

# AN ECONOMIC AND SOCIAL PROFILE OF THE CARDIFF BAY AREA

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Alden J.D., Batty M., Batty S.E. and Longley P.A. 1988. An economic and social profile of the Cardiff Bay area. Cambria, 15, 61-87. ISSN 0306-9796.

## CAMBRIA



**ABSTRACT :** The rejuvenation of Cardiff Bay is a major project for Wales, South Glamorgan, Cardiff and, not least, the Bay residents themselves. Here data are analysed from a range of published and unpublished sources in order to view economic and social conditions in the Bay area in their urban, regional and national contexts. Relative strengths and weaknesses of the area are assessed using data on population and demography, social class, industrial structure and employment, and housing. These economic and social conditions provide the planning context for the regeneration task ahead for the Cardiff Bay area. The article illustrates a number of distinctive socio-economic features of the Bay area and the substantial contribution it currently makes to the economy of both Cardiff and South Glamorgan.

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(Paper received November 1988)

## INTRODUCTION

### The Policy Context

The establishment of the Cardiff Bay Development Corporation in April 1987 and the publication of its regeneration strategy in 1988 herald one of the largest urban renewal projects in Britain at the present time, and for Cardiff and Wales perhaps during this century. When the Secretary of State for Wales, the Rt. Hon. Nicholas Edwards (now Lord Crickhowell) announced in December 1983 the plan to transform Cardiff docklands, he described the task as "the opportunity to develop a superb environmental setting which

will have few, if any, competitors in Great Britain, and surely nothing less should be the objective for Wales' capital city".

While numerous other examples of urban renewal and regeneration can be cited in Wales, most notably the Programme for the Valleys announced by the current Secretary of State for Wales, the Rt. Hon. Peter Walker, in mid-1988, which will extend over a three-year period, the Cardiff Bay project has attracted the most attention in the Principality. In areal terms it is the largest urban development project outside London, incorporating 2,700 acres. The Corporation's 1988 strategy envisages creating over a ten-year time scale some 30,000 jobs, up to 6,000 new houses, attract private sector investment of some £1.5-2 billion (giving a private/public sector leverage ratio of 4:1 or more), and the construction of a barrage to create Britain's largest artificial freshwater lake. Furthermore, the Corporation's strategy will create cultural and tourism centres, shopping developments, up to four million square feet of office space, and six million square feet of industrial developments.

This urban regeneration project is aimed at turning a liability into an asset and illustrates very well the linkage between economic and environmental improvement in the process of urban regeneration. The Corporation's strategy itself recognises that it is a high profile/high cost initiative. This is to be expected with a large-scale project seeking to turn economic decline into economic growth and to establish Cardiff as a European capital city.

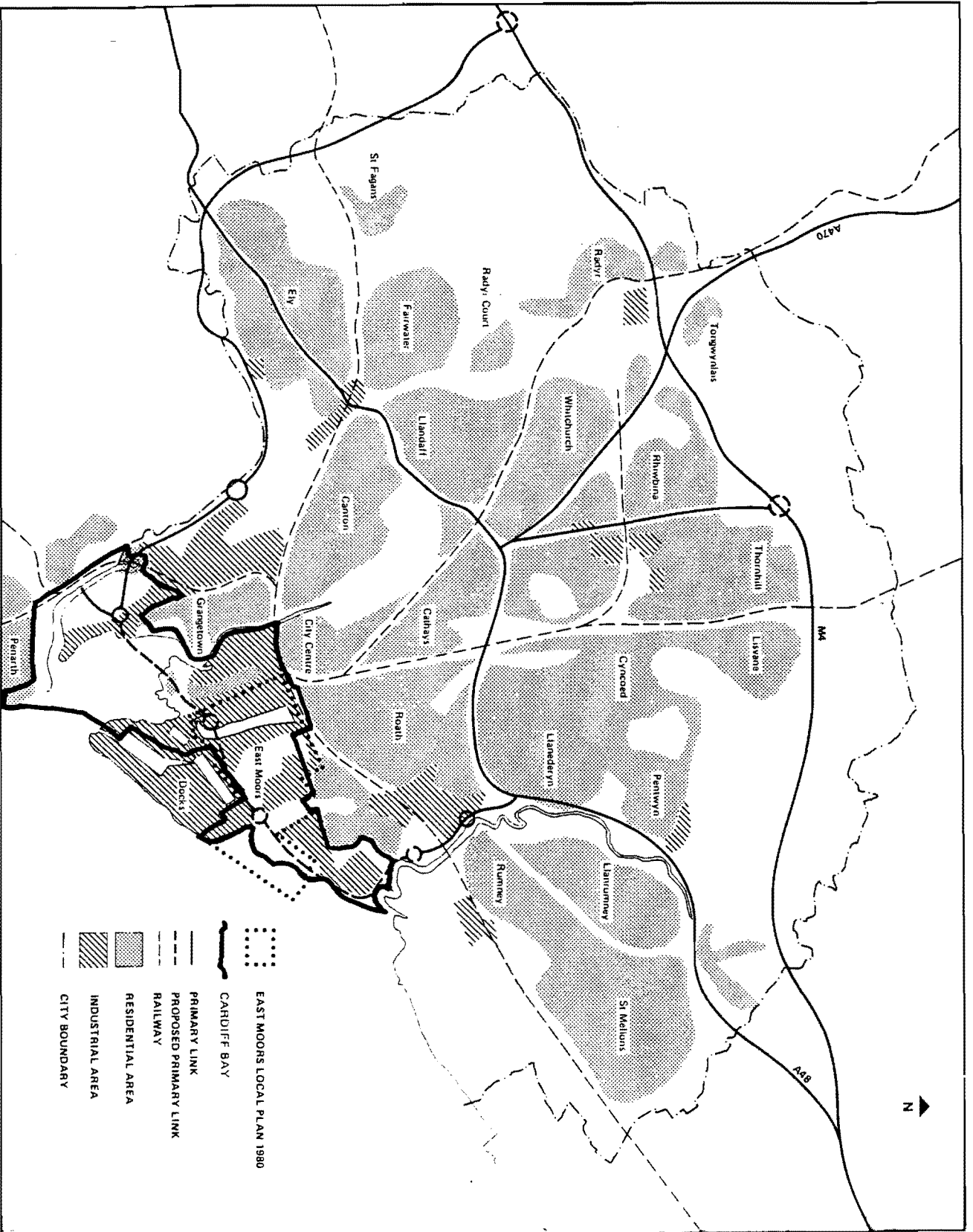
The economic and social costs associated with the strategy have been the subject of considerable debate in recent months, e.g. cost of the Barrage itself, relocation of firms currently employing a large number of people, resiting of the PDR (peripheral distributor ring road) underground, alternative sites for the wading birds, land clearance and reclamation, water quality of the enclosed lake, methane gas, potential flooding and rise in the levels of groundwater, and general infrastructure provision. However, any assessment of economic and social costs must be balanced with an appreciation of the benefits arising from the scheme.

It is not the task of this article to provide a cost-benefit analysis of the Cardiff Bay project, although this is an exercise which needs to be done. The main purpose of this article is to provide an economic and social profile of the Cardiff Bay area. The industrial structure and employment distribution of the Bay area has a number of distinctive features and currently makes a substantial contribution towards the economy of both Cardiff and South Glamorgan. Any future strategy for the Bay area must recognise its present strengths and weaknesses.

#### DEFINITIONS AND DATA SOURCES FOR THE BAY AREA

The location and spatial context of the Cardiff Bay area are shown in Figure 1. The Development Corporation's boundary does not coincide exactly with much of the available data on economic and social conditions. The basic data sources available are three-fold. Firstly, use has been made of the small area data from the 1981 Population Census which is based on enumeration districts. Figure 2 shows the enumeration districts and the designated area of the Cardiff Bay Development Corporation, and Figure 3

Figure 1 Cardiff Bay and its city regional context.



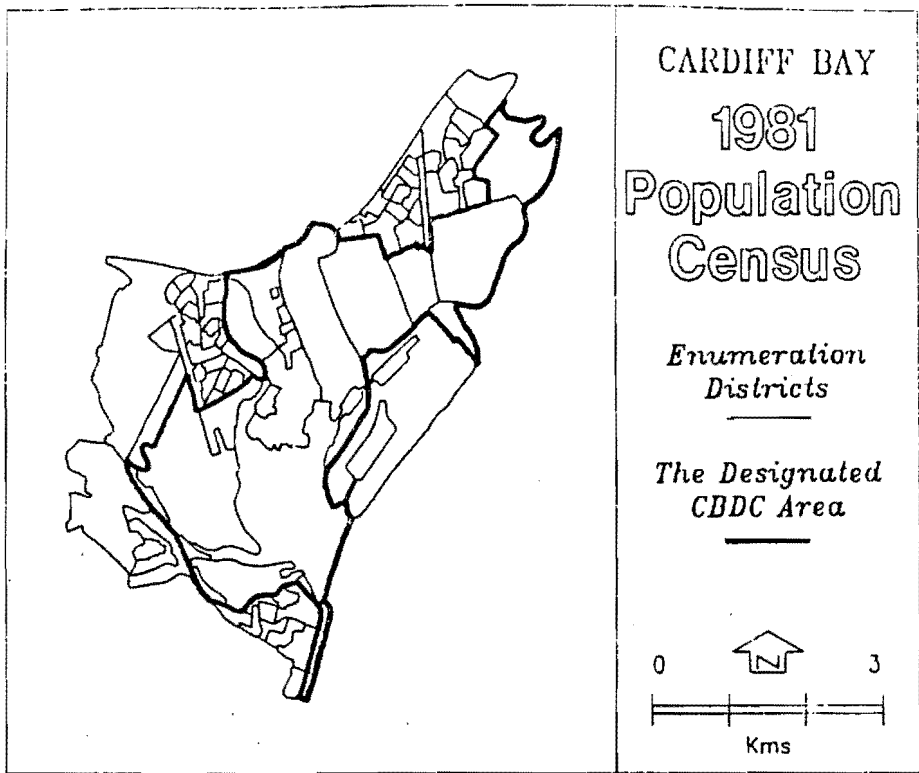


Figure 2 Cardiff Bay : Enumeration Districts at the  
1981 Population Census

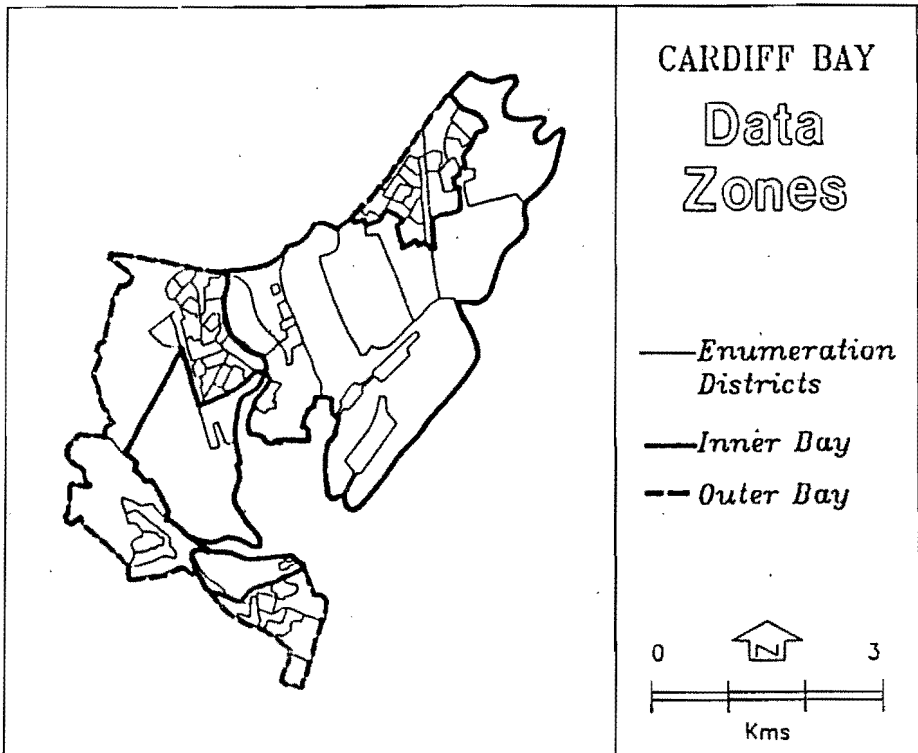


Figure 3 Cardiff Bay : Data zones

shows two areas, defined as the 'Inner' and 'Outer' Bay areas, used in our study. The Inner Bay area is the closest approximation to the designated area in terms of enumeration districts, with 17 such districts which are entirely within or astride the designated boundary. The Outer Bay area has been defined to enclose all significant population areas neighbouring the designated area. The Outer Bay area comprises 73 enumeration districts and includes all communities south of the main (Swansea to Paddington) railway line which bounds Grangetown and Splott to its south, significant population in Penarth, bordering Penarth Head and the estuary of the River Ely. The Bay development will have a profound and immediate effect upon the population of the Outer Bay.

Secondly, use has been made of the new electoral ward division data available from the 1986 South Glamorgan County Council household survey. The Bay area contains 7 wards as shown in Figure 4 (namely Splott, Tremorfa, Butetown, Saltmead, The Marl, Cornerswell and St Augustines). We refer to this aggregation of wards as 'South Cardiff'.

Thirdly, use has been made of data provided by Llewellyn-Davies Planning, consultants to the Cardiff Bay Development Corporation, who completed a 100 per cent survey of all businesses in the bay area in January/February 1988. This survey of businesses (including shops, public houses etc.) provides the most comprehensive data set on the industrial structure and employment distribution for the Bay area.

A recurrent problem in choropleth mapping is that in visual interpretation we assume that the mapped phenomenon is uniformly distributed within each areal subdivision. The CBDC Designated Area has largely been developed with industrial/commercial land-uses, and today many relatively large Census Enumeration Districts (EDs) essentially comprise derelict and disused dockland. Such areas have low populations and frequency indicators (unemployment rates, proportion of owner-occupiers, etc.) may, as a consequence, be rather volatile yet exert a dominating effect upon visual interpretation of the entire map. This effect should always be borne in mind when interpreting our maps, and accounts in some cases for discrepancies between mapped indicators and detailed local knowledge. Separate surface-generalisation routines based upon E.D. centroid data have been developed and applied to the Inner and Outer Bay data sets (Martin 1988), although this work is not reported here. In this article, we are concerned to present and summarise data in map form so that other researchers are aware of the data base we have compiled. Accordingly we have made use of the standard cartographic package called GIMMS (Geographical Information Mapping and Management System) which is available to most university and local authority users.

The following sections of this article attempt to provide a socio-economic profile of the Bay area both as a whole and for its constituent parts. It also provides comparative data where possible to enable comparisons to be made between the profile of Cardiff Bay and those of larger areas, most notably, Cardiff/South Glamorgan, Wales and Great Britain.

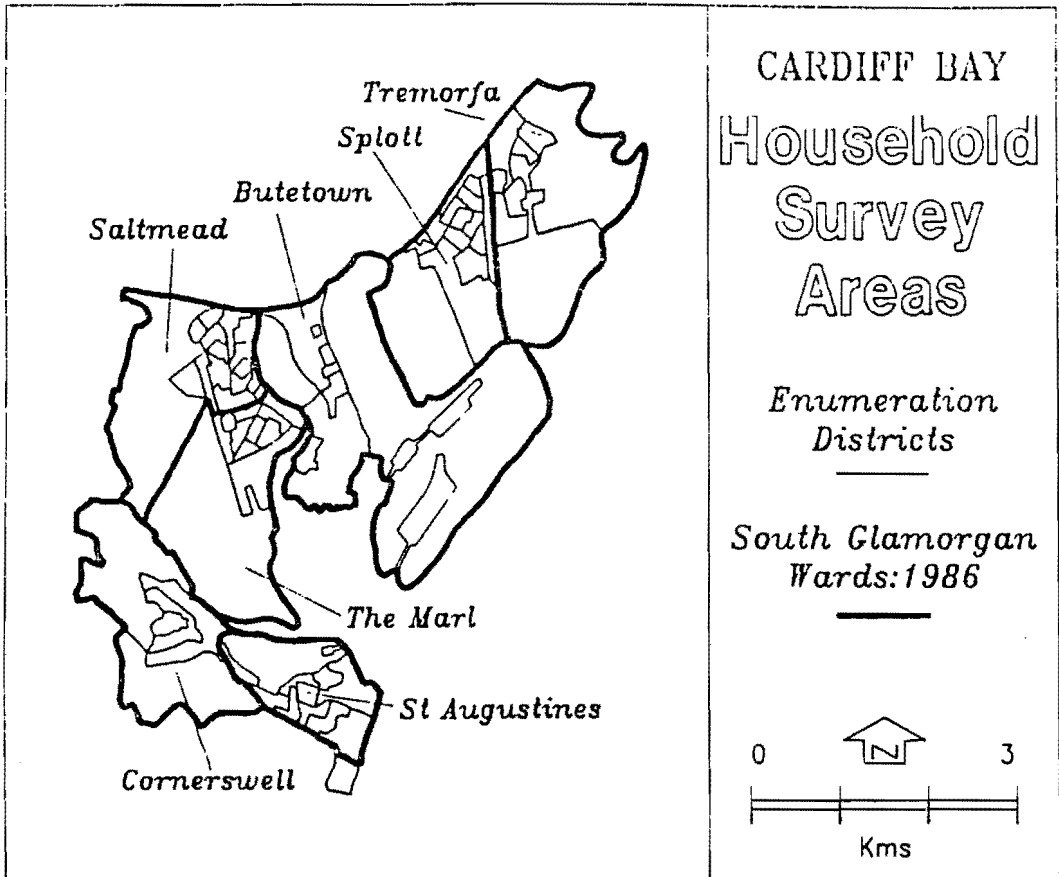


Figure 4 Cardiff Bay : Household Survey Areas.

## POPULATION AND DEMOGRAPHY

The resident population of the Bay's designated area at some 6,000 is relatively small (Table 1). The total population of the Outer Bay was estimated at 34,400 in 1981, while that of the Inner Bay was 7,200. Cardiff City Council's 1987 estimate of the Bay's resident population at some 5,500 compares with the Inner Bay estimate of 7,200 as at 1981 based on Census data. Actually, this later figure includes some 400 persons in our Inner Bay estimate who lived outside the designated area, and a best estimate of population in 1981 for the Bay area is some 6,800.

This population is concentrated in three areas, namely South Grangetown, Harbour View in Penarth and North/South Butetown. The electoral ward division of Butetown contains some two-thirds of the Bay's resident population. The area lost 17.5 % of its population between 1971 and 1981 and it has the highest rate of unemployment of any electoral division in South Glamorgan (42 % in 1986 compared to a Cardiff average of 16 %). This population loss and high unemployment reflect the decline in employment opportunities in South Cardiff.

Table 1 Resident population of Bay area compared to other areas 1971-85  
(all figures in thousands)

Area	1971	1981	1985
Wales	2740.3	2749.6	2811.8
South Glamorgan	394.8	376.7	394.8
Cardiff	290.5	269.5	278.9
Outer Bay		34.4	
Inner Bay		7.2	
The Corporation Area		5.5	5.6 (1986)

Sources (a) 1971 : Digest of Welsh Statistics (1972-3) from 1971  
Population Census

(b) 1981 : 1981 Population Census

(c) 1985 : Digest of Welsh Statistics (1985) and Regional  
Trends (1985)

(d) The Corporation Area : Cardiff City Planning Department -  
Cardiff Bay Profile 1987

Table 2 : Changes in resident population (percentage) 1971-81-85 :  
Cardiff Bay compared to other areas

Area	1971-1981	1981-1985
Wales	+ 0.34 %	+ 2.61 %
South Glamorgan	- 4.58 %	0
Cardiff	- 7.23 %	- 4.00 %
South Cardiff	-17.0 %	not available
Cardiff Bay	not available	+ 1.8 %

Sources : (a) Cardiff City Planning Office  
(b) Other statistical sources as shown for Table 1

As shown in Table 2, the population of Cardiff dropped overall by 4 per cent between 1971 and 1985, compared with a stable population in South Glamorgan, and a moderate growth of 2.6 per cent in Wales as a whole. The Bay area similarly shows a small increase between 1981-85 of just under 2 per cent, although as noted above South Cardiff (containing the communities of Butetown, Splott and Grangetown) lost population rapidly between 1961 and 1971 (-27 per cent), with the loss continuing at a lower rate between 1971-81 (-17 per cent).

The most significant feature of the population structure in the Bay area is the relatively high proportion of under school age (0-4 years) and pensionable age, compared with England and Wales (Table 3). The pattern is most significant in the Inner Bay area. It is somewhat surprising, in view of the larger proportion of children in the area, to note that the Inner Bay area shows a markedly lower average household size than for England and Wales (Table 4). This seems to reflect a significantly larger proportion of older households in the community.

Cardiff Bay has traditionally had a diverse ethnic mix of population. This is clearly shown in the country of birth of the residents of the Bay area (Table 5). Thus the Inner Bay area has nearly 10 per cent of its residents born outside the UK, compared with less than 7 per cent of England-Wales residents, and only 2.5 per cent of Welsh residents.

The social class structure of Cardiff Bay residents again presents a marked difference from that of England and Wales as shown in Table 6. The Inner Bay area particularly has a significant proportion of its residents in the unskilled Class 5 (15.6 % compared with 4.0 % of England-Wales residents) and a very low proportion of residents in the highest social Class 5 (1.6 % compared with 4.5 % for England and Wales).

Table 3 : Population and age structure 1981 (percentage) for Cardiff Bay compared to other areas

	Resident population	0-4	5-15	16-24	25-44	44-p	p+
England & Wales	48,521.6	6.0	16.2	14.0	26.4	19.7	17.7
Wales	2,749.6	6.1	16.4	13.5	25.6	20.1	18.3
Outer Cardiff Bay	34.4	6.3	15.2	15.3	23.5	19.7	20.0
Inner Cardiff Bay	7.2	7.9	14.8	15.0	21.4	20.2	20.8

Notes : Population in thousands ; P = Pensionable age

Source : 1981 Census of Population

Table 4 : Households and household size, 1981, for Cardiff Bay compared to other areas

Area	No. of households in thousands	Persons per household
England and Wales	17706.5	2.70
Wales	986.3	2.76
Outer Cardiff Bay	12.511	2.71
Inner Cardiff Bay	2.635	2.62

Source: 1981 Census of Population

Table 5 : Country of birth for residents of Cardiff Bay and elsewhere, 1981

Area	Born in U.K.	Born outside U.K.
England and Wales	93.4 %	6.6 %
Wales	97.5 %	2.5 %
Outer Cardiff Bay	92.9 %	7.1 %
Inner Cardiff Bay	90.4 %	9.6 %

Source : 1981 Census of Population

Table 6 : Social class of residents of Cardiff Bay compared to other areas in 1981 (percentage figures)

Area	1	2	3a	3b	4	5
England and Wales	4.5	19.1	9.2	26.1	12.1	4.0
Wales	3.7	16.6	7.5	26.6	11.8	4.5
Outer Bay	3.3	15.4	10.5	39.1	18.2	10.3
Inner Bay	1.6	11.0	6.8	32.9	26.6	15.6

Source : 1981 Census of Population

Table 7 : Travel to work mode 1981 by percentage of economically active for Cardiff Bay compared to other areas

Area	Public Transport	Car	Foot	Other	Working at Home
England and Wales	21.1	50.7	15.3	9.1	3.7
Wales	15.1	56.2	16.5	6.6	5.6
Outer Bay	23.3	38.3	26.0	10.0	2.4
Inner Bay	26.1	23.0	35.1	10.8	5.0

Source : 1981 Census of Population

A markedly different pattern of mobility is seen in the Bay area compared with England and Wales (Table 7). A considerably higher proportion of residents travel to work by public transport (26.1 per cent and 15.3 per cent respectively). The use of a car for travel to work in the Inner Bay (23.0 %) is less than half that in England and Wales (50.7 %).

These demographic characteristics of the resident population may be expected to be related to the industrial structure and employment distribution of the Bay area. However, a clear picture emerges of the Inner Bay in particular, as relatively disadvantaged, with a higher proportion of very young and old, and a significantly higher immigrant population than in England and Wales as a whole. It must be recognised that there is considerable heterogeneity between enumeration districts in the Bay area in terms of demographic characteristics. This is clearly illustrated with reference to the social class indicators shown in Figures 5-10. The clear bias to the Penarth area for Social Classes 1, 2 and 3A, in contrast to the Grangetown, Butetown and Splott areas dominated by Social Classes 3B, 4 and 5, is obvious from these maps.

The extent of variations between local areas within the Bay area is also illustrated by other indicators such as country of origin (Figure 11) or car ownership (Figure 12). Only 2.5 per cent of the population of Wales and 5.5 per cent of Cardiff were born outside the UK, but figures are 7 per cent for the Outer Bay area and nearly 10 per cent in the Inner Bay area. Figure 11 illustrates that most of this population is concentrated in Butetown and North Grangetown. With respect to local mobility, there are also some major differences between the Bay and the rest of Cardiff. While 43 per cent of Cardiff households do not own a car the corresponding figures are 57 per cent for the Outer Bay area and 74 per cent for the Inner Bay area. Figure 12 illustrates this situation and the position where the percentage of households without use of a car or van peaks at over 9 in 10 households and is over 6 in 10 over most of the area. In so far as this is an indicator of material wealth, the Bay area is clearly one of relatively low incomes, and also perhaps deprivation with respect to personal mobility.

#### INDUSTRIAL STRUCTURE, EMPLOYMENT AND UNEMPLOYMENT

##### Industrial structure and employment in Cardiff Bay and the U.K. context

Cardiff Bay is the largest industrial area in the City and, as such, is of considerable importance to its economic prosperity. It was estimated in 1986 (South Glamorgan County Council Survey) that 18 per cent of the City's residents in employment worked within the larger area of South Cardiff, i.e. in the Outer Bay area (including Splott and Grangetown). In 1987, on the basis of surveys and direct contact with major employers, Cardiff City Planning Department estimated that total employment within the Cardiff Bay area was nearly 15,000, with 90 per cent of these jobs located within ten main employment areas. In January/February 1988, Llewellyn Davies Planning, Consultants to the Cardiff Bay Development Corporation, completed a 100 % survey of all businesses in the Bay area. This survey of businesses is the most comprehensive data set available on employment for the Bay area.

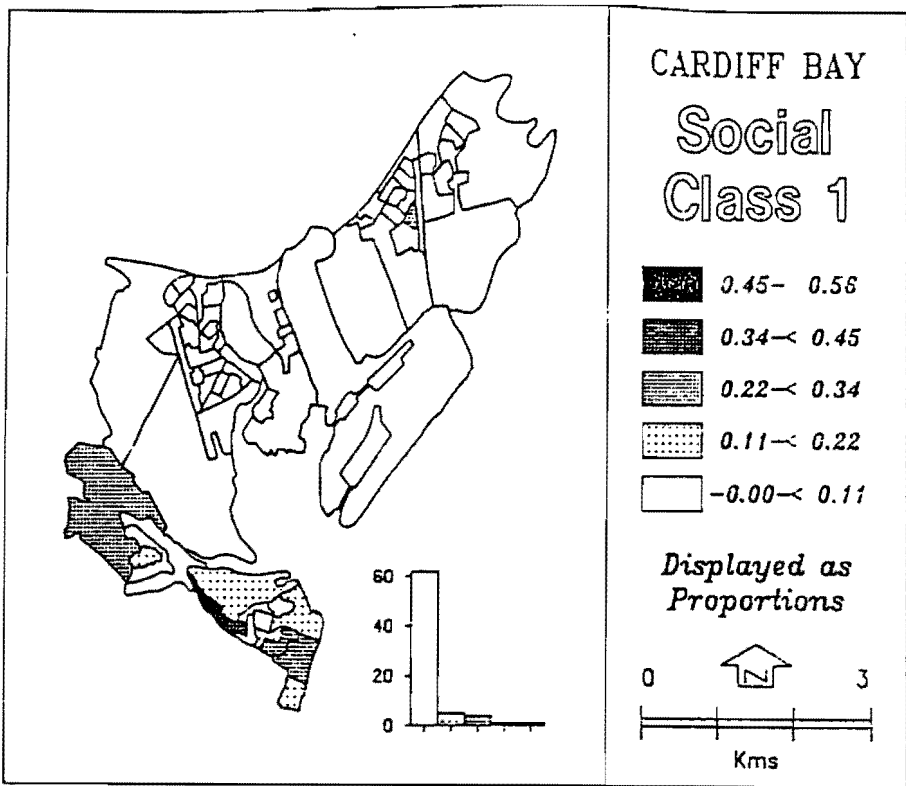


Figure 5 Cardiff Bay : distribution of Social Class 1.

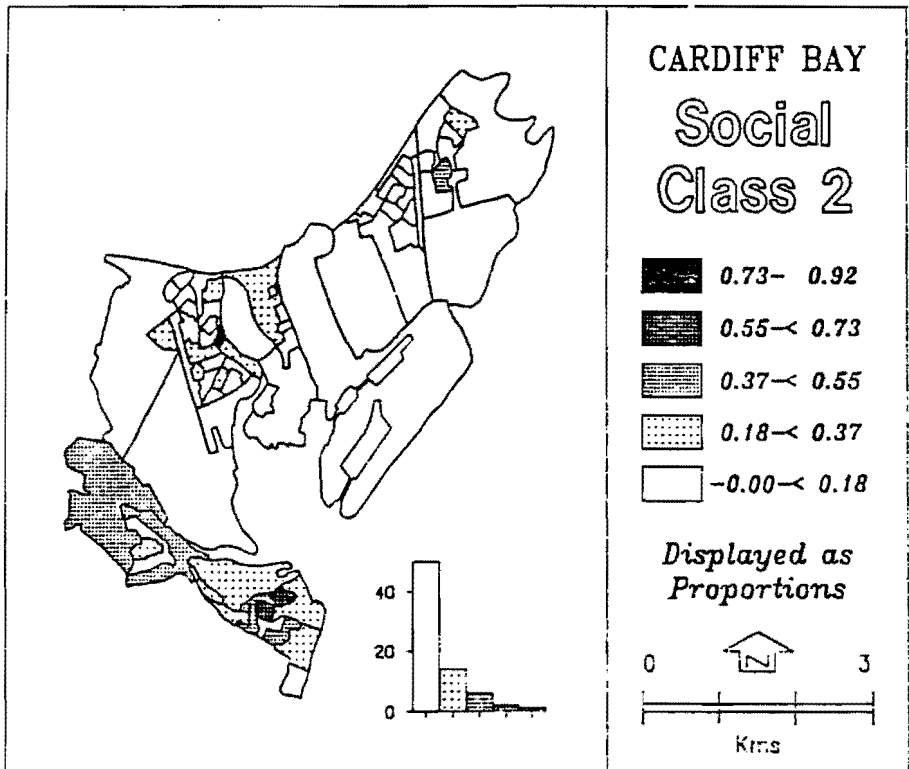


Figure 6 Cardiff Bay : distribution of Social Class 2.

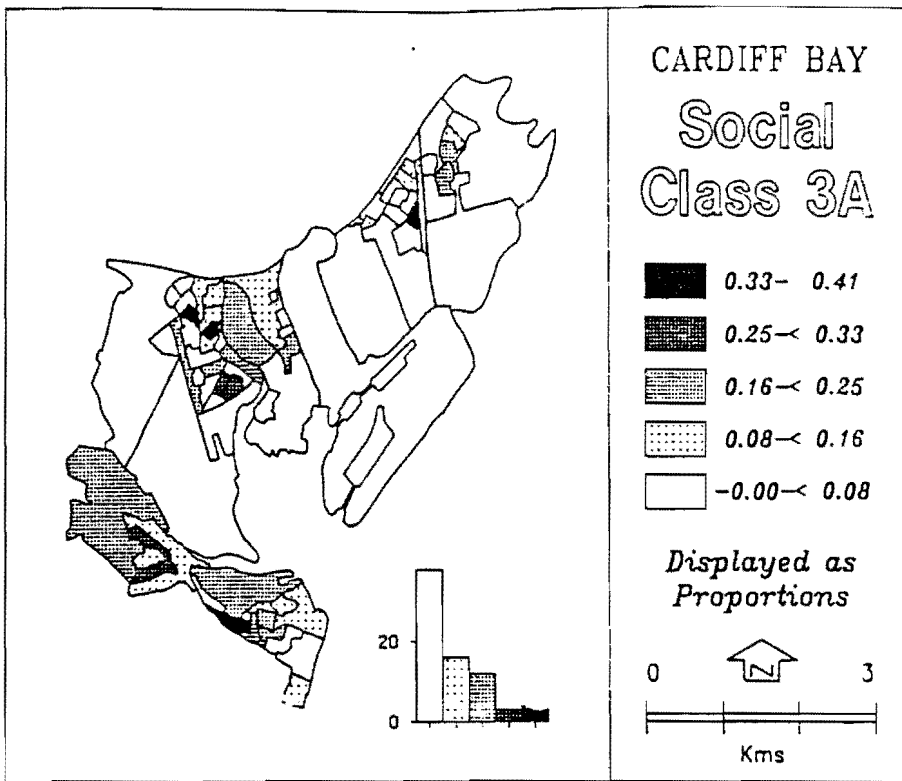


Figure 7 Cardiff Bay : distribution of Social Class 3A

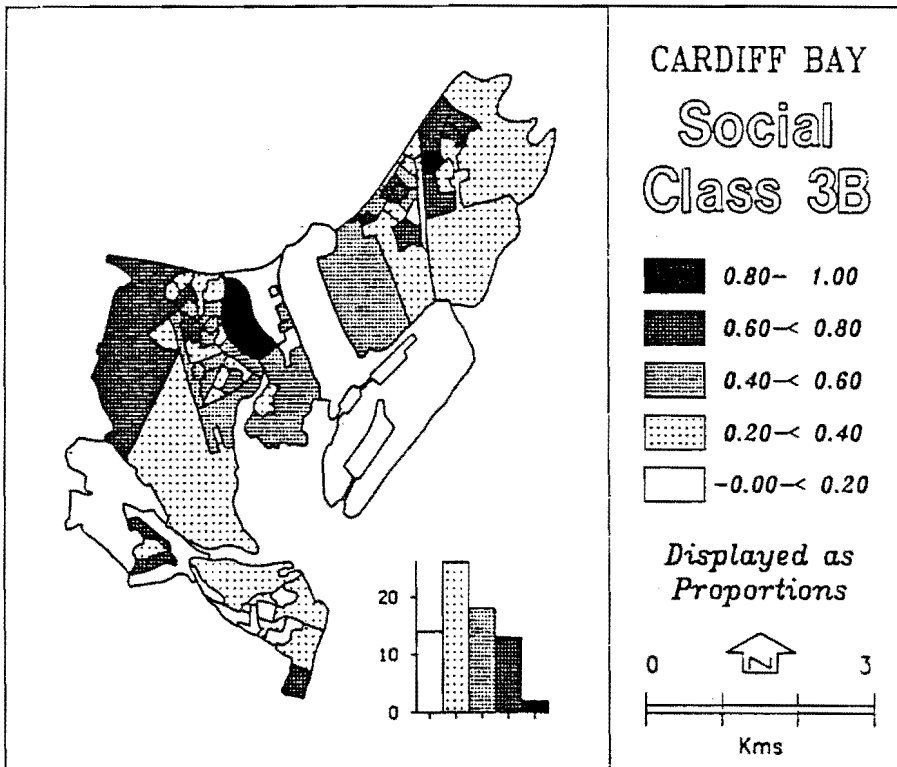


Figure 8 Cardiff Bay : distribution of Social Class 3B

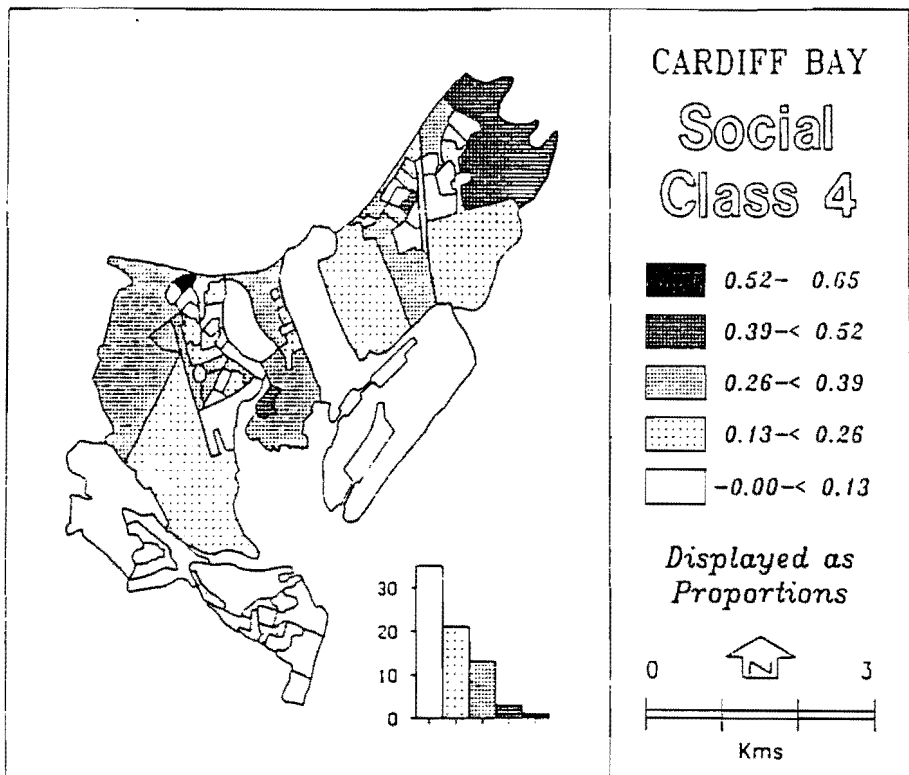


Figure 9 Cardiff Bay : distribution of Social Class 4

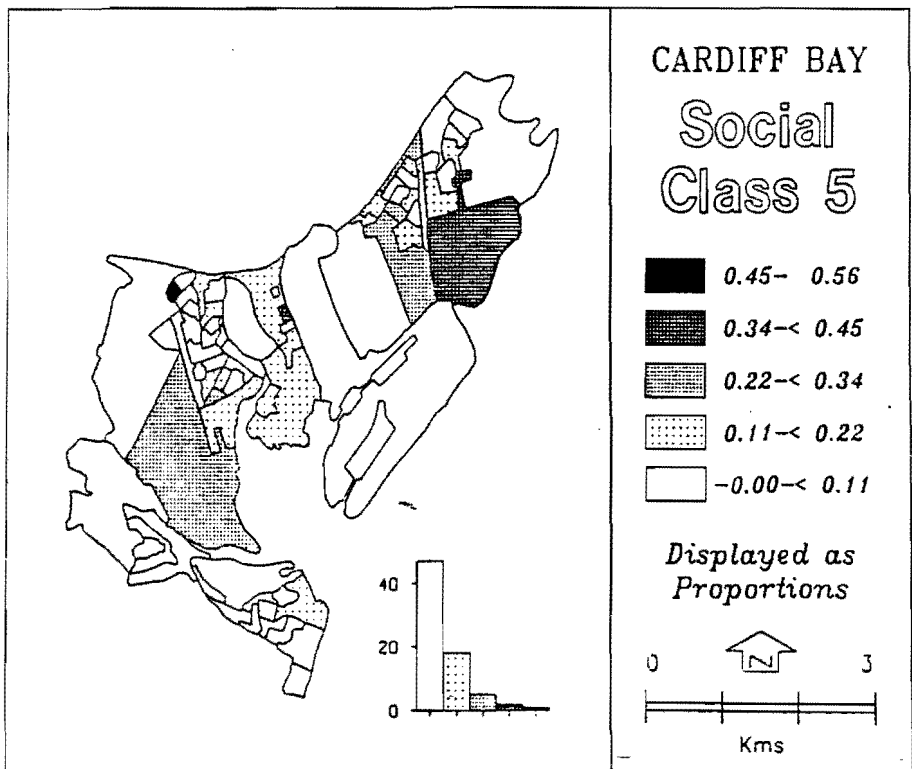


Figure 10 Cardiff Bay : distribution of Social Class 5

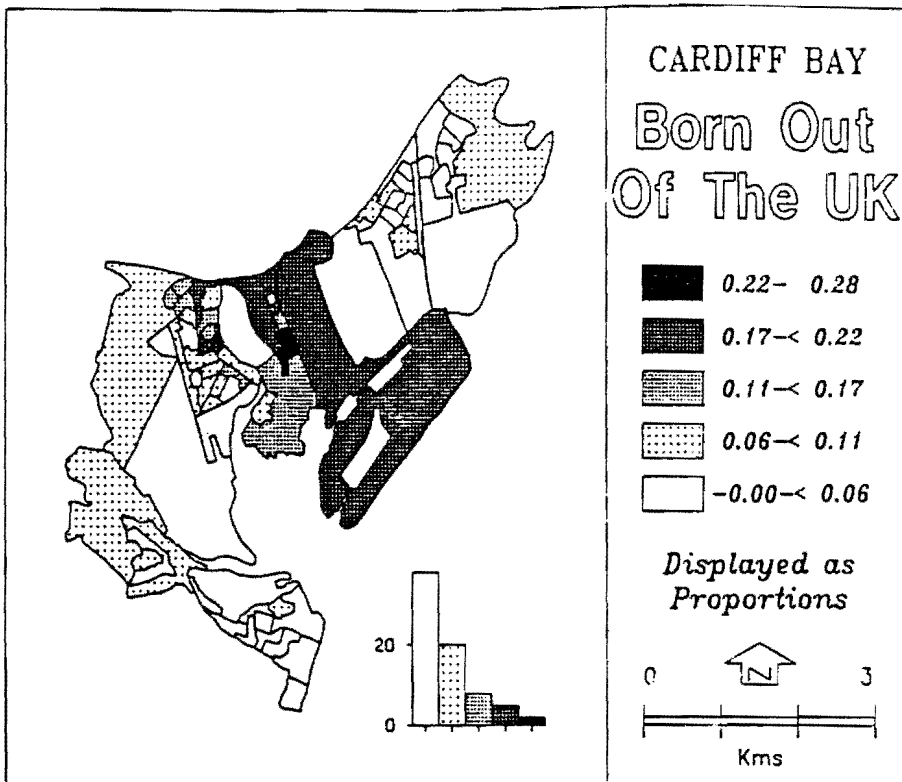


Figure 11 Cardiff Bay : proportion of population born out of the U.K.

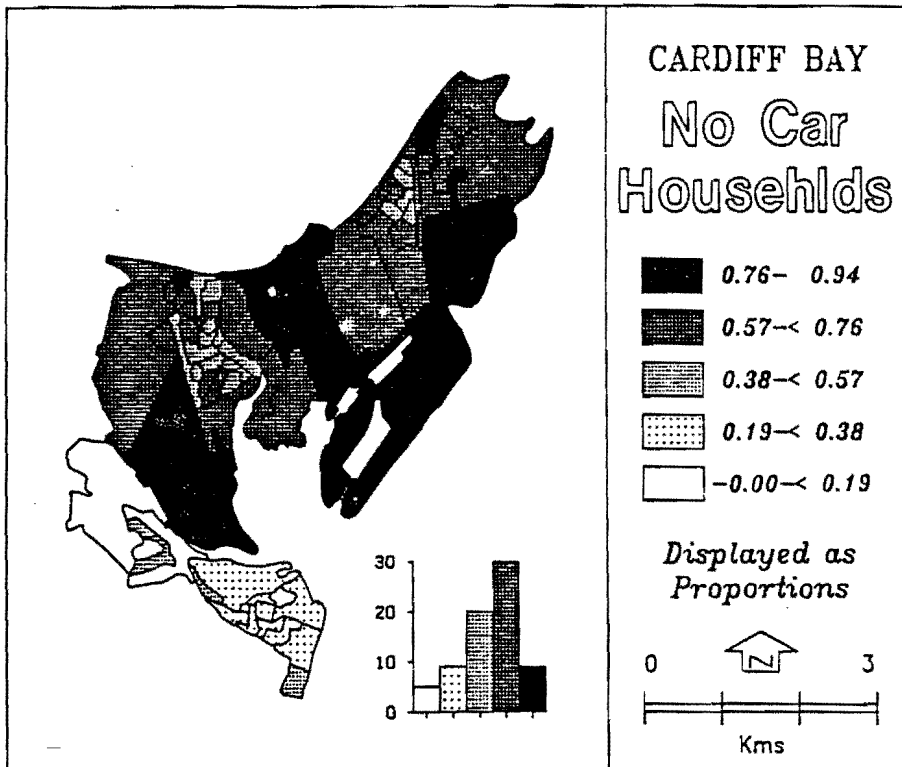


Figure 12 Cardiff Bay : proportion of households with no car

The survey of businesses made by Llewellyn-Davies Planning in early 1988 estimated the number of people employed in the Bay area to be 15,348 (very similar to the 1987 based estimate of just under 15,000 prepared by Cardiff City Council). The number of businesses and persons employed by size of business is shown in Table 8. This shows that there are in the Bay area nearly 1,000 businesses employing 15,000 people (an average size of 15 persons per business). While there are 418 businesses which employ less than 5 people with a total employment of 873, there are 7 businesses employing more than 250 people with a total employment of 4,432.

The survey of businesses was sub-divided into 8 areas (Table 9 and Figure 13). Over half of the employment in the Bay area is located in Areas 7 and 8. Area 7 (1810 employed) covers the James Street/Bute Street area in the docks and Mount Stuart Square. Area 8 (6137 employed) covers the Timber Yard Industrial Estate (Eastmoors Road, The Maltings/East Tyndall Street, Lewis Road, East Moors Industrial Estate, Portmanmoor Road Industrial Estate and Cardiff Workshops/Lewis Road).

Table 8 : Number of businesses in the Bay area by size in 1988

Total employed	Number of businesses	Number employed
<5	418*	873
5-19	367	3,306
20-49	105	3,202
50-249	38	3,535
250+	7	4,432
<b>Total</b>	<b>935</b>	<b>15,348</b>

\* includes 46 businesses identified in the survey but for which no other data gained. These businesses were all allocated to this group.

Source : 1988 Survey of Businesses : Llewellyn-Davies Planning

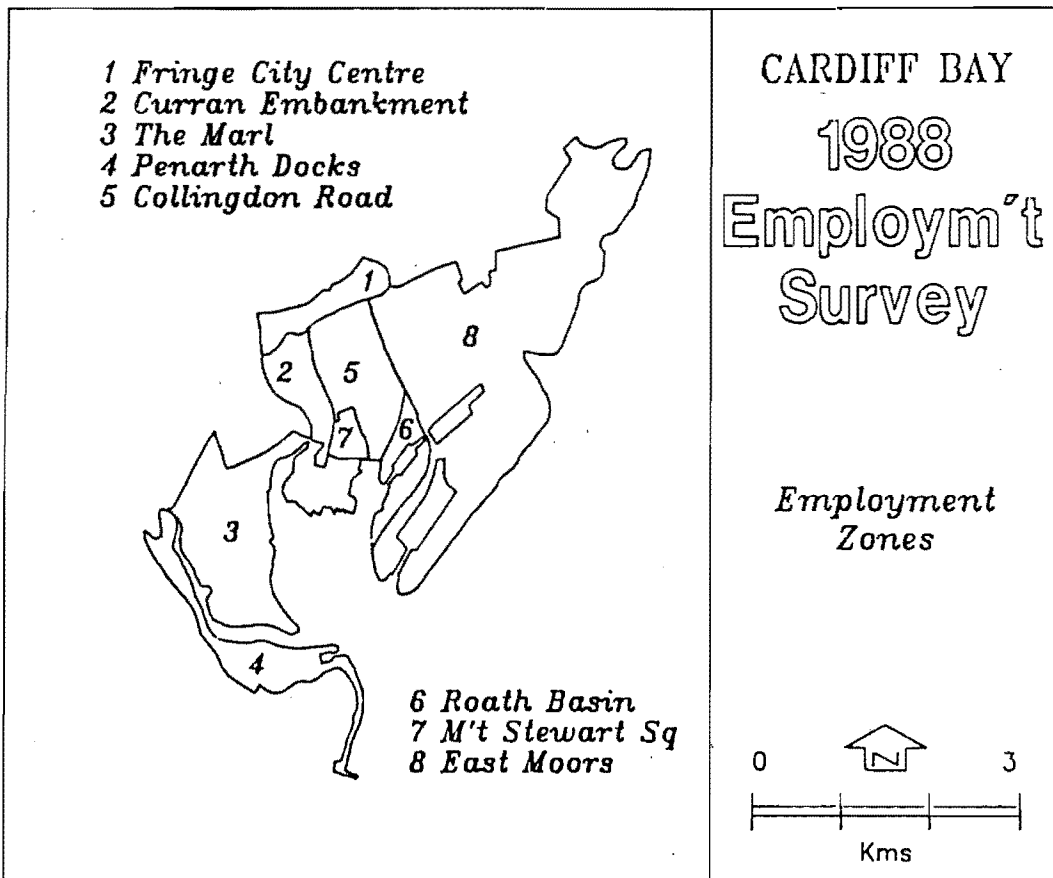


Figure 13 Cardiff Bay : Employment Zones used in the 1988 Survey

Table 9 : Number of businesses and persons employed in each of the 8 sub-divisions of the Bay Area in 1988

Area code	Number of businesses	Number employed
1	140	1,754
2	132	2,395
3	102	1,249
4	49	527
5	77	706
6	31	770
7	187	1,810
8	217	6,137
Total	935	15,348

The 1988 survey of all establishments in the Bay area has provided an analysis of employment by main industrial sector (Table 10). This table illustrates that 41 per cent of employment in the Bay area is in the manufacturing sector (i.e. Sectors 2-4) compared to just 15 per cent (in 1984) for Cardiff and South Glamorgan as a whole. The 1984 Census of Employment showed 25,100 people employed in the manufacturing sector of South Glamorgan. Table 10 above shows that there are 6300 people employed in manufacturing industry in the Bay area (i.e. Sectors 2-4), representing some 25 per cent of all manufacturing industry in the County. Thus Cardiff Bay is clearly an important part of South Glamorgan's manufacturing industry sector, and manufacturing industry itself is a dominant feature of the Bay area's industrial structure. The high percentage of total employment in the Bay area which is accounted for by the manufacturing sector is compared to that for other areas in Table 11.

Table 10 : Industrial structure of Cardiff Bay in January/February 1988

Industrial sector	Number employed	% of total employment
0 Agriculture, Forestry and Fishing	0	0.0
1 Energy and Water Supply Industries	371	2.4
2 Extraction of Minerals and Ores other than Fuels : manufacture of metals, mineral products and chemicals	2,473	16.1
3 Metal goods, Engineering and Vehicles Industries	2,461	16.0
4 Other Manufacturing Industries	1,373	8.9
5 Construction	522	3.4
6 Distribution, Hotels and Catering; Repairs	2,982	19.4
7 Transport and Communication	631	4.1
8 Banking, Finance, Insurance, Business Services and Leasing	1,261	8.2
9 Other Services (including recreational and other cultural)	2,878	18.8
10 Other not specified	396	2.6
<b>Total</b>	<b>15,348</b>	<b>100.0</b>

Source: 1988 Survey of Businesses, Llewelyn-Davies Planning

Table 11 : Percentage of Total employment in Manufacturing Industry in Bay area compared to other areas

Area	Manufacturing employment	Date of Information
Cardiff Bay	41 %	January/February 1988
Cardiff and South Glamorgan	15 %	June 1984
Wales	24 %	September 1987
Great Britain	24 %	September 1987

NB : Manufacturing Sector = Sectors 2-4 of 1980 SIC

It may be expected that in the future, for a variety of reasons, both the service sector and construction industry sector will grow in importance in both absolute and relative terms. Table 10 showed that at present the size of the construction industry in the Bay area is quite small, with just over 500 people employed or 3.4 per cent of total employment. This may be compared to 5.1 per cent for South Glamorgan, 4.9 per cent for Wales, and 4.6 per cent for Great Britain. The construction industry is often used as an indicator of economic vitality and development activity. With future development plans for the Bay, the construction industry sector is certain to expand further.

As far as the service industry sector is concerned (i.e. Sectors 6-9 of Table 10) the Bay area is compared to other areas in Table 12. The Table shows clearly the dominance of the service sector in Cardiff and South Glamorgan, illustrating its role as a commercial centre and centre of government and administration for South Glamorgan, South Wales, and the Principality as a whole. In marked contrast, Cardiff Bay at present has a relatively small service sector, although as with the construction industry, this sector is certain to expand further with commercial, office, tourism and recreational developments.

Table 12 : Percentage of total employment in service sector in Bay area compared to other areas

Area	Service sector employment	Date of information
Cardiff Bay	51 %	January/February 1988
Cardiff/South Glamorgan	76 %	June 1984
Wales	65 %	September 1987
Great Britain	68 %	September 1987

NB Service Sector = Sectors 6-9 of 1980 SIC

In recent years, with continuing high levels of unemployment nationally, there has been a particular concern over the provision of male employment opportunities as well as manufacturing jobs. Table 13 shows that nearly three-quarters (72.7 per cent) of the jobs in the Bay area are for males, with just over one-quarter (27.3 % for females. Cardiff Bay is therefore an important source of male jobs, particularly in the manufacturing sector. These figures are in marked contrast to those for South Glamorgan, Wales and Great Britain, where the male/female ratio of jobs is approximately 55/45 per cent. It is often thought that service sector jobs are mainly held by women while those in the manufacturing sector are held by men. This is only partly true. For example, in South Glamorgan, of the 124,000 people employed in the service sector, 54 per cent are women, but 46 per cent are men (1984 data, the latest available). For manufacturing industry in South Glamorgan, 75 per cent of the jobs are held by men and 25 per cent by women (again 1984 data).

Table 13: Male and female employment in Cardiff Bay compared to other areas

Area	% Total employment male	% Total employment female	Date
Great Britain	54.5	45.5	Sep 1987
Wales	55.2	44.8	Sep 1987
South Glamorgan	54.1	45.9	Jun 1984
Cardiff Bay	72.7	27.3	Jan/Feb 1988
Cardiff Bay Area 1	72.2	27.8	Jan/Feb 1988
2	85.9	14.1	Jan/Feb 1988
3	75.7	24.3	Jan/Feb 1988
4	84.4	15.6	Jan/Feb 1988
5	82.1	17.9	Jan/Feb 1988
6	89.3	10.7	Jan/Feb 1988
7	58.4	41.6	Jan/Feb 1988
8	67.0	33.0	Jan/Feb 1988

While there has been a significant increase in national employment recently, there has been some criticism that new jobs have not only been mainly for women, but also often part-time. On the former point, it must be recognised that jobs for women are much needed and as with the recent rise in female employment, there has also been a corresponding rise in female unemployment. On the latter point, it is certainly the case that many married women are seeking part-time jobs, and therefore the supply of such jobs does match to some extent the demand for them. Table 14 shows that compared to South Glamorgan and Great Britain, Cardiff Bay has a relatively high proportion (89.7 %) of its jobs held as full time, but a small proportion (10.3 %) in a part-time capacity. Table 14 also shows that a relatively high proportion of jobs in Cardiff Bay held by women are full-

time (70.5 per cent) rather than part-time (29.5 per cent), again contrasting with the situations in South Glamorgan, Wales and Great Britain and reflecting the industrial base of the Bay area.

In conclusion to this section on industrial structure and employment, it may be noted that the Cardiff Bay area contains 2 per cent of Cardiff's population, 5 per cent of its unemployment, 11 per cent of its total employment and 25 per cent of its manufacturing employment. The industrial structure and employment distribution of the Bay area clearly have a number of distinctive features and the area makes a substantial contribution towards the economy of both Cardiff and South Glamorgan.

Table 14 : Full-time and part-time jobs in the Bay Area, and the extent to which jobs held by women are full-time : comparisons with other areas

Area	% jobs full-time	% jobs part-time	% jobs held by women which are full-time
Great Britain	75.8	24.2	56.0
Wales	-	-	53.7
South Glamorgan	76.2	23.8	55.9
Cardiff Bay	89.7	10.3	70.5
Cardiff Bay Area 1	76.7	23.3	76.2
2	88.3	11.7	77.8
3	79.2	20.8	77.3
4	82.9	17.1	40.2
5	95.5	4.5	82.5
6	97.5	2.5	79.3
7	88.9	11.1	79.8
8	86.6	13.7	63.5

Dates : a = September 1987 ; b = June 1984 ; c = January/February 1988

#### Economic activity rates and unemployment levels in South Cardiff

The percentage of residents in the Bay area who are economically active is relatively low compared to Cardiff and South Glamorgan as a whole. This position is shown in Table 15 where the two Ward Divisions of the Butetown and The Marl approximate fairly well to the Cardiff Bay area. Economic activity rates in the area have fallen more sharply in recent years, i.e. 1971-86, than elsewhere. This has been particularly the case for Butetown. Table 16 illustrates the trend in unemployment for the Bay area during a similar period, i.e. 1971-81-86. In 1986, Butetown had the highest rate of unemployment for both males (50.4 per cent) and Females (29.9 per cent) of any area in South Glamorgan.

Table 15      Employment status in terms of economically active resident population 1971-81-86 (%)

Economically active		South Glamorgan	Cardiff	Butetown	The Marl
Total	1971	58.8	59.3	63.0	61.5
	1981	59.6	59.5	56.4	60.5
	1986	51.4	53.9	48.1	50.7
Male	1971	79.2	78.8	78.2	81.0
	1981	76.0	75.3	71.3	75.2
	1986	67.8	67.1	59.3	63.1
Female	1971	40.3	41.2	43.2	41.6
	1981	44.7	45.4	39.1	45.0
	1986	42.0	42.3	38.1	39.5

Source :      Compiled from 1986 Profiles : County Electoral Divisions.  
                  South Glamorgan County Council, January 1987

Table 16 :      Unemployment rates for resident population 1971-81-86 (%)

Unemployment		South Glamorgan	Cardiff	Butetown	The Marl
Total	1971	6.0	6.3	20.4	7.0
	1981	11.6	12.4	35.8	17.1
	1986	14.9	15.7	41.8	22.6
Male	1971	6.3	7.1	24.2	7.3
	1981	14.4	15.8	43.0	21.5
	1986	17.0	18.3	50.4	25.5
Female	1971	5.3	5.1	11.7	6.4
	1981	7.3	7.2	20.3	9.6
	1986	11.9	12.1	29.3	18.5

Source :      Compiled from 1986 Profile : County Electoral Divisions,  
                  South Glamorgan County Council, January 1987

As already shown in Table 16, unemployment rates in the Bay area have been consistently higher than those for other parts of the City or County. The two Ward Divisions of Butetown and The Marl approximate fairly well to the Cardiff Bay area. Previously these two areas were contained within the old South Electoral Ward Division. Data on unemployment for 1981-1988 for

South Cardiff, which comprises the three old Electoral Ward Divisions of South, Splott and Grangetown, show that unemployment has been falling in South Cardiff during the past three years, since reaching a peak in September 1985.

Table 17 : Number of persons unemployed in South Cardiff 1981-1988

Date	Male	Female	Total
April 1981*	1879	495	2374
April 1985	2100	610	2710
September 1985	-	-	2782
April 1987	1903	521	2424
January 1988	1787	447	2234

\* 1981 Census based data. All other data are Department of Employment based

Source : South Glamorgan County Council

This pattern of unemployment in South Cardiff (i.e. 3 Ward Divisions), is repeated for the South Ward itself (which corresponds to the new Ward Divisions of Butetown and The Marl, the closest area we have to the Bay area). Thus, whereas the level of unemployment in South Ward itself was 1100 in mid-1985, by January 1988 the level was just 827 (Table 18). It is not possible to quote unemployment rates for individual Ward Divisions from Department of Employment data, as rates are only available for areas down to Travel-To-Work Areas.

Table 18 : Unemployment in South Ward Division (Corresponds to new wards of Butetown and The Marl, and closest available to Cardiff Bay)

Date	Male	Female	Total
April 1981*	775	187	962
April 1985	877	223	1100
September 1985	-	-	1100
April 1987	740	198	938
January 1988	661	166	827

\* 1981 Census based data. All other data is Department of Employment based

Source: South Glamorgan County Council

The Cardiff Bay area does clearly face an unemployment position among the worst in Cardiff as shown by the very high figures for April 1986, from the County Council's household survey. Fortunately, as elsewhere, unemployment is falling in the Bay area. However, it is worth noting that while the Bay area contains some 2% of the City's population (some 6,800 out of 280,000), it contains 5 % of the City's unemployment (some 830 out of 16,500 in January 1988). These figures are calculated on the basis that the Bay area approximates to the old South Ward Division for which unemployment data is still available.

#### HOUSING, TENURE AND HOUSE CONDITION

There are approximately 2,030 dwellings within the CBDC designated area, of which 21 % are owner-occupied, 74 % are Council houses and 5 % are rented from non-local authority landlords. Table 19 illustrates that the 'Inner Bay' area had proportionally more local authority housing, and proportionally less owner-occupied housing than any of the coarser urban, regional or national aggregations. Taken together, the 1970s and early 1980s can be seen as an era in which local authority tenancy in the Inner Bay has increased markedly, against the wider City, County and national trends and despite the impact of 'Right to Buy' legislation.

Table 19 : Household tenure and amenities for Cardiff Bay compared to other areas : 1981

Area	Owner-occupied	Rented from LA	Rented privately	Lacking bath/shower	Lacking inside WC
England and Wales	58.0	28.9	8.9	1.9	2.8
Wales	60.8	29.3	7.2	3.6	5.2
South Glamorgan	61.9	24.1	10.0	1.9	3.4
Cardiff	61.0	25.0	10.7	2.1	3.9
Outer Bay	58.6	27.1	14.3	5.0	9.9
Inner Bay	26.6	66.1	7.4	4.5	9.1

Shown as % of all households in each area

Source : 1981 Population Census (Tables 12, 17 and 19)

Table 19 also illustrates that levels of amenity provision in 1981 were rather lower in the Inner and Outer Bay areas than for Cardiff, South Glamorgan and England/Wales. Incidence of dwellings lacking amenities is particularly high in the oldest areas of private housing in South Butetown at Clarence Embankment and Windsor Esplanade, both of which were declared General Improvement Areas in 1973. Table 20 illustrates some other characteristics of housing in Butetown and The Marl, compared to Cardiff and South Glamorgan as a whole.

Table 20 Housing characteristics for Butetown, The Marl, Cardiff and South Glamorgan 1986

(All figures are percentages)	Butetown	The Marl	Cardiff	South Glamorgan
<u>Dwelling Type</u>				
Detached	4.9	1.5	12.3	15.7
Semi-Detached	10.7	20.5	35.2	35.4
Terraced	42.0	54.6	36.2	33.7
Flat	42.4	23.9	16.5	15.2
<u>Dwelling Age</u>				
Built before 1919	23.8	40.0	24.4	24.7
Built 1919-1945	4.4	27.9	23.9	21.5
Built 1945-1971	44.0	12.6	36.3	36.7
Built after 1971	27.8	19.5	15.4	17.1
<u>Dwelling Size</u>				
1-2 rooms	11.8	9.2	6.2	5.4
3-5 rooms	54.8	43.6	45.7	46.3
6+ rooms	33.4	47.2	48.1	48.3
1 bedroom	17.1	13.4	9.9	8.8
2 bedrooms	20.6	24.4	21.6	21.3
3 bedrooms	53.5	48.5	54.7	54.9
4+ bedrooms	8.8	13.7	13.8	15.0
<u>Heating</u>				
No central heating	22.3	36.9	32.8	30.5
Solid fuel c.h.	10.9	8.4	3.5	5.3
Gas c.h.	62.5	49.4	57.9	57.2
Electric c.h.	3.9	4.9	5.3	5.4
Other c.h.	0.4	0.4	0.5	1.6
Coal fire only	4.4	4.9	4.4	4.7
Gas fire only	10.0	22.4	20.0	17.8
Electric fire only	3.1	2.7	3.8	3.7

Source : South Glamorgan County Council Household Survey 1986

## CONCLUSIONS

Although the Cardiff Bay area possesses a number of unique distinguishing features, it is difficult to avoid the conclusion that it has had many of the hallmarks of an area traditionally described as experiencing multiple deprivation in economic, social and physical terms. The area has had an aging population, job losses in traditional manufacturing industry, problems with its housing stock, and a high weighting of low income and low social class households.

However, as shown in this article, the industrial structure and employment distribution of the Bay area has a number of distinctive features and makes a substantial contribution towards the economy of both Cardiff and South Glamorgan. While the Cardiff Bay area contains 2 [per cent of Cardiff's population and 5 per cent of its unemployment, it holds 11 per cent of its total employment and 25 per cent of its manufacturing employment.

It is within this context of economic and social conditions that the Cardiff Bay Development Corporation will be seeking to implement its regeneration strategy to revitalise the area and achieve the various objectives which have been set. Our study has provided a snapshot of socio-economic conditions at a time that may be regarded as a 'policy-off' period as far as Cardiff Bay Development Corporation activities were concerned. It will be the task of the Development Corporation and those concerned with Cardiff Bay to reverse many past and current trends and revitalise the area.

What we have presented here is part of a wider data base which we have compiled for the Cardiff Bay area. We have assembled this data into a geographical information system which is currently being extended to enable users to create their own maps of the area. A striking feature of the area has been the heterogeneity in the social and economic characteristics of its residents and workers. As the various schemes begin to be implemented the variety we have illustrated in this article will come to influence their outcome. We therefore offer this portrait of Cardiff Bay as a prelude to the substantial development which may be expected.

## ACKNOWLEDGEMENTS

We wish to acknowledge the assistance given by Llewellyn Davies Planning, Consultants to the Cardiff Bay Development Corporation, in providing the 1988 employment data referred to in this article. We also wish to record our appreciation to Cardiff Bay Development Corporation, who funded the research project which developed a socio-economic profile of the Bay area.

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