

Population in its social context

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Abstract:

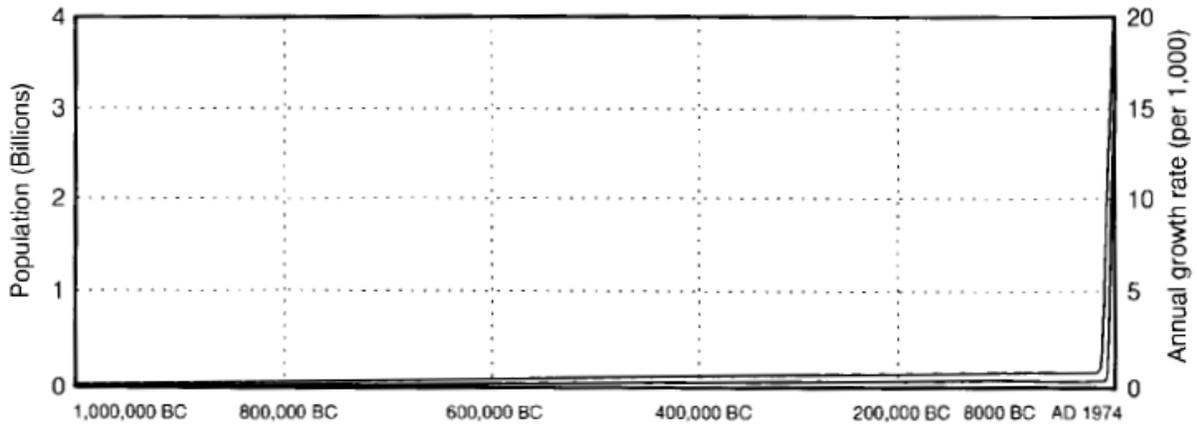
If population is conceptualized as the human vehicle of society, presumably analysis of one should involve understanding the other. However, population studies is not conventionally considered a central area of sociological inquiry, though demography itself is an interdisciplinary field, comprising approaches from anthropology to mathematics. This separation, however stems largely from the politics of disciplinary development, and is changing in recent years. Issues relevant to the size, growth and mobility of populations, the defining concerns of demography, are receiving increasing focus from sociology. Demographers are also concluding that sociological approaches are indispensable to their endeavours.

Keywords: population | social demography | fertility | mortality | migration analyses

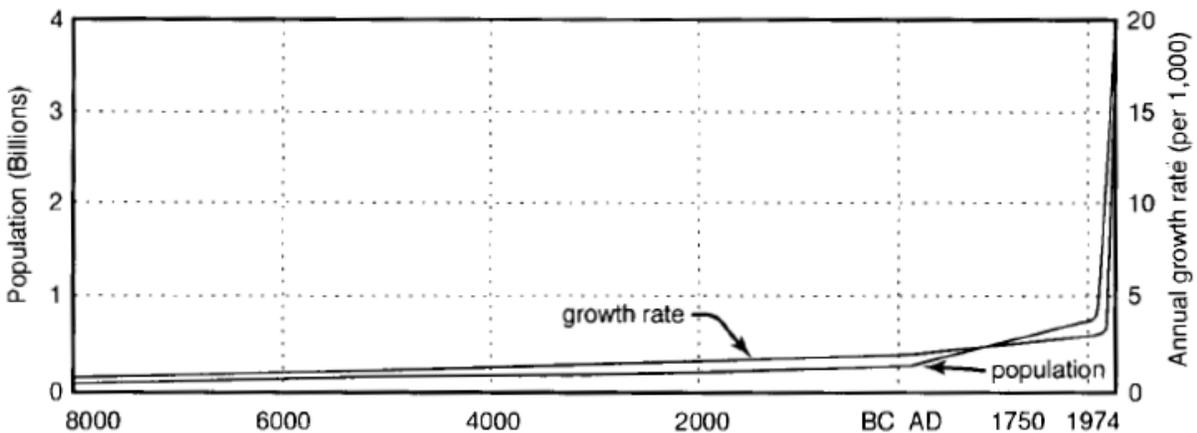
Article:

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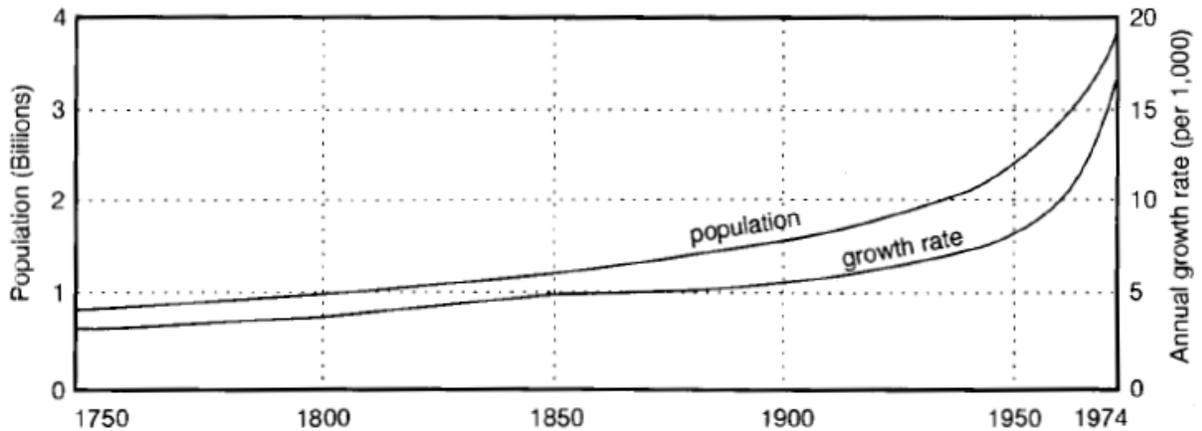
This article describes some central issues concerning population which are also relevant to sociology. These include population size and composition through fertility and mortality patterns, stressing issues concerning marriage and the family to illustrate the view that these institutions are central to demographic processes and behaviour. Population movement or migration is also considered.



Overview of the human population, from the emergence of man about a million years ago to the present, emphasizes the dichotomous nature of man's history. At this level of detail the growth curve approximates one where the size of the population and the annual rate of increase are constant for almost the entire period, then rise vertically in the most recent years.



Introduction of agriculture some 10,000 years ago marks the beginning of a period that represents about 1 per cent of that considered in the illustration at the top of the page. Even in this much briefer time span, however, the rate of population increase was modest throughout most of the period, and the gain during the past few centuries again appears to be almost vertical.



Period since 1750 is characterized by rapid and rapidly accelerating growth in the size of the world population. This period represents only about .02 per cent of man's history, yet 80 per cent of the increase in human numbers has occurred during it. Moreover, within this period the rate of increase has climbed most dramatically in very recent times: it has doubled in the past 25 years.

Figure 1.

The recent interest of sociology in population issues is largely a twentieth-century phenomenon, since the boom in human numbers that fuelled this concern is unprecedented before this time. Sociology initially focused on issues of social structure, institutions and relations and not on population size, composition or movements. However, the behavioural and administrative questions associated with the current population proliferation have led to greater interest on the part of sociologists in population issues.

Though sociological concern with population issues is a relatively recent development, the inception of formal demography is generally taken to be with the work of John Graunt in the seventeenth century, and that of socioeconomic consequences of population growth with that of Malthus in the eighteenth century. Administrative interest in population however is evident from early historical times. For example, population records were maintained for imperial Rome during the early Christian era, and for ancient China during roughly the same period. Figure 1 depicts human population growth trends through history. Coale (1974) divides the history of human population into two periods:

(i) a long era of very slow growth: from about AD 1 to 1750, the time taken for the entire world population to double in size is estimated at about 1200 years. Prior to AD 1, though population size estimates cannot be documented, similar patterns probably prevailed.

(ii) A short era of rapid growth: from about AD 1750 to the present. Currently the world population doubling time is about 35 years. This extraordinary burst is one of relatively few doublings over history, illustrating growth potential by geometric progression.

The average annual population growth rate in the first period was approximately 0.36 per 1000, currently it is about 20 per 1000. The latter rate is unprecedentedly high and if continued, population will swell within 700 years to provide one human being per square foot of the earth's surface. Long before this, following Malthusian reasoning, human life will no longer be sustainable on earth.

Fertility

The present rapid rate of world population increase is due to a combination of persistent high fertility in some developing regions, and low or even negative fertility rates recently observed in some more developed societies. Ehrlich's influential book: *The Population Bomb* (1975), highlighted the issue of persistent high fertility, while below-replacement fertility also causes concern.

These two different fertility patterns illustrate the global progress of the demographic transition, which is the central idea in population theory. The more developed regions have apparently completed the transition, while other areas are at various points along its course. First formulated in the mid-1940s by scholars such as Kingsley Davis, Frank Notestein, etc., the idea of the demographic transition describes the shift from a situation of high birth and death rates (and therefore low population growth rates), to one of low birth and death rates (with the same result for growth rates). In the interim, mortality rates fall first, due to improvements in diet, hygiene,

and medical technology. Fertility declines after a lagged period, due to processes that are still poorly understood. The interim period is thus marked by high rates of population growth.

The concept of the demographic transition also embodies a theory of why fertility declines in addition to mortality, drawing upon arguments concerning the operation of social and economic forces, mainly industrialization and modernization. This implies a transformation from a largely rural, agrarian, unmonetized and static society to an urban, industrial, economically complex and rapidly changing one. The changes in economic organization make raising large numbers of children (most of whom survive due to mortality declines) increasingly unfeasible, mainly since they are no longer essential for the family production unit, and moreover have to be formally schooled for absorption into the workforce. The workplace, along with schooling and other institutions are increasingly extra-familial. Further, increasing opportunities for women outside the home lowers their propensity to spend long periods performing household tasks including bearing and rearing many children. Thus, these factors combine to reduce fertility.

While the idea of the demographic transition is a good description of the population processes that have occurred in some regions, as a theory with predictive or explanatory power in many other areas it falls short. It relies heavily on a modernization paradigm of social and economic development, and a functionalist vision of societal processes. It takes no account of the diversity of cultural and developmental experiences of various societies. The demographic transition in the more developed nations which occurred largely during the late nineteenth century did not uniformly accompany economic development (it preceded it in some cases). Similarly, in some developing regions today such as Thailand or Sri Lanka, demographic changes have occurred without economic development as a prior event. Further, some more developed nations have proceeded so far along the course of the demographic transition, that their fertility rates are below replacement level, a possibility not envisaged by demographic transition theories with causal emphasis on a functionalist societal response to economic development. Thus, other perspectives to fertility or reproductive behaviour are gaining ground, including consideration of cultural factors (Hammel, 1990) or political economic processes (Greenhalgh, 1990).

Persistent high fertility in developing regions

Many regions of the world, especially of Asia and Sub-Saharan Africa, are experiencing persistent high fertility as evident in the Total Fertility Rates (TFR: the number of children born to an average woman over her reproductive span) of these areas. To illustrate, the TFR of India, poised to overtake China's population total, is now 4.0, with an annual growth rate of 2.1 per cent and base population of over 850 million. Although fertility has declined moderately in India over the last 30 years (from a TFR over over 6 in the 1960s), it still remains high. Pakistan, Bangladesh and Nepal are in a similar situation. Similarly, many African nations currently display TFRs of 4 to 6. The UN's medium population projections in 1984 imply increases of more than 800 million people per decade in the decades from 1985 to 2025. Over 90 per cent of this increase will occur in less developed regions, especially Africa and Asia. The question why high fertility has persisted in these regions, while other developing societies such as those of Thailand or Sri Lanka have experienced declines is a demographic and sociological puzzle.

China, the demographic giant of the world, has experienced a substantial fertility decline. The TFR fell to about 2.3 by 1984, and now fluctuates around that level, which implies a fertility rate only slightly above replacement level (the level of fertility a population needs to just maintain itself, approximately 2.1 births per woman). However, due to population momentum (where past high fertility produces a large proportion of the population in the childbearing years compared with a smaller proportion at older ages when deaths occur). Large numbers of children continue to be born in China, exceeding the numbers of deaths occurring, and the population will grow from its present size of approximately 1.1 billion to 1.57 billion before stabilizing in the mid-to-late twenty-first century.

These sustained population increases in areas of the world which are already struggling to overcome poverty and improve living standards for their people present major challenges to policy-makers and scholars. An optimistic view holds that such population pressures will spur technological innovations as occurred during the Industrial Revolution and in the twentieth century. The pessimistic (and more widely held) view is that the world population is rapidly outstripping any possible developments and available resources, and combined with heightened consumption patterns is already having a serious negative impact on the environment and the quality of life.

Thus, sociologists and demographers attempt to understand why people in some settings continue to have several children, while those in other settings have far fewer offspring. Studies show that people bear children for reasons that vary across cultures and socioeconomic strata, ranging from economic or old-age support advantages to psychological or spiritual satisfaction, depending in turn on the characteristics of the various societies themselves.

Since the explanations put forward by the demographic transition theory for societal shifts to controlled fertility were found unsatisfactory, scholars increasingly turn to sociological and microeconomic approaches to address the problem. Some sociological approaches argue that the transition to controlled fertility was not uniformly associated with industrialization or modernization, but occurred in areas that shared culture or language. Since the transition involves a behavioural innovation, it is diffused quickest among culturally similar groups, whose societal values do not resist such a development (Cleland and Wilson, 1987).

Microeconomic approaches focus on the costs and benefits underlying individual or family reproductive behaviour rather than on societal change. Costs and benefits of children to parents determine the demand for children, while the supply is controlled by the biological capacity to bear children, combined with practices that might affect this capacity. The decision to bear children results from parents weighing the costs and benefits of children against those of fertility control.

Caldwell (1982) argues that as long as the flow of services and benefits between generations is greater from children to their parents, families will exhibit high fertility. A wide variety of developmental situations can lead to this. However, when the net flow of intergenerational resources goes from parents to children, then parents find it beneficial to have fewer children. The necessity of formal schooling and the burden of childrearing placed increasingly on the parents rather than a wider circle of kin contributes largely to this process.

Cultural and socio-economic factors are both implicated in the continuing high fertility in regions of Africa and South Asia, where the family unit is important for socio-economic, cultural and political organization, and advantages lie with greater numbers. Further, cultures here place high value on childbearing and motherhood, and women's autonomy to make innovative decisions in these (and other) areas is typically low. Most individuals in these societies express strong disapproval of the desire to curtail childbearing. The costs of raising children are also lower in many African societies due to practices such as child-fostering (Bledsoe, 1990). In South Asia scholars argue that couples' preference to have several surviving sons to carry on the family name and provide economic support to parents is related to persistent high fertility. Daughters require a large dowry upon marriage and are thus a liability. The lower status of women and son-preference are closely linked. Given the uncertain climate for child survival, especially among rural or lower classes, the desire for surviving sons leads to higher childbearing rates. Thus, though means for fertility control are increasingly available in these societies, their use is low due to the perception of this innovation as disadvantageous.

Below replacement fertility in industrialized nations

While some regions struggle to curtail population growth, many industrialized nations including northern and western Europe, the US, Australia, New Zealand, Japan and Singapore, are experiencing unprecedentedly low fertility for the last two to three decades, and may no longer be replacing themselves. Table 1 shows trends in the TFRs of 34 nations that experienced declining fertility over the last 3 decades. In 1965, only East Germany and Romania had below-replacement fertility (TFR less than 2.1). By 1988, only Romania, Ireland and the USSR still had above replacement fertility. The upswing in Romanian fertility may have resulted from strong government pronatalist policy. Other nations had an overall downward trend. According to Bourgeois-Pichat (1986) in 1983 north-central Italy reached a TFR of 1.28, the lowest ever recorded for a large human population.

Despite concerns with the global population explosion, the 'population implosion' of these regions is an anxiety to those who fear that some national groups may face extinction or be swamped by migrants from high-fertility regions with very different cultures, especially given escalating ethnic conflicts in the current world. Additionally, the ageing of low-fertility societies (where greater proportions of the population are present at older ages rather than younger) leads to a shift in the dependency burden, which is problematic for planners since the shifting tax base implied by an ageing society is not optimal for a pay-as-you-go social security scheme. While job market entrants may benefit from the lower proportions of population at younger ages, promotions or upward occupational mobility would become increasingly difficult with age.

Davis (1986) argues that while below-replacement fertility is unprecedented, low fertility itself is not unknown in human history. It can be observed among hunter-gatherer populations (such as the Dobe !Kung or some Australian Aboriginal groups), where the presence and care of many helpless infants would pose a serious liability to the group, since women, the primary caregivers, are also the main food gatherers. He argues that the development of settled agriculture enabled high fertility through improved food supplies, as well as necessitated it for labour requirements. Modern day peasant populations exhibit some of the highest known TFRs. In other

words, fertility changes follow upon changes in socio-cultural, technological and economic organization.

Table 1. Levels and trends, total fertility rates, 1965-89

Major area, region and country or area	1965	1970	1975	1980	1985	1986	1987	1988	1989
Asia									
Hong Kong	4.93	3.31	2.75	2.06	1.47	1.35	1.29	1.36	—
Japan	2.15	2.10	1.93	1.74	1.74	1.69	1.67	1.64	1.57
Republic of Korea	4.67	4.07	3.23	2.70	1.68 ^a	1.55	—	—	—
Singapore	4.62	3.10	2.11	1.74	1.62	1.48	1.65	1.98	—
Europe									
Eastern Europe									
Bulgaria	2.08	2.18	2.24	2.06	1.98	2.02	1.95	—	—
Czechoslovakia	2.37	2.07	2.46	2.15	2.06	2.02	1.98	2.02	1.95
German Democratic Rep.	2.45	2.17	1.55	1.97	1.76	1.72	1.75	1.67	—
Hungary	1.81	1.97	2.38	1.93	1.83	1.83	1.81	1.79	1.80
Poland	2.52	2.23	2.27	2.28	2.33	2.22	2.15	—	—
Romania	1.91	2.85	2.62	2.45	2.26	2.40	2.39	2.31	2.20
Northern Europe									
Denmark	2.61	1.95	1.92	1.54	1.45	1.48	1.50	1.56	1.62
Finland	2.47	1.83	1.69	1.63	1.64	1.60	1.59	1.59	—
Ireland	4.03	3.87	3.40	3.23	2.50	2.44	2.32	2.17	2.11
Norway	2.93	2.51	1.99	1.73	1.68	1.71	1.74	1.84	—
Sweden	2.41	1.94	1.78	1.68	1.73	1.79	1.84	1.96	2.02
United Kingdom	2.84	2.41	1.78	1.87	1.79	1.77	1.82	1.84	1.85
Southern Europe									
Greece	2.25	2.40	2.32	2.23	1.68	1.62	1.52	1.52	1.50
Italy	2.60	2.38	2.17	1.64	1.41	1.34	1.32	1.34	1.29
Portugal	3.07	2.62	2.59	2.06	1.70	1.63	1.56	1.53	—
Spain	2.96	2.85	2.79	2.18	1.63	1.54	—	1.38	1.30
Yugoslavia	2.70	2.29	2.28	2.14	2.04	2.01	2.00	1.98	—
Western Europe									
Austria	2.70	2.29	1.82	1.65	1.48	1.46	1.44	1.46	1.46
Belgium	2.60	2.25	1.74	1.69	1.51	1.55	1.55	1.56	1.58
France	2.81	2.47	1.94	1.95	1.83	1.84	1.82	1.83	1.81
Germany, Federal Rep. of	2.51	1.99	1.45	1.45	1.29	1.35	1.38	1.40	1.39
Luxembourg	2.43	1.96	1.52	1.50	1.40	1.44	1.41	1.54	1.52
Netherlands	3.03	2.58	1.67	1.60	1.51	1.55	1.56	1.55	1.55
Switzerland	2.61	2.12	1.62	1.55	1.52	1.53	1.52	1.58	—
Northern America									
Canada	3.07	2.26	1.82	1.71	1.63	1.63	1.62	—	—
United States of America	2.91	2.47	1.77	.183	1.84	1.83	1.86	1.93	—
Oceania									
Australia	2.96	2.86	2.22	1.92	1.89	1.87	1.85	1.84	—
New Zealand	3.56	3.16	2.33	2.05	1.93	2.02	2.03	2.09	2.10
USSR	2.46 ^b	2.39 ^c	2.39 ^d	2.25 ^e	2.46 ^f	2.53 ^g	2.53	2.45	—

Source: Annex I.

^a Refers to 1984.

^b Refers to 1965/66.

^c Refers to 1969/70.

^d Refers to 1975/76.

^e Refers to 1980/81.

^f Refers to 1985/86.

^g Refers to 1986/87.

Source: Patterns of fertility in low-fertility settings; table 1 p. 7; United Nations, New York, 1992.

Other scholars address the societal transformations that have led to low fertility in industrialized societies, including the behaviours that directly impinge on fertility (the 'proximate determinants', Bongaarts 1982), as well as the broader social changes that influence these behaviours. Factors affecting low fertility therefore include the development of effective contraception; changes in the institution of marriage including a rising age at first marriage, increasing proportions of women not marrying and rates of divorce, all of which affect the likelihood of pregnancy; industrialization; changes in the organization of the family and the costs and benefits of childbearing; in women's roles and status; and in societal values such as a pervading philosophy of individualism and a changing ideal of responsible parenthood.

Current nuptiality patterns are said to underpin low fertility. Although non-marital sexual activity is widespread and the proportion of out-of-wedlock births to all births is rising, total fertility itself is steadily falling. That is, though marriage is losing its monopoly over childbearing and other less formal sexual relationships produce children, the switch is associated with lower fertility, since apparently if people are unwilling to commit to marriage they are also unlikely to undertake parenthood. For example, in the US in 1965 (the peak year of non-marital fertility) the TFR for unmarried women was only 0.71 (Westoff, 1986). Thus, scholars focus on the characteristics and trends of the institution of marriage in low fertility regions, especially since non-European or non-North American low-fertility societies, such as Japan, Hong Kong, Singapore or Korea, have very low proportions of unmarried adults, and low rates of out-of-wedlock childbearing.

Photograph omitted from this formatted document.

Working-class suburb, Hong Kong. Silvester/Rapho

If marriage is the primary institutional unit for bearing and rearing children, the time spent in marriage is an important determinant of fertility. The period which witnessed fertility declines also saw a steady postponement of the age at first marriage and heightened divorce rates. Between 1960 and 1985, the proportion of women remaining single at ages 20-29 (covering the peak years of entry into marriage) rose in the US and various European countries from between 30 to 50 per cent (age 20-24) and 10 to 20 per cent (25-29) (Westoff, 1986). Various societies of South-East and East Asia also experienced rising ages at marriage. Although historically in Europe and North America nuptiality and fertility indicators had been low, the mid-twentieth century witnessed the 'baby boom' in the US, characterized by lower age at marriage, increased proportions marrying and higher marital fertility. The subsequently declining nuptiality indicators are accompanied by increasing rates of divorce, cohabitation and extra-marital sexual activity. From 1968 to 1991, in the US the number of divorces per thousand married couples rose from 11 to 23, and that of Denmark from 5 to 12. Furthermore, 50 per cent of all first marriages in the US are likely to end in a divorce. Thus, the time spent in marriage is unprecedentedly low, with a negative impact on fertility.

Marital fertility has declined too, and the age at first birth postponed. Some arguments stress that declining fertility and changes in the institution of the family occurred in response to industrialization and economic development via their major impact on the value of children to parents. In all modern industrial societies children need years of expensive education, health care and other amenities, which are socioeconomic necessities and often legally mandated. Further, in

most of these societies care of the elderly is being increasingly institutionalized through social security or similar schemes: children are no longer necessary for this function. While familial care may often be needed and is often given, parents almost never cite such reasons for bearing children. Economists discuss the concept of 'altruism', where parents spend vast amounts of time and money raising 'high quality children' without expectation of any material benefits to themselves. The main impetus to bear children is for the psychosocial satisfaction of having descendants, which can be fulfilled by having only one child. Prevailing ideas concerning the psychology and socialization of 'only children' prompts further childbearing, but not enough to replace the population.

Another crucial change has been in the situation of women. For the first time in history women have viable alternatives to roles as wives and mothers, and some socially and legally sanctioned autonomy. They have moved into the extra-familial organized workforce to an unprecedented extent. Between 1960 and 1985 the percentage of women aged 15-49 (the reproductive years) in the labour force went from 45 to 80 in Denmark, 40 to 60 in the US and from 36 to 56 in The Netherlands. Paid out-of-home employment provides economic opportunities and a new identity to women that raises the opportunity cost of having children, and conflicts with the time needed for child-care, still largely perceived as women's work. In Melbourne in 1967, 78 per cent of married women aged 18 to 34 agreed with the statement 'whatever career a woman may have, her most important role in life is that of becoming a mother'. In 1982, only 46 per cent agreed. In the US in 1962, 84 per cent of a cohort of Detroit mothers agreed that 'almost all married women who can, ought to have children' compared with only 43 per cent in 1983 (Preston, 1986a).

As Presser (1986) points out, the arduous task of child-care still largely remains the mother's, especially in the US, where institutionalized child-care is rare and expensive. Extra-familial substitutes remain *ad hoc*, unreliable and expensive. Care by female relatives, the most popular alternative to institutionalized child-care, is increasingly difficult as more women enter the labour force. In the US in 1984, 46 per cent of women with children under 1 year old were in the labour force. The prevalence of staggered working shifts among dual-earner couples is rising. These factors enter into the decision to bear fewer children.

The development and increasing use of effective contraceptives has been a critical factor. The Pill was introduced in the 1960s, and in the following decade abortion was legalized in many nations. Most countries which are experiencing low fertility exhibit increased rates of contraceptive use, as well as a switch to more effective methods.

Preston (1986b) argues that economic development, women's status, or contraceptive technology are not sufficient to explain the pervasive fertility decline. He points out that historically fertility declined in many regions irrespective of economic development and simultaneously across all socio-economic strata. For example in the US and in Japan, trends were uniform across ethnic, education and income categories. He thus asserts that along with structural transformations, fundamental changes in societal ideals also occurred that spread rapidly through regions with shared cultural characteristics. These include increasing individualism, largely seen as incompatible with repeated commitments to parenthood; as well as the concept of 'responsible parenthood' itself. Currently, producing 'high-quality' physically and emotionally healthy, well-

educated children is emphasized, and people have fewer children so that they can be better parents.

While Australia, New Zealand, Europe and North America shared the patterns described above, Japan should be examined separately (Kono, 1986). The fertility decline was steeper there and occurred at a lower economic level. Factors important elsewhere, such as the spread of feminism or individualist philosophies were not implicated in Japanese fertility decline. On the contrary, Japanese women's labour force participation has always been low, and varies over the life course to accommodate child-rearing. The perception of acute resource shortage, especially of land and housing, and the resulting intensely competitive nature of the society with an overemphasis on formal educational qualifications has made raising children an expensive and tension-filled experience. In addition, the conformist nature of Japanese society led to the speedy adoption of the small family norm among all classes.

Mortality

The demographic transition was described as a shift from high to low birth and death rates. Mortality began to decline in most Western societies in the nineteenth century largely due to developments in hygiene, sanitation and medical technologies, which were transferred to developing regions in the twentieth century. The mortality decline also involved the 'epidemiological transition' (Omran, 1978), from the prevalence of infectious diseases that characterized morbidity in the past, to that of degenerative diseases that primarily affect the old. In a seeming paradox, as mortality declines, morbidity rises, because individuals survive infectious diseases, but degenerative diseases cause them to remain ill for longer periods.

Nowhere is the characteristic feature of demography - extremely accurate and detailed measurement of the empirical phenomena under investigation - more evident than in mortality analyses. Scholars use social science theory to explain morbidity and mortality differentials, since these do not depend on biological factors alone, but are affected by socio-economic and behavioural characteristics. Perceptions of disease, death and of the socio-economic characteristics of the afflicted person are relevant to the nature of medical interventions sought or provided, or whether blame is attributed. For example in a case of Sudden Infant Death Syndrome, classification of cause of death as SIDS or as some potentially confusable cause which carries an element of blame with it (such as smothering) has been shown to vary systematically (in the US) with the dead infant's parental ethnicity or socio-economic class, with blameworthy causes being attributed more to those perceived as lower on the socio-economic hierarchy (Rutrough, 1991).

The social context of AIDS

Similarly, scientific and popular identification of AIDS was with certain stigmatized *groups* such as gay men or IV drug abusers rather than with the risky *behaviours* that are the true underlying cause. Health intervention programmes also found it easier to target groups rather than to spread a generalized message to the overall population. This hampered efforts to curb the spread of infection as most people do not think they are at risk since they do not belong to such categories. Thus risky behaviour continues, visible in the fact that rates of new infection are highest among

heterosexual married women. The global AIDS conference held in Berlin in June 1993 presented estimates of the current prevalence of HIV infection: 14 million cases worldwide, and growing. In more developed nations, this disease ranks in the public imagination with the Black Death of medieval Europe, since it primarily affects the young and challenges the idea that modern technology can overcome infectious disease, added to the suffering of infected individuals and the sense of shame associated with sexually transmitted disease.

Two of the most important behavioural issues identified in the spread of AIDS include the decision-making involved in condom use, and the networking implied in having multiple sexual partners. The decision to use condoms involves acknowledgement not only of the risks of sexually transmitted disease, but also of which partner might be more exposed. In developing regions, condoms are seen as primarily for birth-control, not as a means of preventing disease. Their use is thus viewed as inappropriate in many relationships. There is also a power dynamic between partners stemming from gender inequality, when one of them is reluctant to use the device. Prostitutes are most often in no position to insist that their customers use condoms. Married women in many regions too cannot negotiate condom use with their husbands.

Regarding networking among multiple sexual partners, recent scholarly interest has turned to Sub-Saharan Africa which has a very high prevalence of AIDS, partially attributed to social institutions that facilitate the spread of the disease. These include those of marriage and the family, which involve multiple sexual partners mainly through polygamy. In contrast to North American or European patterns, AIDS in Africa is transmitted mainly through heterosexual intercourse which is influenced by kinship and family structures. In 1991 according to some estimates, almost 75 per cent of all HIV positive persons in the world were in Sub-Saharan Africa, as were five-sixths of seropositive women and children. Only 9 per cent of the world's population resides in this area (Caldwell et al., 1993). Since the spread of AIDS is bound up with social institutions, campaigns to raise awareness and combat spread of the disease face the dilemma that persuading against multiple sexual partners appears to pressure traditional African family systems to transform to more nuclear, westernized forms, which might be seen as ethnocentrism.

Family systems in many regions of western and southern Africa are constructed around lineage-based descent groups, and involve polygyny. Economic and social strength depend on high fertility, and women derive status from motherhood. Fertility control is perceived as unhealthy and antisocial. The decision-making unit involves a wider circle of kin in which spouses may or may not participate. Land-ownership is in common and agricultural organization is labour-intensive. Typically, women in polygynous unions are responsible for their own and their children's economic welfare, primarily through farming, petty commodity trading and sometimes prostitution. Although women's sexuality is not rigidly controlled as in regions which have individual ownership of land, and societal norms disvalue virginity and support early initiation into sexual activity, there is still comparative gender inequality in sexuality. Women have no say over their husband's sexual activities (Awusabo-Asare et al., 1993). If a husband takes another wife or visits prostitutes, the wife is expected to not concern herself with it or ask any questions, leading to lack of communication between spouses, low power to negotiate condom use and thus for the transmission of the virus. Tradition mandated long periods of postpartum sexual abstinence, primarily seen as the woman's responsibility. Men were considered justified in

forming other liaisons during this time. Men, unlike women, had 'rights' to multiple sexual partners especially since, unlike South Asia (where it is considered a 'weakening' activity), sex is perceived as healthy and necessary, especially for men in much of Africa.

Economic systems are also implicated in networking with multiple sexual partners, for both men and women. In western Africa, urbanization patterns involve male migration to cities for job-seeking, while women remain on the farm. Cities such as Dakar and Abidjan have very masculine sex ratios. Men in such cities are separated from their wives and often form liaisons with prostitutes, who in turn have many sexual partners and act as nodes of infection. Men migrate between the cities and their native villages on a seasonal or cyclical basis, and spread infection to their wives.

Women also often have multiple partners, since such relationships may bring them economic support. Girls often become sexually active at an early age, sometimes forming liaisons with older men who assist them with school fees or other expenses. Families may expect daughters to help provide for themselves in this way. Women typically marry men much older than themselves. Consequently, rates of widowhood and remarriage are high. Married women too might form liaisons with other men and receive economic support, especially if their husbands are away for extended periods. According to Caldwell et al. (1993, p. 2) '[i]f the AIDS epidemic puts a stop to most non-marital sexual relations, then there will be a relative decline in the economic condition of many women, and a need for alternative sources of sustenance or income', especially under current conditions of economic restructuring, which have led to cutbacks in health and education facilities.

Of a sample of adolescent schoolchildren in Lagos, half were sexually active, and most had had more than one partner (Oloko and Omoboye, 1993). Among currently married adults sampled in Calabar (Nigeria), 53 per cent of men and 23 per cent of women had another sexual partner. 34 per cent of men and 49 per cent of women had between 1 and 5 partners over their life course (the modal category of numbers of partners) (Ogbuagu and Charles, 1993).

The 'missing women' of Asia

Prevalence of abnormally masculine sex ratios (the proportion of males to females in a population) in many regions of Asia including China, India and parts of South-West Asia, reveals that women are at increased risk of dying simply by virtue of their gender. In a society with unbiased distribution of food and health care to both sexes, there is typically greater male than female mortality in every age group, leading to the presence of greater numbers of females in the population. There is a global pattern of male dominant sex ratio at birth, approximately 106 males to 100 females, since by nature more boy babies are born than girls. This ratio declines with age since male infant mortality is naturally higher than female, and the ratio becomes female dominant at some point. The overall sex ratio of the population depends on the age at which the crossover occurs, and the proportion of population above and below that age (Coale, 1991). Though it is also affected by sex-specific migration, an abnormally masculine sex ratio implies that large numbers of women are 'missing' from the population, due to elevated mortality or undercounting. Although women are at increased risk of death during childbearing years, the excess female mortality related to gender bias occurs most at the youngest ages.

To illustrate excess female child mortality, studies focus on sex ratios among children aged 0-1 and 1-5 years of age. While mortality itself is related to socio-economic characteristics, relative mortality of male to female children (reflected in the sex ratio) should be independent of socio-economic correlates, and tend towards female dominance with increasing age, where there is no gender bias. Thus, systematic socio-economic differentials in sex ratios among children may reveal societal gender biases.

For China, the sex ratio at birth is approximately 106 (10 per cent sample of the 1990 Census). Among those aged 0 to 4 years, the sex ratio intensifies in masculinity to 110.4. Johansson and Nygren (1991) also demonstrate that the death rate among infants in China reveals *excess* female mortality of about 4 deaths per 1000 liveborn girls, compared with a global norm of approximately 130 male to 100 female deaths before the age of 1 year, and is intensifying over time. Arnold and Liu (1986) show that sex ratios in China among children approach normal only at very high parity. Lower parity children exhibit intensely male-dominant ratios. This has led to a focus on 'the missing girls of China', estimates of whom range from 60 million (Coale, 1991) to 100 million (Sen, 1989), emphasizing the significance of the issue both for the magnitude of the numbers involved and for population composition and gender stratification. Approximately half of the 'missing' girls might have been adopted by other families, while mis-reporting and excess female mortality most likely account for the rest (Johansson and Nygren, 1991).

Chinese culture emphasizes the value of sons, who are necessary to carry on the family name. Daughters marry out and become part of their husbands' families. Sons are expected to care for their parents in old age. Thus, the preference for male children is a very persistent traditional feature which has outlasted other social and cultural revolutions. Especially under conditions of declining fertility, it becomes increasingly important to focus family building strategy on the birth and survival of male children.

It is argued that fertility declines in China were more affected by government policies than by secular forces of modernization or industrialization (Bongaarts and Greenhalgh, 1985; Wolf, 1986). The government family planning programmes began in the mid 1950s. The 1970s saw the 'later, longer, fewer' campaign, to raise the age at marriage, promote longer birth intervals, and limit total children ever born per woman to two. The One-Child Policy was introduced in 1979. By 1984, Document 7 allowed certain categories of people to have a second child: such as rural residents after a few years' spacing in recognition of their need for familial labour; and some groups whose first child was a daughter. Son preference was thus to some extent incorporated into the policy, though the official position was to discourage this idea. The TFR fell in this period from 5.7 to about 2.3. Given relatively unchanging son preference, Johansson and Nygren (1991) directly implicate stringent fertility control policies in the sex ratio trends.

India exhibits many similarities to China in the cultural bases for son preference. Sons are necessary to carry on the family name, and to perform funeral rites for their parents. Daughters marry out, and take large dowries with them. All groups rely more on sons than daughters for family labour and old age support. However, regional variations are striking: sex ratios in south India are much more equitable than in the north. The southern state of Kerala, India's demographic showpiece, is the only one to have an equitable sex ratio. North Indian kinship

systems emphasize exogamy and the process of marriage creates the ritual and social subordination of the bride-giver's family to that of the bride-taker. In south India by contrast, endogamy is preferred and bridewealth rather than dowry prevails. Women in the north more than in the south are considered repositories of family honour, and so are guarded and secluded.

The importance of women to economic organization is also stressed (Dyson and Moore, 1983; Miller, 1981). North India relies on wheat cultivation and women are more separated from the production process. Rice cultivation which is more labour-intensive and involves women to a greater extent, is predominant in the south. The birth and survival of sons is thus more critical to family building strategy in the north. Daughters are seen as a greater liability and rates of excess female mortality are greater there.

Though family planning programmes have had less impact on fertility than in China, developmental transformations are associated with increased, not alleviated, gender inequality, and thus with more masculine sex ratios. Sex ratios for the overall population of India over time are as follows: 104.8 in 1901; 105.8 in 1921; 105.7 in 1941; 106.2 in 1961; 106.9 in 1981; 107.2 in 1991. With the transformation of the Indian economy, men have had more opportunities to participate than women, mainly because they receive more education. The illiteracy rates among girls are twice as high as among boys in some regions (Kerala has now officially achieved total literacy for its entire population). Ideas concerning the seclusion of women, and their traditional roles within the home keep parents from sending girls to school or preparing them to participate more fully in the developing economy. This reinforces the perception that daughters are a liability compared with sons.

Higher rates of excess female mortality are seen in areas with higher levels of development measured by conventional indicators. DasGupta (1987) shows that in agrarian Punjab, a relatively prosperous and industrialized state, moderately increased maternal education and lowered fertility promotes excess mortality among daughters, especially of higher birth order. Mothers who have some education and who wish to curtail childbearing in societies that exhibit son-preference, still feel the need to bear sons rather than daughters, stressing the fact that the family building strategy in south Asia includes consideration of the desired sex composition of the set of children. In Bangladesh for example, later born girls appear at greater risk of death if they have elder sisters, while all girls are at greater risk than boys.

Migration

Migration analyses focus on empirical issues and economic paradigms of individual decision-making whether or not to move, calculating costs and benefits of various locations and of the move itself. Zelinsky (1980) characterizes most migration theories as having an inductive approach based upon summarizing empirical findings, such as the work of Ravenstein (1889), who codified a wide set of empirical findings into 'laws', addressing the strength and direction of migration flows in terms of the relative positive and negative attributes of origins and destinations, and effect of intervening obstacles. Davis (1963) proposed a hypothesis of 'multiphasic response' of a population to the demographic pressures of high fertility, predicting reactions ranging from reorganization of productive and reproductive systems to outmigration. Other scholars' (Zelinsky, 1971, 1983) approaches combine multiphasic response theories with

demographic transition concepts, linking history and socio-economic transformation to various forms of mobility, with a specific form for each stage of development.

Human ecology approaches (Duncan, 1959, 1961; Hawley, 1950) propose four sets of interlocking structures within society: organization (at the core); population; technology; environment. Migration is viewed as an organizational response to changes in the other factors. However, the relationship between the factors is poorly understood, and it is not clear what is the optimal size of the unit to consider. Other sociological approaches consider migrant selectivity along with the characteristics of origins and destinations. Attention is paid to social and familial networks of migrants, especially over the life course. Goldscheider (1987) stresses that migration is profoundly related to social structures on macro and micro levels, varying over time, the life course and socio-economic strata, connected to socio-economic development and subject to political control. Some analyses apply dependency theory to mobility between agrarian and capitalist sectors of an economy, or between core and periphery regions (McGee, 1976). Studies of circular mobility patterns in regions such as in Africa (Mabogunje, 1972) or Southeast Asia (Hugo, 1981) assess whether such movements are traditional practices or symptoms of underdevelopment.

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Child worker sewing soccer balls, Sialkot, Pakistan. Men, women, and above all children produce 40 million footballs each year in this town of 350,000 inhabitants, representing 85 per cent of the world's production. Piero Guerrini/Cosmos

Migration as a phenomenon is difficult to conceptualize and measure. An exclusive focus on 'permanent' moves ignores other types of mobility that may be socially and economically significant, and also calls the definition of 'permanency' into question. For example, past migration analyses did not predict or explain phenomena that are of significance currently, such as the 'metropolitan turnaround' of the 1960s and 1970s, in the US and some European countries. The seemingly inexorable progress of urbanization revealed in migration flows towards cities from rural areas was reversed towards suburbs and outlying areas, attributed to changes in lifestyle preferences and development of means of communication. Similarly, circular migration between rural and urban areas, either seasonally or over the life-course, have been less often considered. Zelinski (1980) proposes a typology encompassing all possible types of mobility patterns, ranging from daily or seasonal commuting to long-term changes of residence.

Population movements to western Europe

Current studies of migration in Europe concentrate more on accurate measurement and reporting of levels, trends and forecasts of largescale population movements across national boundaries than on social science theory. Legal and illegal international migration, especially from less developed to more developed regions is a critical concern to both sending regions, who worry about 'brain drain' or 'brawn drain', and receiving nations, who face problems of assimilation and adjustment of migrants whose cultural and ethnic background is usually very different, and concerns of the local population regarding competition for jobs. Currently, the radical political restructuring in eastern Europe is swelling migration streams from eastern to western Europe (referred to as 'east-west migration') to unprecedented levels. Movement from Africa or Asia to western Europe is known as south-north migration.

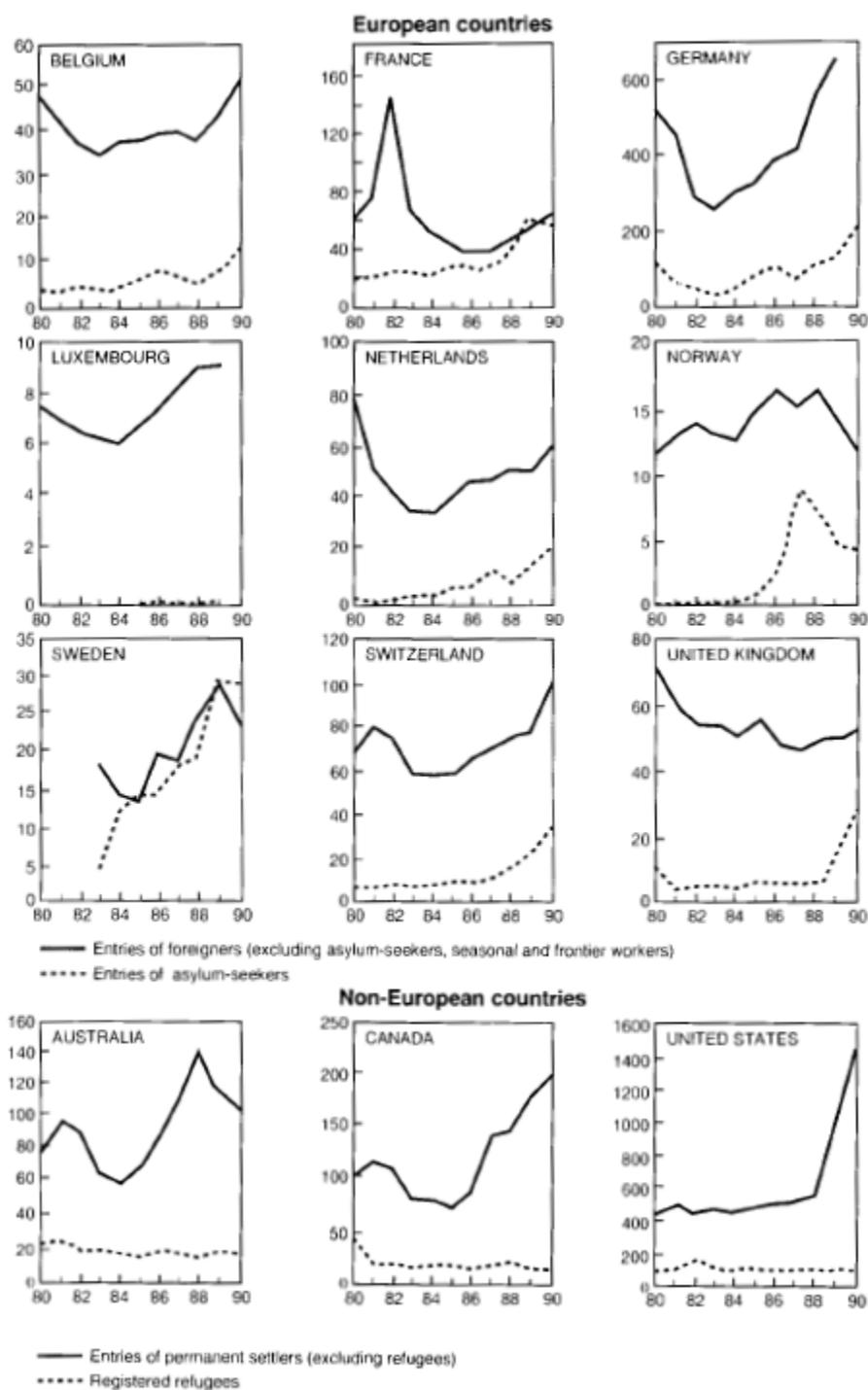


Figure 2. Immigrants and asylum-seekers or refugees in 12 OECD countries, 1980-1990 (000s)
 Source: OECD

European experience with immigration is very different from that of nations who traditionally received immigrants, such as Australia or the US. Within the last 20 years western Europe has shifted from mostly exporting humans to receiving them. For example, Italy was an emigrant

nation for more than a century, but is now receiving migrants from Africa and eastern Europe (Pacini, 1991). Figure 2 presents numbers of immigrants and asylum seekers into various European nations, Australia, Canada and the US.

South-north migration from former colonies to former powers largely appears in the post-colonial era, juxtaposing groups that had hitherto been spatially separated. Since west European regions are experiencing low fertility and a shortage of native-born workers, some countries have legalized guest worker programmes. It is estimated that illegal migration also exists on a wide scale. The EC labour force is estimated to shrink by 5.5 per cent during the next three decades (Ghosh, 1991). The pull factors from the north are intensified by push factors from the south where surpluses of working age population exist, exacerbated by the great difference in standards of living between the regions. Allowing for the varying definition of workers involved, in the 1980s many OECD countries witnessed major rises in the numbers of foreign workers. Switzerland witnessed an increase of 33 per cent, the United Kingdom of 25 per cent. France and The Netherlands of approximately 10 per cent. and Belgium and Sweden about 6.5 per cent (Garson, 1992). In Germany, their number was slightly smaller at the end of the decade than the beginning. However, Austria, Germany, The Netherlands, and Sweden saw an acceleration of immigrant flows largely due to the arrivals of workers' families and asylum-seekers, as well as the endogenous growth of foreign populations. 'Foreign workers' are those who have recently entered the country to work. 'Foreigners' are those who are not natives by descent, since place of birth does not define citizenship. Thus, it is possible to have 'third generation foreigners' in some of these societies. In Switzerland, Luxembourg, Belgium and France, the growth in numbers of foreign workers was higher than that of the total foreign population, due to renewed immigration by foreign workers, naturalization of young foreigners, and return to the country of origin of some foreigners.

Escalating global political conflicts, the epochal political changes after 1989 resulting in the end of the Cold War, new east-west relations, and the lifting of emigration restrictions in former eastern bloc countries have led to flows of refugees or political asylum seekers, resulting in the substitution of the southern immigrant stream by the east-west one (Manfrass, 1992). The majority of refugees and asylum seekers' destination is Germany, as Figure 2 shows (note that the vertical scale for all graphs is not the same: thus Germany in 1992 had approximately 200,000 asylum seekers), originating mainly in Poland, the Balkans and Romania. Ethnic Germans from the former Soviet Union, Poland and Romania also arrive in increasing numbers (397,000 in 1990, compared with 377,000 in 1989) (Manfrass, 1992). The south-north migration stream is not extinguished within Germany by the increasing east-west stream. While Italy and Greece absorb most Albanian refugees, family reunifications of Turkish residents of Germany constitute a significant flow. The German situation is intensified by internal redistributions following reunification, and the nation is currently debating restrictions on its hitherto generous asylum laws.

In France too since 1990, there have been renewed efforts to consolidate immigrant and refugee policies, with the idea that absorption capacity limits have been reached. In addition to influxes from eastern Europe, France may also receive immigrants following the Gulf war, from areas such as Lebanon, Mediterranean Africa, Algeria and Tunisia, exacerbated by the rise of militant Islamic fundamentalism coupled with the generally low level of economic development. Most

planners are pessimistic regarding the chances of a Marshall Plan type aid package to stimulate economic development in these regions to stem the flow of migrants.

As the world goes through periodic cycles of recession, many governments feel a strain on their resources coping with migrant flows, and pressures from native populations resentful of what they perceive as a relative neglect of their own situation. Receiving nations are currently facing heightened unemployment rates which are structural in origin and might not be alleviated by restricting immigration. However, right-wing movements are increasing in size and scope and are not convinced by this fact, as evidenced by the increase in xenophobic attitudes and actions. The immigrant ghettos of French cities are in a situation of intensified social unrest, and the rise of extreme right-wing parties such as the National Front leads to a potential for conflict paralleled in Germany, where neo-nazi youth groups have sprung up in the east.

The issues of absorption and assimilation of immigrants go far beyond economic matters. Their diverse ethnic characteristics pose a challenge to the previously comparatively homogeneous populations of these nations. The concept of a multicultural society as discussed in North American nations for a longer period is seen as increasingly relevant to Europe. However, there is a dualism in receiving countries between immigrants of European and non-European origin (Manfrass, 1992). Gypsies are regarded as being in the latter category, reflecting centuries of prejudice. European immigrants are more easily assimilated into society compared with the other, and the latter consequently are socially isolated with scenarios of conflict becoming increasingly common, such as with Turkish and African workers in Germany and France, posing a tremendous challenge to the governments and populations of western Europe.

Conclusion

This article summarized some of the main issues addressed by social demographers, broadly categorized into fertility, mortality and migration analyses. The empirical focus of demography was stressed and relevant sociological and demographic theories outlined. The discipline of demography rose out of the interface between scholarly analyses of population as a social phenomenon, and the need of politicians and administrators for accurate facts and estimates central to the planning process. Thus, there is an overwhelming emphasis on careful measurement, which led to increasing sophistication of the empirical side of demography.

Mainstream sociology has only recently begun to address population issues, due to a disciplinary preoccupation with macro-societal or social structural issues. Demography in turn initially focused on positivistic assumptions and modernization or functionalist theories, by-passing developments in sociological theory. This situation is now changing. As interdisciplinary approaches are increasingly gaining ground, demography is interacting fruitfully with anthropology, economics, and mainstream sociology through analysis of institutions such as the state, family or gender. Current global changes in society, culture, economy and politics also make different issues important at different times to spur disciplinary development by internal impetus.

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