarded because of deprivation of environmental stimulation, can eventually catch up if the deprivation is relieved and enough time allowed for learning to take place. Bowlby points out that this does not accord with psychoanalytic theory which holds that early deprivation elicits "defensive processes which serve to insulate a child against the painful frustration that would arise were he to seek interaction with an environment that is unstimulating and unresponsive". Once entrenched these defensive processes tend to maintain themselves even in a more favourable environment. Viewed in this way, the effects of early stimulus deprivation are not easy to reverse.

The importance not merely of stimulus, but of ordered stimulus, for a child's psychological development has been demonstrated in a study by Wachs, Uzgiris and Hunt (1971) who tested infants at five age levels, ranging from seven to twenty-one months, in an effort to determine which physical characteristics of a child's environment are related to his psychological development. Their results

showed that two kinds of circumstances seemed to be most consistently related to psychological development.

- (a) High-intensity stimulation from which the infant could not escape, and exposure to an excessive variety of changing circumstances were shown to have harmful effects when correlated with several aspects of psychological development.
- (b) The opportunity to hear discernible vocal signs for specific objects, actions and relationships had clear beneficial effects. In many ways this is the opposite side of the coin to the first finding. It indicates the benefit of a quieter, ordered environment in which cognitive learning is structured by the parent or other adult, as opposed to crowded quarters where an infant is exposed to the constant blare of radio or television jumbled together with the voices of those present and all the other sounds of family living.

Traditionally, concern has been focused on the lack of environmental stimulus experienced by deprived slum children or by children in isolated rural areas, but the work of Wachs *et al.* adds a new and important dimension to this concern in indicating that a child's intellectual development can be set back by stimulus bombardment just as by stimulus deprivation.

### (iii) *Emotional Insecurity*

Tensions in the home, either between parents themselves, or between parent(s) and child may result in the child becoming emotionally insecure, (Rutter, Tizard and Whitmore, 1970), a state revealed by a whole series of indicators such as nervousness, aggressiveness, speech defects or poor concentration. Stones (1966) states that "broken homes, homes where there is conflict, and homes where there is lack of affection and insecurity will all create the conditions in which backwardness may develop". An environment which creates excessive anxiety therefore inhibits learning. Furthermore, those homes which engender anxiety and insecurity will almost certainly be the sort of homes, discussed in the previous section, which provide defective cognitive stimuli. Children of such homes therefore may suffer from a double handicap.

The interplay between stimulus deprivation and emotional deprivation is illustrated in a remarkable study by Skeels (Skeels, Updegraff, Wellman and Williams, 1938; Skeels, 1966). In 1966, Skeels carried out a follow-up study of two groups of mentally-retarded, institutionalised children, who constituted the experimental and control groups in an experiment he had initiated thirty years earlier. The average IQ of the children in both groups, and of their mothers, was under 70. At about two years of age, thirteen of the children were placed in the care of female inmates of a state institution for the mentally retarded, with each child being allocated to a different ward. The control group remained in their

original, also institutional, environment. After eighteen months in their new environment the experimental group had progressed sufficiently to enable eleven of them become adopted. Skeels attributes this progress to the close emotional attachment which almost every child formed with some one adult in the ward. Each child had some one person with whom he was identified and who was particularly interested in him and his achievements. In Skeels' view, "this highly stimulating emotional impact was observed to be the unique characteristic and one of the main contributions of the experimental setting". Thirty years later Skeels followed up the two groups and found that all of the original thirteen "experimental" children had become self-supporting whereas each member of the control group was either dead or still institutionalised. The Skeels' experiment is highly unusual but serves to corroborate the emphasis placed by many authorities (Burt, 1961; Bowlby, 1965; Mussen, Conger and Kagan, 1969) on the vital importance of a secure emotional attachment between a child and a mother-figure in the early years.

The discussion so far has suggested that children who come into the school system with "knowledge, skills and attitudes that impede learning" are likely to be physically undernourished, to suffer from a lack of planned cognitive stimulation in their early years or to be emotionally insecure due to a condition of continuous stress in the home. This would suggest that attention be focused on the homes of such children.

## *2. Can Disadvantaged Homes be Identified ?*

Does social research indicate that particular demographic, geographic, social class, or other characteristics are correlated with conditions of disadvantage? Is it possible to predict, on obtaining certain objective data about a home, that the children of that home have a greater than average chance of fitting our definition of disadvantage? The answers to these questions are clearly in the affirmative, as reference to the social research literature in this area shows.

Several British studies (Jackson and Marsden, 1962; Davie, Butler and Goldstein, 1972; Donnison, 1972) emphasise the strong effect which the social characteristics of the home background have on a child's adjustment at school. The "From Birth to Seven" study of 16,000 British school children found that the three most important factors associated with a child's ability and adjustment in school were: social class, family size and parental education.

High verbal ability, amongst a sample of Irish children, was found by Kellaghan and Neuman (1971) to be positively associated with high social status and parental interest in the child's education. Large family size (five or more children) was found to be negatively associated with ability. The poorest performance was from the children of unskilled manual workers. In another Irish study, Hart (1975) found that poor attenders at school have very low mean IQ scores and a high incidence of physical problems such as visual and auditory defects, incoherent speech and

difficulty in writing. Moreover, he finds that chronic non-attendance at school is linked with large family size, overcrowding, poverty, low parental interest in education, residence in a corporation flat, parent an alcoholic, and poor maternal discipline and supervision.

The overall picture which emerges from these studies is that an examination of the background characteristics of children who may be termed "educationally disadvantaged" is likely to reveal:

- (i) lower social status, and particularly unskilled manual working occupation of parents
- (ii) large family size
- (iii) low level of both parental education and interest in the child's education
- (iv) poverty and overcrowding.

Referring back to the causes of disadvantage discussed earlier it is not difficult to understand the likelihood, although of course not the inevitability, of their presence in homes which experience this sort of socio-economic deprivation. Malnutrition is more likely to occur when a family is poor and parental education low. Stimulus deprivation is more likely to be experienced by the child who has a large number of siblings, who lives in overcrowded conditions, and particularly if poverty forces the mother to work outside the home in addition to coping with her household tasks. Again, a low level of parental education may leave parents unaware of the importance of talking to their children and generally helping their cognitive development in the early years. Poverty, particularly if unemployment is a constant problem, increases the stressful situations which all families face from time to time and increases the danger of emotional deprivation for the children of such families.

### *Cultural Disadvantage*

The background characteristics outlined above, when combined, suggest an element of cultural disadvantage, and it is interesting to note that both Burt (1969) and Douglas (1964) have attributed retardation in children from poor homes as much to the intellectual poverty of the family as to the material poverty of their background. Bernstein (1961) has drawn attention to the manner in which deprivation is culturally introduced and sustained through the linguistic process. Children of parents who use a "restricted code" of speech are progressively oriented to a low level of conceptualisation and hence are at a disadvantage on entering a school system which is operated by those who possess a more "elaborate code" of speech and who value the ability to conceptualise in a more sophisticated manner. Pusser and McCandless (1974) find, in a study of inner-city five-year-olds in the US, that verbal facility is the most important predictive factor of academic success in both sexes. Not surprisingly, disadvantaged children perform poorly in basic reading

skills—a handicap which tends to have cumulative disadvantageous effects as they move through school.

A further aspect of cultural influence appears in community studies such as those of Gans (1967) and O'Neill (1975) who find that inhabitants of slum areas frequently perceive themselves as being rejected by the wider society. Adults become apathetic or hostile and communicate these attitudes to their children. In a closely-knit community these attitudes are transmitted and reinforced by means of inter-personal communication. In such areas the atmosphere of decay can grow to an almost tangible extent, and the dangers of stunting the growth of the young in both a physical and psychological sense become more real. Furthermore, cultural norms which focus on the strength of peer-group ties inhibit not just access to, but acceptance of, educational opportunity (Crowther Report, 1959). Strong group sanctions are imposed on those who are perceived to be attempting by educational achievement to move outside the domain of the peer-group culture (O'Neill, 1975).

### 3. *Disadvantaged Areas*

This brief overview of studies concerned with sociological and psychological aspects of preparedness for, and adjustment to school is sufficient to demonstrate that certain measurable characteristics of the home are associated with a child's educational performance. This suggests the possibility of the disadvantaged child's progress at school being facilitated by an improvement in his home circumstances. There are obviously large administrative drawbacks involved in the identification of all such homes, and it is suggested here that if those areas with a high concentration of potentially disadvantaged homes could be identified then educational intervention programmes, using an area rather than an individual home as the unit of operation, could be put into effect. This procedure is in line with the recommendations of the Plowden Report, which suggested that educational priority areas should be established in Britain, and that there should be positive discrimination in favour of these areas. Plowden acknowledged that certain needy areas could readily be identified by teachers and others in the field but, nonetheless, some scientific criteria of identification should be established as "local knowledge will not be sufficient to justify decisions which are found on occasion to be controversial" (Plowden, 1967).

For the purpose of identifying deprived areas, it is necessary to find statistical measures of deprivation broken down by areas sufficiently small to ensure some reasonable amount of homogeneity. The Census of Population suggests itself as a good source as, for example, data in the Dublin area is gathered and aggregated by electoral wards or subdivision of these wards. There are 141 such wards in the Dublin County Borough, 29 in the Dun Laoghaire Borough and 26 in the Dublin suburbs area. These 196 wards incorporate most built-up areas of Dublin city and suburbs. With regard to measures of deprivation, the writer was fortunate

to have available to her a body of data<sup>1</sup> prepared by a research colleague (Menton, 1975) for the National Committee on Pilot Schemes to Combat Poverty. This data provided: (i) values on nine variables which were thought to be associated with poverty, and (ii) ranked scores on those variables, for each of the 196 wards mentioned above. These nine variables or indicators were:—

1. Percentage population over 65 years of age.
2. Dependency ratio.
3. Labouring and transport occupations as per cent of total gainfully occupied.<sup>2</sup>
4. Unemployment rate.
5. Percentage of housing units with 1-3 rooms.
6. Percentage of population in 7+ person households.
7. Percentage of housing units built pre 1900.
8. Percentage of housing units with bath or shower.
9. Number of cars per 1,000 population.

The raw data scores on each variable had been ranked from 1-196, *with the higher score indicating the more deprived end of the continuum* so, for example, an area ranking 196 on Variable 1 would have the highest percentage of population over 65 years. On the other hand, an area ranking 196 on Variable 9 would have the lowest car ownership per 1,000 population of all areas.

Whereas these indicators were expected to be useful in identifying areas where poverty was a severe problem for certain sections of the population, it was apparent that not all would be equally useful for the purpose of identifying Educational Priority Areas. It appeared, for example, that disproportionate weight would be given to age-related variables if a simple average-ranking procedure across all indicators was adopted. As an inspection of the rank scores across all areas suggested that there was a high correlation between scores on certain indicators, it was felt that particular combinations of indicators would be useful in determining separate dimensions of poverty. The problem then became (i) the identification of these dimensions, and (ii) the selection of the dimension or dimensions most indicative, in view of the earlier discussion, of a need for educational intervention. If such a dimension(s) could be isolated then wards could be ranked accordingly.

It was decided that the best way to identify the disparate dimensions of poverty inherent in the data was by subjecting it to factor analysis. Before the analysis was

<sup>1</sup>Data Source: 1971 Census of Population Statistics.

<sup>2</sup>These are the "depressed occupations" so termed by Geary and Hughes (1970) which have chronically high unemployment rates. They include unskilled labouring jobs, railway workers, dock labourers, messengers, road transport workers, navvies, etc. (See census classification of occupations.)

undertaken the second of the original nine indicators (Dependency Ratio) was replaced by Percentage of Young Dependents,<sup>3</sup> thus avoiding the effect of overlap between indicators one and two. A  $9 \times 9$  correlation matrix was then generated. This was subjected to a Principal Components factor analysis and the resulting Principal Axis factors were rotated orthogonally. Using the conventional eigenvalue cut-off criterion (eigenvalue = 1) a two factor solution was clearly indicated.

The clustering of variables on the two emergent factors was as follows.

	Varimax Rotated Loadings	
	Factor 1	Factor 2
Aged dependents	-0.17	0.87
Young dependents	0.22	-0.84
Labour and transport	0.93	-0.16
Unemployment	0.81	0.11
1-3 rooms	0.58	0.66
7+ households	0.66	0.18
Old houses	-0.01	0.84
Baths and showers	-0.37	-0.71
Car ownership	-0.90	-0.15

Cumulative percentage variance = 72%.

Taking a cut-off point of 0.60 the main components of each factor are:

Factor 1		Factor 2	
Component	Loading	Component	Loading
Labour and transport	0.93	Aged dependents	0.87
Unemployment	0.81	Young dependents	-0.84
7+ households	0.66	1-3 rooms	0.66
Car ownership	-0.90	Old houses	0.84
		Bath and showers	-0.71

Factor I, therefore, measures *poverty*—indicated by (a) high unemployment and (b) low car ownership—combined with *low social status*, which is indicated by the high percentage of the population working in labouring and transport occupations, and *large family size*, indicated by the percentage of population living in 7+ person households. Furthermore, Variable 5—percentage of households with 1-3 rooms, though not reaching the cut-off point of 0.60, obtained a high loading (0.58) on this factor, and indicates the presence of overcrowding, particularly when found in combination with Variable 6. The components of this factor are intuitively meaningful and correspond to the main indicators of disadvantaged homes outlined in the studies cited earlier, i.e., homes of unskilled manual workers, with

<sup>3</sup>This was obtained by transforming the dependency ratio for each ward into "Percentage Dependents" and subtracting from this the percentage of the population over 65 years thus leaving the percentage of dependents aged under 15 years.



a large number of children, where poverty is a constant threat, and where the parental level of education is low. Although the present analysis includes no measure of parental education it is known that a strong correlation exists between it and low-economic status. Brady and Parker (1975) in their investigation into the factorial ecology of Dublin isolated a factor which they identified as a measure of socio-economic status "with emphasis upon the distinction between manual and non-manual workers". This factor, which obtained high positive loadings for measures of manual working activity, high proportion of local authority housing and large number of persons per room, obtained a high negative loading for proportion of children continuing their education after the age of fourteen.

Factor 2 shows high loadings (i) per cent of old people, (ii) per cent of old houses, (iii) per cent dwellings without bath or shower, (iv) per cent dwellings with 1-3 rooms. All these components are obviously associated with the age of an area. Although the factor is undoubtedly related to poverty, because of its very high negative correlation with percentage of young people in the population, it was not considered to be very useful for the purposes of this paper, i.e., the identification of Educational Priority Areas. This factor shows some similarity to the "Housing Conditions" factor isolated by Brady and Parker who note that dwellings built before 1900, often comprising single-person rented accommodation and without bath or shower, rarely contain males or females under the age of 21 years.

It was decided therefore that the four indicators which had loaded on Factor 1 should be used to select areas for educational intervention. To this end it was necessary to obtain a score for each ward on this "Socio-Economic Deprivation Factor". These scores could then be ranked to indicate priority areas. As all four components on the factor had approximately equivalent loadings it was decided not to weight the indicators, but instead to obtain a composite score for each ward by averaging the rank scores on the four relevant indicators. The factor analysis had been used as a method for determining the groups of variables which seemed to be closely related. Since the units in which the data were collected were, in general, different (i.e., cars per 1,000 population, percentage unemployed, etc.) it seemed more reasonable to introduce a certain uniformity by averaging across the rank scores rather than across the raw data. The wards with highest average ranks could then be regarded as the most deprived in a socio-economic sense, and most deserving of educational intervention. Table 1 shows the rank order and score of all 196 wards on the socio-economic deprivation factor, and Table 2 shows the raw data scores on the four selected indicators for the thirty-one highest ranking wards and for the five lowest ranking (least deprived) wards. This list of 31 is not intended to suggest that other areas do not require intervention. The cut-off point among the 196 wards was taken at 31 because (a) there was a fairly large gap between the scores of wards 31 and 32, whereas scores were more closely clustered both before and after this point, and (b) bearing in mind the question of financial constraints, 31 wards, being approximately one-sixth of the total, was felt to be a sufficiently large number of areas for initial intervention.

However, for the purposes of comparison with other studies, the location not only of these 31, but of a further 33 wards at the deprived end of the continuum, has been illustrated in Figure I. The cut-off point for this second group (again approximately one-sixth of the total) was determined by the relatively large gap between the scores of wards 64 and 65 on the socio-economic deprivation factor. The number of deprived wards illustrated therefore approximates one-third of the total of 196.

### *Level of Parental Education*

The foregoing analysis has identified areas characterised by poverty, large family size and low social status. Another indicator of disadvantage suggested

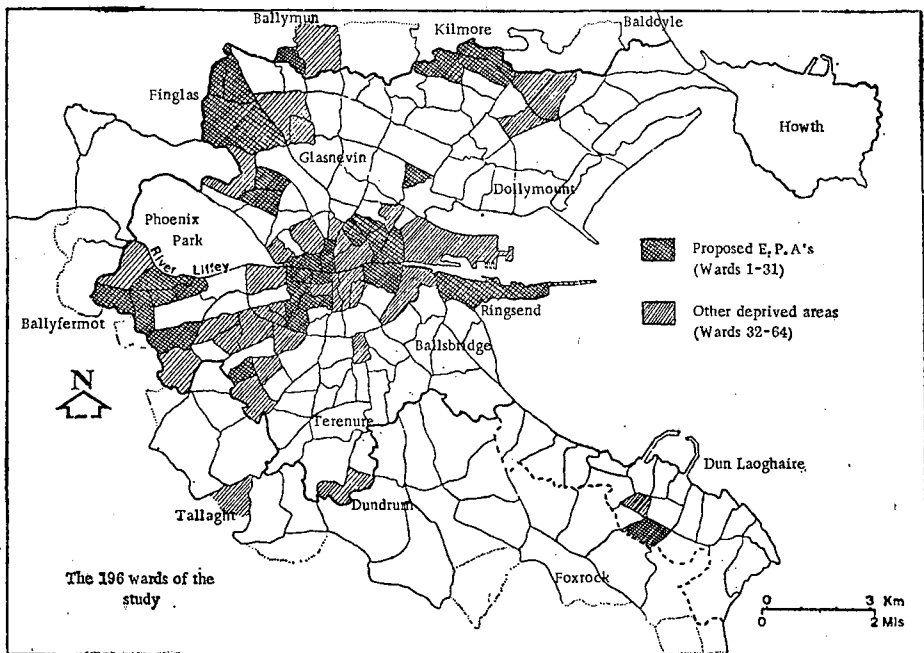


Figure 1: Socio-Economic Deprivation: High-Ranking Wards on Factor 1.

earlier was the level of parental education but no measure of this had been included in the analysis. It is now proposed to turn to the areas identified by MacGréil (1974) containing the highest percentages of adult residents with low educational attainments. MacGréil found an "enormous disparity of educational achievement between the different sections of the city and suburbs of Dublin". This disparity, as measured by percentage of the population with national school education only, ranged from 85.5 per cent in Ballyfermot to 24.4 per cent in Killiney/Kill o' the Grange. MacGréil believes that "since educational achievement reflects and determines social class position to a very large extent . . . this should highlight the urgent need for educational priorities along territorial lines". Figure 2 shows

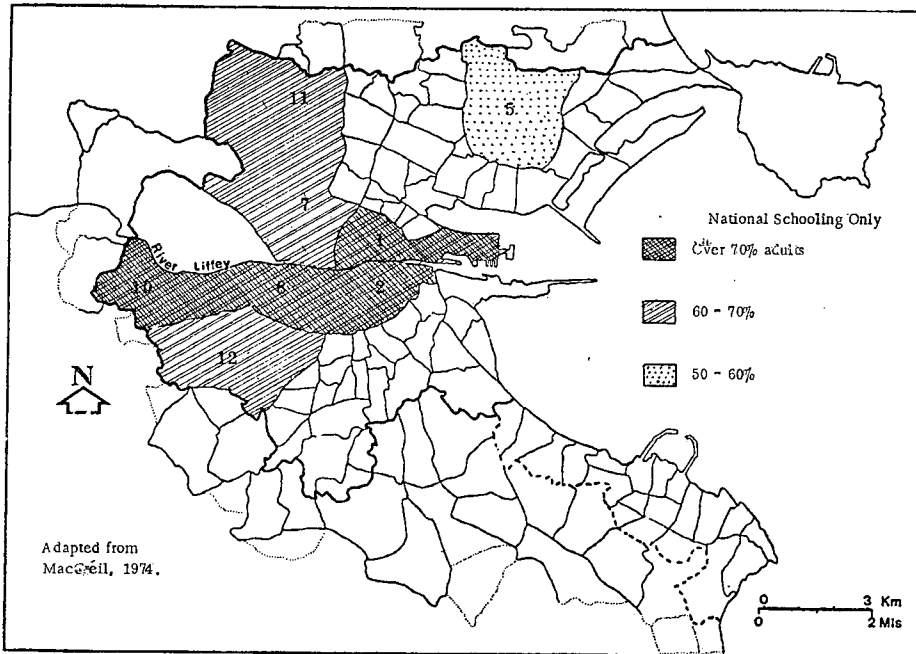


Figure 2: Postal Districts of Dublin where Adult Education Levels are Below Average.

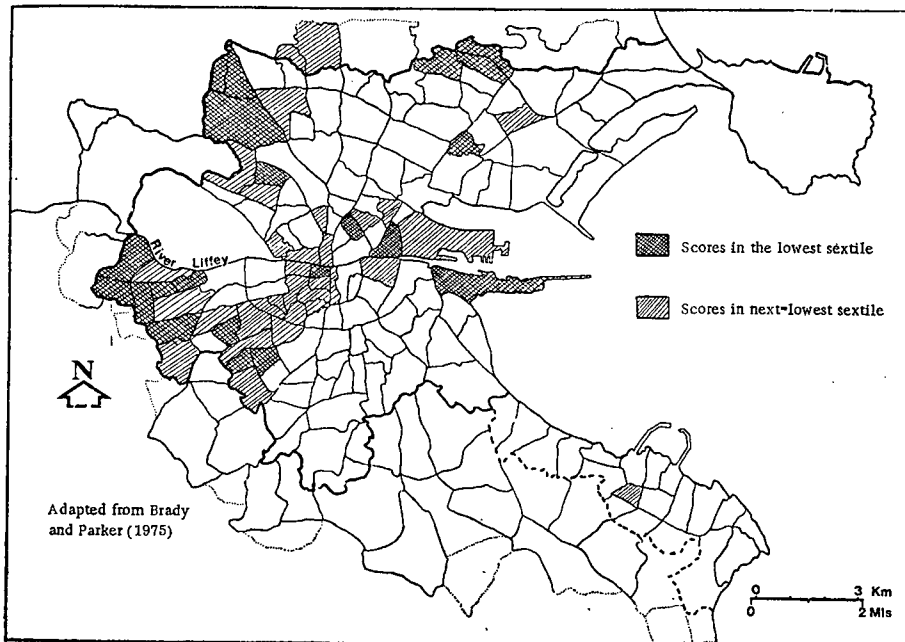


Figure 3: Areas of low Socio-Economic Status.

the postal areas of Dublin where less than 50 per cent of adults have received post-primary education. When this is compared with Figure I, showing the location of wards ranking highest on the socio-economic deprivation factor, it is apparent that the priority areas on both maps are very similar. Twenty-six of the suggested 31 EPA's are located in postal areas where adult education is low. The remaining five wards either fall outside the areas covered by MacGréil or else are subsumed in a predominantly prosperous postal district—as is the case with Pembroke East E (Ringsend) which shares postal district No. 4 with Ballsbridge, Sandymount and Merrion—thus the average level of adult education in the area is boosted.

If one looks at the second group of wards (nos. 32–64), it is again apparent that the vast majority coincide with MacGréil's low-education areas.

A further comparison can be made between the location of these EPA's and the areas of low socio-economic status mapped by Brady and Parker (See Figure 3). An inspection of their map reveals the locational similarity between the areas, presently being proposed as EPA's, and the areas of low socio-economic status which are to be found following the river Liffey and extending towards the public housing areas to the west of the city together with some suburban tracts on the northside.

### *Conclusion*

The locational similarity of the EPA's, selected by factor analysis of the Census data, with MacGréil's educationally deprived areas would appear to confirm that these areas are in urgent need of educational intervention. The areas have been selected on criteria well established in the research literature as indicators of disadvantage. In these areas socio-economic status is low, shown by the large percentage of people employed in unskilled manual work. Family size tends to be large as indicated by the high percentage of families with seven or more persons per household. The high unemployment figures mean not only that incomes are low—which is substantiated by the correlation with low car-ownership—but furthermore suggest that the morale of those affected must at times reach a very low level. The combination of all these circumstances in an area can lead to general feelings of apathy and disenchantment which is readily imbibed by the children. For these reasons it is suggested that educational intervention programmes be established to aid these areas. The question of the most appropriate type of intervention, in terms of both efficacy and efficiency, will be the subject matter of a further paper.

*The Economic and Social Research Institute, Dublin.*

### REFERENCES

- BEACH, F., 1954. "The Individual from Conception to Conceptualisation", Wilson, J. T. (ed.). *Current Trends in Psychology and the Behavioural Sciences*, Pittsburg: University of Pittsburg Press.
- BERNSTEIN, B., 1961. "Social Class and Linguistic Development: a Theory of Social Learning", A. H. Halsey et al (eds.). *Education, Economy and Society*. New York: Free Press.

- BOWLBY, J., 1965. *Child Care and the Growth of Love*, London: Penguin Books Ltd., (2nd ed.).
- BRADY, J. and A. J. PARKER, 1975. "The Factorial Ecology of Dublin: A Preliminary Investigation", Dublin: *The Economic and Social Review*, Vol. 7, No. 1.
- BURT, C., 1961. *The Backward Child*, London: University of London Press, (5th ed.).
- BURT, C., 1969. "Intelligence and Heredity: Some Common Misconceptions", *The Irish Journal of Education*, Vol. 3, No. 2. Dublin: The Educational Research Centre, St. Patrick's College.
- THE CROWTHER REPORT, 1959. *Central Advisory Council for Education*, London: HMSO.
- DAVIE, R., N. BUTLER and H. GOLDSTEIN, 1972. *From Birth to Seven: the Second Report of the National Child Development Study*. London: Longmans.
- DONNISON, D., 1972. *A Pattern of disadvantage: A commentary on From Birth to Seven*, David Donnison (ed.), Windsor: National Foundation for Educational Research.
- DOUGLAS, J. W. B., 1964. *The Home and the School*, London: MacGibbon and Kee.
- GANS, H. J., 1967. *The Urban Villagers*. New York: The Free Press of Glencoe.
- GEARY, R. C. and J. G. HUGHES, 1970. *Certain Aspects of Non-Agricultural Unemployment in Ireland*. Dublin: ESRI Paper No. 52.
- HART, I., 1975. "Absenteeism at National School—Educational, Medical and Social Aspects", Dublin: *The Economic and Social Review*, Vol. 6, No. 3.
- JACKSON, B. and D. MARSDEN, 1962. *Education and the Working Class*, London: Routledge & Kegan Paul.
- KELLAGHAN, T. and E. NEUMAN, 1971. "Background Characteristics of Children of High Verbal Ability", Dublin: *The Irish Journal of Education*, Vol. 5, No. 1. Educational Research Centre.
- MACGRÉIL, M., 1974. *Educational Opportunity in Dublin*. Dublin: Research and Development Unit Lt. Abbey Street.
- MENTON, B., 1975. *Indicators of Poverty*: Prepared for the National Committee on Pilot Schemes to Combat Poverty. Dublin: (unpublished).
- MUSGRAVE, P. W., 1965. *The Sociology of Education*. London: Methuen and Co. Ltd.
- MUSSEN, P. H., J. J. CONGER and J. KAGAN, 1969. *Child Development and Personality*. New York: Harper and Row, (3rd ed.).
- O'NEILL, C., 1975. *A Study of Slum Life*. Dublin: (unpublished).
- PASSOW, A. H. (ed.), 1971. *Deprivation and Disadvantage: Nature and Manifestations*, Hamburg: UNESCO Institute for Education, 1970. (Cited by Kellaghan, T. in a paper prepared for a Seminar on Early Childhood Education in the Caribbean.)
- PLOWDEN, B., 1967. *Children and their Primary Schools. A Report of the Central Advisory Council for Education*. London: HMSO.
- PUSSER, H. E. and B. R. MC CANDLESS, 1974. "Socialisation Dimensions among Inner-City Five-Year-Olds and Later School Success: A Follow-Up". Washington D.C.: *Journal of Educational Psychology*. Vol. 66, No. 3. The American Psychological Association, Inc.
- RUTTER, M., J. TIZARD and K. WHITMORE, 1970. *Education, Health and Behaviour*. London: Longman Group Limited.
- SKEELS, H. M., 1966. "Adult status of children from contrasting early life experiences". Cited by Bronfenbrenner, Urie, *A Report on Longitudinal Evaluations of Preschool Programs*. D.H.E.W. Publication No. (OHO) 74-25, Washington, D.C.
- SKEELS, H. M., R. UPDEGRAFF, B. L. WELLMAN and H. M. WILLIAMS, 1938. "A Study of Environmental stimulation: An orphanage preschool project." Cited by Bronfenbrenner, Urie, *A Report on Longitudinal Evaluations of Preschool Programs*. D.H.E.W. Publication No. (OHO) 74-25, Washington, D.C.
- STONES, E., 1966. *An Introduction to Educational Psychology*, London: Methuen and Co. Ltd.
- TUSSING, A. DALE, 1973. "Poverty Research in the United States", Dublin: *The Economic and Social Review*, Vol. 5, No. 1.
- VAN DER EYKEN, W., 1974. *The Preschool Years*, London: Penguin Books Ltd., (3rd ed.).
- WACHS, T. D., I. C. UZGRIS and J. MC V. HUNT, 1971. "Cognitive Development in Infants of Different Age Levels and from Different Environmental Backgrounds: An Explanatory Investigation". Detroit: *Merrill-Palmer Quarterly*, Vol. 17.

Table 1: Rank order and score of all wards on socio-economic deprivation factor

<i>Ward</i>	<i>Score</i>	<i>Ward</i>	<i>Score</i>
1. Mountjoy A	190.50	50. Kimmage E	141.38
2. North Dock C	189.38	51. Wood Quay A	141.13
3. Finglas West A	185.88	52. Finglas East E	140.13
4. Merchants Quay A	185.00	53. Rathmines West B	140.00
5. Artane B	182.75	54. Ballyfermot H	138.75
6. Arran Quay C	179.50	55. Crumlin B	138.25
7. Ballyfermot C	179.38	56. South Dock	138.00
8. Artane G	176.50	57. Tallaght No. 1	137.50
9. Ballyfermot D	175.75	58. Coolock D	137.13
10. Rotunda A	175.00	59. Merchants Quay B	135.88
11. Finglas (suburb)	174.75	60. Crumlin A	135.25
12. Cabra West B	173.50	61. Rathfarnham South	134.50
13. Ballyfermot E	172.88	62. Ushers A	132.50
14. Inns Quay C	172.25	63. Drumcondra No. 1	132.38
15. Finglas West C	171.88	64. Coolock B	130.88
16. Finglas West B	170.50	65. Drumcondra North B	126.25
17. Clontarf West B	168.63	66. Ballybough B	126.00
18. Ballyfermot B	167.75	67. Ushers F	125.00
19. Kimmage A	167.50	68. Coolock C	124.25
20. Mansion House A	167.25	69. Dun Laoghaire No. 3	123.50
21. Ballyfermot G	165.50	70. Drumcondra South B	123.38
22. Ushers B	165.13	71. Finglas East C	122.63
23. Ushers C	164.00	72. Kilmainham B	121.75
24. Merchants Quay C	163.50	73. Cabra East B	119.13
25. Artane A	163.50	74. Crumlin D	117.63
26. Pembroke East A	162.88	75. Kimmage D	117.50
27. Merchants Quay F	162.63	76. St. Kevins	116.75
28. Dun Laoghaire No. 7	161.38	77. Santry B	114.88
29. Kilmainham A	159.75	78. Kilmainham C	111.25
30. Mountjoy B	158.75	79. Dun Laoghaire No. 8	110.63
31. Cabra West C	158.63	80. Ballyfermot F	107.38
32. Finglas East F	154.50	81. Palmerstown No. 2	105.63
33. Crumlin E	154.25	82. Drumcondra No. 2	103.63
34. Royal Exchange B	152.63	83. Santry A	102.75
35. Inns Quay B	152.25	84. Dun Laoghaire No. 4	102.25
36. Ballyfermot A	152.00	85. Rathmines West A	102.13
37. Kimmage B	151.63	86. Inns Quay A	102.12
38. Royal Exchange A	151.25	87. Pembroke West A	102.00
39. Ballybough A.	151.25	88. Merchants Quay E	100.50
40. Ushers D	150.25	89. Clondalkin	98.88
41. Arran Quay B	149.63	90. Cabra East C	98.38
42. Dun Laoghaire No. 2	149.50	91. North Dock A	98.38
43. Rotunda B	148.38	92. Wood Quay B	98.25
44. Crumlin C	147.25	93. Whitechurch	98.00
45. Ushers E	147.00	94. Finglas East A	97.88
46. Arran Quay D	146.00	95. Kimmage C	95.88
47. North City	143.25	96. Rathmines West D	95.50
48. Cabra West	142.63	97. Artane C	95.25
49. North Dock B	141.38	98. Merchants Quay D	93.75

Table 1 (continued)

<i>Ward</i>	<i>Score</i>	<i>Ward</i>	<i>Score</i>
99. Arran Quay A	93.00	148. Beann Eadair A	61.13
100. Mansion House B	92.25	149. Clontarf East B	59.38
101. Phoenix Park	91.88	150. Stillorgan No. 2	59.00
102. Dun Laoghaire No. 1	91.38	151. Drumcondra North A	56.38
103. Terenure B	90.88	152. Glasnevin B	55.38
104. Blanchardstown	89.38	153. Cabra West E	54.50
105. Arran Quay E	85.88	154. Finglas East D	53.50
106. Clontarf East A	85.63	155. Milltown No. 2	52.88
107. Dun Laoghaire No. 6	85.13	156. Clontarf East C	52.38
108. Tallaght No. 2	85.13	157. Rathmines East B	50.50
109. Clontarf West D	84.63	158. Stillorgan No. 4	49.38
110. Cabra West D	80.50	159. Blackrock No. 1	47.13
111. Stillorgan No. 3	80.25	160. Dun Laoghaire No. 10	46.63
112. Drumcondra South C	78.88	161. Glasnevin A	46.25
113. Clontarf West E	78.25	162. Artane H	46.25
114. Pembroke West C	78.13	163. Terenure No. 4	46.13
115. Blackrock No. 2	78.00	164. Artane E	46.00
116. Baldoyle	77.38	165. Rathfarnham No. 1	42.88
117. Dalkey No. 1	77.25	166. Pembroke East D	42.63
118. Pembroke West B	76.63	167. Dalkey No. 4	40.75
119. Rathmines East D	76.50	168. Artane F	40.38
120. Coolock (suburb)	76.23	169. Rathfarnham B	40.00
121. Clontarf West A	76.13	170. Killiney	40.00
122. Terenure No. 1	75.75	171. Raheny B	39.50
123. Rathmichael	74.75	172. Blackrock No. 5	39.13
124. Drumcondra South A	74.75	173. Pembroke East C	38.00
125. Raheny A	74.38	174. Blackrock No. 6	34.63
126. Dun Laoghaire No. 9	73.63	175. Rathfarnham A	34.00
127. Milltown No. 1	73.13	176. Dundrum No. 5	33.88
128. Rathmines West F	72.75	177. Dundrum No. 3	33.50
129. Blackrock No. 4	72.75	178. Rathmines East C	32.25
130. Castleknock	72.38	179. Terenure No. 3	32.00
131. Stillorgan No. 1	72.38	180. Rathfarnham D	31.38
132. Palmerstown No. 1	72.25	181. Ballybrack No. 1	29.88
133. Terenure A	71.88	182. Drumcondra North C	29.25
134. Rathmines West C	71.88	183. Stillorgan No. 5	29.25
135. Finglas East B	71.38	184. Ballybrack No. 2	29.25
136. Dundrum No. 1	70.00	185. Clontarf East D	25.50
137. Dun Laoghaire No. 5	70.00	186. Blackrock No. 3	24.75
138. Rathmines West E	69.88	187. Rathfarnham C	23.50
139. Artane D	68.13	188. Rathfarnham No. 2	21.50
140. Terenure No. 2	66.13	189. Clontarf East E	20.38
141. Clontarf West C	65.63	190. Dundrum No. 2	19.88
142. Rathmines East A	65.38	191. Dalkey No. 3	19.88
143. Cabra East A	65.00	192. Terenure C	19.38
144. Crumlin F	64.25	193. Beann Eadair B	18.25
145. Pembroke East B	64.00	194. Pembroke East E	17.50
146. Dalkey No. 2	63.50	195. Dundrum No. 4	13.50
147. Glencullen	62.38	196. Coolock A	12.88

Table 2: Raw data scores on four selected indicators of disadvantage for the 31 highest-scoring wards and the five lowest-scoring wards\*

Ward	Unemployment rate	Labour and Transport as % of total gainfully occupied	% Population in 7+ person households	No. of cars per 1,000 population
1. Mountjoy A	16.2	45.0	43.1	17.1
2. North Dock C	13.2	44.5	48.1	25.0
3. Finglas West A	11.2	38.2	57.8	45.2
4. Merchants Quay A	14.1	41.5	39.5	19.9
5. Artane B	11.3	37.2	51.8	50.4
6. Arran Quay C	14.8	33.0	43.0	45.0
7. Ballyfermot C	9.8	30.6	61.9	46.0
8. Artane G	9.8	41.5	40.9	56.0
9. Ballyfermot D	7.6	33.9	53.5	44.8
10. Rotunda A	9.8	26.5	48.1	28.7
11. Finglas (Suburb)	8.0	40.0	57.8	65.3
12. Cabra West B	9.2	34.6	39.1	39.9
13. Ballyfermot E	6.8	37.6	45.5	47.1
14. Inns Quay C	10.3	35.0	34.6	37.7
15. Finglas West C	6.4	34.1	59.8	50.6
16. Finglas West B	7.9	34.0	56.4	63.8
17. Clontarf West B	8.5	34.4	40.5	57.2
18. Ballyfermot B	6.8	30.6	63.4	59.1
19. Kimmage A	6.3	32.3	51.9	52.6
20. Mansion House A	8.4	36.0	33.3	36.5
21. Ballyfermot G	7.3	34.8	44.6	69.5
22. Ushers B	13.9	45.7	27.6	31.8
23. Ushers C	8.6	37.3	31.7	40.0
24. Merchants Quay C	9.6	31.7	32.4	37.3
25. Artane A	8.3	33.7	49.0	85.2
26. Pembroke East A	5.6	40.8	39.1	51.2
27. Merchants Quay F	9.4	30.6	35.1	56.2
28. Dun Laoghaire No. 7	8.7	31.5	39.5	73.9
29. Kilmainham A	6.0	35.8	37.5	55.6
30. Mountjoy B	6.5	25.3	60.0	58.6
31. Cabra West C	9.2	28.6	36.1	62.0
<i>Lowest Scoring Wards</i>				
196. Coolock A	1.3	7.0	10.1	224.9
195. Dundrum No. 4	1.8	6.7	14.6	259.2
194. Pembroke East E	2.0	5.3	21.4	289.2
193. Beann Eadair B	1.9	7.2	15.7	237.1
192. Terenure C	2.0	3.5	22.9	256.8

\*Values are for 1971.