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## Abstract

This paper extends the prevailing discourse on demographic transition and age-structural change by focusing on urban-rural variations in age-structure within a country. This perspective brings into consideration the role of internal migration in age-structure change and the youth population as the main actor in this demographic phenomenon. With the current youth surge resulting from the demographic transition, a massive geographic redistribution, predominantly from less urbanized to more urbanized areas, of the Philippine population is expected. With the use of the 2000 census data, it is revealed that 10% of youth (aged 15-29) in the less urbanized areas and 19% in the National Capital Region are migrants, i.e., they had resided in another province or municipality five years earlier. More importantly, it is shown that women outnumber men in urban migration: the higher the level of urbanization, the lower is the sex ratio of youth migrants. The age and gender selectivity of migration has important implications for both urban and rural populations. Age dependency ratios are significantly higher in rural areas than in urban areas. While this could be interpreted as a demographic advantage to the urban population, it is clearly a disadvantage to the rural population. Also, migration has resulted in the "feminization" of urban and metropolitan age-structures and possible "masculinization" in certain rural areas of origin. These shifts in age-structure have important demographic and policy implications discussed in the paper.


## Introduction

In the Philippines, as in other parts of the world, population concerns in both academic and policy settings have been strongly influenced by the demographic transition theory. It was to be expected, therefore, that reduction of the growth rate, primarily through fertility decline, became the main interest of population experts in the country. Mortality and migration took a back seat in most demographic efforts. Even with the government's thrust on the population-development nexus, and later the population-development-environment framework (Umali, 1995; Cabrido, 1994; Orbeta, 1994), empirical investigations on population dynamics within these frameworks remained highly concentrated on fertility reduction and population growth.

Despite the focus on fertility and population growth, however, fertility decline in the Philippines has been painstakingly slow. Program efforts were stymied by a "lack of stable consensus" on the part of government and "persistent and consistent opposition by the Catholic Church hierarchy" (Herrin, 2003, p.4). As a result, the demographic transition of the country has been a protracted one. While the Philippines was among the earliest of its Asian neighbors to experience the onset of fertility decline, it will be among the last to complete the demographic transition (Xenos and Kabamalan, 2002).

A concomitant, yet somewhat obscured, feature of the demographic transition is the age-structural transition. Heightened interest on age-structural change initially focused on the unprecedented increase in the number and proportion of the elderly

population, a pressing concern for populations of most developed countries but not quite yet for many of its developing counterparts. For the latter, the focus had shifted to the "demographic bonus" or "window of opportunity" enjoyed (or yet to be enjoyed) by populations that have recently completed the demographic transition. As explained by Bloom, Canning and Sevilla (2003, p. xii), the demographic transition produces "a 'boom' generation—a generation that is larger than those immediately before and after it—that is gradually working its way through nations' age structures." The "bonus" or "opportunity" presents itself when this 'boom' generation advances to the working ages and the population experiences an end to a regime of high child dependency burdens before the onset of increased old age dependency. For this demographic "opportunity" to translate to an economic advantage, however, a suitable policy environment that ensures acceleration of the demographic transition and the productive employment of additional labor is required (Bloom et al., 2003).

Because of its sluggish fertility decline and long-drawn-out demographic transition, the Philippines enjoys no such "demographic bonus" (Herrin, 2003; Pernia, 2003). If fertility trends and the unfavorable policy environment persist, it will miss out on the "window of opportunity" for good. At the same time, the Philippines still has a long way to go before becoming an "old" population. At present, the "elderly" constitute about six percent of total population, and will reach 10% some time in 2020. Nevertheless, as will be shown in this paper, the country's age-structural transition needs close attention for reasons beyond, though not unrelated to, the two just-mentioned phases of age-structural change.

With the Philippines' age-structure as a case in point, we highlight the following considerations:

- Prior to the "final" stage of aging (when persons aged 60 and over comprise 10% or more of total population), a population undergoes the intermediate stage of the "youth bulge," (when proportions and numbers of young adults peak prior to an imminent decline),[1] a stage that calls for intensive study for the following reasons:
- This stage typically ushers in the onset of the "demographic bonus", on proviso that the youth wave is sufficiently large to offset younger age cohorts (i.e., fertility decline has been steep) and appropriate policies are in place. In a decade or two, this youth cohort will advance to mid-adulthood, a stage regarded as the most economically productive in the life cycle.
- The youth cohort is the most demographically potent force to reckon with as far as population dynamics is concerned because of:
    - its significance on fertility – this is the group mainly responsible for population momentum and subsequent age waves
    - its significance on migration, particularly rural-urban migration – since the propensity for geographic mobility is most pronounced during this stage of the life cycle and, more importantly, typically selective of a specific gender
    - its significance on labor force and human capital

[1] In this study we define youth as the population aged 15-29 years, a definition used by the National Youth Commission of the Philippines and deemed appropriate in labor force related studies.

    - recent transformations in the social composition of youth, with emphasis on the urban youth, which again have a direct bearing on fertility, mortality and migration.
- Increased geographic redistribution of population could induce further age-structural changes at the subnational level. Hence, even if there are no dramatic perturbations in the age-structural transition at the national level (as is the case for the Philippines), a different and more complex process may be taking place at the subnational level. This is apparent, for example, in the differences in the age-structure of urban and rural areas.
- With respect to policy, age cohort sizes and trends clearly have a direct and immediate link to social and economic development. Programs and services are usually targeted for specific age groups and stages of the life cycle. Moreover, there is need for policy to be sensitive to geographic and sectoral differences in cohort sizes, characteristics and trends.

All these considerations point to a unique demography of youth which, in turn, may have profound implications on age-structure changes at the national and subnational levels. In exploring this demography, we bring to the forefront the role of migration, a demographic process that has yet to be satisfactorily endogenized in demographic transition theory and, thus, in the age-structural transition.

**Research Goals**

We extend the prevailing discourse on demographic transition and age-structural change in two ways. First, we examine spatial variations in age-structure within a country by considering urban and non/less-urban areas separately, and looking at patterns in specific "highly urbanized areas." This brings into consideration the migration element of age-structure change that is all but mute at the national scale. It also focuses attention on the youth as that life stage with a strong propensity to migrate. Second, we examine compositional differences within the age group of interest, i.e., the youth cohort.

These extensions prove to be very important in the case of the Philippines. We extend the story of Philippine migration trends and selectivities through the end of the 20$^{th}$ century using newly available 2000 Census data. We examine these trends and selectivities for urban youth in the National Capital Region (Metro Manila), in other highly urbanized cities outside the national capital, and in the remaining less-urbanized sector of the country. We then disaggregate the urban youth populations along age, sex, marital status, schooling, work and family dimensions for a more refined, albeit preliminary and partial, description of youth demography. The total picture suggests a broader model of Philippine demographic and age-structural change and at the same time provides a level of specificity needed for a sharper perspective on economic and welfare policy issues.

**The Philippine Demographic and Age-structural Transitions**

The onset of fertility decline in the 1960s heralded the beginning of Philippine's demographic transition (Xenos and Kabamalan, 2002). However, given recent and current trends in fertility, this transition is far from over. Between 1970 and 1996, the total fertility rate of the Philippines had decreased from 5.97 to 3.73 births (Figure 1).

Significant declines observed in the 1970s and 1980s, failed to gain momentum in the 1990s. With this slow decline, the Philippines is not expected to attain replacement level fertility before 2010 (Marquez and Westoff, 1999) but more likely in a decade or two thereafter (Table 1).[2] Intercensal growth rates echo this dilatory movement. After reaching a maximum of three percent in the 1960s, growth rates gradually declined in the next two decades but hovered above the two percent level since then (Figure 2). The latest census pegged the annual growth rate for 1990-2000 at 2.3 percent.

Consequent to this trend, and thus the expectation that the Philippines is still in the medium variant growth track in national and UN population projections, a slow structural aging of the population is predicted. The median age of the Philippine population was 19.7 years in 1990, and 21.0 years in 2000; it is expected to rise to 26.5 in 2015 and 28.4 years in 2020 based on the medium series projections of the Philippines' National Statistics Office (NSO) (NSO, 1997; NSO, 2002). Population pyramids drawn from UN projections for 1995, 2015 and 2050 likewise demonstrate this gradual aging process (Figure 3).

A distribution of the population by broad age categories as shown in Table 2 reveals the following features of the country's age-structural change up to year 2020: (1) the proportion of people under age 15 is declining, but their absolute number continues to rise until a reversal is apparent after 2010; (2) the elderly population (age 60 and above) has doubled in number since the 1970s and could triple in this decade, but will not reach the 10% mark before 2020; (3) the proportion of youth (aged 15-29) has reached its peak and is now gradually on the decline, even as their numbers continue to rise until 2020; and (4) older adults (age 30-59) are continuing to increase in number and proportion.

From the foregoing it is evident that the Philippines continues to experience a surge in its youth population concomitant with significant increases of the middle-aged population. Xenos (2003) estimates that the youth population (aged 15-24) will increase by as much as 259% in the 66 years that the Philippines will take to complete its demographic transition. Had it not been for this exceedingly slow passage through the demographic transition maintaining relatively high child dependency ratios up to recent times, the youth surge would have taken the Philippines into the threshold of a "demographic bonus". However, with shortcomings in population and economic policies, this "bonus" has not materialized thus far. Nonetheless, the ongoing shift in age structure now poses the immediate and continuing challenge of providing adequate economic opportunities, resources and services to an unprecedented number of people in the productive ages, a challenge that the Philippine economy is ill equipped to face (Orbeta, 2002) caught, as it is, in what economists call a low-level equilibrium trap (Pernia, 2003, p.2).[3]

**Age-structure at the Subnational Level**

[2] With respect to mortality, life expectancy at birth for men increased from 51.0 years in 1960 to 62.2 years in 1990; for women it was 54.5 years in 1960 and 67.4 years in 1990 (Flieger, Abenoja & Lim, 1981; Flieger & Cabigon, 1994).

[3] Pernia (2003) describes this low-level equilibrium trap as "a chain of low economic growth, high unemployment, low productivity, persistent poverty, declining human capital, and high fertility feeding back into low economic growth, high unemployment, low productivity and so on and so forth."

While the country as a whole is experiencing a relatively smooth and gradual shift in age-structure (see Figure 3), the same may not be true for geographic and sectoral components at the subnational level. For example, differences in age-structural patterns are noticeable when urban and rural populations are compared. First, one must consider that fertility rates are lower in urban areas than in rural areas. The National Demographic and Health Survey of 1998 reported that rural women had 1.7 more births on average compared to their urban counterparts. They were marrying earlier and having their first child two years earlier than urban women (NSO, 1999). Second, it is generally recognized that, while birth rates in rural areas exceed those of urban areas, rural children will likely leave their birthplace and move to the cities when they reach adolescence or young adulthood. Such is the pattern suggested in the population pyramids presented in Figure 4.

Comparing the 1990 age-structure of the urban population with that of the rural population (1st panel of Figure 4), Flieger (1996) demonstrated the long-term effects of reduced fertility on the urban age structure. From the same demonstration, another fact emerged: there were more people of ages 15-45 residing in urban areas than in rural areas. This difference cannot be attributed entirely to declining levels of urban fertility; it is primarily the result of the migration of young adults from rural to urban areas. Moreover, the urban "excess" is predominantly female, particularly for age groups 15-29. That rural-urban migration in the Philippines is selective of young women has long been established by Smith (1977) and other demographers (e.g., Flieger, 1977; and more recently, Gultiano & Urich, 2000), a pattern true also for other Southeast Asian countries and Latin America (Hugo, 1999; Skeldon, 1990). However, as will be explained below, this female selectivity in Philippine migration did not become apparent until the second half of the 20th century.

The age-structural differences between urban and rural areas remain in evidence in 2000 (2nd panel of Figure 4). Although the 2000 Census has not yet provided a disaggregation of the Philippine population by urban-rural sector per province, it permits disaggregation by so-called "highly urbanized areas" (HUA) in the country.[4] In Figure 4, the 2000 population pyramid implies a persistence of age and gender selectivity in rural-urban migration. It differs from the 1990 urban-rural age-structures only in the hint of a possible convergence of the proportion of the population in the youngest age group (0-4 years old) between highly urbanized and less urbanized areas.

We present additional examples of age-structural differences for selected regions and provinces of the country (Figure 5). Further, we show how these existing structures (in 1995) are expected to change in the future (2020). The National Capital Region and the province of Rizal provide examples for the highly urbanized sectors of the country; the provinces of Marinduque and Southern Leyte represent the less urbanized (predominantly rural) sectors. It is evident from these diagrams that age-structural change for these geographic entities will not be as smooth as that of the country as a whole. Although the age-sex distribution for 2020 is derived from a specific set of fertility, mortality and migration assumptions, it can be surmised from the 1995

[4] HUA consists of highly urbanized cities defined by NSO as having a population of not less than 200,000 and with the latest annual income of at least 50 million pesos based on 1991 constant prices. For all practical considerations, this study regards the National Capital Region (NCR) as the most highly urbanized area among the HUA.

pyramids that migration, especially of the youth, exerts a strong influence in shaping these distributions. It is generally expected that migration effects on age-structure transition are more pronounced at the subnational level rather than the national level (Pool, 2004, p.5).

In the next section we turn our attention to the historical and contemporary trends of internal migration in the Philippines. Following that, we focus on youth migration and the social composition of youth migrants as glimpsed from 2000 Census data. Possible implications of youth migration patterns are discussed in the concluding section.

**Internal Migration in the Philippines**

As shown earlier, the differences in age-sex distributions between urban and rural (or less urbanized) areas are indicative of youth and female selectivity in urban migration. This has been the general pattern of migration in the country from the 1960s through the end of the century. However, migration literature is quick to remind us that this has not always been the prevailing pattern in the past. Male-dominated, frontier migration was the predominant pattern in earlier times. This was especially so at the time when land-rich Mindanao in the south was opened to land-deprived inhabitants in the northern island-provinces of the Visayas. As the Mindanao and other frontiers developed and urbanized, however, female migrants into these areas gradually increased, eventually comprising the majority of young frontier migrants as well (Eviota and Smith, 1981). Today, the preeminence of women in Philippine migration, including international migration, is a given. Nevertheless, a more detailed investigation of the social characteristics and age patterns of female migrants vis-à-vis non-migrants and their male counterparts remains much to be desired.

It is worthwhile noting that the reversal from frontierward to urbanward migration and, concomitantly, from male- to female-dominated migration occurred at about the same time the demographic transition began in the Philippines. This development is not quite in pace with Skeldon's mobility transition model where female participation in migration gains prominence only in the intermediate phase of the demographic transition (Skeldon, 1990, p.112), nonetheless, and in consideration of the various qualifications that accompany Skeldon's model, it is possible that from an evolutionary perspective there may indeed be a link between migration patterns and the demographic transition in the Philippines.[5] If and how this is the case needs further study.

Much of the literature on internal migration in the Philippines is a result of the analysis of census and survey data in the 1970s and 80s. The 1960 and 1970 censuses provided indirect data on migration by comparing a person's place of birth (for lifetime migration) or residence ten years ago (for period migration) with current residence; the 1973 National Demographic Survey provided data on the characteristics of migrants. In the 1990s, however, most of the interest on migration shifted to international migration, creating a dearth of knowledge on more recent

[5] Skeldon (1990) provides a modified version of Zelinsky's (1971) mobility transition model and it is Skeldon who brings gender explicitly into his model. Both models present a description of a spatial-temporal link between the demographic and mobility transitions in the context of modernization.

patterns and trends in internal migration. From the earlier studies, a review has been provided by Herrin (1981) from which we select the following salient points:

- Up to 1960, lifetime migration was characterized by long distance movements; it was unidirectional, frontierward and male-dominated. Distance was not a deterring factor in migration, especially among young migrants. With respect to sectoral flows, rural to rural migration was most prominent, followed by rural to urban, and rural to metro to a much lesser degree.
- In the 1960s and 1970s, long distance movements prevailed but destinations and social composition of migrants changed; the metropolitan pull and the predominance of women became evident; counterstreams to the dominant ones also became apparent. Sectoral flows ranked in significance as follows: rural to urban, rural to rural, rural to metro, urban to rural, and metro to metro.
- Age structure, measured as the proportion of population aged 20-29 at place of origin, was positively related to interregional, long distance moves.
- Level of education was found to increase the probability of rural to urban migration for both males and females, but more prominently for males in rural to metro moves; it decreased the probability of urban to rural migration for both sexes and from rural to rural for females.
- Economic factors (income potentials) prevailed in the decision to migrate; once the economic criterion was met, family-related factors played a key role in the choice of destination.
- Older and more educated migrants were less likely to return to their places of origin.
- With respect to occupational differentiation by migrant status and sex, the study of Eviota and Smith (1979) revealed the following:
    - Native women were more likely to be working in high prestige occupations while their migrant counterparts were mostly working in the service and domestic sector
    - Educated male migrants were more likely to be in white collar and craftsmen positions while relatively educated female migrants remained largely in the service sector - that is, until a fairly high level of education (tertiary) was attained.

Although all these studies point to the importance of the youth cohort in migration, they do not give focus on the youth as migrants. A recent study on "Demographic Forces Shaping Youth Populations in Asian Cities" by Xenos (2003), however, brings to the fore the significance of youth urban migration in four countries of Asia, including the Philippines. Another study, commissioned by CICRED and FAO on "Population Dynamics, Land Availability and Adapting Land Tenure Systems" in the Philippines (Gultiano, Urich, Balbarino & Saz, 2003), provides a complementary focus by giving emphasis to the deficit of youth in the rural areas as a result of migration. Both studies present estimates of net migration for the youth age range and provide further evidence of urban/metropolitan destinations and female selectivity in youth migration. The paper of Xenos is particularly relevant because it situates youth urban migration in the context of the demographic and age-structural transition (i.e., as age wave). It also provides an analysis of the changing social profile of the urban youth, notably the shift to late marriage and increasing school participation of youth. The paper, however, makes no direct comparison between migrant and non-migrant youth. With the recently available census data, we now provide the preliminaries for

this comparison, although we are unable, as yet, to include a historical context for this comparison.

**Urban Migration of the Filipino Youth in Recent Times**

As in previous censuses, migration information from the 2000 Census used in this study is culled from information on current place of residence (province and municipality) and residence five years ago (1995). Residence five years ago was obtained only for persons aged five years and older. Unlike the previous censuses, a person's place of birth was not asked during the 2000 Census; hence no analysis could be made with respect to lifetime migration. In this section, we confine our study of migration to 5-year youth migrants, i.e., we define as migrants those whose current province or municipality of residence is different from that of 1995.[6] We define youth as those belonging to the age range 15-29. Also, as explained earlier, the 2000 Census does not provide an urban-rural classification of populations. We, therefore, disaggregate populations by "highly urbanized areas" (hereafter referred to as HUA) and "less urbanized areas" (NON-HUA). In most cases, the former is further disaggregated into the National Capital Region (NCR) or Metro Manila, and "highly urbanized cities outside NCR" (ONCR). Given these definitions—constrained by the nature of the census data—the following caveats are stipulated: 1) migrants include all persons who transferred residence from one province/municipality to another within the last five years; therefore, their previous place of residence could be either urban or rural, and 2) while NCR is 100% urban, ONCR has segments of rural populations in its peripheries; NON-HUAs, on the other hand, has small segments of urban populations in the provincial capitals and town centers. Consequently, this study on urban migration of youth examines all types of youth migrants who, at the time of the census, were then residing in entirely or predominantly urban agglomerations, or in a predominantly rural one. Comparisons can therefore be made between migrant and non-migrant youths within, as well as between, these agglomerations.

Before we examine migration of youth in 2000, a general description of the Philippine population by urban typologies is in order (Table 3). The Philippine's household population numbered 76.3 million in 2000; 9.9 million (13%) resided in Metro Manila, 6.1 million (8%) in highly urbanized cities outside Metro Manila, and 60.3 million (79%) in the less urbanized areas.[7] NCR had the lowest proportion of population under 15 years old (32.0%), while NON-HUA had the highest (38.1%). Similarly, the proportion aged 65 and over was lowest for NCR (2.9%) and highest for NON-HUA (4.1%). In contrast, the youth share (aged 15-29) and proportion of older adults (aged 30-64) were highest for NCR (30.6% and 34.5%, respectively) and lowest for NON-HUA (26.9% and 30.9%). ONCR ranked midway between NCR and NON-HUA. Given these age distributions, age dependency ratios were highest in NON-HUA (72.9) and lowest in NCR (53.6).[8] Over 90% of the dependents were children.

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[6] We attempted to identify rural to urban/metropolitan migration but a high percentage of NR and DK responses for province and/or municipality of residence 5 years ago (over 50% of migrants) made the exercise futile at this point.

[7] These figures, and all others presented in this section, are inflated values obtained from a 10% sample of the 2000 Census data and could vary slightly from published data.

[8] From hereon, it helps to bear in mind that NON-HUA constitutes a heterogeneous group of geographic and social aggregates and may well hide a wide range of variability in its estimates.

When sex distributions in these age groups are examined (Table 3), a pattern of sex ratios consistent with urban migration selectivities discussed earlier is brought to light: 1) males exceeded females in all but the oldest age group (aged 65 and over) in the NON-HUA, 2) females outnumbered males in the youth and older ages in the HUA, and 3) the deficit of males (or excess of females) was most prominent among the youth in NCR. What is being observed, therefore, is a "feminization" of the urban age structure, particularly in Metro Manila, presumably as a result of disproportionately large transfers of female youth from less to more urbanized areas.

The departure of young women from less urbanized areas appears to obscure the fact that fertility is higher in rural than in urban settings. The proportion of children under five years old in NON-HUA is not considerably higher than that of the HUA (as illustrated also in the population pyramid comparison for 2000), but when the child-woman ratio is computed, the expected fertility differential is upheld (Table 3).

In 2000, the youth constituted 27.6% of Philippine population; their number reached 21 million, 16 million (77.0%) of which were residing in NON-HUA, three million (14.4%) in Metro Manila, and close to two million (8.6%) in HUA outside Metro Manila. Migrants constituted 11.9% of the youth, with the proportion considerably higher for NCR (18.8%) and for females across all urbanization categories.

If migrants are examined by age group, the concentration of migrants in the youth ages (15-19, 20-24, and 25-29) is evident, especially in the HUA. There is one exception, however: migrants aged 5-9 years are considerably larger in proportion compared to youth migrants. With no data permitting a detailed investigation, one can only presume that these children had migrated with their parents. Voluntary migration, however, appears to be the prerogative of youth.

The sex composition of youth migrants is highly consistent with expectation, i.e., women dominate urban migration (sex ratio of 82.2), and NCR attracts the largest proportion of women relative to men (sex ratio of 74.3). In addition, two qualifications bear noting; across all age groups under age 65: 1) the male deficit among migrants is most pronounced for age group 15-19 in the HUA (sex ratio of 67.8), and age group 20-24 in the NON-HUA (sex ratio of 80.8), and 2) male migrants begin to outnumber their female counterparts in the older ages (35-54) in the NON-HUA. This observation accentuates teenage women's attraction to metropolitan destinations. Among middle-aged men, less urbanized destinations seem to be the choice.

In other studies (Xenos, 2003; Xenos and Kabamalan, 2002), it has been shown that the social composition of youth has changed dramatically over time. Especially in urban and metropolitan settings, increasing proportions of youth are postponing marriage (remaining single) and attending school. Labor force participation rates, however, show divergent patterns depending on age, sex, urbanization category and the country under study. In a preliminary fashion, we examine these and related characteristics for migrant and non-migrant youth by sex for year 2000 and present the following results (Table 4):

1. Contrary to expectations, migrant youth, in general, were more likely to be married (40.3%) than their non-migrant counterparts (32.5%),[9] with the exception of female migrants in the HUA who had slightly lower marriage rates than non-migrants. This result may partly be an artifact of the data, given the caveats stated earlier. Furthermore, marital status was asked in reference to the time of interview and not the time of migration; it is not known, therefore, whether marriage had taken place before or after migration. It helps to bear in mind that marriage is one of the more common reasons for residential movement. As expected, marriage rates were uniformly higher for females than males although the gap tended to diminish at higher levels of urbanization. The marriage rate for migrants was highest in the NON-HUA; curiously, it was lowest for ONCR and not for NCR.

2. Contributing perhaps to high marriage rates among youth in NCR is the fact that cohabitation is more common in the metropolitan area than in other urbanized and less urbanized areas. It is also observed that cohabitation is more common among migrant than non-migrant youth. Nearly one in every four married migrant youth in NCR was cohabiting.

3. More migrants (69.6%) than non-migrants (54.6%) reported having an occupation. For females, the proportion working was highest in NCR and lowest in the NON-HUA. For males, the proportion working was lowest in ONCR rather than in the NON-HUA.

4. Regardless of their age and sex, non-migrant youth had higher enrolment ratios (40.0%) than migrant youth (25.7%). While migrants were more preoccupied with work, non-migrants, particularly in the younger ages, were preoccupied with schoolwork. Although there appears to be no pronounced sex differentials in enrolment ratios among the youth, there are indications that for migrants aged 15-19 in the HUA, more males than females were studying. Apparently, migrant women in this age group and urbanization category preferred to work.

5. In general, high school completion rate was higher among non-migrants (47.6%) than migrants (44.6%), except for the oldest age category (25-29) in the NON-HUA where completion of high school was more common for migrants than non-migrants. Relatively more females (51.1%) than males (43.5%) completed high school, regardless of their migration status. Completion rates were also positively associated with level of urbanization, i.e., they were highest for NCR.

6. Completion of college shows a slightly different picture. Non-migrants retained their edge over migrants only in the HUA. In the NON-HUA, especially among older youth (aged 25-29), more migrants, male and female, had completed college compared to non-migrants.[10] As expected in the Philippines, more women (5.9%) than men (3.8%) had a college degree; among those aged 25-29, the corresponding figures are 10.5% and 7.4%,

[9] Marriage, as defined here, includes legal unions as well as common-law/live-in arrangements.
[10] Many of this youth had probably moved to the nearest city for the purpose of pursuing a college education and remained there in search of jobs after graduation.

respectively. NCR showed no distinct advantage over ONCR insofar as completing tertiary education among the youth is concerned.

7. Some 29.2% of female and 10.6% of male youth were neither working nor studying (idle). Migrant youth, in general, were less likely to be "idle" than non-migrants. The highest proportion of idle youth was found in the NON-HUA, the lowest, in NCR. It is important to take marital status into account in these observations. Separating out married from single youth, the data show that 15.3% of single females and 12.9% of single males were neither working nor studying. Among those who had married, as high as 50.2% of females and a low of 4.8% of males were in this category. The proportion idle remains consistently higher for non-migrants compared with migrants. It decreases with level of urbanization for all youth, regardless of their marital or migration status. Among the single youth, the proportion idle is slightly higher for men than for women in the HUA, but the opposite is true for the NON-HUA.

8. More females (6.9%) than males (3.7%) were employed as domestic workers. These proportions are higher for migrant youth than for non-migrants. The highest proportion of domestic workers is found among female migrant women in ONCR (14.1%); NCR only ranked second (10.7%). A similar pattern is observed for the youth working in "elementary" occupations.[11] In both instances, migrant females were the most likely to be selected into these occupations.

9. With respect to managerial, supervisory, and professional occupations, women, in general, had an advantage over men (8.4% vs. 4.7% of all working youth, and 15.8% vs. 7.9% of those aged 25-29). This advantage, however, was the prerogative of non-migrant women in the HUA. Migrants, both men and women, in the HUA were less likely to be working as executives or professionals. The situation is slightly better for migrant males in the NON-HUA: more of them were working as executives/professionals than their non-migrant counterparts; however, the overall level of male executives and professionals in this category is quite low (4.5% of migrants and 3.3% of non-migrants who are working).

10. With respect to household and family arrangements, most youth (85.2%) belong to the nuclear family of the household head. However, fewer migrants (69.1%) than non-migrants (87.3%) fall in this category, especially among female migrants in NCR. In fact, a large proportion of female migrants in the HUA (22%) is not related to the household head. This fraction is remarkably high for the youngest age group 15-19 (30.6% in ONCR and 28.6% in NCR). As mentioned earlier, large proportions of young female migrants in these areas work as domestics or in "elementary" occupations (including sales).

11. It is also of interest to describe the households of youth (data not shown):

[11] Elementary occupations, as defined by the census, include low-status, low-paying, frequently intermittent jobs in the service sector, including market/ambulant vendors, domestic helpers, cleaners, messengers, and various types of laborers.

- Two out of every three households in the country had at least one youth as resident; one in every ten had a migrant youth.
- In the HUA, the proportion of households with a migrant youth was expectedly higher: 12% in ONCR and 16% in NCR.
- Households with migrant youth were more likely to have a younger, unmarried head than households without a migrant youth.
- Households with migrant youth were likely to be of higher socioeconomic status than other households (i.e., they had a higher proportion of heads who were high school or college graduates and had a managerial/ supervisory/professional job). These households were most prominent in the HUA.
- Households of migrant youth were also likely to be headed by a migrant, and more likely to move or change residence in the future.
- Households of migrant youth had fewer members under age 15 and over age 64; they had fewer members who were studying and more members who were working.

**Discussion**

Compared with most other Asian countries, the Philippines' journey through the demographic transition has been extremely slow. Replacement level fertility is not expected to be attained before 2020. Yet, because fertility had started its descent some 40 years ago, age-structural changes of the population is underway. The country has experienced a surge in its youth population and will continue to do so for some time. Although the proportion of youth in the population has started to decline, the number of youth will still be increasing up 2021.

For some Asian countries, the experience of the youth bulge brought with it a "window of opportunity" for rapid economic growth as the proportion of their economically active population markedly increased concomitant with a precipitous decline in the proportion of children. It has been estimated that the demographic bonus "contributed as much as one-half of recorded growth in Southeast Asia and about one-third in East Asia between 1965 to 1990" (Orbeta, 2003, p.2).[12] Such is not the case for the Philippines, however. Because fertility remains at relatively high levels, dependency burden remains high, and no perceptible economic gains can be made of the youth surge. High unemployment rates are exacerbated by increasingly large of numbers of young people entering the labor force. With the persistence of poverty and high fertility, investment in human capital has declined. All these translate to a cycle of low productivity, low economic growth, high unemployment, and so on. This clearly shows that a healthy economy is a requisite for transforming the potential benefits of age structural change into reality. In the case of the Philippines, there is neither this demographic nor economic advantage.

Perhaps a more disturbing feature of the country's age-structural transition is the youth dynamics hidden behind the "youth bulge". The Philippines now has a tradition of female-dominated urbanward and metropolitan movement of youth. In the context of the youth surge, the result for the country is an augmentation of the youth population in the urban setting (particularly in metropolitan areas). More importantly,

[12] More conservative estimates are mentioned in Bloom et al. (2003, p.45)

this “augmentation” is biased in favor of women. A “feminization” of the urban age-structure has ensued, and in some instances possibly a “masculinization” in the places of origin.

This feminization of the urban population as a result of migration has important demographic implications. The cohort size of childbearing women in the urban areas could grow substantially thereby increasing momentum effects on growth in these areas. The converse, on the other hand, will be true for the rural areas.

It has been observed that migrants tended to be married or to marry earlier than non-migrants. Although this is true for all male migrants regardless of their areas of destination, it is not the case for migrant women in the metropolitan areas. These women tended to postpone marriage as did their non-migrant metropolitan counterparts. Whether these migrant women will adopt low-fertility childbearing practices when they marry remains to be seen, however. As noted, migrant women had lower educational attainment than non-migrants, a characteristic hardly advantageous for lowering fertility.

Another implication of the dominance of women in the urban sector is on aging. Assuming that the desire to return to place of origin diminishes with age and educational attainment as observed in earlier studies, then many of these migrant women will opt to stay in the urban areas and grow old there. Moreover, as depicted by data, female selectivity in urban migration persists even beyond the youth ages. Given that life expectancy is higher for women than men, the urban sector would do well to anticipate the needs of a disproportionately large and growing number of elderly women.

A more immediate concern of the urban sector, however, relates to employment. Migrants, particularly women, are still generally confined to low-paying jobs in the service or domestic sector. They also have lower school participation and completion rates than long-time residents. Two decades ago, Eviota and Smith (1981) lamented government’s lack of sensitivity to the plight of migrant women and their place in the urban labor market. To this day, no significant improvements in this area are visible. These women, no doubt, stand a lot to gain if programs directed at enhancing their skills, education, employment rights and benefits, and personal autonomy were put in place. Some mechanism, however, needs to be devised to reach these women in the most effective way.

Thus far, this paper has been relatively silent on the consequences of youth migration in rural and less urbanized areas. As this study and an earlier study of CICRED in the Philippines have shown (Gultiano et al., 2003), places of origin, especially in the rural areas, may be experiencing high dependency ratios concurrent with a deficit of youth due to urban migration. The deficit, however, is more conspicuous for women than men. The implications of this youth deficit for the agricultural sector are far-reaching. Agricultural productivity in the country needs a boost as much as its general economy does. This may not be forthcoming if rural areas are left with children and old people, or with a less educated, low-initiative labor force. It is possible that a more effective agrarian reform program could help slow down the exodus of youth from rural areas—assuming that land tenure security leads to increases in productivity and income—but agrarian reform implementation in the Philippines has been dismal. The

Comprehensive Agrarian Reform Program (CARP) is wrought with virtually insurmountable political, economic and cultural barriers. This is unfortunate because, among other reasons, youths who do not have the necessary means, education or skill to migrate to the cities find themselves farming in public and protected lands resulting in the degradation of the environment (Gultiano et al., 2003). Other avenues for rural development must therefore be pursued, such as revitalizing non-farm and off-farm employment. Many agricultural households draw income outside of agriculture. If income opportunities for the young in the rural areas are improved, the push factor for migration can be mitigated. This is important because "migrants responding primarily to minus factors at origin tend to be negatively selected" (Lee, 1966, p.56) and negative selectivity does not bode well for the life chances of migrants in urban destinations.

There is also the issue of remittance benefits to be gained by rural households from urban migration. This has been found, even in the Philippines, to be fairly insignificant. Remittances more often find their way to conspicuous consumption rather than investment in land or human capital. In cases where rural folks send their children to the cities for a college education, the flow of resources is even in the opposite direction. But perhaps a redeeming factor of female-dominated urban migration is that, in the Philippines, women, more than men, are likely to send back remittances to their rural families. These women, as well as their male counterparts, should be encouraged to maintain ties with their rural origins, especially if the relatives they leave behind are the children and the elderly. This can be facilitated by improving communication and transportation infrastructure in the rural areas. Infrastructure development will also promote commuting and circular migration, processes anticipated to become more pronounced in the advanced stages of the mobility transition (Skeldon, 1990, p.112).

After all this is said, the question still remains: what is the future of the age-structure of the Philippine rural population. Will the rural population stagnate or decline as more young women leave the area? Or will high fertility continue to compensate? Also, given the economic and personal insecurities faced by young migrant women in the metropolitan areas (e.g., intermittent and low-paying jobs, high incidence of cohabitation), will child fostering (by grandparents in the rural areas) become a common and acceptable practice? To what extent, if at all, will this practice affect dependency burdens in the rural areas? With considerable reservations, one may perhaps suggest that, owing to youth migration, the current urban or metropolitan age-structure in the Philippines approximates conditions of a "demographic bonus". If this were so, one would therefore ask: are the appropriate policies in place to enhance and exploit this urban demographic advantage? And what does this "bonus" mean if it is obtained at the expense of the rural population? How then ought policy to address these urban-rural demographic disparities and the positive and negative consequences they bring? Obviously, more studies are needed to answer these questions.

**References**

Bloom, D., Canning, D. & Sevilla, J. (2003). *The demographic dividend: a new perspective on the economic consequences of population change*. RAND, Santa Monica, CA.

Cabrido, C. (1994). *Integration of population dimension in the environment and natural resources management sector: planning framework, tools and techniques, and illustrative cases*. National Economic and Development Authority, Manila.

Eviota, E. and Smith, P.C. (1981). *The migration of women in the Philippines*. Working Papers No. 13. East-West Population Institute, East-West Center, Honolulu.

Flieger, W. (1977). Internal migration in the Philippines during the 1960s. *Philippine Quarterly of Culture and Society.* 5:199-231.

Flieger, W. (1996). The Philippine population 1980-1990: selected demographic and socioeconomic characteristics. *Journal of Philippine Development.* 232:209-210.

Flieger, W., Abenoja, M. & Lim, A. (1981). *On the road to longevity*. University of San Carlos Publications, Cebu City.

Flieger, W. & Cabigon, J. (1994). *Life table estimates for the Philippines, its regions and provinces by sex: 1970, 1980 and 1990*. Department of Health, Manila.

Gultiano, S. & Urich, P. (2000). Exploring the implications of the 'youth bulge' on the agricultural sector in the Philippines. Paper presented at the IUSSP/APN Conference on "Age-structural transitions and policy implications" in Phuket, Thailand, 8-10 November 2000.

Gultiano, S., Urich, P., Balbarino E., & Saz, E. (2003). *Population dynamics, land availability and adapting land tenure systems: Philippines, a case study*. FAO and CICRED, Paris.

Herrin, A.N. (1981). *Population and development research in the Philippines: a survey*. National Economic and Development Authority, Manila.

Herrin, A.N. (2003). Lack of consensus characterizes Philippine population policy. Policy Notes No. 2003-03, Philippine Institute for Development Studies, Manila.

Hugo, G. (1999). *Gender and migrations in Asian countries*. IUSSP, Paris.

Lee, E.S. (1966). A Theory of Migration. *Demography*. 3, 1:47-57.

Marquez, M.P. & Westoff, C. (1999). *The two-child norm in the Philippines.* Macro International Inc., Calverton, Maryland.

National Statistics Office (1997). *1995-census based national and regional population projections*. Vol. 1, Manila.

National Statistics Office (1999). *Philippine National Demographic and Health Survey 1998: summary report*. Manila.

National Statistics Office (2002). *2002 Philippine yearbook*. Manila

Orbeta, A. (1994). *A planning framework for social development*. National Economic and Development Authority, Manila.

Orbeta, A. (2002). Population and poverty: a review of the links, evidence and implications for the Philippines. Discussion Paper Series No. 2002-21. Philippine Institute for Development Studies, Manila.

Orbeta, A. (2003). Population and the fight against poverty. Policy Notes No. 2003-04, Philippine Institute for Development Studies, Manila.

Pernia, E.M. (2003). Population: does it matter? Revisiting an old issue. Policy Notes No. 2003-02, Philippine Institute for Development Studies, Manila.

Pool, I. (2004). Of "demographic dividends", "windows of opportunity" and development: age-structure, population waves and cohort flows. Paper presented at the CICRED seminar on "Age-structural transitions: population waves, disordered cohort flows and the demographic bonus" in Paris, 23-26 February 2004.

Skeldon, R. (1990). *Population mobility in developing countries: a reinterpretation*. Belhaven Press, London

Smith, P. (1977). *The evolving patterns of interregional migration in the Philippines*. East-West Population Institute Reprint No. 104, 16(1-2)

Umali, N.R. (1995). *Integrating the population dimension in agricultural development planning*. National Economic and Development Authority, Manila.

Xenos, P. & Kabamalan, M. (2002). A comparative history of age-structure and social transitions among Asian youth. *Population Series*, No. 110, East-West Center Working Papers.

Xenos, P. (2003). Demographic forces shaping youth populations in Asian cities. Paper prepared for the Forum on Youth, Poverty, and Conflict in Southeast Asian Cities, Pathumthani, Thailand, April 8-9, 2003.

Zelinsky, W. (1971). The hypothesis of the mobility transition. *Geographical Review*, 61:230-231

**Table 1. Indicators of youth demography during demographic transition: countries of Asia**

| COUNTRY | Onset of fertility decline (date) | Duration of the demogra-phic transition (years) | Peak youth growth rate (date) | Peak youth share of total population (date) | Peak youth population number (date) | % growth of the youth population during the demographic transition |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Singapore | 1959 | 16 | 1969 | 1978 | 1980 | 112 |
| Hong Kong | 1960 | 20 | 1970 | 1950 | 1980 | 220 |
| South Korea | 1962 | 23 | 1974 | 1980 | 1981 | 83 |
| Sri Lanka | 1962 | 43 | 1975 | 1980 | 2002 | 90 |
| Philippines | 1963 | 66 | 1974 | 1977 | 2021 | 259 |
| Brunei | 1965 | 55 | 1970 | 1980 | 2012 | 443 |
| Taiwan | 1965 | 18 | 1960 | 1980 | 1980 | 54 |
| Malaysia | 1966 | 49 | 1970 | 1980 | 2015 | 194 |
| Thailand | 1968 | 32 | 1973 | 1986 | 1992 | 109 |
| China | 1969 | 21 | 1984 | 1987 | 1989 | 97 |
| Indonesia | 1970 | 40 | 1974 | 1992 | 2005 | 104 |
| India | 1973 | 47 | 1977 | 1984 | 2014 | 106 |
| Myanmar | 1976 | 49 | 1985 | 1994 | 2001 | 117 |
| Bangladesh | 1981 | 34 | 1995 | 2002 | 2004 | 78 |
| Nepal | 1988 | 42 | 2001 | 2007 | 2032 | 127 |
| Pakistan | 1990 | 40 | 2005 | 2010 | 2033 | 100 |

Note: Countries ordered by date of fertility decline onset; Japan excluded because of its seriously disrupted demographic transition; (1) is number of years from a 10% decline to when the NRR=1.0; (2) is number of years from onset of fertility decline (1) to when the number of youth begins to decline
**Source: Xenos, 2003, Table 4**

**Table 2. Population by major age groups: Philippines 1970-2020**

| AGE GROUP | 1970[a] | 1980[a] | 1990[a] | 2000[b] | 2010[b] | 2015[b] | 2020[b] |
|---|---|---|---|---|---|---|---|
| | IN THOUSANDS | | | | | | |
| 0-14 | 16,757 | 20,221 | 23,994 | 27,600 | 28,580 | 28,356 | 27,661 |
| 15-29 | 9,691 | 13,698 | 17,354 | 21,425 | 25,724 | 27,227 | 28,099 |
| 30-59 | 8,560 | 11,637 | 16,023 | 22,678 | 30,489 | 34,706 | 38,994 |
| 60+ | 1,646 | 2,542 | 3,188 | 4,645 | 7,075 | 8,727 | 10,753 |
| All ages | 36,684[c] | 48,098 | 60,559 | 76,348 | 91,868 | 99,016 | 105,507 |
| | IN PERCENT | | | | | | |
| 0-14 | 45.7 | 42.0 | 39.6 | 36.1 | 31.1 | 28.6 | 26.2 |
| 15-29 | 26.4 | 28.5 | 28.7 | 28.1 | 28.0 | 27.5 | 26.6 |
| 30-59 | 23.4 | 24.2 | 26.4 | 29.7 | 33.2 | 35.1 | 37.0 |
| 60+ | 4.5 | 5.3 | 5.3 | 6.1 | 7.7 | 8.8 | 10.2 |

a. Census of Population and Housing, 1970, 1980, 1990.
b. National Statistics Office, 1995 Census-based National, Regional and Provincial Population Projections (medium series), Vol. II, Table 2, p.32.
c. Includes about 30,000 individuals with ages unknown.
**Source: Gultiano et al., 2003, Table 4.1**

## Table 3. Demographic characteristics, by urbanization level: Philippines 2000[@]

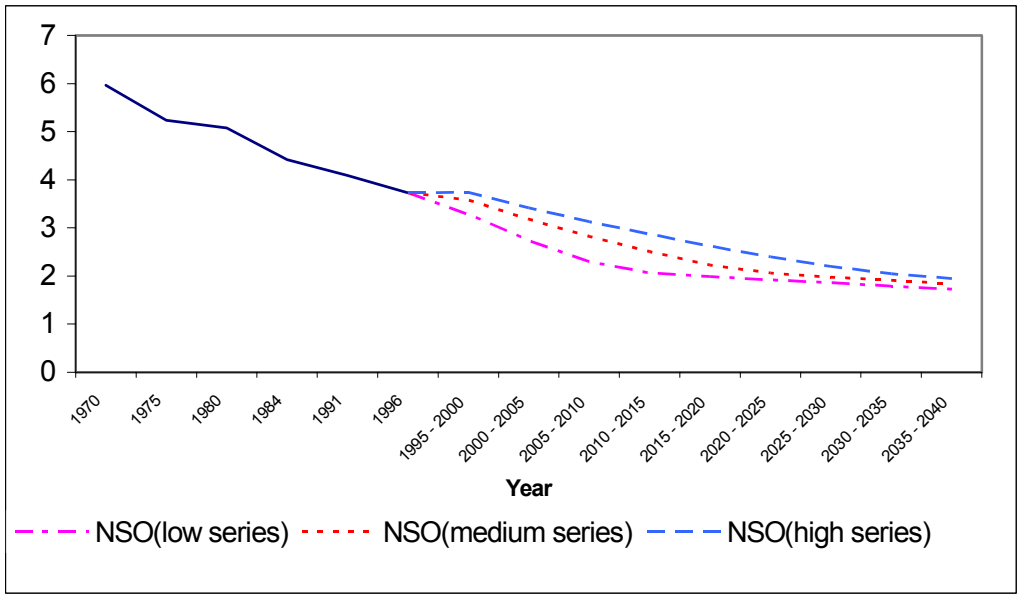
| | Non-HUA | All HUA | HUA outside NCR | NCR | Philippines |
|---|---|---|---|---|---|
| Population* (% of total population) | 60,304,951 (79.0) | 16,008,530 (21.0) | 6,128,428 (8.0) | 9,880,102 (13.0) | 76,313,481 (100.0) |
| Median age | 20 | 22 | 21 | 23 | 21 |
| % under 15 yrs old | 38.1 | 33.2 | 35.1 | 32.0 | 37.1 |
| % aged 15-29 (youth) | 26.9 | 30.3 | 29.7 | 30.6 | 27.6 |
| % aged 30-64 | 30.9 | 33.6 | 32.1 | 34.5 | 31.5 |
| % aged 65 and older | 4.1 | 3.0 | 3.1 | 2.9 | 3.8 |
| | | | | | |
| % under 5 yrs old | 12.8 | 12.2 | 12.2 | 12.3 | 12.7 |
| Child-woman ratio | .524 | .424 | .441 | .414 | .500 |
| | | | | | |
| Sex ratio <5 yrs old | 104.9 | 105.2 | 104.8 | 105.5 | 105.0 |
| Sex ratio <15 yrs old | 104.4 | 104.1 | 103.5 | 104.5 | 104.3 |
| Sex ratio 15-29 (youth SR) | 103.2 | 90.6 | 92.4 | 89.5 | 100.2 |
| Sex ratio 30-64 | 102.6 | 98.5 | 99.6 | 97.9 | 101.7 |
| Sex ratio 65+ | 82.0 | 74.0 | 79.0 | 70.8 | 80.7 |
| | | | | | |
| Dependency ratio | 72.9 | 56.6 | 61.8 | 53.6 | 69.2 |
| Child DR | 65.9 | 52.0 | 56.8 | 49.2 | 62.7 |
| Old-age DR | 7.0 | 4.6 | 5.0 | 4.4 | 6.5 |
| | | | | | |
| % migrants age 5-14 | 12.5 | 16.7 | 14.5 | 18.3 | 13.3 |
| % migrants age 15-29 | 10.4 | 16.9 | 13.5 | 18.8 | 11.9 |
| % migrants age 30-64 | 8.4 | 11.3 | 9.0 | 12.6 | 9.0 |
| | | | | | |
| % migrants age 5-9 | 16.6 | 20.9 | 18.6 | 22.6 | 17.4 |
| % migrants age 10-14 | 8.1 | 12.0 | 10.2 | 13.4 | 8.8 |
| % migrants age 15-19 | 8.9 | 16.0 | 13.4 | 17.9 | 10.4 |
| % migrants age 20-24 | 11.1 | 18.1 | 14.4 | 20.3 | 12.8 |
| % migrants age 25-29 | 11.6 | 16.3 | 12.7 | 18.2 | 12.7 |
| % migrants age 30-34 | 10.6 | 13.8 | 10.8 | 15.5 | 11.4 |
| % migrants age 35-39 | 9.2 | 11.9 | 9.6 | 13.2 | 9.8 |
| % migrants age 40-44 | 8.3 | 10.4 | 8.6 | 11.4 | 8.7 |
| % migrants age 45-49 | 7.4 | 10.0 | 8.0 | 11.2 | 7.9 |
| % migrants age 50-54 | 6.8 | 9.5 | 7.8 | 10.4 | 7.4 |
| % migrants age 55-59 | 6.3 | 9.4 | 7.4 | 10.6 | 6.9 |
| % migrants age 60-64 | 6.2 | 9.7 | 7.9 | 10.8 | 6.9 |
| % migrants age 65 and over | 6.5 | 10.0 | 8.2 | 11.2 | 7.1 |
| | | | | | |
| SR of migrants age 5-9 | 107.7 | 108.3 | 110.3 | 107.2 | 107.8 |
| SR of migrants age 10-14 | 101.1 | 97.1 | 95.0 | 98.3 | 100.1 |
| SR of migrant age 15-19 | 87.2 | 67.8 | 67.7 | 67.8 | 80.6 |
| SR of migrant age 20-24 | 80.8 | 72.3 | 74.6 | 71.4 | 77.8 |
| SR of migrant age 25-29 | 91.0 | 86.1 | 89.5 | 84.9 | 89.4 |
| SR of migrants age 30-34 | 96.8 | 97.3 | 95.2 | 98.1 | 97.0 |
| SR of migrants age 35-39 | 101.5 | 96.1 | 96.1 | 96.0 | 100.0 |
| SR of migrants age 40-44 | 105.1 | 96.7 | 97.1 | 96.6 | 102.8 |
| SR of migrants age 45-49 | 101.4 | 91.3 | 94.2 | 90.1 | 98.4 |
| SR of migrants age 50-54 | 100.9 | 85.5 | 95.1 | 81.7 | 96.4 |
| SR of migrants age 55-59 | 97.9 | 87.9 | 94.7 | 85.1 | 95.2 |
| SR of migrants age 60-64 | 85.6 | 76.9 | 82.1 | 74.6 | 83.3 |
| SR of migrants age 65 and over | 69.2 | 62.2 | 64.3 | 61.1 | 67.6 |
| | | | | | |
| Sex ratio: migrant youth | 86.0 | 74.7 | 75.7 | 74.3 | 82.2 |
| Sex ratio: non-migrant youth | 105.4 | 94.1 | 95.3 | 93.4 | 102.9 |
| Sex ratio: migrants aged 30+ | 96.2 | 90.7 | 91.9 | 90.3 | 94.7 |
| Sex ratio: non-migrants 30+ | 100.3 | 97.0 | 98.2 | 96.3 | 99.6 |

*** Weighted figures from a 10% sample of household population.**

**[@] HUA represents highly urbanized areas consisting of "highly urbanized cities". NSO defines highly urbanized cities as cities with a population of not less than 200,000 and with the latest annual income of at least 50 Million Pesos based on 1991 constant prices. NCR, the national capital region, is considered as the most highly urbanized area in the country.**

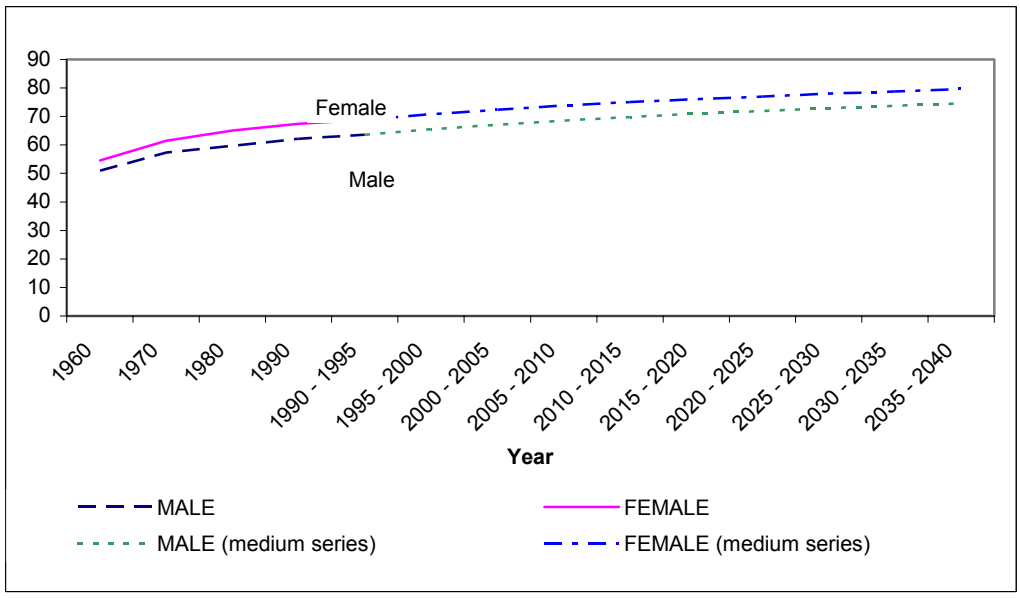
## Figure 1. Fertility and mortality trends: Philippines

**Total fertility rates: Philippines, 1970-2040**




Source: 1970 – 1996 TFRs: National Statistics Office, Department of Health and Macro International, National Demographic and Health Survey 1998, Table 3.3 p. 36 and 1995-2000 to 2035–2040 projected TFRs: National Statistics Office, 1995 Census–Based National and Regional Population Projections, Vol. I, Table 1-1, p. 6

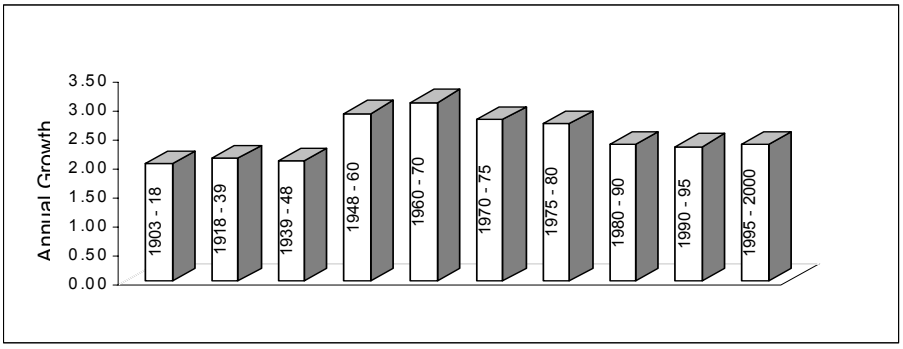
**Male and female life expectancies at birth: Philippines, 1960 - 2040**




Sources: Flieger, Abenoja and Lim (1960), Flieger and Cabigon (1970-1990), National Statistics Office (1995).

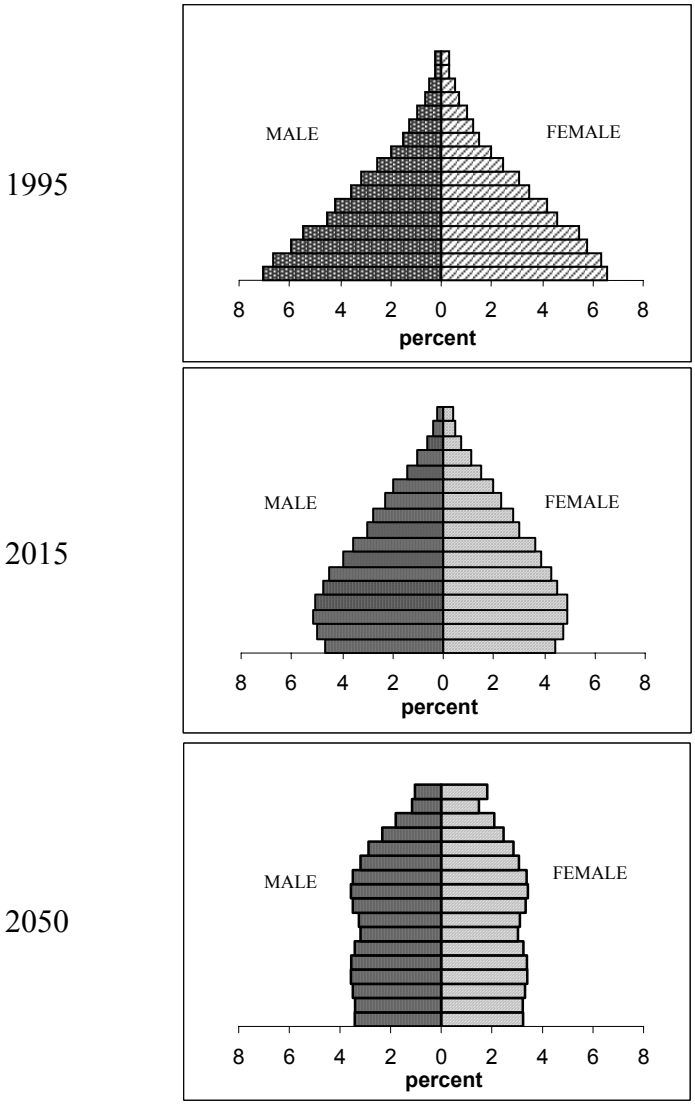
**Source: Gultiano et al., 2003, Figures 4.3 and 4.4**

**Figure 2: Population growth rate, by intercensal period: Philippines 1903 – 2000**



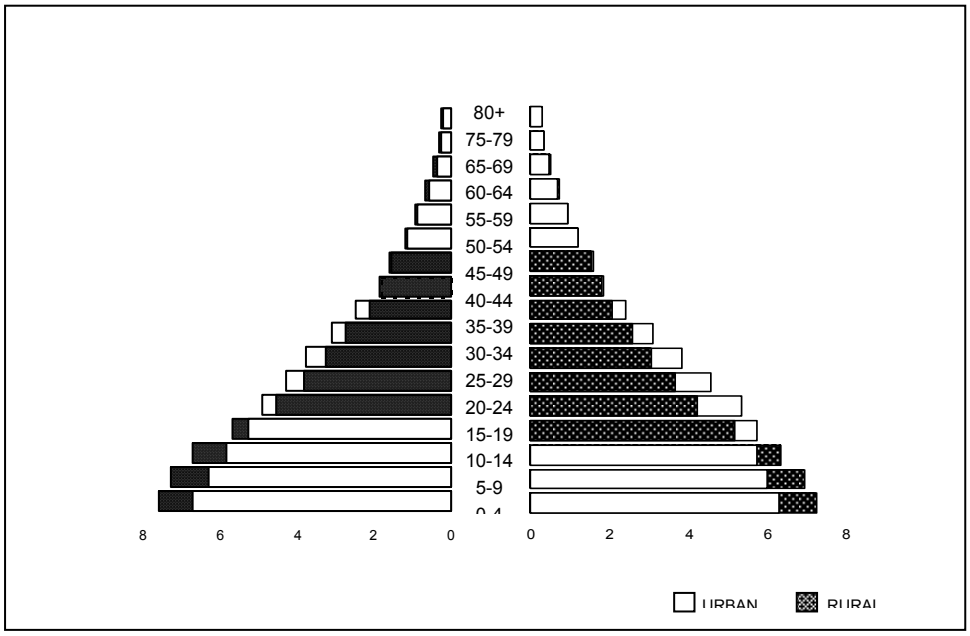

**Source: Gultiano et al., 2003, Figure 4.1**

**Figure 3. Population pyramids: UN medium series projection, 1995, 2015, 2050**

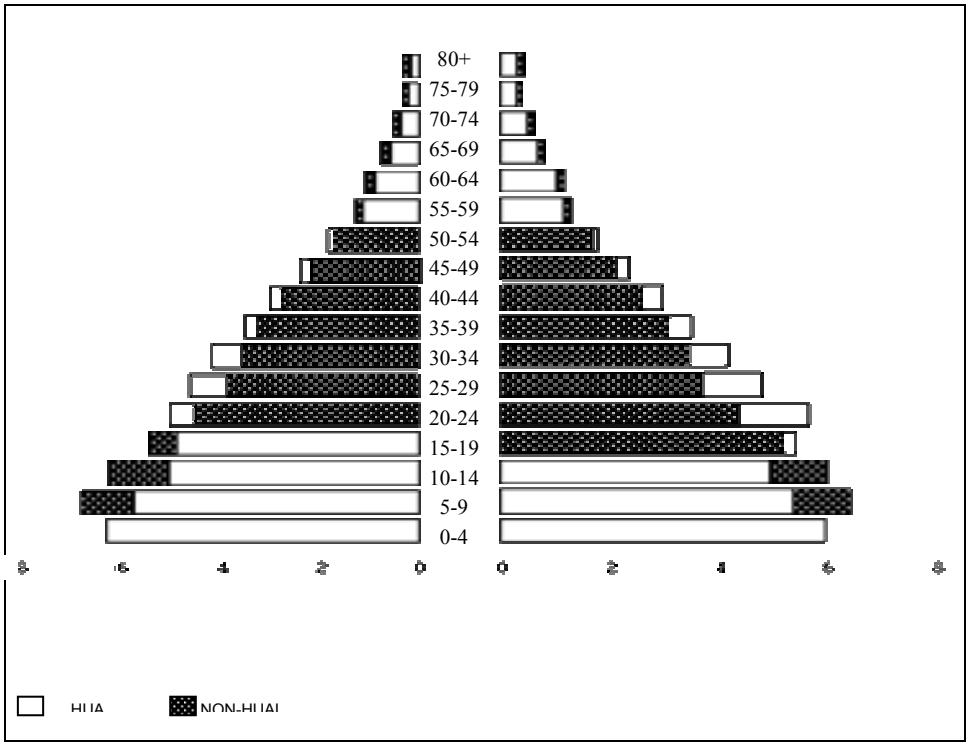



**Source: Gultiano et al., 2003, Figure 4.1c**

**Figure 4. Age-structural differences: 1990 urban and rural populations, 2000 highly-urbanized and not highly-urbanized populations.**

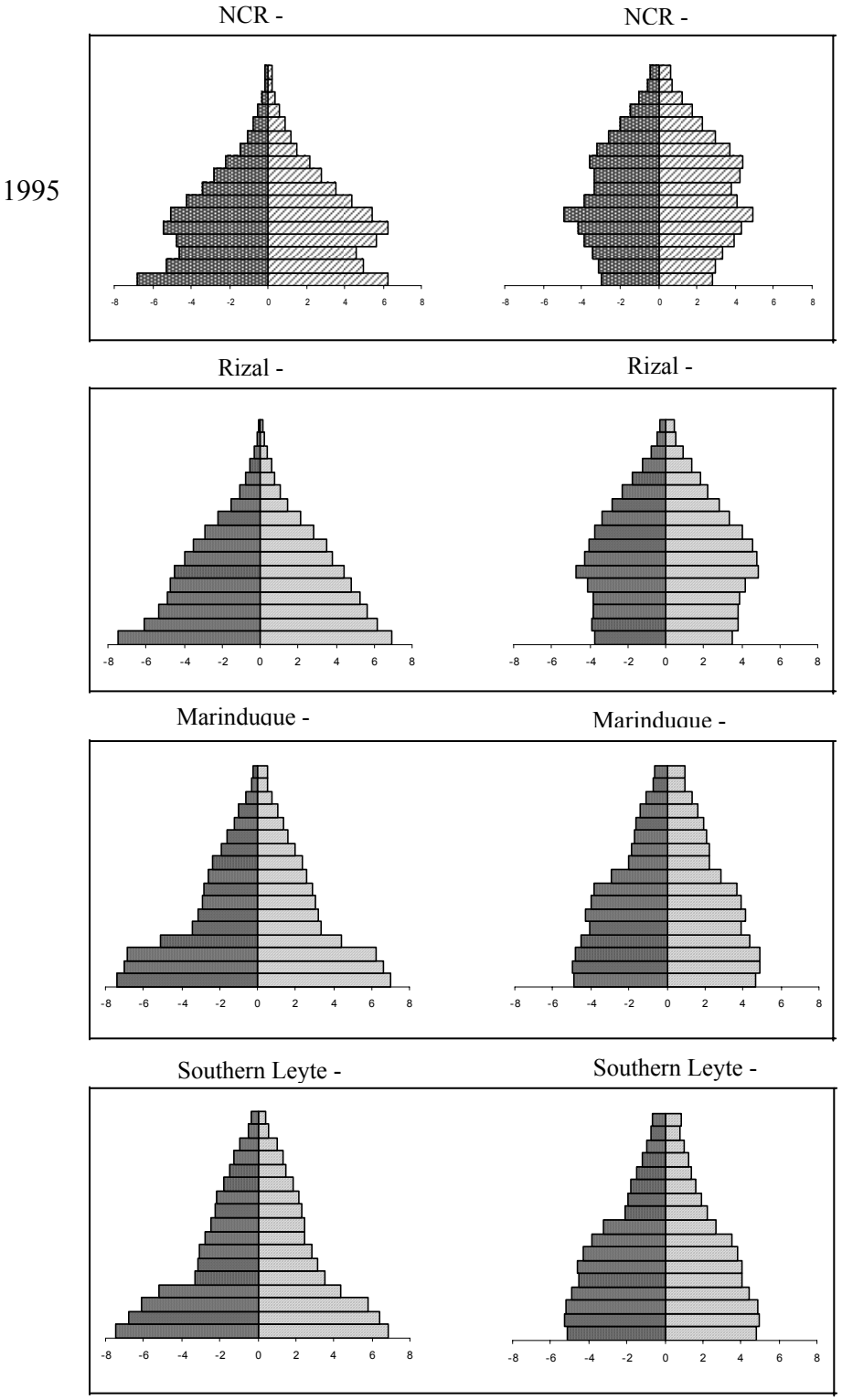



**Age-structural differences: urban and rural Philippines, 1990**




**Age-structural differences: highly–urbanized and not highly-urbanized areas, Philippines, 2000**

**Figure 5. Population pyramids: NSO medium series projection, 1995, 2020 (selected geographic areas).**




**Source: Gultiano et al., 2003 (unpublished figures)**