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Discussion Paper

The relative mobility status of indigenous Australians: setting the research agenda

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SERIES NOTE

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- assist in the development of government strategies aimed at raising the level of Aboriginal and Torres Strait Islander participation in the labour market.

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ABSTRACT

A project under way at the Centre for Aboriginal Economic Policy Research aims to establish, for the first time, comparative national parameters of indigenous population mobility with particular reference to four distinct mobility perspectives, namely: the overall propensities to migrate, the net effect of migration on spatial redistribution, patterns of migration flow and resulting spatial networks, and the spatio-temporal sequence of individual movements over the life course. The first step in this process, presented here, involves a comprehensive review of the scope and content of existing research on indigenous and non-indigenous population mobility. This summary examination is necessary to identify gaps in understanding and thereby outline likely priorities for future research. The results show that quite different concerns and methodologies are evident in the literature on indigenous population mobility compared with that pertaining to the movement of the Australian population generally. This, in part, reflects the often distinct cultural, demographic and economic contexts in which mobility occurs, but it is also indicative of a variable disciplinary bias in the analysis of migration. Major deficiencies are revealed in understanding some of the basic facets of indigenous movement propensities and spatial redistribution relative to what is known for the rest of the population. As far as information regarding migration flows and the sequence of population movements is concerned, this deficit is commonly shared. In order to overcome these gaps in understanding standard techniques of migration analysis using census data are proposed.

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As recently as 1980, one authority on the demography of indigenous Australians noted that the extent of indigenous mobility was unknown (Smith 1980a: 194).[1] At that time, the question of whether the indigenous population could be described, either in absolute terms or relative to the rest of the Australian population, as mobile or immobile, spatially stable or redistributing, remained subject to conjecture because the necessary analysis had not been undertaken.[2] While this observation can no longer be made with the same conviction, one of the findings of a comprehensive review of policy-relevant research conducted during the latter half of the 1980s was that information regarding the spatial mobility of indigenous people and insight into the processes involved in residential shifts over time remained woefully inadequate (Allen, Altman and Owen 1991: xxi). As revealed in a variety of contexts, this has wide-ranging implications for the planning of services and programs for indigenous people in areas such as health, housing, employment, education and training (Young and Doohan 1989; Young 1990; Taylor 1990, 1992a; Altman 1991: 160; Pholeros Rainow and Torzillo 1993: 23-30).

Although we are now less ignorant of mobility patterns and processes among the indigenous population, Taylor's (1991) description of existing analysis as unsystematic, spatially restricted, and generally dated is still valid. Furthermore, knowledge of population movement remains, all too often, a by-product of some other investigation into social and economic conditions with few attempts to make it the primary focus of attention. What is particularly lacking, as a consequence, is a sense of the overall spatial structure of indigenous mobility behaviour within which other studies of population movement may be situated. One glaring effect of this lack of context is an inability to compare patterns of movement among indigenous people with those observed at national and regional levels for the general population, about whom much more is known (McKay and Whitelaw 1978; Rowland 1979; Bell 1992). This has drawbacks in demonstrating the distinctiveness of indigenous social and economic behaviour and the extent to which this may require unique policy responses.

In response to this information deficit, a project under way at the Centre for Aboriginal Economic Policy Research aims to establish, for the first time, comparative national parameters of indigenous mobility with particular reference to four distinct perspectives on mobility, namely: the overall propensities to move, the net effect of migration on spatial redistribution, patterns of migration flow and resulting spatial networks, and the spatio-temporal sequence of individual movements over the life course. The first step in this process, presented here, involves a comprehensive review of the scope and content of existing research on indigenous and non-indigenous population mobility. This summary examination is necessary to identify gaps in understanding and thereby outline likely priorities for future research.

Perspectives on population mobility

While recognising that migration is a complex, multi-faceted process, it is argued that the major dimensions of mobility can be encapsulated in four key perspectives, each of which provides differing insights into the nature, dynamics and outcomes of population movement.

The first of these relates to overall propensities to move. This varies between people of differing characteristics and alters over time in response to changing individual needs and aspirations. Analysis of these differentials can provide valuable insight into the factors that trigger population movement and the way in which different population groups respond to opportunities and constraints in the wider social and economic environment.

Migration is also the principal mechanism leading to redistribution of population between localities and regions. A second perspective therefore focuses on the spatial outcomes of migration - the way in which population movements generate growth in some regions but decline in others, thereby changing the pattern of human settlement. Even where there is little net change in numbers, differences in the characteristics of arrivals and departures may radically alter population composition, redistributing particular groups in different ways. Understanding these changes is crucial for the provision of services by both governments and the private sector.

The third perspective sees migration as a mechanism which links localities and regions together - in much the same way as they are connected by transport and other communications networks. Migration is not a simple uni-directional process: most migration flows are offset at least in part by counterflows, and the strength of flows between places indicates the extent to which they are functionally linked. Analysis of migration from this perspective can thus provide insight into both the underlying structure of population movements, and into the roles and functions that different cities and regions perform within the settlement system.

The fourth, and complementary, perspective on migration is that provided by the experience of individual migrants. Population mobility is a repetitive process that involves a sequence of moves over an individual's lifetime. While many of these moves may represent apparently haphazard spatial shifts, for the individuals concerned they are meaningful and triggered by particular needs and circumstances. Analysis of such sequences of movement can contribute to an understanding of the reasons for migration, and of the way in which people respond to the changing spatial matrix of opportunities and constraints. Of particular interest, from an analytical and policy perspective, is the timing of the initial move and the frequency, duration and sequence of subsequent moves (Taylor 1986).

Not surprisingly, such a longitudinal perspective remains largely beyond analytical reach in the absence of sufficient and appropriate data.

Propensity to move: the non-indigenous population

The rate of population mobility in Australia is among the highest in the world, comparable to that of the United States, Canada and New Zealand, and about double that of most European countries. High mobility in these 'New World' nations is generally attributed to the flexible nature of their financial and housing markets, and to the persistence of customs and habits that derive from their common heritage of immigrant ancestors (Long 1991). As in all nations, however, the propensity to migrate varies markedly between people of differing social, economic and demographic characteristics. Variations in the propensity to move have been explored in a number of Australian studies based, primarily, on data from the census, for example in Bell (1992, forthcoming), Hugo (1984), Maher and McKay (1986) and Rowland (1979).

One of the key determinants of the propensity to move in Australia, as elsewhere in the world, is age. The highest rates of mobility are found among young adults. Mobility then declines at older and younger ages, but with an upturn among young children who move with their parents and around retirement age. It has been shown that the age profile of migration also varies between the sexes. Overall, women move at about the same rate as men but mobility among women peaks at a later age and older women move more often than their male counterparts. On the other hand, men are more likely to move long distances.

Mobility also varies according to a wide range of other attributes. Mobility tends to be high among those who are separated or divorced, among the unemployed, those in professional and para-professional occupations, people working in public administration, in producer and consumer services, in the mining industry, and among recent overseas arrivals, especially those from English-speaking backgrounds. Conversely, low mobility is characteristic of married people, employers, the self-employed and those outside the labour force, of those in unskilled and semi-skilled blue-collar jobs, those employed in agriculture and in the manufacturing sector, and immigrants of longer-standing, especially those from non-English-speaking countries. People with higher levels of education and those in rental accommodation also move more frequently than those without formal qualifications, and those in owner-occupied housing.

Explanation for these differences has been sought by reference to a wide variety of factors including transitions between stages of the family life cycle, the career cycle, the nature of the job market for different industries and occupations, variations in the command over scarce resources which

prohibit or facilitate housing choice, the processes of adaptation and adjustment on first arrival in Australia, and the social and cultural norms that prevail among different groups of overseas settlers.

Propensity to move: the indigenous population

The stereotype image is that indigenous people are a highly mobile group relative to other Australians. The fact that spatial mobility plays a large part in the social and economic life of indigenous people is clearly evident from the literature, but the question of whether this is more or less the case compared to the rest of the population has rarely been assessed. Aside from a partial analysis of 1976 Census data which indicated a slightly higher level of residential mobility among indigenous people (46.7 per cent changed their usual place of residence between 1971 and 1976 compared to 43.2 per cent among the rest of the population) (Young 1982), no estimation of subsequent relativities at the aggregate level has been made. More importantly, nothing is known about the degree to which indigenous people with different characteristics migrate, for example, according to age, sex and labour force differentials.

Some effort has been made, however, to determine movement propensities between different spatial units and various levels of the urban hierarchy. For example, from a preliminary analysis of 1971 Census data, Smith (1980b: 252) concluded that the propensity for indigenous people to move interstate was low in both absolute terms and in relation to the total population. More recently, using data for successive intercensal periods between 1966 and 1986, Gray (1989: 125) was able to conclude that the level of such movement had risen steadily over time from a very low base of 33 per thousand in 1971 to 51 per thousand in 1986. Thus, the rate at which indigenous people migrated between the States and Territories in 1986 was comparable to the rate of 53 per thousand recorded for the total population (Bell forthcoming).

Also available from Gray's (1989) analysis of 1986 Census data is some indication of indigenous movement propensities according to sex and labour force status. However, this refers only to a specific type of population movement - that which occurred between major urban areas and the balance of each State and Territory. No comparable spatial analysis is provided for the non-indigenous population and the focus is on a comparison of rates between indigenous people in different spatial units. Thus, male and female rates were found to be similar while the rates of movement in and out of major urban areas were considerably higher than movements in and out of non-metropolitan areas. As for labour force status, little variation was apparent in the rate at which migrants moving in different directions participated in the labour force, except to say that interstate city-city movers clearly had the highest participation rate. At the

same time, those who did not migrate displayed noticeably higher rates of employment except, again, compared to those moving long distances between major cities (Gray 1989: 138-40).

An alternative breakdown of indigenous propensities to move between levels of the urban hierarchy is provided by Taylor (1992a). Focusing on the links between migration and the spatial distribution of mainstream job opportunities, movement between six settlement size categories was identified and a distinction drawn in the analysis between remote and closely settled areas. Overall, the propensity for indigenous people to change their settlement size category of residence was found to be low involving less than one-fifth of the working-age population. In the context of the labour market, these were assumed to be the more significant moves involving a transfer from one scale of job and training opportunities to another. Significantly, such moves were far less likely to occur in remote areas. Indeed, the prevalence of migration was found to be highly dependent upon settlement size and location. For example, in settled Australia, the lowest rates of migration to other size categories was recorded in metropolitan areas while the highest rates were found in small country towns and rural areas. In remote Australia this pattern was reversed with rural areas displaying very low rates of out-migration, no doubt as a consequence of the circular nature of spatial interaction observed between remote urban areas and their hinterlands (Taylor 1988; Young and Doohan 1989).

Spatial redistribution - the non-indigenous population

While considerable attention has been given in the mainstream literature to the way in which the propensity to move varies between people of differing attributes and characteristics, the predominant focus in studies of mobility has been on migration as a mechanism of population redistribution. This partly reflects the pre-eminent role of geographers in migration analysis, but also underlines the recognition that internal migration is the principal mechanism leading to changes in the pattern of human settlement in Australia.

The significance of migration was widely recognised in studies of early European settlement in Australia which charted the expansion of the agricultural frontier, the development of inland towns and the subsequent retreat from 'marginal lands' (Fenner 1929; Lawton 1958; Meinig 1962; Powell 1970). However, in the absence of data on population movements, the processes of redistribution in early studies were generally implied from information on population change. Migration research expanded rapidly during the 1960s and early 1970s, based partly on the use of residual techniques to measure patterns of net gain and loss, partly on surveys, and partly on administrative by-product statistics, such as electoral rolls.

Reflecting the major concerns of the time, studies focused on patterns of intra-urban migration (for example Ward 1975), rural to urban migration (Bell and Nalson 1974; Hugo 1974, 1977; Salmon and Weston 1974) and the respective roles of rural-urban drift and immigration in the growth of major cities (Burnley 1973, 1974; Burnley and Choi 1975). Early censuses also incorporated data on State or Territory of birth which provided for some analysis of interstate migration (Cities Commission 1975).

However, the major boost to research on patterns of migration came with the release of the 1971 Census, the first to contain a question on previous place of residence and allow analysis of the characteristics of migrants as well as the broad patterns of population movement. Data from the 1971 and subsequent censuses have been subject to a barrage of analyses at both the national, state, regional and local levels (for example, McKay and Whitelaw 1978; Rowland 1979; Maher and McKay 1986; Salt 1991; and Bell 1992).

While the scope of this work is enormous, four main themes have come to dominate the literature on population redistribution, reflecting the major patterns of population movement in contemporary Australia: at the State level, migration away from the south and east to the north and west, especially Queensland (Flood et al. 1992); counter-urbanisation and the movement of population away from the major cities in favour of adjacent hinterlands and coastal areas (Hugo 1988, 1989, 1994; Sant and Simmons 1993); rural to urban migration and the drift of population away from inland and sparsely settled areas (Salt 1991); and intra-urban movements, especially the processes of sub-urbanisation and gentrification (Maher 1984). National overviews have been complemented by a plethora of case studies both for local areas (Hugo and Smailes 1985, 1992; Weinand and Lea 1990) and for particular groups of migrants (Drysdale 1991; Rowland 1984).

At the same time as charting the extent and nature of this redistribution, analysts have been increasingly concerned to assess the causes of these patterns of movement and to examine their consequences. From an explanatory perspective, attention has focused particularly on the changing structure of industry, the transition to a post-industrial society, the rise of amenity-led migration, and the nature of the housing market. The economic, social and financial consequences of migration have also received increasing attention, particularly in the context of intra-urban mobility (Burgess and Skeltys 1992; Maher et al. 1992; Wulff, Flood and Newton 1993). Less consideration, however, has been given to the policy implications of mobility, especially at the regional level, except for particular groups, such as the aged (Hugo 1987a).

Spatial redistribution: the indigenous population

The major research effort with regard to indigenous population mobility has addressed the issue of spatial redistribution. In particular, the focus has been on uncovering the processes that have led, since the time of European settlement, to increased residence of indigenous people in towns and in major urban areas. Much of this work has been based on case studies and concerned with particular places, such as migration into Adelaide or Sydney. As a consequence, only a limited overview picture of redistribution is available with no comprehensive appreciation of local or regional patterns of net migration. Another limiting factor is the lack of continuity in research effort over time with the major studies on redistribution now some 20 years old and little effort being expended to monitor contemporary population shifts such as, for example, the movement to remote homeland centres.

Population displacement and concentration

One branch of enquiry has sought to reconstruct the pattern and mechanisms of early redistribution into government and mission settlements, reserves and towns noting the mix of coercive policies and spontaneous integration underlying a widespread drift away from dispersed rural settlement. For example, Anderson (1986) has described the clan-based distribution of indigenous peoples across Queensland prior to European contact and examined the disintegration of this pattern and its reconstitution into concentrated pockets on mission stations, government settlements and reserves. Despite some individual movement to urban centres in search of new opportunities, the most significant shifts in Aboriginal population distribution were more wholesale in scale and occurred as a direct result of loss of land and government policy and practice. In particular, the provisions under ordinances of protection and welfare which from the late nineteenth century to the 1960s provided powers over the place of residence and movement of much of the indigenous population. Similar regionalised institutional histories of migration have been developed by Inglis (1964) and Gale (1967, 1972) for South Australia and by Beckett (1965) and Long (1970) for New South Wales, while Rowley's (1970, 1971a, 1971b) comprehensive analyses of Aboriginal policy and practice provide the essential background nationwide.

More detailed case studies of the process of 'coming in' to individual localities reveal the complex interplay of factors that served over considerable periods of time to tip the balance in favour of increased residence in institutional settlements and in towns. On the margins of European colonisation, the notion that the process of movement from bush to settlement was due solely to coercive measures has been rigorously challenged by Baker (1990) and Long (1989) who both reveal Aboriginal people as active participants in a process of gradual migration. Baker (1990: 30-1) lists a range of social and economic reasons for such

movement in the Gulf country of the Northern Territory that are repeated in other studies of migration out of desert regions (Read and Japaljarri 1978; Brady 1987; Long 1989). Also noted is the fact that the initial apparent 'coming in' was more a case of European settlement 'going out' to places that were already populated by Aboriginal people on a seasonal basis (Baker 1990: 59).

Whatever the underlying causes, incorporation into wider economic structures generated its own migration dynamics. Lea (1987: 66-7, 1989: 65-80), for example, attributes part of the growth in the Aboriginal populations of Katherine and Tennant Creek in the 1960s and 1970s to the fall in demand for rural labour due to the extension of industry award wages to Aboriginal pastoral workers. Investigating similar issues in Western Australia, Dagmar (1982: 143) has traced the movement from pastoral areas into towns to the 1950s and suggests that the introduction of compulsory education was more instrumental as many station owners refused to comply with award wage provisions. Aside from the influence of government policies, one factor which sustained a long-standing rural bias in indigenous population distribution across the country was a heavy dependence on agricultural work for entry into the labour market. From the 1960s onwards, this largely seasonal employment base was steadily eroded due to structural change in the industry and mechanisation rapidly displacing indigenous workers. Castle and Hagan (1984) have examined these changes for New South Wales and identified increased migration to urban centres as one of the consequences.

Also contributory in New South Wales at the time was the government policy of assimilation. In 1969, the Family Resettlement Scheme was initiated with the aim of encouraging families from the most depressed rural areas to migrate to urban centres. This program expanded rapidly to embrace five axes of population movement from declining centres in the west to growth centres in Newcastle, Albury, Wagga, Orange and Tamworth. The major reasons given by migrants for wanting to move were regular employment, standard housing, and purposeful education for their children (Mitchell and Cawte 1977). Other pressures to move included difficulties in obtaining rural housing and the discriminatory use of unemployment benefits in favour of those willing to migrate (Ball 1985: 5). A search for employment has also been stressed in the particular case of Torres Strait Islanders, who by virtue of their original location in a remote corner of the continent have undergone a more visible redistribution notably to urban centres down the Queensland coast (Taylor and Arthur 1993). Whereas in the 1940s almost all Torres Strait Islanders lived in Torres Strait, today only one-fifth of the total are resident there.

Long distance migration among indigenous people, in the form of interstate movement, has received far less attention than for the population as a whole. The main analysis to date has been based on 1986 Census data and

revealed a very low efficiency of interstate migration to effect any redistribution of the indigenous population (Gray 1989: 125). With the exception of the Australian Capital Territory, every flow from one State to another was found to be countervailed by a flow of equivalent magnitude in reverse. As with the non-indigenous population, the largest flows were found in both directions between New South Wales and Queensland. Unlike the general trend, however, no evidence of northward and westward net migration shifts away from the south eastern States was apparent.

Migration to cities

The most focused body of research on redistribution of the indigenous population has been concerned with migration to metropolitan areas. This is not surprising given that official statistics reveal a major shift in indigenous population distribution from a situation whereby only 5 per cent of the total were located in major cities in 1961 compared to 28 per cent 30 years later. Commencing in the 1960s, a series of survey- and census-based analyses sought to highlight what had been perceived as occurring for some time - that the indigenous population resident in major cities was growing rapidly due to net in-migration. In the definitive study, based on Adelaide, the beginning of a shift away from a predominantly rural pattern of settlement towards residence in the city was traced to the 1950s (Gale 1967, 1972; Gale and Wundersitz 1982). Briefly, movement to Adelaide from mission and government reserves was stimulated by a search for better employment opportunities and was added to by the better provision of urban social services as well as high rates of incarceration leading to enforced relocation. Once these metropolitan links were established, movement out of rural areas was sustained by a process of chain migration involving kin networks.

A similar set of push and pull factors, but with particular emphasis on the search for employment, was identified by Beasley (1970) in a 1964 survey of Aboriginal households in Sydney and reiterated by Burnley and Routh (1985) in a much later survey. The conclusion drawn from the 1964 survey was that substantial movement into Sydney had occurred, mostly since the mid-1950s and largely from northern and central New South Wales. The perception of a universal pattern of migration to cities during the 1960s was also encouraged by the findings of a 1967 survey in Brisbane which concluded that 81 per cent of the indigenous population of the city were migrants and half of these were recent arrivals (Smith and Biddle 1975: 42-53). This apparent scale of population shift to Brisbane was further confirmed by Brown, Hirschfield and Smith (1974: 19).

More recently, a revisionist view of this redistribution has emerged which views mass migration to cities since the 1950s if not as illusory, then at least as only a temporary wave and one which has ultimately contributed less to urban population growth than previously claimed. For example, Smith (1980a: 202, 1980b: 252) has cautioned that much of the apparent

shift in population distribution from the 1960s onwards could have been due to an increased tendency of city-based indigenous people to self-identify as much as to net migration. It is interesting to note that similar concerns in the United States led to an effort to isolate the separate effects of new census identification and of migration as sources of redistribution of the American Indian population. Using census data on race, ancestry and life time migration, the conclusion was derived that almost all of the apparent redistribution of the Indian population evident from successive censuses was attributable to changes in identification rather than to migration (Eschbach 1993). A primary limitation of previous research advocating a reservation-to-city migration model was considered to be the fact that it was conducted primarily before the expansion of the Indian population due to changes in ethnic classification (Eschbach 1993: 638).

Smith (1980a: 202) also notes the sole focus in early studies on migrant flows into cities and the corresponding lack of statistics on counterstreams of people who may have been leaving metropolitan areas. The persistence of social links between major urban areas and their hinterlands stemming from regional, rather than place, affiliation is evident in the earliest analyses of urbanisation (Barwick 1962, 1964; Inglis 1964) and is seen as blurring the distinction between town and country populations (Langton 1981). This point, which relates to the net effect of migration, is addressed in detail by Gray (1989) who analysed migration in and out of capital cities using 1981 and 1986 Census data. The overall net balance of migration flows demonstrated emphatically that if migration were ever a major factor leading to an increased indigenous presence in major cities then, from 1976 onwards, it was far less so. In contrast with the emphasis in earlier studies on in-migration, for each intercensal period any increase in capital city populations due to migration from the balance of each respective State and Territory was found to be generally nullified by movements out of equivalent size. Indeed, in certain cases, notably in Sydney and Melbourne, net loss of population was observed. This possibility was first identified statistically from a follow-up survey of migrants in Adelaide by Gale and Wundersitz (1982: 96) who noted that movement patterns based on the city were not unidirectional but included a good deal of movement out to country areas. They also concluded that migration flows to the city peaked during the 1960s with subsequent growth in urban areas due more to the effects of natural increase (Gale and Wundersitz 1982: 39).

Extending this point further, the generally accepted notion that the indigenous city-based population must have increased rapidly during the 1960s is, on the basis of census evidence, unproven (Gray 1989: 130). In further support of this case, reference is made to significant migration to cities during World War II plus the continual indigenous presence in city locations such as La Perouse in Sydney (Gray 1989: 143). A similar case was earlier developed by Smith (1980a: 201) who pointed out that despite all the obstacles mounted to frustrate indigenous urbanisation prior to the

1960s, movement to towns and cities was an ever present reality. Apart from the impact of urban labour shortages of varying scale, such as during World War II, one factor was the passage through the welfare system of people of mixed descent who were considered candidates for assimilation, while at all times the ability of protection and welfare authorities to administer and control the movement of their charges was undermined by a lack of resources. What these comments imply is that by under-representing long-term, more assimilated urban residents, the referral methods of sampling employed in the early studies of urban populations were in effect self-serving as far as the conclusions about the role of migration-induced urbanisation were concerned.

All this, of course, is not to deny that substantial migration to cities did not, and does not, occur. Rather it is to help clarify the contribution of migration out of country areas to the evident shift in indigenous population distribution that is revealed by official statistics as well as to suggest the likelihood of a continuity of flows in both directions. For the contemporary period, Gray (1989), for example, reveals fairly substantial gross flows between capital cities and country areas involving significant, though small, life cycle shifts with net migration gains in metropolitan areas in the 15-24 year age group counteracted by net return flows to country areas of adults aged above 25 years and their child dependants. City-country relations also appear to be heavily focused on the hinterland of each capital city as the rate of interstate migration among indigenous people was found to be low in 1986 even though it had risen substantially since 1976 (Gray 1989: 125).

In a further refinement of the indigenous urbanisation model, Taylor (1992a) examined redistribution between several levels of the settlement hierarchy within remote and more closely settled parts of the country. This revealed that medium-sized country towns, and not metropolitan centres, were the major focus of net migration gain, particularly within settled Australia. This gain was made primarily at the expense of adjacent rural areas and small urban places both of which had relatively low rates of population retention. In remote areas, a similar pattern of net shift up the urban hierarchy was apparent but rural areas registered much higher retention rates in keeping with a greater tendency for mobility in such regions to be dominated by circular movement. This variation in mobility behaviour according to the urban or rural-orientation of individuals has been explored by Taylor (1988, 1989) who contrasted long-distance migration to Katherine from other urban areas with more localised patterns of circulation involving individuals from neighbouring rural townships.

Rural dispersion

Since 1970, the number of indigenous people resident in small remote localities in the Northern Territory, Western Australia, South Australia and Queensland has increased significantly as part of a decentralisation trend in

rural population distribution. This redistribution is indicative of fundamental political, social and economic change occurring among certain sections of the indigenous population and has been described as a 'return to country' (Commonwealth of Australia 1987). While a population presence has always been sustained in remote places, a combination of the granting of land rights in particular parts of the country, increased pressures on some remote regions from miners and other resource users, direct access to Commonwealth funds for vehicles, capital equipment and infrastructure, and the tensions of daily life in centralised polyglot rural townships, have stimulated a shift in population toward small, dispersed clan-based outstations or homeland centres since the 1970s (Coombs, Dexter and Hiatt 1982; Gerritsen 1982; Commonwealth of Australia 1987; Altman and Taylor 1989). More recently, in Arnhem Land, an intensification of this form of remote area settlement has been observed in what Altman (1994) refers to as a new fragmentary phase of outstation development. This involves the splintering of band-sized outstation groups into nuclear/nuclear extended groups. Aside from population pressure, one factor involved in this has been increased potential for physical mobility due to a growth of routeways and access in some cases to subsidised fuel and project vehicles via the Community Development Employment Projects (CDEP) scheme.[3]

An emergent form of the homelands movement is also reported from urban areas. In South Australia, for example, indigenous people in Ceduna and Port Lincoln have established housing and some infrastructure in rural areas close to each town using a mix of private resources and Aboriginal and Torres Strait Islander Commission (ATSIC) funding (Davies and Harrison: 1993: 214; Smith 1994). Unlike the more established pattern of rural dispersal to traditional lands in remote areas, this activity has not been stimulated by the granting of land rights but has involved incorporated family groups purchasing mostly freehold land in urban hinterlands with which they have no traditional affiliation. In some instances, land held by the South Australian Aboriginal Lands Trust has also been leased. The creation of what have been termed 'urban homelands' has generated circular movement between urban and rural areas, with the attraction of living in small family groups in the bush counteracted by the need to retain access to urban-based amenities (Davies and Harrison 1993: 214).

Notwithstanding the policy significance of rural decentralisation trends and emergent urban-rural movements, no comprehensive set of data exists regarding the pattern and magnitude of net redistribution effects nor of the demographic composition of individuals involved. Indeed, one of the more remarkable features of the policy environment in regard to remote area settlement is the lack of any agreed consensus even regarding precisely what places exist, where they are located and what populations they encompass (Taylor 1992b, 1993a). The most recent national estimates were made in 1987 and indicated around 600 individual outstation communities

encompassing some 10,000 people (Commonwealth of Australia 1987: 302; Bliss 1987). As for data indicating the changing pattern of migration flows and balance of net migration, these are simply non-existent, not even from conventional census sources as most outstations exist at a spatial level below that of the Statistical Local Area.

Intra-urban mobility

In stark contrast to the growing body of knowledge for the general population, very little is known about the movements of indigenous people within towns and cities. The few studies that do exist are increasingly dated and drawn from a variety of place-specific survey-based case studies including Gale and Wundersitz's (1982) comprehensive study of Adelaide, Burnley and Routh (1985) on Sydney, Ball (1985) on Newcastle and Taylor (1990) and Drakakis-Smith (1981) on the small town environments of Katherine and Alice Springs respectively. Notwithstanding this diverse range of analysis, the level of intra-urban mobility is generally reported as high and two factors, in particular, are commonly advanced to explain the patterns of movement observed. First, the importance of kinship is stressed. This provides, in some instances, a staging post for new migrants to the city (Burnley and Routh 1985: 204; Taylor 1990) and, more importantly, a stimulus for intra-urban mobility as newly arrived migrants seek to optimise their location within the city with a view to being close to relatives. Gale and Wundersitz (1982: 86-105) suggest that such mobility is driven by a desire to establish enclaves of related households and note a negative correlation in Adelaide between frequency of movement, distance to closest kin member and length of urban residence.

The other main determinant of intra-urban mobility is the indigenous housing supply system. Given the relatively low levels of home ownership among indigenous people and their much greater reliance on public housing, this produces a complex tenure mix drawn mostly from State housing authorities, indigenous housing associations and hostels as well as the private rental sector. This imposes quite different constraints on the locational choices of urban indigenous people compared to those faced generally by urban residents as home owners and buyers operating in the more conventional housing market. One effect has been to concentrate indigenous tenants in particular suburbs, initially in older inner city suburbs such as Redfern, Port Adelaide, and Woollangabba, while another has been the dispersal of population throughout the urban area and particularly into newly developed outer suburbs (Smith 1980a; Gale and Wundersitz 1982: 53; Ball 1985: 13-14). The overall spatial effect in all major urban centres is one of intermittent enclave development in the context of widespread dispersion with the vast majority of urban collection districts containing very small proportions of indigenous residents (Taylor 1993b: 16-19).

Migration flows and networks: the non-indigenous population

Despite the fact that population redistribution represents no more than the residual of much larger flows and counter flows of migrants, relatively little attention has been given to understanding the underlying structure of migration flows. In the Australian context, the main theoretical contributions are due to Rowland (1976, 1978a, 1978b, 1979) and to a body of work initiated by McKay and Whitelaw (1978) and subsequently elaborated by Jarvie (1985, 1989a, 1989b).

Rowland (1979: 1-13) argued that inter-regional migration in Australia was primarily an exchange process which acted to maintain the settlement system in dynamic equilibrium, rather than bringing about any substantial redistribution of population. While acknowledging that population movements may gradually transform the pattern of settlement over the long term, Rowland (1979) saw the principal function of migration as a process of demographic replacement and renewal, characterised by largely complementary migration profiles. These, it was argued, serve to rejuvenate population structures and restore imbalances between surpluses and deficits which arise due to ageing, mortality and other processes. Rowland's (1979) analysis of 1971 Census data demonstrated that, as a mechanism of population redistribution, migration was very inefficient. It also showed that if the rates of inter-regional migration observed over the 1966-71 interval continued indefinitely into the future, these would lead to a comparatively small change in the overall settlement pattern (Rowland 1979: 160-74). Despite the accelerating northwards drift of population which occurred during the 1970s and 1980s, Bell's (1992) analysis of data for the 1981-86 intercensal period drew similar conclusions.

Although developed from independent roots, and using a somewhat different analytical approach, the work of McKay and associates (McKay 1982, 1983, 1984, 1985, 1986; McKay and Whitelaw 1976a, 1976b, 1976c, 1977, 1978, 1981; McKay, Goodman and Savage 1985a, 1985b, 1985c) and of Jarvie (1985, 1989a, 1989b) is essentially complementary to Rowland's thesis. This line of research has focused primarily on migration of the labour force. McKay (1984), for example, stressed the segmented nature of labour markets and concluded that migration patterns among the workforce were heavily constrained in particular occupations and by the opportunity set expressed in the locational attributes of the specific industry sectors. Emphasis here was placed on mobility as an integral part of career development. Since the boundaries between labour markets were seen as being largely impermeable, the outcome, in terms of migration patterns, was envisaged to be '... a series of interlocking systems of circulation, of different intensities and spatial extents' (McKay, Goodman and Savage 1985a).

The work of McKay and associates focused especially on patterns of mobility among managers and professionals (see, for example, McKay and Whitelaw 1981). For these groups, it pointed to the central role played by Melbourne and Sydney as the head offices of corporate Australia. These, it was argued, act as 'switching points', taking in migrants from interstate and overseas, and recycling them down the urban hierarchy (McKay and Whitelaw 1976c; McKay 1984). This idea was further elaborated by Jarvie (1985, 1989a, 1989b) who proposed that labour force migration in Australia could be viewed in terms of a three-tier hierarchy. These tiers rank Melbourne and Sydney first as national metropolitan centres, followed by the remaining State capitals and the non-metropolitan parts of the country. Jarvie's (1989a) analysis of age profiles demonstrated convincingly how particular groups move up and down the hierarchy at different stages of the career cycle. Subsequent work has shown that this framework provides a useful structure for interpreting mobility among professionals (Bell 1992: 262-3) but is less relevant to movements of other segments of the labour force, such as labourers (Bell 1994: 352-62). The suggestion that Melbourne and Sydney act as distribution points for settlers arriving from overseas has also been challenged (Bell 1992: 256-9). Nevertheless, increasing attention is being accorded to an understanding of the way in which migration flows operate to interconnect the various elements which make up the settlement system (Bell forthcoming).

Migration flows and networks: the indigenous population

Notwithstanding conceptual difficulties, it is useful in the analysis of population mobility to draw a distinction between migration, which involves long-term or permanent movements, and circulation which comprises short-term, cyclical or non-permanent movements. While these are not necessarily juxtaposed in motivational terms (Chapman 1991: 289), over time their aggregate impacts on population distribution can be quite different. Where circulation forms the dominant pattern of population mobility, medium- to long-term shifts in regional population distribution are unlikely. In contrast, where migration prevails, the distribution of population may be altered drastically.

Much of the mobility among indigenous people is of the circular type. This reflects, to varying degrees, activities associated with cultural maintenance, marginal attachment to the labour force and difficulty of access to services. It is characterised by frequent movement between a network of places within areas that are familiar and defined spatially by a mix of social and economic considerations including the location of kinfolk, traditional associations to land, seasonal or short-term employment opportunities and the availability of services (Beckett 1965; Bryant 1982; Sansom 1982; Birdsall 1988; Young and Doohan 1989). In some areas, such as Arnhem Land and Central Australia, high levels of circulation are also associated

with hunting, gathering and ceremonial activities (Cane and Stanley 1985; Altman 1987: 22-7, 103-27). Many indigenous people thus engage in what one mobility analyst has referred to as 'multi-locale relationships' (Uzzell 1976).

While this feature of indigenous social and economic life is stressed in a number of localised ethnographic studies few attempts have been made to rigorously quantify such mobility. One problem is the very porosity of communities and the difficulty of defining household boundaries (Smith 1992), while another relates to the lack of techniques that adequately capture the dynamism of the phenomenon under scrutiny (Taylor 1986). For analytical convenience, two main strands of enquiry are identified in the literature, one dealing with circulation among essentially rural-based people and the other focused on the movement of people between urban centres. One conclusion to be drawn, however, is that the motivations underpinning the frequent comings and goings observed are often the same regardless of location.

Rural circuits

Partial measures of circular mobility are available from a number of case studies of individual rural communities. For example, Hamilton (1987); Palmer and Brady (1991: 43-56) and Pholeros, Rainow and Torzillo (1993: 23-30) provide weekly and monthly population counts for the Everard Park, Oak Valley and Pipalyatjara communities in South Australia respectively noting high levels of fluctuation in these populations but providing no indication of the spatial extent of movement networks nor the rate and sequence with which individuals revolve through them. The most complete such analysis, based on continuous daily recording of local residence over a year, is Altman's (1987) study of Momega outstation in north-central Arnhem Land. In describing the residential pattern of the outstation population, Altman refers to an 'immediate community', which incorporates Momega itself and three adjoining outstations, and a 'wider community', comprising a section of Maningrida town and seven other distant outstations. In all, this settlement network circumscribes an area of some 5,600 square kilometres within which the population of just one outstation interacts frequently with several other groups in a variety of localities.

A similar dynamic between social and settlement networks involving circular mobility over much wider areas is described by Young (1981), Cane and Stanley (1985), Hamilton (1987), and Young and Doohan (1989) for the Aboriginal population in Central Australia, with the latter detailing the various causes of movement ranging from ceremonial responsibilities to subsistence foraging and dislocation of people from social services. Needless to say, these patterns of spatial interaction confound the problem of assigning populations to particular localities in situations where people

live as much in an 'area' as a 'place' defined spatially by the location of kinfolk.

Urban circuits

The continuance of circular patterns of mobility in urban situations is also a theme alluded to in the ethnographic literature. A number of case studies, increasingly dated, point to the existence of circuits of Aboriginal mobility between a variety of settings including rural townships, town camps and suburban dwellings in local, regional and metropolitan centres. These networks have been variously referred to as 'beats', 'runs' and 'lines' (Sansom 1982: 122-30) and reflect the dispersed location of kin (Beckett 1965; Birdsall 1988) and the seasonal round of activities associated with agricultural work (Sansom 1980; Bryant 1982). Sansom (1982: 125) describes the empirical construct as 'a set of places that constitute a social ambit for a person of no necessarily fixed residence but of a delimited countryside'.

A number of such networks linking urban-based populations in different locations have been described around the country, although with little attempt to quantify the circulation involved. For example, in South Australia, Inglis (1964: 130-1) and Gale (1972: 90) refer to the continuance of links between the population of Adelaide and communities in the south of the State from which they were largely drawn while Barwick (1962, 1964) makes the same point with respect to Melbourne and its hinterland. In the Northern Territory, Sansom (1980: 4-20) identifies ongoing links between certain Darwin town camps and surrounding pastoral country in the Top End while similar connections between town residents and adjoining rural populations are described for Alice Springs (Drakakis-Smith 1980; Young and Doohan 1989: 129; and Katherine (Taylor 1988). A more thorough exposition of circular mobility between urban centres is provided by Beckett (1965) who describes the towns of western New South Wales as comprising a single 'beat' for indigenous residents of the area - essentially the space in which individuals identify kin and a sense of belonging and within which they frequently move. Birdsall (1988) develops a similar theme in respect of the Nyungar people in the southwest of Western Australia and distinguishes between 'runs', as the circular flow between country towns of the southwest and Perth, and 'lines' which represent a form of step-wise migration between towns along the coast from Perth to Broome. For Torres Strait Islanders, Taylor and Arthur (1993: 30) have suggested similar relationships between Torres Strait and the towns of coastal north Queensland.

Sequential migration: the non-indigenous population

Because of its growing reliance on census information, migration analysis in Australia has become increasingly dominated by a cross-sectional

perspective which treats mobility as an event rather than a continuing process. Within the constraints of these data, a number of important insights have nevertheless been derived. Especially notable is the work of McKay and Whitelaw (1978, 1981; McKay 1984, 1986) and of Jarvie (1989a), described earlier, suggesting how the career cycle influences movements up and down the urban hierarchy for some labour force groups. A number of special-purpose surveys have examined the sequences of movement among selected groups more directly (see, for example, Rowland 1976; Robinson and Kambesis 1977; Maher 1979; Pryor 1979; Young 1987). There is also a small literature focused on mobility in nineteenth century Australia, based largely on biographical sources and administrative records, which has stressed the significance of circular mobility among groups such as shearers (Kelly 1981) and minor bureaucrats (McEwen 1986).

There is now increasing recognition that a life course perspective can provide important new insights into population mobility and greater attention is being given to the incidence and patterns of repeat migration (Hugo 1987b; Bell 1994, forthcoming). To date, however, understanding of circular mobility among the non-indigenous population is significantly lower than that for indigenous Australians.

Sequential migration: the indigenous population

Numerous examples exist in the ethnographic literature of individual or group biographies that provide insight into sequential patterns of population movement but yield little by way of quantified data, certainly not in a form that can be extrapolated. Perhaps the closest to this is the work of Inglis (1964) and Gale (1967, 1972) in tracing the pattern and sequence of post-war migration into and within Adelaide but this is at the aggregate level and provides no indication of individual movement sequences. Bryant's (1982) analysis of seasonal movements of agricultural workers in Robinvale provides chronological data on the annual cycle of population shifts and identifies networks extending across the Riverina west to South Australia and north into Queensland. The work also provides one of the few indications, albeit brief, of lifetime migration showing the fairly localised catchment area of such migration. Such studies of migration as do exist are time and place specific and vary in the breadth and scope of analysis.

One example is Taylor's (1988) analysis of the spatial sequence of movement into Katherine. This revealed a structural difference between the population resident in suburban dwellings and those in town camps. The general conclusion drawn was that recent movement into the town had occurred within established migration fields defined by two distinct and well-trodden paths. By far the largest of these led to the suburban areas of

the town and extended well beyond the Katherine region through a network of other urban places in the Northern Territory and Queensland, sometimes involving return migration. The second, less prominent route, linked the town camps of Katherine directly with rural townships in the immediate hinterland and also displayed a tendency for return migration.

Altman's (1987: 22-7, 100-7) analysis of mobility among an outstation population in north-east Arnhem Land is the sole example of quantified population movement linked to an annual round of social and economic activity. This variously involves the dispersal and re-grouping of individuals and households at different locations within a clearly defined area according to observable temporal patterns. The sequence of such movement was found to be subject to a number of influences. In part, seasonal influences were determinate as these impacted on the availability of subsistence resources, the need for shelter and the ease with which people could travel. Also evident were the dictates of a fortnightly cycle associated with social security payments and concurrent provision of bought supplies. Less predictable was the need for spatial relocation that could arise at any time due to large-scale production cooperation, participation in ceremonies, and the need to access services and to engage in social activities.

Some attempt has been made to examine the sequential pattern of intra-urban movement through the indigenous housing supply system in small town studies (Drakakis-Smith 1980; Taylor 1990). By reconstructing the previous four places of residence within the town of Katherine, for example (from a list including suburban house, town camp, Aboriginal hostel and caravan park), it was possible to describe successive movement through the urban housing supply system. This revealed a gradual shift over time towards suburban housing but with considerable movement sustained in all directions between accommodation options dictated by expediency and preferences (Taylor 1990: 79). On the one hand, waiting lists and the mainstream tenancy rules applying to housing commission dwellings served to constrain mobility, while on the other hand short-term accommodation arrangements in hostels or with relatives, as well as the provision of more flexible rental arrangements from indigenous organisations, facilitated high population turnover.

Summary comparison of migration research

From the foregoing, it is clear that quite different concerns and methodologies are evident in the literature on indigenous population mobility compared with that pertaining to the movement of the Australian population generally. This, in part, reflects the often distinct cultural, demographic and economic contexts in which mobility occurs, but it is also indicative of a variable disciplinary bias in the analysis of migration. In

order to provide a summary indication of the relative breadth and depth of such analysis for the indigenous and non-indigenous populations, a crude assessment of the scope of the research effort in respect of the four perspectives on mobility is provided in Table 1.

Table 1. Perspectives on population mobility: the relative strength of indigenous and non-indigenous research.

Mobility perspective	Scope of research effort	
	Non-indigenous	Indigenous
Propensity to move	Comprehensive	Minimal
Spatial redistribution	Comprehensive	Limited
Flows and networks	Limited	Limited
Migration sequence	Minimal	Minimal

Three levels of analytical effort are described: comprehensive, limited and minimal. For each of the perspectives on mobility, these seek to convey, qualitatively, the breadth of geographic coverage of analysis, the range of analytical devices employed, the depth of understanding generated, and, quite simply, the quantity of studies undertaken. For example, a good deal is known about the non-indigenous population with respect to their propensity to move and spatial redistribution, whereas there is very little known about the movement propensities of the indigenous population, while knowledge about spatial redistribution of the indigenous population is mostly restricted to case studies of urbanisation. As far as research on flows and networks of movement is concerned, the analysis of non-indigenous population movement has mostly been at the aggregate level with little concern for detailed pattern, while for the indigenous population the opposite is the case. While considerably more examples of this are available for the indigenous population, due to the greater ethnographic focus of research, this has nevertheless produced little by way of quantitative information. For both groups, research on the sequential movement of individuals over their lifetime has involved some use of residential history analysis from case studies.

To some degree, the emphasis on the first two perspectives in studies of the general population has been driven by data availability given that the census remains the primary source of information regarding change in usual place of residence at national, regional and local levels. This has yielded a wealth of readily accessible data and provided for the calculation of migration differentials and determination of the contribution of migration to regional population change. Apart from the use of such indicators in the social sciences, this has had obvious practical application

for policy-makers in the business of population forecasting and planning of service provision. Accordingly, the field has been dominated by geographers, sociologists, economists and planners applying an array of spatial analytical, demographic and econometric techniques at varying scales of analysis. In contrast, analysis of indigenous population mobility has been far less concerned with establishing overall propensities to move while the degree of attention applied to spatial redistribution impacts of migration has been limited in scope to a consideration of movement to large cities. Most notable, by comparison, is the lack of any concerted effort to examine intra-urban shifts of the indigenous population with the only two attempts at this being place-specific and limited in scope (Gale and Wundersitz 1982; Taylor 1990). Likewise, at the national level, relatively few attempts have been made to examine net shifts in indigenous population between different levels of the settlement hierarchy.

Given that essentially the same data has been available for the comprehensive analysis of movement propensities and redistribution of the indigenous population, at least from each census since 1971, the limited focus on these issues is striking. This partly reflects the recency of broad-based policy and social science interest in indigenous affairs and the fact that understanding of indigenous population mobility to date has been largely dominated, if not by the research priorities of anthropologists, then at least by their general techniques of ethnographic enquiry, such as the direct observation method of ethnographic inquiry (Gregory and Altman 1989). One consequence of this has been a predilection for community-based study with little attention afforded to macro-scale analysis, even at the regional level. Equally restrictive has been a reliance on survey-based, rather than census-based data, for the estimation of population movement. While this may have enabled greater association to be drawn between migration and related explanatory variables, at least in certain localities, the limiting effect is manifest in the lack of any comprehensive measure of propensities to move or consideration of the effects of migration on regional population change. One consequence of this is the lack of any overall appreciation of the most apparent spatial redistribution of the indigenous population currently manifest involving the dispersion of population away from rural townships to outstations.

Ironically, the reasons advanced to account for the relative weakness of research on indigenous Australians in respect of the first two perspectives on mobility may be viewed more as a relative strength in relation to the last two perspectives. The greater community focus of indigenous mobility studies has involved more stress on the cultural context of mobility and, in particular, a concern to emphasise the circular pattern of migration flow that exists between networks of places. As a consequence, relatively more is known for the indigenous population, albeit from disparate case studies, about different patterns of migration flow and the associated influence of institutional factors, such as the role of kinship or the effects of

government policy, in generating population movement. For the non-indigenous population, the analysis of networks of movement has been more narrowly focused on the macro-level functioning of the labour market and the manner in which this serves to recycle individuals between metropolitan and non-metropolitan areas.

Policy and research implications

From a policy perspective, two broad sets of questions generate a need for socioeconomic data concerning indigenous Australians. The first set derives from issues to do with the equitable, efficient and appropriate distribution of resources: what and how much should be given to whom, where and when? Answers to such questions require an indication of demand levels for services and special programs and this in turn implies an understanding of the size, composition, distribution and dynamics of the client population. The second set of questions follows on from the first and is concerned with the efficiency impact of resource allocations: do they produce the results that policy intends? This implies a monitoring and evaluation process which again is dependent on detailed knowledge of the client group. In terms of the data requirements to inform such questions, two categories suggest themselves: cross-sectional data which describe the client population at single points in time, and longitudinal data which establish the parameters of change in the population.

It is in the process of establishing longitudinal perspectives that the study of population mobility assumes importance. As Bell (1992) demonstrates emphatically, migration is the fundamental force shaping and modifying the pattern of human settlement in Australia. It is the main determinant of population change at the local and regional level with the potential to spatially alter the level and nature of demand for services and government programs. Information on population change over time thus has implications for assessing the variable composition and requirements of client groups and the formulation of appropriate policy responses. While this is no less so for indigenous Australians than it is for the population as a whole, the extent to which policy makers in the indigenous affairs arena can draw upon such information is far less by comparison.

Clearly, major deficiencies exist in understanding some of the basic facets of indigenous movement propensities and spatial redistribution relative to what is known for the rest of the population. As far as information regarding migration flows and the sequence of population movements is concerned, this deficit is commonly shared. The impact of this lack of information is best illustrated by contemplating a few questions for which there are presently no answers. We know, for example, that the propensity to move among non-indigenous Australians is highest in the young adult age groups and that the age profile of migration varies between the sexes.

Also evident are clear labour force differentials in non-indigenous migration. To what extent do these patterns apply to indigenous Australians? We know that in order to participate in the labour market, non-indigenous Australians are involved in a high degree of mobility between metropolitan and non-metropolitan areas. Is this also the case for indigenous people? We know that the population generally is drifting away from inland and sparsely settled areas towards urban areas. Does this apply to the indigenous population as well?

Apart from a need to monitor the spatial dimensions of such locational shifts, it is also important to note that mobility is a selective process involving some members of a population more than others. Such differentials have implications for public policy to the extent that they impact on regional population profiles and for what they reveal about the more behavioural aspects of movers and non-movers. In this context, it is also worth noting also that mobility among indigenous Australians displays cultural attributes which may limit or significantly affect the range of effective policy options. At the same time, population movement may itself be influenced by policy interventions. For example, one explanation proposed by Gray (1989: 133) to account for sustained net migration gains in Adelaide and Perth was the existence of very active indigenous housing programs in those two metropolitan areas. Elsewhere, Taylor (1992a: 69) has suggested that increased participation in the CDEP scheme since implementation of the Aboriginal Employment Development Policy (AEDP) in 1986 is likely to have dampened migration rates in remote rural areas, while other aspects of the AEDP, such as public and private sector initiatives, may well have stimulated movement in more urbanised parts of the country. It has also been suggested that distinct patterns of indigenous labour migration may be one manifestation of an indigenous labour market offering a spatially-distinct set of opportunities separate from that of the mainstream (Taylor 1991: 73-4).

From a policy perspective, the inability to distinguish the experience of indigenous people from that of the general population leads, at best, to an absence of appropriate policy, at worst, to a working assumption that indigenous mobility behaviour is simply a sub-set of mainstream behaviour. In order to rectify this, simple fundamental information is needed which may be reduced to a set of questions: if change in the distribution of the indigenous population is to occur, what is the magnitude of such change likely to be?; where is it likely to be?; who is likely to be involved?; and what are the processes driving the change?

Answers to such questions are readily at hand from census data. The census provides by far the most comprehensive and detailed source of data on population mobility that is available in Australia. Information on migration is drawn from three main questions. These provide each individual's place of usual residence on census night (6 August 1991), with

similar information for five years earlier (6 August 1986), and their State or Territory of usual residence one year ago (6 August 1990). Address at the time of the census and five years previously is coded to one of 1,354 Statistical Local Areas (SLAs) in Australia. In addition, the census includes a migration indicator which denotes whether an individual has changed address between 1986 and 1991. This enables people who moved within the same SLA to be differentiated from those who did not move. By combining these data with other characteristics collected by the census, cross-classified tables can be generated which indicate the incidence of migration and the patterns of movement between SLAs, or any aggregation thereof. It is matrices generated in this way that provide the basis for further research.

In particular, it is proposed to establish comparative measures of indigenous and non-indigenous movement propensities and spatial redistribution and to extend the existing scope of population flow analysis for both groups. This will produce, for the first time, comparative national parameters of indigenous mobility status and allow for consideration of these in the process of economic policy formulation. Ultimately, a predictive capacity is sought with regard to estimating the likely contribution of migration to indigenous regional population change, not in terms of statistical probability, but simply by raising understanding of current trends.

Notes

1. The term 'indigenous Australians' is inclusive of Aboriginal and Torres Strait Islander people.

2. Analysis of the counter-factual to indigenous migration (migration of the non-indigenous population), has never been undertaken. What is currently available for comparative purposes is an extensive literature on the mobility of the total Australian population. For the most part, the fact that this includes the indigenous population is unlikely to be of consequence. However, in some regions of Australia, particularly in remote areas as well as in certain statistical units across the country, the indigenous proportion of the total population is relatively high and the mobility behaviour observed for the total population may reflect that of the indigenous component to a substantial degree. A division of the population into indigenous and non-indigenous components thus becomes necessary for an accurate depiction of mobility and is recommended for future research. In the meantime, patterns of movement revealed by the literature for the general population are referred to euphemistically hereafter as examples of non-indigenous mobility.

3. The Community Development Employment Projects (CDEP) scheme is a Commonwealth Government program in which unemployed indigenous people forgo their entitlements to payments from the Department of Social Security but receive the equivalent from a local community organisation in return for a guarantee of community-based work. For a full description of the scheme and of the policy issues surrounding it, see Altman and Sanders (1991) and Sanders (1993).

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