FERTILITY AND CONTRACEPTION IN THE REGIONS

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ABSTRACT

Patterns of changes in fertility varied across regions as evidenced from the 1968-83 NDSs despite the consistent rise in contraceptive practice especially of the more effective methods. In recent years, the declining trend in earlier periods decelerated in some regions but rose in other regions. The important role of decreasing marital fertility in the decline in overall fertility in these regions and in the nation as a whole was sometimes offset or even outplayed by the increasing effect of changing age structure and marriage patterns. It was also demonstrated that there was a disparity in fertility and contraceptive prevalence by social groups.

INTRODUCTION

In the Philippines, increased attention has been given to the development of population welfare policies and programs both at the national and regional levels. This manifests the planners' concern not only with the provision of basic services but also with the proper linkages of population with these basic needs and with development. A wide variety of data have been tapped and in most cases, have stimulated planners and implementors to action. Among such data are those on levels and trends in fertility and contraception.

Various measures of fertility from the 1960, 1970 and 1975 censuses, the 1968 and 1973 National Demographic Surveys (NDSs), and the 1978 Republic of the Philippines Fertility Survey (RPFS) clearly indicated a fertility decline in the Philippines. The decline appeared to have started in the early 70s and was mainly due to changes in age at first marriage and in the proportion of those eventually getting married. In 1975, it was shown that the decline was mainly due to changes in marital fetility rates. This corresponded with the nationwide institution of the population program in 1970. The government policy to promote the availability and use of contraceptives, natural or artificial, was thought to have greatly facilitated such a decline. Correspondingly, the above-mentioned surveys revealed an increase in overall level of current use of contraceptive methods during the decade 1968-1978.

It is of paramount importance to find out whether or not such a fertility decline and a current use rise have been sustained or precipitated. This article attempts to update the above trend taking into account data both at the national and regional levels. In line with the policy of regionalization,

the regional dimension deserves as much attention as the national dimension. Identification of regions requiring particular efforts is very useful in the prioritization of action to attain population welfare goals. This article likewise attempts to assess in a crude way the impact of the family planning program on fertility for the nation as a whole and its 13 regions.

DATA AND METHODS

The basic data used to update fertility and contraceptive use levels and trends – national and regional – have been derived from the 1983 NDS which was conducted to gather information that would permit a more detailed analysis of fertility, mortality, migration, nuptiality, labor force participation and family planning (UPPI, 1984).

The 1980 census data are likewise a major source in the updating. Figures to be updated were mainly based on the 1968 and 1973 NDSs, the 1978 RPFS, and the 1960, 1970 and 1975 censuses.

The national surveys mentioned above obtained fertility data on two consequences of events for each sample of ever-married woman (EMW) respondent aged 15-49 years:

1) a maternity or birth history, eliciting the date of occurrence of each pregnancy (live birth and non-live birth), data on sex, survivorship status and age at death of each child; and
2) a union or marriage history eliciting effective dates of beginning and termination and the outcome of each period of sexual union.

These data, plus the date (year and month) of birth of the respondent (or, at least, her age at last birthday) at the time of the interview, and the date (year and month) of the interview, are needed in a birth history analysis or the calculation of relevant fertility measures.

Suppose that the respondents represent the female population of childbearing age, i.e., between 15-49 years old at the time of interview. They may be categorized into five-year cohorts (c) or groups of women born during the same calendar-year determined by age in completed years at interview. The experience of each cohort is depicted as a band in the Lexis diagram shown in Figure 1. Age (a) in the diagram is retrospective and refers to the age of the mother at birth of the child. Period (p) refers to the number of years elapsed since the birth of the child and is numbered sequentially backwards starting with 0.

To determine the relevant number of women in each parallelogram in Figure 1, the length of exposure to the risk of childbearing is defined. There are two kinds of exposure. One is called the unrestricted exposure wherein the length of exposure to childbearing is taken simply as the total time elapsed, irrespective of details of the marriage history (Verma, 1980). In this context, therefore, are included all women regardless of marital status. The length of unrestricted exposure during any one-year period is, by definition, 12 months per woman. Expressed differently, for a one-year period (p), each woman in cohort

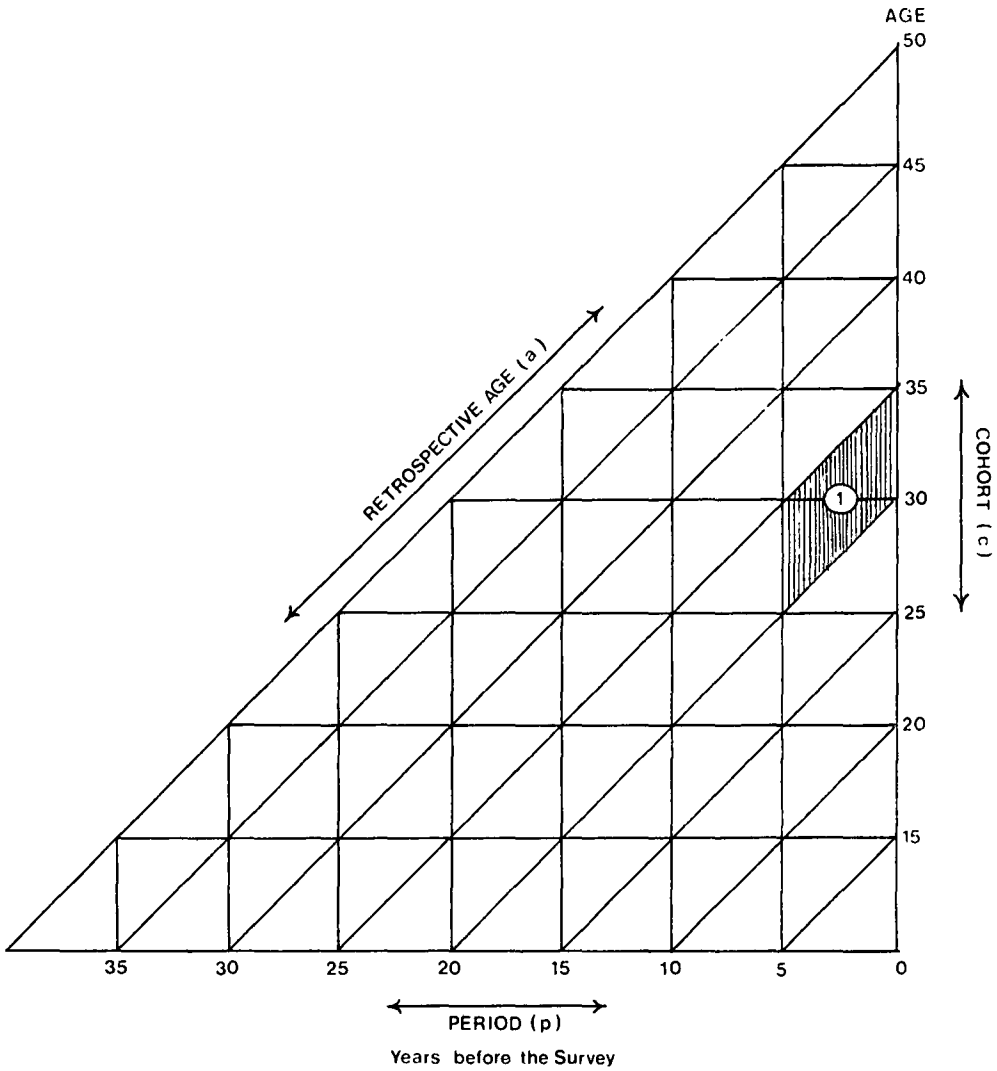
(c) has contributed or lived one person-year. For a woman in cohort (c), the total exposure during p can be divided into two parts: e_0 months at age $a_0 = (c-p)$; and e_1 months at the previous age $a_1 = (c-p-1)$. In Figure 1, e_0 is the exposure in the lower triangle and e_1 in the upper triangle in any given parallelogram. The quantities (e_0, e_1) for a given woman depend only on the month of her birth and the interview month, and are constant from one period to another.

The other kind is the restricted exposure wherein the length of exposure is defined as the total time elapsed following a particular event like first marriage or union (in this case, the exposure is called marital) or the occurrence of a birth at any given order (the exposure known as parity specific). For marital exposure, only ever-married women are considered. For parity specific exposure, only the ever-married women exposed during the interval between a given parity i–1 and i are included. Taking marital exposure for instance, the quantities (e_0, e_1) for a given ever-married woman depend on the month and year of her first marriage or union and the interview month, and may vary from one period to another depending on whether or not a given union or marriage is terminated. In effect, marital-years lived by each ever-married woman for restricted marital exposure and person-years lived by each woman for unrestricted exposure in each cohort during each calendar year are calculated. In turn, these are cumulated for all ever-married women and all women, respectively, in the sample. Then they are classified by five-year periods and by cohort of respondents.

The live birth reported in a given survey by these respondents are likewise accordingly classified by period of occurrence and cohort of mother. Classifying the cohort experience by five-year periods yields cells having the shape of a parallelogram and are centered on exact ages 15, 20, . . ., and 45. In Figure 1, we see that the survey depicts a progressively less complete sample of past experience in the reproductive ages. In other words, the oldest cell corresponding to the period five to 10 years before the survey is centered on age 40, the oldest cell corresponding to the period 10 to 15 years before the survey is centered on age 35, and so forth.

Fertility rates specific to both the cohort and the period for each of the cells are derived by dividing the number of live births reported by a cohort as having occurred in a given period by the appropriate number of women expressed in person-years or marital-years. In the case of unrestricted exposure (the denominator in person-years), the numerator should include all births – including those to women not married by the time of the survey. Specifically, if the numerator is the total number of births (b(a,p)) at mother's age (a) during period (p), i.e., during a parallelogram of type 1 in Figure 1 and the denominator is the number of person-years lived during the same period (e(a,p)), i.e., same parallelogram of type 1 in Figure 1, the resulting figure is the conventional age-specific fertility (ASFR). In for-

Figure 1. LEXIS DIAGRAM



mula form,

$$ASFR = \frac{b\,(a,p)}{e\,(a,p)} \times 1000 \qquad (1)$$

It is customary to express the ratio as births per 1,000 person-years or women-years of exposure by multiplying equation (1) by 1,000. This measure depicts the age pattern of fertility of a population under consideration.

Summing these ASFRs and multiplying the sum by five since the ASFRs are for five-year age groups, yield the total fertility rate (TFR). In formula form,

$$TFR = 5 \sum_{a=15-19}^{a=45-49} ASFR_a \qquad (2)$$

It is the average number of children that would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the ASFRs of a given period. More simply, it indicates the total number of children that would be born to a woman if she were to behave throughout her lifetime the way women did in that period. In this context, it is viewed as representing the completed family size of such a woman. Hence, TFR can be viewed as an indicator of the level of fertility with the effect of age being accounted for.

In the case of restricted exposure (the denominator in marital-years), the numerator should include marital births only. The same equation 1 applies here. The only difference lies in the entries for both the numerator and denominator wherein live births occurring within marriage or union and marital-years of exposure are considered, respectively. Hence, the outcome is age-specific marital fertility rate (ASMFR). This is a measure of the age pattern of marital fertility.

Correspondingly, summing the ASMFRs in a given period then multiplying the sum by five yields total marital fertility rate (TMFR). It refers to the total number of children that would be born to a married woman if she were to behave throughout her married life the way married women did in a given period. It indicates the level of marital fertility.

The crude birth rate (CBR) or the number of live births per 1,000 population is indirectly derived. Applying the calculated ASFRs in a given period (year) to the corresponding census female population by age (p^f_a) and summing the results yields the expected births (b). Dividing b by the total population (P) provides an indirect estimate of CBR. In formula form,

$$CBR = \frac{\sum_{a=15-19}^{a=45-49} ASFR_a\, p^f_a}{p} \times 1{,}000 \qquad (3)$$

The contraceptive prevalence rate (CPR) is estimated as the proportion of currently married current users aged 15-44 years (CU_{15-44}) among all currently married women in the same age bracket (CMW_{15-44}). In formula form,

$$CPR = \frac{CU_{15-44}}{CMW_{15-44}} \times 100 \qquad (4)$$

A crude way of assessing the role of contraception on fertility adopted in this article is the standardization approach (UN Manual IX, 1979) written in computer BASIC language by Mauldin (1980) and translated from BASIC to FORTRAN by Pullum (1980). It basically involves decomposing a change in the CBR into three of its main components – age structure, marriage pattern and marital fertility. In equation form,

$$CBR_1 = \frac{\sum_{i=1}^{7} S_{1i}\, C_{1i}\, M_{1i}}{10{,}000} \quad (5)$$

$$CBR_2 = \frac{\sum_{i=1}^{7} S_{2i}\, C_{2i}\, M_{2i}}{10{,}000} \quad (6)$$

$$\Delta CBR = \frac{\sum_{i=1}^{7} (S_{2i} - S_{1i}) \frac{(C_{2i} + C_{1i})}{2} \frac{(M_{2i} + M_{1i})}{2}}{10{,}000} \quad (7)$$

$$+ \frac{\sum_{i=1}^{7} (C_{2i} - C_{1i}) \frac{(S_{2i} + S_{1i})}{2} \frac{(M_{2i} + M_{1i})}{2}}{10{,}000}$$

$$+ \frac{\sum_{i=1}^{7} (M_{2i} - M_{1i}) \frac{(C_{2i} + C_{1i})}{2} \frac{(S_{2i} + S_{1i})}{2}}{10{,}000}$$

where:

CBR_1 = Crude birth rate at time 1;

CBR_2 = Crude birth rate at time 2;

i = age group of women in their reproductive ages – 15-49 years in 5-year interval;

S_{1i} and S_{2i} = percentage of women in group i among the total population at times 1 and 2, respectively;

C_{1i} and C_{2i} = percentage of currently married women among all women in age group i at times

M_{1i} and M_{2i} = age-specific marital fertility rates in age group i at times 1 and 2, respectively;

ΔCBR = change in crude birth rate from time 1 to time 2;

10,000 = constant value

RESULTS

Overall Fertility and Age Pattern of Fertility

Table 1 shows the indirectly estimated CBRs (equation 3) for the nation as a whole and its 13 regions from 1960 to 1980. At the national level, CBR declined by about 15 percent during the 1960-1970 interval from 46 to 39 births per thousand persons. The decrease decelerated in the early 70s with a fall of 11 percent from 39 to about 35 per thousand population. Strikingly, it increased by about four percent from about 35 to around 36 births per thousand population during the 1975-1980 quinquennium. However, it was found that such a rise was due mainly to changes in age structure and marriage patterns, i.e., an increase in the percentage of females aged 20-34 among the total population of currently married women aged 15-29 to total female population in the same age group during the 1975 to 1980 period (Cabigon, 1985). Such changes might have affected the CBRs separately from the general trend of

declining childbearing rates.

The decline observed at the national level during the 1960 to 1975 period is also evident in all regions. In the most recent quinquennium, only three regions (Southern Tagalog, Western Mindanao and Northern Mindanao) sustained the declining trend. However, the decline was so slight, two percent, three percent and five percent in that order, that it is by no means definitive. Central Luzon did not show any change between 1975 and 1980. The rest echoed the rising pattern of the nation as a whole. Nevertheless, only three regions (the National Capital Region or NCR, Ilocos and Central Mindanao) portrayed a substantial increase (20-21 percent). The remaining regions mani-

Table 1. Crude Birth Rates by Region: Philippines, 1960-1980

Region	Year 1960	1970	1975	1980
Philippines	46.0	39.3	34.8	36.3
NCR National Capital Region	43.1[a]	33.6[a]	28.8	34.8
I. Ilocos	42.0[b]	34.8[b]	31.3	37.7
II. Cagayan Valley	49.1	35.8	35.6	36.9
III. Central Luzon	42.9[c]	37.3[c]	31.4	31.5
IV. Southern Tagalog	43.0	35.3	34.4	33.7
V. Bicol	43.4	37.5	35.6	40.2
VI. Western Visayas	43.1	38.3	36.4	37.0
VII. Central Visayas	41.9	38.1	30.8	32.8
VIII. Eastern Visayas	44.9	42.6	35.5	38.8
IX. Western Mindanao	55.8[d]	50.9[d]	35.5	34.5
X. Northern Mindanao	52.8[e]	49.0[e]	39.4	37.4
XI. Southern Mindanao	51.2[f]	47.4[f]	37.6	38.9
XII. Central Mindanao	g	g	35.7	43.1

[a] *Does not include Muntinlupa, Rizal.*

[b] *Does not include Pangasinan.*

[c] *Includes Pangasinan.*

[d] *Excludes Basilan and Tawi-Tawi.*

[e] *Includes Lanao del Norte, Lanao del Sur, and Surigao del Sur.*

[f] *Excludes Surigao del Sur but not includes Cotabato.*

[g] *Some provinces were still combined with other Mindanao regions as stated in d to f and the other provinces constituting this region were not yet created then.*

Sources: *For the total Philippines,* Text figures of this report. *For the years 1960-70,* de Guzman, E.A. 1977. "Fertility and Contraception in the Year 2000: Part I. Fertility Levels and Trends." University of the Philippines Population Institute (UPPI), Population, Resources, Environment and the Philippine Future (PREPF) Final Report, 3(1). Text Table B. September, *For 1975,* the rates for Regions I, II, IV, V, VII, VIII, IX, and XII resulted from the application of the 1973-77 age specific fertility rates (ASFRs) from the 1978 Republic of the Philippines Fertility Survey (RPFS) to the 1975 census female population; the rates for the remaining regions were derived by applying the final adjusted ASFRs from the 1977-1980 Area Fertility Surveys (AFSs) to the 1975 Census. *For 1980,* the rates were derived by applying the 1978-82 ASFRs from the 1983 NDS to the 1980 female census population.

fested very slight increases ranging from two percent (Western Visayas) to 13 percent (Bicol). Because CBR is greatly affected by age and marital compositional differences and the estimated rates are subject to large sampling errors, incomparability resulting from differences in regional definitions in 1960-1970 and 1975-1980 and small samples drawn from some regions during the 1978 RPFS (Cabigon, 1983), it is important to accept only the broad outlines of the estimates rather than their specific details. For instance, identifying the regions that are more likely to exhibit fertility higher than average over time may be acceptable. Hence, the regions that showed consistently above-average fertility (example of a broad case) are Northern Mindanao, Southern Mindanao and Central Mindanao. Those below-average fertility performers over time include the NCR, Central Luzon, Southern Tagalog, and Central Visayas. The remaining regions portrayed lower than average at some periods and higher than average at other periods. The changes observed per region over time should be treated with caution. It is useful, therefore, to examine further the trend of fertility by region from the standpoint of other indicators like the TFR.

Table 2 presents the national and regional ASFRs and TFRs from 1960 to 1980. For the country as a whole, the average completed family size or TFR declined steadily from an initially estimated 6.5 children in 1960 to about five children in 1980, a decrease of about 24 percent. The greatest decline occurred between 1970 and 1975 (around 12 per cent). The decline appears to have decelerated during the 1975-1980 period, from 5.2 children in 1975 to about five children in 1980, a fall of five percent only. The ASFRs estimated from the 1983 NDS did not sustain the consistent decline for the period 1960-1975. There was a rise in 1980 of the ASFRs referring to the younger women, aged 15-19, 20-24 and 25-29 with the youngest age group manifesting the largest increase (eight percent). The remaining age groups maintained the declining trend observed in the preceding years but the amount of decline in percentage exhibited by the women aged 30-34 and 35-39 was much lower than what was discerned in the preceding quinquennium (from 11 and 12 to eight percent). The two oldest age groups showed the largest decline over time but since these groups of women had been nearing the end of their childbearing periods, their contribution to overall fertility and to its decline would be negligible.

This national trend masks large regional differentials. Four regions -- Central Luzon, Western Visayas, Western Mindanao and Southern Mindanao – showed the same fall in fertility overtime. However, only three portrayed a marked acceleration in fertility decline during the 1970-1975 period, by about 20 percent or from 5.8 to 4.6 children per woman in Central Luzon; around 25 percent or from 6.7 to 5.0 children per woman in Western Mindanao; and about 18 percent or from 5.7 to 5.3 children in Southern Luzon. The decline in Western Visayas was very slow -- a reduc-

Table 2. Age-Specific Fertility Rates Per 1,000 Women and Total Fertility Rate Per Woman By Region: Philippines, 1960-1980

Region/Period	Age of Woman (Years) 15-19	20-24	25-29	30-34	35-39	40-44	45-49	TFR
Philippines								
1960	84	261	314	292	212	108	27	6.49
1965	75	255	315	284	218	101	20	6.34
1970	56	228	302	273	200	101	23	5.92
1975	47	209	249	240	179	89	26	5.20
1980	51	213	254	220	164	76	14	4.96
NCR								
1960	43	196	270	262	157	73	13	5.07
1965	27	184	246	214	146	48	10	4.37
1970	19	143	233	197	125	70	8	3.98
1975	33	142	183	140	86	42	6	3.16
1980	29	154	204	153	110	43	14	3.54
I. 1960	70	255	269	259	248	104	67	6.36
1965	55	220	288	275	192	129	8	5.83
1970	42	214	275	228	237	85	15	5.48
1975 (NS = 663)	29	181	270	253	143	92	13	4.90
1980	56	255	277	225	192	89	7	5.50
II. 1960	133	313	290	306	227	95	55	7.09
1965	133	361	380	318	286	69	9	7.78
1970	71	264	291	265	220	159	43	6.56
1975 (NS = 469)	74	257	229	244	197	78	3	5.41
1980	64	233	307	215	164	55	16	5.27
III. 1960	59	231	336	306	208	121	20	6.40
1965	58	232	285	294	245	107	28	6.24
1970	42	209	308	262	216	87	28	5.76
1975	39	181	251	210	149	88	9	4.63
1980	39	189	248	164	107	79	20	4.23
IV. 1960	106	264	295	284	200	101	6	6.28
1965	92	263	319	261	195	101	33	6.31
1970	70	237	301	240	167	109	24	5.74
1975 (NS = 1156)	58	221	249	212	179	87	21	5.13
1980	38	219	239	224	135	60	2	4.58
V. 1960	75	249	345	335	244	121	19	6.94
1965	131	279	327	310	244	86	20	6.98
1970	40	255	287	312	209	123	18	6.22
1975 (NS = 673)	52	221	290	289	208	132	13	6.03
1980	73	274	298	259	219	126	14	6.32
VI. 1960	51	292	308	256	206	114	38	6.32
1965	45	195	338	295	187	103	0	5.81
1970	57	204	281	303	216	90	8	5.79
1975	52	230	276	252	200	99	12	5.60
1980	51	200	261	293	198	84	11	5.49

VII.	1960	60	230	332	267	218	68	17	6.00
	1965	72	212	311	272	199	86	13	5.82
	1970	52	223	289	289	182	80	11	5.63
	1975 (NS = 750)	35	190	228	221	182	81	3	4.70
	1980	55	174	238	207	180	67	22	4.72
VIII.	1960	102	270	287	339	202	143	31	6.87
	1965	116	312	352	307	273	97	24	7.40
	1970	61	303	367	403	284	91	27	7.68
	1975 (NS = 532)	53	268	310	241	195	92	2	5.81
	1980	69	286	284	259	208	103	37	6.23
IX.	1960	119	313	378	379	247	94	59	7.94
	1965	97	298	355	319	210	80	27	6.93
	1970	125	310	327	265	168	104	36	6.67
	1975 (NS = 393)	91	220	231	208	163	77	8	4.99
	1980	64	220	227	214	140	86	2	4.76
X.	1960	124	284	356	286	186	107	29	6.86
	1965	83	336	324	283	284	181	46	7.68
	1970	82	306	382	300	236	114	60	7.40
	1975	59	263	306	263	205	110	13	6.09
	1980	53	234	261	224	201	94	23	5.45
XI.	1960	131	309	353	331	170	157	19	7.35
	1965	98	322	338	322	247	119	22	7.34
	1970	78	260	371	299	214	143	22	6.93
	1975	42	249	305	262	185	72	18	5.66
	1980	63	227	273	246	179	62	18	5.34
XII.	1975 (NS = 456)	55	199	211	286	195	117	24	5.44
	1980	81	267	296	260	175	70	6	5.78

Sources: 1973 and 1983 National Demographic Surveys and 1978 Republic of the Philippines Fertility Survey.

tion by 13 percent or from 6.3 to 5.5 children per woman over the past 20 years. All four regions manifested deceleration in the latest quinquennium, the fall ranging from two percent (Western Visayas) and nine percent (Central Luzon). With TFR as a measure, the position of such regions vis-a-vis the national average over time as indicated by CBR was maintained. Central Luzon and Southern Mindanao maintained their below and above average fertility performance, respectively; Western Visayas and Western Mindanao showed a saw-tooth pattern – higher fertility than average at some years and lower fertility at other years. Looking at the age pattern of fertility, women aged 30-34 in Central Luzon and Southern Mindanao maintained a downward trend overtime. The consistent fall occurred at the peak childbearing age 25-29 in Western Mindanao and Western Visayas although in the latter, the decrease started later (1965) than in the former

region. Unclear patterns were exhibited by the other age groups over the 1960-1980 period in all four regions.

NCR, Ilocos, and Central Visayas showed a consistent decline during 1960 to 1975. The rates fell the greatest by 21, 11 and 17 percent in that order between 1970 and 1975. Thereafter, the trend was reversed; the rise in Metro Manila and Ilocos was 12 percent and in Central Visayas, 0.4 percent. Note that with TFR as a measure, such regions portrayed the same pattern of differential in relation to the average. Recall that with CBR as a measure, Ilocos did not join the below average performers: Metro Manila, Central Luzon, Southern Tagalog and Central Visayas. Examining more closely the ASFRs, a uniform decline during 1960-1975 period was evident for women aged 20-39 in Metro Manila, aged 15-24 in Ilocos and aged 25-29 and 35-39 in Central Visayas. The increase between 1975 and 1980 occurred across all ages except the youngest in Metro Manila, at ages 15-29, and, in Ilocos, at ages 35-39. The stability of the TFR or overall fertility between 1975 and 1980 in Central Visayas was the result of the increasing pattern at ages 15-19 (a rise by about 57 percent), 25-29, and 45-49 being offset by the decreasing trend at the remaining ages.

Cagayan Valley, Southern Tagalog and Northern Mindanao exhibited a common pattern of fertility change. There was a rise during the 1960-1965 period by 10, 0.5 and 12 percent, respectively, and a consistent fall thereafter. The 1970-75 period brought an accelerated decline by about 18 percent for Cagayan Valley and Northern Mindanao, and 11 percent for Southern Tagalog. Such a decline since 1965 was mainly due to the tendency of women to reduce fertility at older ages: 30-44 in Cagayan Valley; at all ages except ages 35-39 in Southern Tagalog, although women aged 30-34 showed an opposite trend between 1975 and 1980; and at all ages except the oldest in Northern Mindanao. Again, Southern Tagalog and Northern Mindanao showed lower and higher fertility, respectively, than average overtime. Cagayan Valley joined consistently the above average fertility regions using this measure.

Very slight changes occurred in the Bicol overall fertility. It was nearly constant prior to 1965 and slightly declined by about 11 and three percent between the periods 1965-1970 and 1970-1975, respectively. Then an increase by five percent was observed in the most recent quinquennium. In effect, over time, the average completed family size hovered around 6-7 in this region. Peaks and troughs were observed with the ASFRs. Its fertility level, higher than the average, persisted overtime. It should be noted that with CBR as a measure, such a pattern was not indicated.

In Eastern Visayas, the 1970-1975 interval deviated from the increasing overall-fertility trend exhibited in the remaining periods. The reduction was 24 percent from 7.7 to 5.8 children per woman during this quinquennium. Such a fall was primarily borne out by women in the peak

childbearing ages 20-39. Worth stressing is the rise in fertility at all age groups during the most recent period causing an increase in overall fertility by seven percent or from 5.8 to 6.2 children per woman. With this measure, the region could be classified as an above-average fertility performer.

The most recently created region, Central Mindanao, depicted the same increasing trend observed in most of the regions during the 1975-1980 period, data for which are available. A slight rise by six percent or from 5.4 to 5.8 children per woman was evident. Such an increase was mainly due to women aged 15-24 in that period. It was an above average fertility region.

Marital Fertility and Its Age Pattern

A further refinement of overall fertility discussed above is to confine the analysis to the fertility of ever-married women (EMW). Such an analysis permits separating the effect of changes in the tendency to marry from the effect of changes in the level of (marital) fertility upon overall fertility. Estimated ASMFRs and TMFRs for the country as a whole and each of the 13 regions are presented in Table 3.

For the whole nation, TMFR or the average number of children per woman within marriage hovered about 9.6 during the 1960-1970 period. It started to decline thereafter by about 14 percent, from 9.6 to 8.3 children per ever-married woman during the 1970-1980 interval with a faster drop occurring in 1975 (eight percent) vis-a-vis that in 1980 (six percent). The nearly constant marital fertility in the first decade of consideration is the result of the cancelling out effects of increasing marital fertility among married women aged below 25 and decreasing marital fertility among their older counterparts in the same period. The decline in the subsequent decade was clearly evident in all age groups except the oldest. In all likelihood, marital fertility started to decline at a modest pace in the late 70s which suggests the positive response of married women to the population program instituted nationwide in 1970.

Focusing on the regional levels, only Metro Manila followed the consistent and more marked decline than the Philippines as a whole. The decline in overall marital fertility was around 22 percent or from 9.3 to 7.3 children per married woman during the 1960 to 1980 period. The greatest fall occurred during the 1970-75 interval with around eight percent or from 8.5 to 7.8 children per married woman. This decline over time was shown by married women aged 30-39 and together with the younger women 15-29 at the later years, i.e., the 1970s.

Three regions showed more or less a similar pattern of marital fertility change. These are Cagayan Valley, Central Luzon and Southern Tagalog. The pattern of change was an increase during the 1960-1965 period and a decline thereafter of children per ever married woman (TMFR) from 10 to eight (Cagayan Valley), 10 to seven

Table 3: Age-Specific Marital Fertiliy Rates per 1000 Women and Total Fertility Rate Per Married Woman, Philippines And Its 13 Regions, 1960-1980

Region/Period	Age of Married Women 15-19	20-24	25-29	30-34	35-39	40-44	45-49	TMFR
Philippines								
1960	396	428	384	325	233	117	29	9.56
1965	430	434	388	314	237	110	21	9.67
1970	449	443	378	307	217	108	24	9.63
1975[a]	425	432	326	269	194	94	28	8.84
1980	409	410	318	246	178	81	21	8.32
NCR								
1960	445	448	372	306	192	81	14	9.29
1965	467	480	350	256	165	59	11	8.94
1970	420	443	353	242	145	78	9	8.45
1975	438	420	289	191	132	90	b	7.80
1980	418	400	269	181	122	43	20	7.26
I. 1960	455	426	341	302	263	110	67	9.82
1965	331	405	360	321	219	136	8	8.90
1970	372	435	358	262	268	94	15	9.02
1975	406	398	346	245	202	126	b	8.62
1980	439	462	338	240	203	92	9	8.92
II. 1960	347	427	319	292	218	108	73	8.92
1965	486	468	410	314	270	65	9	10.11
1970	392	415	308	275	214	148	40	8.96
1975	431	403	283	260	184	115	b	8.38
1980	397	390	342	235	170	57	20	8.06
III 1960	384	410	423	344	233	128	22	9.72
1965	471	429	381	327	272	119	29	10.14
1970	455	435	399	306	234	93	31	9.77
1975	423	426	323	214	156	104	b	8.23
1980	387	387	299	178	115	83	31	7.40
IV. 1960	391	433	361	312	217	106	6	9.13
1965	451	422	399	290	213	107	34	9.58
1970	443	436	369	271	182	118	25	9.22
1975	423	374	336	251	185	106	b	8.38
1980	361	401	301	251	145	64	4	7.64
V. 1960	330	403	384	366	263	133	18	9.49
1965	476	419	405	319	253	92	21	9.93
1970	408	427	350	316	211	127	19	9.29
1975	468	411	368	280	217	136	b	9.40
1980	481	447	352	284	232	130	24	9.75
VI. 1960	377	456	391	317	242	119	40	9.71
1965	363	422	419	348	224	120	0	9.48
1970	494	423	400	344	240	106	9	10.08
1975	398	436	377	285	204	109	b	9.04
1980	421	424	360	339	235	99	18	9.48

VII.	1960	363	404	426	297	244	81	20	9.18
	1965	493	377	412	322	215	96	15	9.65
	1970	485	475	365	333	208	85	12	9.82
	1975	420	430	341	304	224	152	b	9.36
	1980	464	372	316	252	210	79	44	8.68
VIII.	1960	420	383	343	354	216	153	25	9.47
	1965	375	437	389	330	275	99	25	9.65
	1970	362	433	386	403	294	90	27	9.98
	1975	462	390	384	306	193	168	b	9.52
	1980	388	448	348	283	219	104	61	9.26
IX.	1960	396	463	424	419	221	108	160	10.96
	1965	421	469	396	323	230	71	31	9.71
	1970	451	529	407	285	169	114	32	9.94
	1975	402	410	322	248	175	60	b	8.08
	1980	422	384	237	228	145	88	4	7.54
X.	1960	459	445	420	307	307	119	28	10.43
	1965	380	465	391	310	299	193	51	10.45
	1970	473	465	410	334	255	120	63	10.60
	1975	411	439	356	305	234	125	b	9.35
	1980	399	436	328	248	216	98	29	8.77
XI.	1960	404	424	392	348	187	171	19	9.73
	1965	438	425	368	343	254	130	23	9.91
	1970	554	443	414	316	224	146	23	10.60
	1975	372	400	372	290	178	52	b	8.32
	1980	343	395	335	268	186	64	26	8.08
XII.	1975	407	444	342	290	178	94	b	8.78
	1980	427	415	338	271	188	73	8	8.60

[a] *Based on 1978 RPFS; regional rates were obtained from 1983 NDS. The national TMFR based on 1983 NDS is 8.64 children per ever-married woman.*

[b] *Since the oldest age group interviewed in the 1983 NDS is aged 45-49, experience of women in the same age group 5-9 years before the survey is not represented. The upper limit of the fiftieth birthday for the women in the sample leads to progressively lower truncation points of reproductive experience as time recedes (Brass, 1979). More simply, the data become progressively less complete as we proceed further back. Hence, we expect a higher level of experience among the oldest age group.*

Sources: 1973 and 1983 NDS and 1978 RPFS.

(Central Luzon) and 9.6 to 7.6 (Southern Tagalog) during the 1965-1980 interval. The decline was exhibited by most of the age groups particularly in the later years in all three regions.

Central Visayas, Eastern Visayas, Western Mindanao, Northern Mindanao, and Southern Mindanao exhibited the same increase and decreased thereafter like the three aforementioned regions. But the decline occurred later in 1970. There was a fall in the average number of children per ever-married woman from around 10 to about nine in Central Visayas and Eastern Visayas; to about seven in Western Mindanao and from around 11 to about nine in Northern Mindanao and eight in Southern Mindanao during the 1970-1980 period.

Such declines were primarily due to the behavior of the ever married women aged 25-34 in these regions.

Central Mindanao manifested a slight decline from 8.8 to 8.6 children per ever married woman during 1975-1980. This decline was mainly shown by women aged 20-34 and 40-44.

The Ilocos region, Bicol and Western Visayas deviated from the general pattern of decline observed in the other regions particularly during 1975 to 1980. All three portrayed a rise in marital fertility during the latest quinquennium from 8.6 to 8.9, 9.4 to 9.7 and nine to 9.5 children per ever married woman, respectively. In the earlier periods, however, these three regions exhibited varying patterns. Ilocos manifested a consistent decline; Bicol, a rise and then a fall; and Western Visayas, a fall and then a rise. Such patterns are mainly caused by a saw-tooth pattern shown by women in most of the age groups. Only Ilocos women aged 25-34 portrayed a consistent fall during the 1965-1980 period. In Bicol, only women aged 30-34 showed some decline but only during the 1960-1975 interval. In Western Visayas, it was in the age group 25-29 that marital fertility consistently fell during the 1965-1980 period.

Some Fertility Differentials

The average number of children ever born (CEB) per woman by age from the 1983 NDS is given in Table 4. The expected pattern of a rising cumulative fertility with increasing age was evident for the nation as a whole. Four regions deviated from the average pattern – Ilocos, Cagayan Valley, Southern Mindanao and Central Mindanao. There was a sudden fall in CEB at the last age group, indicating an omission of children by the

Table 4. Average Number of Children Ever Born Per Woman By Age, Total Philippines and Its 13 Regions, 1983 NDS

Region	Age Group of Woman						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Total Philippines	.07	.76	2.10	3.40	4.71	5.50	6.01
National Capital Region	.04	.55	1.47	2.74	3.77	4.10	5.43
I. Ilocos	.05	.83	2.08	3.19	3.98	5.40	5.33
II. Cagayan Valley	.07	.86	2.57	3.50	4.74	5.88	5.27
III. Central Luzon	.07	.62	1.99	3.21	3.90	4.77	6.49
IV. Southern Tagalog	.05	.66	1.94	2.81	4.25	5.01	5.20
V. Bicol	.07	1.01	2.81	4.13	5.54	6.34	7.10
VI. Western Visayas	.06	.80	2.25	3.99	5.36	5.79	6.50
VII. Central Visayas	.11	.83	2.11	4.03	5.25	6.21	6.43
VIII. Eastern Visayas	.07	1.07	3.07	3.71	6.22	6.62	7.28
IX. Western Mindanao	.08	.88	2.12	3.49	4.83	5.67	6.06
X. Northern Mindanao	.10	.81	2.25	3.54	5.43	6.37	7.07
XI. Southern Mindanao	.09	.83	2.04	3.41	4.84	5.72	5.18
XII. Central Mindanao	.11	.95	2.55	4.27	5.55	6.52	6.19

Table 5. Average Number of Children Ever Born Per Ever Married Woman By Highest Grade Completed, Total Philippines and Its 13 Regions, 1983 NDS

Region	Highest Grade Completed			
	Primary/Less	Elementary	High School	College+
Philippines	4.12	3.30	1.54	1.14
NCR	4.93	4.08	3.38	2.67
I.	5.10	4.61	3.89	3.29
II.	5.53	4.45	3.80	3.08
III.	5.33	4.04	3.33	2.64
IV.	5.37	4.48	3.18	2.81
V.	5.72	4.77	4.20	3.08
VI.	5.60	5.24	3.24	2.79
VII.	5.47	4.62	3.61	3.15
VIII.	5.78	4.93	4.11	3.58
IX.	5.14	4.52	3.50	2.56
X.	5.54	5.51	3.62	3.10
XI.	5.47	4.39	3.60	2.79
XII.	5.36	4.79	3.65	2.69

oldest age group.

Table 5 depicts the average number of children ever born per ever-married woman by highest grade completed based on the 1983 NDS. The nation and all of its regions portrayed the expected strong inverse relationship between fertility and education. The mean number of CEB decreased systematically with increasing educational level.

Contraceptive Prevalence

Data on contraceptive prevalence and trends obtained from the 1968, 1973 and 1983 NDSs are summarized in Table 6. The table reveals a sharp rise in current contraceptive use in the country and all regions during the 1968 to 1983 period. The 1978 RPFS data were not included here as regional comparable estimates could not be readily derived. With such data included, for the nation as a whole, con-

Table 6: Contraceptive Prevalence Rates By Regions: Philippines 1968, 1973 and 1983

Regions	1968	1973[a]	1983[c]
Philippines	15.5	24.0	32.1
NCR	20.7	39.0	45.9
I.	9.9	21.4	30.0
II.	15.9	15.0	24.3
III.	18.9	25.8	43.0
IV.	10.3	21.8	28.2
V.	13.4	17.2	18.7
VI.	17.7	20.3	27.1
VII.	11.5	28.3	28.5
VIII.	10.0	21.5	25.2
IX.	16.8	14.2	30.4
X.	19.1	23.7	34.3
XI.	21.5	24.0	41.7
XII.	b	b	19.7

[a] *Regional estimates were adjusted for underreporting to be consistent with the adjusted national figures by Laing (1977).*

[b] *Non-existent*

[c] *Based on the total sample of respondents; the figures presented in Perez and Cabigon (1985) were based on a 25 percent sub-sample of respondents.*

traceptive prevalence sharply increased from 16 percent to 37 percent during the decade 1968-1978 but dropped to 32 percent in 1983. However, such a decrease was accounted for mainly by the use of less effective methods. It is interesting to note that the contraceptive prevalence of more effective methods was consistently on the rise.

Examining more closely the regional contraceptive prevalence over time (Table 6), it appears that in all years under consideration, only two regions (Metro Manila and Central Luzon) exhibited rates higher than the national average. The rates rose from 21 to 46 percent in Metro Manila, and from 19 to 43 percent in Central Luzon during the 1968 to 1983 period. Four regions (Cagayan Valley, Central Visayas, Northern Mindanao, Southern Mindanao), showed a peak and trough pattern relative to the nation as a whole. The Cagayan Valley rate was higher (15.9 percent) than average (15.5 percent) in 1968 but was consistently below average in the later years (from 15 to 24 percent during the past decade). For Central Visayas, it was lower than average in 1968 (11 percent) and 1983 (28 percent) but higher in 1973 (28 percent). Northern Mindanao and Southern Mindanao showed above average prevalence in 1968 and 1983 and more or less the same rate in 1973 as the nation (24 percent). The remaining regions showed rates below the national rate in all years under consideration.

Specific Method Prevalence

Focusing on four specific method contraceptive prevalence comparable in all three NDSs – pills, IUD, rhythm and withdrawal (Table 7) – would reveal that at the national level, pill and IUD use rose during 1968 to 1973 period and then fell during the subsequent decade. Rhythm use showed a consistent rise; withdrawal use, a fall and then a rise, during the same period under study. Only the Ilocos region followed the same pattern of change in all four methods. NCR showed an increase then a decrease in pill use, consistent decline in IUD use, rise then a fall in rhythm use, a decline then a rise in withdrawal use. Five regions (Central Luzon, Southern Tagalog, Bicol, Western Visayas and Northern Mindanao) depicted a common pattern of change: a rise then a fall in pill and IUD use, a decrease then an increase in rhythm and withdrawal use in the periods 1968-1973 and 1973-1983, respectively. Cagayan Valley showed a rise then a fall in pill use, a consistent increase in IUD, and a fall then a rise in rhythm and withdrawal. All four methods manifested a rise then a fall in Central Visayas, while in Eastern Visayas, an increase then a decrease in pill and withdrawal but a consistent rise in IUD and rhythm. In Western Mindanao, pill, IUD and rhythm use went up uniformly, but withdrawal use fell then rose. Southern Mindanao portrayed a rise then a fall in pill use, a consistent increase in IUD and rhythm, but a consistent decrease in withdrawal.

Concentrating on the 1983 NDS data on specific method prevalence including the others not mentioned

Table 7. Specific Method Contraceptive Prevalence, All Currently Married Women 15-44 Years Old: Total Philippines and Its 13 Regions

Regions	Pills			IUD			Rhythm			Withdrawal			Others[c]		
	1968	1973	1983	1968	1973	1983	1968	1973	1983[a]	1968	1973	1983[a]	1968	1973	1983
Philippines	1.3	7.5	5.5	0.9	3.5	2.5	5.5	7.0	7.6	6.2	3.6	4.5	1.6	2.4	12.0
NCR	4.3	13.7	9.1	9.1	8.9	4.8	5.5	9.7	6.6	6.9	4.6	6.0	2.8	2.1	19.4
I.	1.8	12.1	5.2	0.0	4.4	0.8	1.5	2.5	4.4	5.6	1.5	4.7	1.0	0.9	14.9
II.	1.3	8.8	6.0	0.7	0.7	4.5	8.6	3.5	4.0	5.3	1.2	2.6	0.0	0.8	7.2
III.	2.4	12.2	6.7	0.9	3.8	1.8	6.0	2.2	5.4	6.5	6.3	7.2	3.1	1.3	21.9
IV.	0.9	10.6	6.0	0.4	3.5	1.4	4.3	2.5	4.7	4.1	2.9	4.0	0.6	2.3	11.1
V.	0.4	5.7	2.1	0.9	3.1	2.8	5.6	3.9	5.3	5.8	1.8	2.5	0.7	2.7	6.0
VI.	1.0	7.3	4.5	0.1	2.4	1.0	6.6	5.9	11.3	8.7	1.7	2.6	1.3	3.0	7.7
VII.	0.4	8.1	2.9	0	3.9	3.0	6.8	7.9	7.3	3.7	5.2	3.8	0.6	3.2	11.5
VIII.	0.2	7.6	2.6	0	2.0	2.4	2.1	5.7	7.1	4.1	5.6	4.7	3.6	0.6	8.4
IX.	1.2	4.5	6.4	0	1.0	2.1	3.4	4.1	10.4	5.4	1.6	4.6	6.8	3.0	6.9
X.	0.4	9.7	6.3	0.3	3.5	3.0	12.5	7.5	13.3	5.7	2.4	3.3	0.2	0.6	8.4
XI.	0.3	8.1	5.4	1.7	1.8	3.5	6.3	7.4	16.0	12.4	4.4	4.0	0.8	2.3	12.8
XII.	b	b	2.9	b	b	1.6	b	b	5.6	b	b	4.0	b	b	5.6

[a] *Includes combination with other methods.*

[b] *Newly created region*

[c] *All other methods except the four specified.*

above (Table 8), it appears that for the country as a whole, permanent contraceptives (sterilization) ranked first (about 10 percent) and non-program methods occupied the lowest (around six percent). The reversible clinical methods showed eight percent prevalence (with pill leading) while the other program methods portrayed nine percent (with rhythm taking the lead).

The regions ranking high in sterilization acceptance included Metro Manila, Ilocos, Central Luzon and Southern Tagalog. Other program methods were most popular in Bicol and all the Visayas and Mindanao regions. It should be noted that this method consistently went up in these regions except Central Visayas. It was the group of reversible clinical methods, particularly pills, that appeared to be the most popular in Cagayan Valley although a fall in the use of such method was discerned during the 1973-1983 period. It is interesting to note that these reversible clinical methods ranked second or third in the other 12 regions.

Contraceptive Prevalence Differentials

Table 9 portrays socioeconomic differentials in contraceptive prevalence for the total Philippines and for each of the 13 regions still basing on the 1983 NDS. With the exception of Metro Manila which is entirely urban, the pattern of higher contraceptive prevalence in the urban areas than in the rural areas was consistently evident in all regions under consideration. The gap between the rural and urban rate was 13 percent for the total Philippines. It ranged from 0.6 percent (Southern Mindanao) to 15 percent (Western Visayas). What is notable is the negligible difference between urban and rural rates in Southern Mindanao and Central Luzon. It is worth mentioning that these two regions belonged to the more urbanized regions manifesting high values of the tempo of urbanization (about seven from Table 4.8; Raymundo, 1983). Those regions showing a gap of more than 10 percent were Ilocos, Cagayan Valley, Bicol, Western Visayas, Eastern Visayas and Central Mindanao.

CPR remained systematically higher among those with monthly household income of P1000 and over in all regions but Central Mindanao. The income differentials were most pronounced in Bicol, Western Visayas, Central Visayas and Western Mindanao.

As to occupational index of household head, in all regions, those with high index score showed higher CPR than those with low index values. (The household head's occupation was transformed into a quantitative classification using the socioeconomic index for occupations in the Philippines created using canonical correlation analysis of the 1978 Area Fertility Survey [Cabigon, 1980]). The gap ranged from 26 in Cagayan Valley to a low of three in Central Luzon. Note that in Central Luzon, the differences between categories of each of the socioeconomic variables considered were very small.

The generalization that the higher

Table 8: Specific Method Contraceptive Prevalence, Currently Married Women 15-44 Years Old: Total Philippines and Its 13 Regions, 1983 NDS

Method	Regions													
	Phil.	NCR	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
A. Reversible Clinical Methods	8.1	13.9	6.0	10.5	8.8	7.6	4.9	5.5	5.9	5.5	8.9	9.3	9.1	4.5
Pills	5.5	9.1	5.2	6.0	6.7	6.0	2.1	4.5	2.9	2.6	6.4	6.3	5.4	2.9
IUD	2.5	4.8	0.8	4.5	1.8	1.4	2.8	1.0	3.0	2.4	2.1	3.0	3.5	1.6
Injection	0.1	–	–	–	0.3	0.2	–	–	–	0.5	0.4	–	0.2	–
B. Sterilization	9.5	17.6	11.6	6.7	19.2	9.2	4.4	5.3	6.2	5.5	3.9	6.0	9.1	4.0
Ligation	9.1	17.2	11.6	6.2	18.8	9.0	4.1	4.6	5.9	5.5	3.3	4.8	8.8	3.3
Vasectomy	0.4	0.4	–	0.5	0.4	0.2	0.3	0.7	0.3	–	0.6	1.2	0.3	0.7
C. Other Program Methods	8.9	7.7	6.4	4.5	6.8	5.0	6.0	12.8	10.5	8.1	12.2	14.5	17.7	6.3
Condom	1.3	0.9	2.0	0.5	1.4	0.8	0.7	1.5	3.2	1.0	1.8	1.0	1.7	0.7
Rhythm	5.4	4.2	3.4	3.3	3.8	3.6	3.9	7.2	5.2	5.3	7.9	10.5	11.8	3.8
Rhythm and Condom	0.5	–	0.3	–	0.1	0.2	–	1.2	0.9	0.8	0.4	0.8	1.0	0.7
Rhythm and Withdrawal	1.7	2.4	0.7	0.7	1.5	0.9	1.4	2.9	1.2	1.0	2.1	2.0	3.2	1.1
Foam – Aerosol	0.0	0.2	–	–	–	–	–	–	–	–	–	0.2	–	–
D. Non-Program Methods	5.6	6.7	6.0	2.6	8.2	5.9	3.4	3.5	5.9	6.1	5.4	4.5	5.8	4.9
Withdrawal	4.3	5.8	4.7	2.6	6.8	4.6	2.5	2.5	3.8	4.5	4.2	2.9	3.5	3.6
Withdrawal and Condom	0.2	0.2	–	–	0.4	0.4	–	0.1	–	0.2	0.4	0.4	0.5	0.4
Abstinence	1.0	0.7	1.3	–	0.9	0.9	0.6	0.7	1.8	1.4	0.8	0.8	1.6	0.7
Others	0.1	–	–	–	0.1	–	0.3	0.2	0.3	–	–	0.4	0.2	0.2

Table 9: Contraceptive Prevalence Rates According to Selected Socio-Economic Variables, Currently Married Women 15-44 Years Old: Total Philippines and Its 13 Regions, 1983 NDS

Socio-Economic Characteristics	Phil.	NCR	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
						Regions								
1. Residence														
a. Rural	27.1	–	27.4	22.2	41.7	24.7	16.6	23.1	25.7	22.5	29.6	32.0	41.4	17.1
b. Urban	40.4	45.9	38.6	36.1	44.7	34.0	27.4	38.3	34.2	36.1	34.2	41.1	42.0	31.7
Difference (b-a)	13.3	45.9	11.2	13.9	3.0	9.3	10.8	15.2	8.5	13.6	4.6	9.1	0.6	14.6
2. Monthly HH Income														
a. 1000	28.5	45.1	26.4	23.6	42.6	27.5	17.0	24.6	25.6	24.8	24.7	31.4	38.1	19.8
b. 1000 and over	41.5	46.2	41.1	28.3	43.5	29.8	37.0	42.7	46.8	31.6	48.7	43.2	50.5	20.0
Difference (b-a)	13.0	1.1	14.7	4.7	0.9	2.3	20.0	18.1	21.2	6.8	24.0	11.8	12.4	0.2
3. HH Head Occupational Index														
a. Low	31.0	45.4	29.7	23.6	43.4	27.3	18.7	27.0	27.0	25.0	29.0	32.7	40.0	18.9
b. High	45.4	51.1	39.5	50.0	46.4	51.2	28.6	33.9	41.9	42.9	45.7	41.9	58.5	30.4
Difference (b-a)	14.4	5.7	9.8	26.4	3.0	23.9	9.9	6.9	14.9	17.9	16.7	9.2	14.5	11.5
4. Educational Attainment														
a. Primary or less	21.4	44.4	20.4	10.2	42.6	20.4	13.0	21.4	13.5	17.7	17.4	21.6	30.5	11.6
b. Elementary	28.9	45.9	24.2	22.1	42.8	25.7	14.1	25.0	29.3	23.3	35.6	27.8	36.3	18.2
c. High School	36.8	43.8	36.6	29.7	42.7	29.0	29.4	31.9	45.8	30.8	30.6	38.0	49.2	22.1
d. College and over	43.7	49.2	41.1	44.0	43.6	39.7	26.9	39.3	43.0	40.0	45.6	54.3	54.8	30.9
Difference (d-a)	22.3	4.8	20.7	33.8	1.0	19.3	13.9	17.9	29.5	22.3	28.2	32.7	24.3	19.3
5. Current Work Status														
a. Working	39.0	48.8	37.6	24.5	43.8	38.5	23.4	34.2	34.1	33.3	36.8	43.2	50.4	22.6
b. Not Working	29.8	44.2	27.2	24.3	42.7	24.4	17.7	24.9	26.4	22.5	29.5	31.3	39.3	18.8
Difference (a-b)	9.2	4.6	10.4	0.2	1.1	14.1	5.7	9.3	7.7	10.8	7.3	11.9	11.1	3.8

CPR was maintained in the nation as a whole and the eight regions – Ilocos, Cagayan Valley, Southern Tagalog, Western Visayas, Eastern Visayas, Northern Mindanao, Southern Mindanao and Central Mindanao. Jagged patterns were shown by Metro Manila, Central Luzon and Western Mindanao. The sudden fall occurred at the highest level for Bicol and Central Visayas.

That CPR is greater among those currently working was sustained by all regions. But Central Luzon and Cagayan Valley manifested small differences and the highest gap occurred in Southern Tagalog.

Patterns of Current Use by Age and Number of Living Children

Patterns of current use (efficient and inefficient) by current age and number of living children are depicted in Figures 2 and 3, which are based on Appendix Tables 1 and 2 for the nation and its 13 regions. An inverted J-shaped curve of current use by age and number of living children was sustained in the country as a whole and in all regions except in Eastern Visayas and NCR. Such a pattern indicates that contraceptive use was more likely to occur at the older or middle ages and at the highest number of living children or at more moderate values. Eastern Visayas deviated in both figures with a fall at age 35-39 and at four living children, and then a rise at the next age group and number of living children, and then a rise at the next age group and number of living children, and then a rise at the next age group and number of living children. This suggests that Eastern Visayan women aged 35-39 and with four living children were not as concerned as their counterparts in the preceding and succeeding age groups and number of living children. Metro Manila showed a J-shaped curve by age, but a pattern of falling level of current use at parity three and then a rise at higher parities.[2]

The figures provide further evidence that the three regions with high level of current use were Metro Manila, Central Luzon and Southern Mindanao. The level of current use of efficient methods was higher than that of inefficient methods in Metro Manila and Central Luzon.[3] The opposite pattern held true for Southern Mindanao. The other regions showing higher level of current use of efficient methods than inefficient ones were Ilocos, Cagayan Valley, Southern Tagalog, Bicol and Central Luzon. The opposite pattern was discerned in the remaining regions.

The Role of Contraception in Fertility Change

A uniform change in fertility from 1960 to 1980 as discussed above has not been exhibited by the three measures of fertility level – CBR, TFR and TMFR. For instance, for the nation as a whole, CBR declined consistently from 1960 to 1975, but rose from 1975 to 1980. While TFR portrayed a consistent fall overtime. TMFR remained constant during 1960-1970, and started and continued to decline thereafter. Unlike the CBR,

FIGURE 2. CURRENTLY MARRIED WOMAN : Percentage of current use of contraception by current age

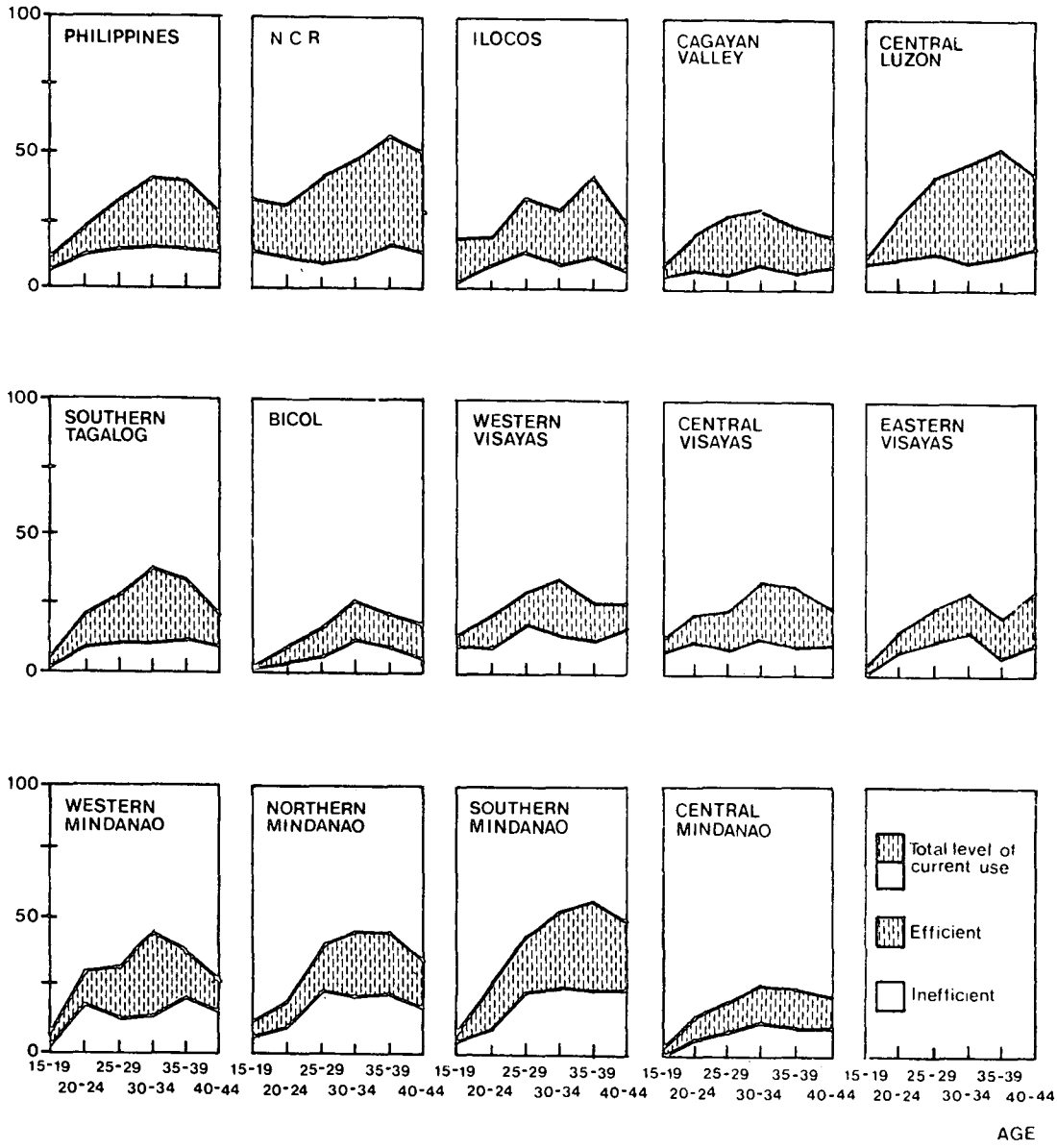
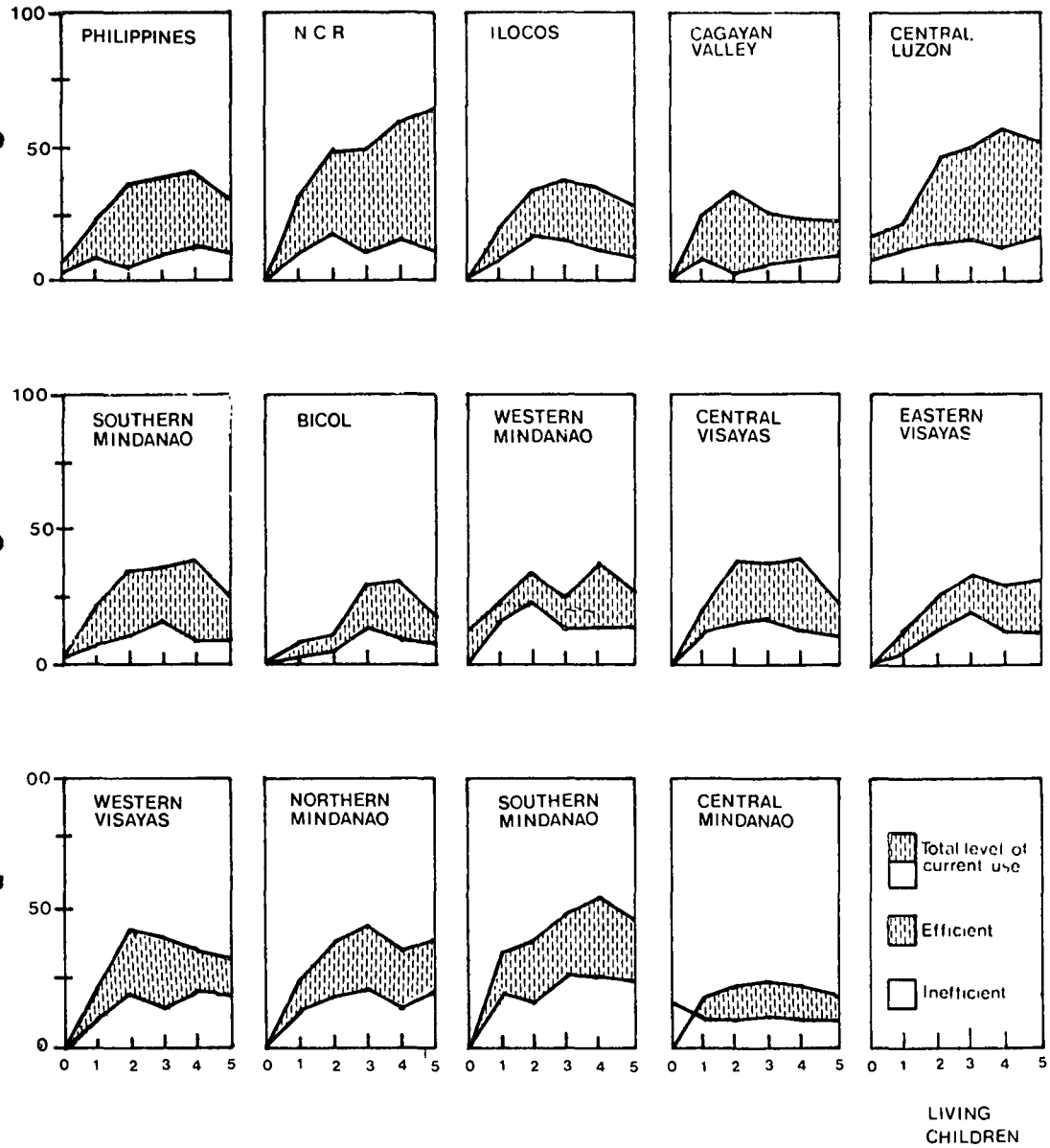


FIGURE 3. CURRENTLY MARRIED WOMAN : Percentage of current use of contraception by number of living children



the TFR is free from distortions caused by changes in age structure. Besides, TFR is subject to smaller sampling errors than the TMFR because overall fertility rates are based on denominators much larger than the corresponding denominators used in deriving marital fertility rates. For these reasons, the fertility decline indicated by TFR is taken with greater certainty than the changes suggested by CBR and TMFR in this paper.

The relevant question to ask then is, "What have caused the changes in fertility?" A crude approach adopted here is the standardization procedure (UN Manual IX, 1979) discussed in great detail under the section on data and methods. It basically decomposes changes in CBRs into changes in three components: age structure, marriage patterns (mainly age at marriage) and marital fertility (Mauldin and Berelson, 1978). Any changes brought about by marital fertility may be attributed partly to the use of contraception. While it is not possible in this approach to determine the part of the change in marital fertility that could be credited to contraceptive use and the part that may be due to non-contraceptive use factors, it may be worthwhile to draw some inferences from the emerging role of such a component under the assumption that contraceptive use plays a great role in affecting marital fertility. It should be noted that excluding the declining trend in contraceptive prevalence observed between 1978 and 1983 for the country as a whole, a sharp rise in current contraceptive use from 1968 to 1983 was discerned. It is important to mention here that this decomposition technique provides insights to the reversal trend manifested by the CBR from 1975 to 1980.

Results of the decomposition procedure for the nation as a whole and its 13 regions are displayed in Table 10. To facilitate easy reading of the table, the following relationships in the table entries might be helpful:

1. If the CBR *declines*, a *positive* sign of absolute change (penultimate column of the table) and a *negative* sign of percent of change (last column of the table) indicate a tendency of a given variable to *increase* the CBR and to *decrease* the amount of decline in the CBR, respectively. Conversely, a *negative* sign of absolute change and a *positive* sign of percent of change suggest the tendency of a given variable to *decrease* the CBR and to *increase* the amount of decline in the CBR, respectively; and
2. If the CBR *rises*, a *positive* sign of both absolute change and percent of change means a tendency of a given component to *increase* the CBR and the amount of increase in the CBR. On the contrary, a *negative* sign of both parameters implies a tendency of a given factor to *decrease* the CBR or the amount of increase in the CBR.

At the national level, changes in all three components – age structure, marriage patterns and marital fertility – tended to decrease the CBR or to increase the amount of decline in CBR during the 1960 to 1970 period. In

percentage, age structure accounted for the smallest (18 percent) and marital fertility, the largest (54 percent) proportions of the total change in CBR. More simply, changes in all three factors have been important components of the fertility decline during the 1960-1970 period. However, during the 1970-1975 and 1975-1980 intervals, changes in age structure and marriage pattern showed a reverse effect which is to increase the CBR or decrease the amount of change in the CBR with age structure changes exerting stronger influence than marriage patterns in both periods (nine and 156 percent, respectively). Marital fertility remained a very important fertility inhibiting factor, its effect even stronger in the subsequent decade (contributing 111 and 173 percent of the change, respectively) in 1970-1975 and 1975-1980 periods. It should be recalled that marital fertility indicated by TMFR began and continued to go down in the 70s. The role of contraception on such a fertility decline could not, therefore, be discounted.

It is clear from these data that during the most recent quinquennium, although the negative influencing effect of marital fertility was large, it could not offset the substantial positive influencing effects of changes in age structure and marriage patterns. Combining the absolute changes due to age structure and marriage patterns (2.28 + 1.70 = 3.98) almost doubles the absolute change due to marital fertility (−2.52). This combined effect of age structure and marriage patterns to increase the CBR which was much larger than the depressing effect of marital fertility might have been the main cause of the rise in CBR observed in the most recent period. Such changes in age structure and marriage patterns come to bear clearly when Table 11 is examined. There was a greater proportion of females aged 20-34 in the total population and of currently married women aged 15-29 to total female population in the same age group in 1980 than in 1975.

Another approach to determine the role of change in age composition in the rise of CBR in the last period under consideration is to standardize the 1975 and 1980 CBR using the 1960 female age composition as a standard. Results of this exercise are shown below:

	CBR	
Year	**Unstandardized**	**Standardized**
1975	34.8	35.6
1980	36.3	34.6

Source: Table 1 of this paper.

While the unstandardized CBRs showed an increase, the standardized ones depicted a decrease. It is clear that the rise in CBR during the 1975-1980 period is partly due to changes in age composition. While such changes may be due to differential coverage in both censuses, it cannot be discounted that a real change in such factors -- age composition and marriage patterns -- might have taken place.

Let us turn to the regional dimension of the decomposition exercise.

Table 10. Decomposition of Changes in CBR by Source of Variation, Philippines and Its 13 Regions: 1960-1980

REGION/PERIOD	CBR T = 1	CBR T = 2	CBR Change Amount	CBR Change Per Cent	Absolute Change Due to . . . Age Structure	Absolute Change Due to . . . Marriage Pattern	Absolute Change Due to . . . Marital Fertility	Percent Change Due to . . . Age Structure	Percent Change Due to . . . Marriage Pattern	Percent Change Due to . . . Marital Fertility
Philippines										
1960-1970	46.00	39.25	– 6.75	– 14.70	– 1.2	– 1.9	– 3.6	17.9	28.5	53.6
1970-1975	39.25	34.85	– 4.40	– 11.20	0.4	0.1	– 4.9	– 8.8	– 1.9	110.7
1975-1980	34.85	36.31	1.46	4.19	2.28	1.70	– 2.52	156.2	116.4	– 172.6
NCR[a]										
1970-1975	32.52	28.72	– 3.80	– 11.67	1.16	– 0.14	– 4.81	– 30.49	3.76	126.73
1975-1980	28.72	34.80	6.08	21.17	3.14	2.33	0.61	51.67	38.25	10.08
I										
1960-1970	42.38	34.77	– 7.60	– 17.94	– 1.87	– 2.32	– 3.41	24.70	30.55	44.76
1970-1975	34.77	31.26	– 3.51	– 10.10	0.40	– 0.43	– 3.49	– 11.46	12.24	99.23
1975-1980	31.26	37.61	6.35	20.31	1.18	1.64	3.54	18.53	25.76	55.71
II.										
1960-1970	48.31	40.23	– 8.08	– 16.73	– 2.83	– 1.96	– 3.31	34.92	24.20	40.88
1970-1975	40.23	35.57	– 4.66	– 11.57	0.95	– 0.43	– 5.17	– 20.30	9.32	110.98
1975-1980	35.57	36.83	1.26	3.53	2.02	1.13	– 1.90	161.11	90.16	– 151.27
III[a]										
1970-1975	37.35	31.24	– 6.11	– 16.35	0.77	– 0.20	– 6.68	– 12.66	3.23	109.42
1975-1980	31.24	31.49	0.25	0.79	2.38	1.50	– 3.63	954.53	603.26	–1457.79
IV[a]										
1970-1975	38.17	34.57	– 3.60	– 9.43	0.55	0.57	– 4.72	– 15.14	– 15.91	131.04
1975-1980	34.57	33.61	– 0.96	– 2.78	2.24	1.74	– 4.95	–232.58	–181.32	513.90
V										
1960-1970	43.41	36.87	– 6.53	–15.05	–1.62	–2.10	– 2.81	24.84	32.12	43.04
1970-1975	36.87	35.62	– 1.26	– 3.41	–0.14	0.42	– 1.53	11.30	33.15	121.85
1975-1980	35.62	40.13	4.51	12.67	1.63	1.55	1.33	36.18	34.40	29.43

VI										
1960-1970	43.06	37.81	− 5.25	−12.20	−1.36	−2.87	− 1.01	25.98	54.84	19.18
1970-1975	37.81	36.38	− 1.43	− 3.77	−0.44	1.13	− 2.11	30.98	− 79.22	148.25
1975-1980	36.38	36.93	0.55	1.51	1.69	1.39	− 2.53	306.69	251.96	−458.65
VII										
1960-1970	41.42	37.43	− 3.99	− 9.63	−1.56	− 2.11	− 0.33	39.06	52.79	8.15
1970-1975	37.43	30.82	− 6.61	−17.67	−0.11	0.86	− 7.36	1.65	−12.97	111.32
1975-1980	30.82	32.77	1.95	6.32	1.64	1.76	− 1.44	83.66	90.23	−73.90
VIII										
1960-1970	44.86	46.29	1.43	3.19	− 3.29	− 2.23	6.94	−230.92	−156.44	487.36
1970-1975	46.29	35.51	−10.78	−23.29	− 0.21	0.95	−11.52	1.92	− 8.84	106.92
1975-1980	35.51	38.71	3.20	9.00	0.79	0.60	1.80	24.85	18.67	56.49
IX										
1960-1970	55.79	47.92	− 7.87	−14.10	− 0.43	− 2.98	− 4.45	5.51	37.91	56.59
1970-1975	47.92	35.52	−12.40	−25.88	− 0.12	0.01	−12.29	0.95	− 0.10	99.15
1975-1980	35.52	34.46	− 1.06	− 2.99	1.01	1.87	− 3.94	−94.32	− 175.25	369.57
X										
1960-1970	48.47	47.82	− 0.65	− 1.35	− 2.57	− 3.30	5.20	381.91	490.42	−772.33
1970-1975	47.82	39.45	− 8.37	−17.50	− 0.06	0.34	− 8.65	0.71	− 4.08	103.38
1975-1980	39.45	37.37	− 2.08	− 5.26	2.49	0.92	− 5.49	−120.29	− 44.45	264.74
XI										
1960-1970	51.16	45.60	− 6.10	−11.93	− 1.74	− 2.82	− 1.54	28.48	46.18	25.34
1970-1975	45.06	37.60	− 7.46	−16.56	0.54	− 3.83	− 4.14	− 7.24	51.54	55.70
1975-1980	37.60	38.83	1.23	3.26	2.94	5.02	− 6.73	239.59	409.20	− 548.78
XII[b]										
1975-1980	35.67	43.02	7.35	20.60	1.88	4.12	1.34	25.56	56.12	18.32

Note: The CBRs shown in this table differ slightly in some instances from those shown in Table 1. Such differences are due to the fact that three components are taken in consideration in the derivation of these figures.

[a] *Marital status distribution in 5-year age groups is not available in 1960 census.*
[b] *It was only created after 1970 hence no relevant data are available for 1960 and 1970.*

Table 11. Percentage of Women to Total Population (Both Sexes) and of Women Who are Currently Married to Total Female Population by Age: Philippines, 1975 and 1980.

Age Group	Percentage of Women to Total Population (Both Sexes)		Percentage of Currently Married Women to Total Female Population	
	1975	1980	1975	1980
15–19	5.93	5.59	12.14	13.87
20–24	4.62	4.94	48.07	53.41
25–29	3.54	4.02	74.54	77.04
30–34	2.77	3.07	85.34	85.06
35–39	2.61	2.48	87.92	87.27
40–44	2.03	2.14	87.17	85.70
45–49	1.73	1.74	84.77	82.59

Source: 1975 and 1980 Censuses.

During the 1960-1970 period, changes in all three factors tended to depress the CBR in seven regions with available data. These are Ilocos, Cagayan Valley, Bicol, Western Visayas, Central Visayas, Western Mindanao and Southern Mindanao. Marital fertility emerged as the most important component in reducing fertility in the Ilocos, Cagayan Valley, Bicol and Western Mindanao. For Western Visayas, Central Visayas and Southern Mindanao, marriage patterns ranked first as a fertility inhibiting variable among the three factors under study. The deviant regions are Eastern Visayas and Northern Mindanao where age structure and marriage pattern tended to decrease, and marital fertility to increase, the CBR. Age structure changes exerted a greater influence on fertility than marriage patterns changes in Eastern Visayas. The reverse holds true in Northern Mindanao.

During the 1970-1975 interval, changing age composition was more conducive in raising the CBR in Metro Manila, Ilocos, Cagayan Valley and Central Luzon. Marriage patterns and marital fertility changes were more likely to reduce it, with the latter playing the greater role. Four regions (Bicol, Western Visayas, Central Visayas, and Eastern Visayas) showed a different picture. The components inclined to decrease fertility were age structure and marital fertility with the latter playing a more important role. Marriage patterns tended to increase fertility. In Western Mindanao and Northern Mindanao, only marital fertility stood out as a fertility-reducing component. The two other components did not show any substantial effect on the CBR. Southern Tagalog uniquely portrayed age structure and marriage patterns as fertility-enhancing components, and marital fertility, as a fertility-inhibiting component. Similarly, Southern Mindanao's changing age structure tended to

increase while change in the two other factors tended to decrease the CBR.

In the last quinquennium under consideration, only two patterns emerged. One is the tendency of all variables to enlarge the amount of increase in CBR. The regions concerned are Metro Manila, Bicol, Ilocos, Eastern Visayas and Central Mindanao. The most important component in Metro Manila and Bicol was the age structure; in the remaining eight regions, it was fertility changes. In five regions (Cagayan Valley, Central Luzon, Southern Tagalog, Western Visayas and Northern Mindanao), age structure was more important in the increase in CBR. For the rest of the regions (Central Visayas, Western Mindanao and Southern Mindanao), increasing proportion of currently married women had a greater effect on the increase in CBR.

DISCUSSION AND CONCLUSIONS

Fertility

Three measures of fertility level – CBR, TFR and TMFR – were presented in this paper to allow a wider basis for drawing substantive conclusions. The TFR, being the most refined measure among the three, was chosen to indicate the level of fertility across regions and for the nation as a whole. CBR is greatly affected by age and marital compositional differences. TMFR is upwardly biased due to the selection effect operating at young ages, i.e., the few women who marry at very young ages yield very high rates, thus substantially pulling the TMFR upwards. Nevertheless, these last two measures served as useful inputs in further discerning patterns of changes in fertility in this paper.

Attention is first focused on the current (1980) level of fertility. The cut-off points for classification arbitrarily were set as follows: 4.6 = low; 4.6–5.5 = medium; and 5.5 = high. Accordingly, fertility is low in NCR and Central Luzon, with an average of about 3.5 and 4.2 children per woman, respectively. Fertility is high in Bicol, Eastern Visayas and Central Mindanao, averaging about six children per woman. The remaining regions portrayed medium fertility averaging slightly below five children per woman in Southern Tagalog, Central Visayas and Western Mindanao and a little over five children in the Ilocos, Cagayan Valley, Western Visayas, Northern Mindanao and Southern Mindanao. On the whole, the country has an average of about five children per woman.

Fertility trends were examined by comparing TFRs and ASFRs from successive surveys. Fertility appears to have declined since 1960 but the rate of decline decelerated during the 1975-1980 period in four regions – Central Luzon, Western Visayas, Western Mindanao and Southern Mindanao. Such a pattern of decline is a reflection of the age, marriage and marital fertility patterns in such regions. These regions maintained a downward trend overtime in the peak reproductive age fertility rates. Likewise, since the 70s, marital fertility as measured by the TMFR has been consistently falling in the three regions except Western Visa-

yas. A standardization/decomposition analysis of the changes in CBR – a decline before but a rise after 1975 in all but Western Mindanao which showed a consistent decline over time – indicated the substantial depressing effect of the falling marital fertility largely resulting from contraceptive use. The seeming deceleration in the 1975-80 period was due to the increasing effect of changes in the proportion of women of reproductive age and their age structure.

In NCR, Ilocos and Central Visayas, fertility as measured by the TFR drastically decreased during the 1960-75 period but slightly rose during the 1975-80 interval. The 1960-75 decline was markedly demonstrated by women aged 20-39 (NCR), 15-24 (Ilocos) and 25-29 and 35-39 (Central Visayas). For regional trends in marital fertility, TMFR declined continuously in NCR, during an earlier period in Ilocos and at a later time (after 1970) in Central Visayas. Standardization analysis of the changes in CBR showed that in the Ilocos, lowering marital fertility and in Central Visayas, changes in marriage pattern (Central Visayas) accounted for most of the 1960-70 CBR decline. During the 1970-75 interval, decreasing marital fertility played the greatest role in all three regions. The CBR rise in the 1975-80 period was mainly due to changing age structure in NCR, rising marital fertility in the Ilocos and changing marital patterns in Central Visayas.

Fertility, which increased during 1960-65, had consistently fallen during this period in Cagayan Valley, Southern Tagalog and Northern Mindanao. This fall was mainly due to changing fertility behavior of women aged 30-44 (Cagayan Valley) and in all ages but 35-39 (Southern Tagalog) and 45-49 (Northern Mindanao). Marital fertility which rose during 1960-65 (Cagayan Valley and Southern Tagalog) and 1960-70 (Northern Mindanao) decreased thereafter. Decomposition analysis of the 1960-70 CBR decline in Cagayan Valley and Northern Mindanao revealed that reduced marital fertility and changing proportion of women getting married played the greatest role, respectively. The 1970-75 CBR decline in all these regions was mainly due to lower marital fertility. The 1975-80 CBR rise in Cagayan Valley was greatly explained by changing age structure. The 1975-80 CBR fall in Southern Tagalog and Northern Mindanao was primarily due to decreasing marital fertility, largely resulting from contraceptive practice. However, the tendency of age structure and marriage patterns to increase the CBR deserves particular attention.

Fertility in Bicol dropped from an average of about seven children per woman (though the decline was not monotonic) in the 60s to slightly over six children in the early 70s. Then it appears to have gone up in the late 70s. There was an unclear pattern of change exhibited by women in various age groups when ASFRs were examined. But with the ASMFRs, married women aged 30-34 portrayed a consistent decline in the 1960-75 period. The standardization analysis revealed that changes in marital fertility resulting from contraceptive practice accounted for much of the

1960-70 and 1970-75 decline in CBR. The main cause of the 1975-80 rise in CBR was changing age structure.

Eastern Visayas reported an increasing trend in all periods under consideration except the 1970-75 interval where a fall was evident across all ages. Interestingly, the same pattern of change was observed with marital fertility. But the reversed trend in marital fertility primarily engineered the 1970-75 decline.

Central Mindanao fertility figures were available only starting in 1975 as the region was created only after 1970. The trend in overall fertility is on the rise despite an apparent fall in marital fertility. As a matter of fact, changes on the proportion of women in the child-bearing age and their age structure and the slight change in marital fertility all contributed to the CBR increase.

Such varying patterns of changes in fertility across regions provide further clues to the steady decline in average family size for the nation as a whole from about 6.5 children in 1960 to about five children in 1980. This monotonic decline was maintained by women aged 30-34. Marital fertility was likewise on a declining trend although it started at a later period (late 70s) which was evident across all age groups except the oldest. The standardization analysis indicated that lowering marital fertility resulting from the use of family planning maintained its depressing effect on overall fertility since 1960. However, the other components did not maintain the fertility inhibiting effect they manifested in the 1960-70 CBR decline. They turned out to be positive influencing components in the later periods with age structure changes exerting more influence than marriage patterns, thus even causing the rise in the 1975-80 CBR. In short, there was a great proportion of females aged 20-34 in the total population and of currently married women aged 15-29 total female population in the same age group in 1980 than in 1975. While such changes may be due to differential coverage in both censuses, it cannot be discounted that a real change in age composition and marriage patterns might have taken place.

Clearly, from the above discussion of current levels and trends across regions and for the nation as a whole, it appears that fertility in our country and even in the most developed region, NCR, is still well above replacement level. The replacement level fertility – the level of fertility that would have to be sustained in the long term so that the number of births in a year would eventually equal the number of deaths – may be placed at about 2.2 to 2.5 in this country, a level similar to developing countries.

The disparity in fertility by social groups as indicated by education was very well demonstrated in each of the 13 regions and in the country as a whole. The implication for policy of such a differential deserves consideration.

Contraception

The data on contraceptive prevalence presented here relate to currently married women aged 15-44. The 1983 CPR ranged from about 19 per-

cent in Bicol to around 46 percent in Metro Manila. Four regions – NCR, Central Luzon, Southern Mindanao and Northern Mindanao – had a level higher than the national average of about 32 percent. The rest had rates below the national rate. There was a sharp rise in contraceptive prevalence in all regions and in the country during the 1968-83 period. It must be noted here that no comparable regional estimates can be calculated from the 1978 RPFS. However, for the nation as a whole, the 1978 rising trend was not maintained. Contraceptive prevalence dropped by 32 percent between 1978 and 1983. However, such a decrease was mainly accounted for by the significant decline in the use of less effective methods. On the other hand, use of more effective methods was consistently on the rise.

The 1983 specific method prevalence showed that the efficient methods, especially ligation and pill, were more prevalent than the inefficient ones in NCR, Ilocos, Cagayan Valley, Central Luzon and Southern Tagalog. The reverse held true for the remaining regions, with rhythm and its combinations emerging to be the most prevalent. The national average depicted a picture similar to the first group of regions. A glance at the prevalence rates of four specific methods (pills, IUD, rhythm and withdrawal) from the 1968, 1973 and 1983 NDSs indicated a rise then a fall in pill and IUD use, and a fall then a rise in rhythm and withdrawal use in Central Luzon, Southern Tagalog, Bicol, Western Visayas and Northern Mindanao. IUD use consistently increased in Cagayan Valley, Eastern Visayas, Western Mindanao and Southern Mindanao but consistently decreased in Metro Manila and showed a rise then a fall in Central Visayas. There was a rise then a fall in pill use in Metro Manila, Cagayan Valley, Central Visayas, Eastern Visayas and Southern Mindanao and a monotonic increase in Western Mindanao. Rhythm use rose then fell in Metro Manila and Central Visayas, fell then rose in Cagayan Valley, and uniformly increased in Eastern Visayas, Western Mindanao and Southern Mindanao. Withdrawal use declined then went up in Metro Manila, Cagayan Valley, Western Mindanao, increased then decreased in Central Visayas, Eastern Visayas and consistently fell in Southern Mindanao.

Differentials by residence, income, occupation, education and current work status were very pronounced in most of the regions. Central Luzon emerged as the only region with negligible differences between categories in all of the five variables considered. Metro Manila and Central Mindanao followed Central Luzon with income as a variable where a very small difference was discerned.

The percentages currently using contraception, by age and number of living children (parity) followed an inverted J-shaped curve that rose substantially from an absolute minimum at age 15-19 and zero parity to a plateau like maximum at ages 35-39 and parities three to four, then falling to a relative minimum at ages 40-44 and parity five and over, that is nonetheless higher than the minimum in all but Eastern Visayas and Metro Manila.

The pattern of Eastern Visayas is a fall at ages 35-39 and at parity four and then a rise to a high level at the next age group and parity. While the same inverted J-shaped curved by age was sustained by Metro Manila, the pattern by parity shown was a fall at parity three and then a rise to the minimum at parity five and over.

It is clear that there is a need for greater promotion of more efficient methods coupled with a stronger information drive among the sectors of the population where contraceptive practice is low (e.g., rural, low income, low occupation, less educated and not currently working groups) in all regions except for Metro Manila and Central Luzon. For these two regions sustaining or even improving the level of current use may be an important issue to address.

NOTES

[1]The 1983 NDS was carried out between 1 June to 31 December 1983 by a consortium of research centers composed of the University of the Philippines Population Institute (UPPI), University of San Carlos Office of Population Studies (USC-OPS) and Xavier University Mindanao Center for Population Studies (XU-MCPS).

[2] Parity means number of living children.

[3] Efficient methods include ligation, vasectomy, pills, IUD, injectable and condom. All the rest fall under inefficient methods.

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Appendix Table 1: Percent Distribution of Currently Married Women According to Type of Current Contraceptive Method[a] Used by Current Age, 1983 NDS

Region	Current Age/Type of Method Currently Used																				
	15–19			20–24			25–29			30–34			35–39			40–44			Total		
	N	I	E	N	I	E	N	I	E	N	I	E	N	I	E	N	I	E	N	I	E
Philippines	90.3	5.1	4.6	78.2	10.6	11.2	67.3	14.3	18.4	60.4	14.8	24.8	61.5	14.6	23.9	69.2	13.2	17.6	68.1	13.1	18.8
NCR	68.1	9.2	22.7	67.7	13.2	19.1	58.7	9.1	32.2	52.2	11.2	36.6	43.2	16.2	40.6	50.4	12.7	36.9	55.3	13.6	31.1
I	82.8	17.2	–	80.9	9.0	10.1	64.7	12.9	22.4	70.5	10.0	19.5	57.1	12.4	30.5	74.2	7.4	18.4	69.7	10.6	19.7
II	90.5	4.7	4.8	78.8	6.3	14.9	72.2	4.4	23.4	70.5	9.7	19.8	77.4	5.8	16.8	79.1	9.0	11.9	75.8	6.9	17.3
III	86.8	8.4	4.8	72.2	12.1	15.7	56.4	14.8	28.8	53.3	11.9	34.8	44.7	14.7	40.6	54.1	16.9	29.0	57.0	13.7	29.3
IV	95.1	–	4.9	80.3	9.6	10.1	72.8	11.2	16.0	61.0	11.5	27.5	64.7	12.0	23.3	78.3	10.6	11.1	72.1	10.4	17.5
V	98.0	–	2.0	89.9	6.3	3.8	84.4	8.2	7.4	73.1	13.6	13.3	77.4	11.5	11.1	79.6	6.6	13.8	81.3	8.9	9.8
VI	87.4	10.1	2.5	80.5	10.3	9.2	69.4	19.7	10.9	63.8	16.8	19.4	73.2	12.6	14.2	73.7	16.2	10.1	72.4	15.1	12.5
VII	86.5	11.0	2.5	76.8	13.7	9.5	75.5	11.5	13.0	64.8	16.0	19.2	66.7	12.0	21.3	73.9	11.1	15.0	71.8	13.0	15.2
VIII	94.5	2.8	2.7	84.0	12.5	3.5	75.3	13.0	11.7	68.3	18.0	113.7	76.8	10.5	12.7	68.8	13.6	17.6	75.5	12.8	11.7
IX	96.8	2.7	0.5	71.9	17.0	11.1	68.5	13.9	17.6	56.2	15.9	28.0	63.1	22.4	14.5	73.4	17.3	9.5	69.1	16.2	14.7
X	89.0	6.6	4.4	80.7	9.8	9.5	61.1	20.3	18.6	54.3	21.0	24.7	55.1	23.6	21.3	65.5	20.8	13.7	65.3	18.0	16.7
XI	91.6	5.4	3.0	75.7	10.5	13.8	54.9	25.1	20.0	45.1	27.9	27.0	42.3	26.1	31.6	61.9	26.6	11.5	57.9	22.0	20.1
XII	96.9	2.5	0.6	85.2	7.4	7.4	80.5	10.4	9.1	73.8	14.3	11.9	73.3	13.2	13.5	76.4	13.1	10.5	80.3	10.4	9.3

N = Not currently using
I = Currently using inefficient methods: rhythm, withdrawal, abstinence, rhythm-withdrawal, rhythm-condom, withdrawal-condom, foam-aerosol and others.
E = Currently using efficient methods: ligation, vasectomy, pills, IUD, injection, condom.

Appendix Table 2: Percent Distribution of Currently Married Women 15-44 Years Old According to Type of Current Contraceptive Method[a] by Number of Living Children, 1983 NDS

Region	Number of Living Children and Type of Method[a] Currently Used																				
	0			1			2			3			4			5			Total		
	N	I	E	N	I	E	N	I	E	N	I	E	N	I	E	N	I	E	N	I	E
Philippines	94.9	2.6	2.5	77.8	11.4	10.8	63.0	15.5	21.5	61.0	10.7	28.3	59.1	13.9	27.0	66.6	13.5	19.9	66.0	13.9	20.1
NCR	100.0	0.0	0.0	69.6	10.1	20.3	52.0	21.3	26.7	51.0	12.1	36.9	39.3	17.6	43.1	35.9	13.4	50.7	51.3	14.5	34.2
I	100.0	0.0	0.0	81.6	9.8	8.6	65.3	18.8	15.9	60.6	16.2	23.2	65.1	12.2	22.7	71.0	8.6	20.4	68.4	11.1	20.5
II	100.0	0.0	0.0	74.7	8.4	16.9	65.6	3.8	30.6	74.8	4.7	20.5	78.3	7.4	14.3	77.5	9.6	12.9	74.4	7.2	18.4
III	82.9	8.6	8.5	79.0	12.7	8.3	51.7	15.4	32.9	50.6	15.2	34.2	44.1	11.6	44.3	49.4	15.7	34.9	55.1	14.3	30.6
IV	95.8	4.2	–	79.4	7.2	13.4	64.8	11.7	23.5	63.9	16.6	19.5	60.9	10.6	28.5	74.4	9.1	16.5	69.8	11.1	19.1
V	100.0	0.0	0.0	92.6	4.0	3.4	90.0	7.1	2.9	70.3	15.5	14.2	68.4	10.4	21.2	81.4	9.0	9.6	80.7	9.1	10.2
VI	86.9	0.1	13.0	77.1	18.0	4.9	64.8	23.7	11.5	75.4	14.8	9.8	61.6	14.9	23.5	72.9	12.7	14.4	71.6	15.3	13.1
VII	100.0	0.0	0.0	79.4	13.6	7.0	62.9	16.1	21.0	62.8	18.0	19.2	61.0	12.7	26.3	77.3	10.5	12.2	70.5	13.4	16.1
VIII	100.0	0.0	0.0	90.4	6.1	3.5	75.4	15.4	9.2	68.0	21.2	10.8	70.7	13.2	16.1	69.4	13.5	17.1	73.3	14.1	12.6
IX	99.9	0.0	0.1	78.6	10.1	11.3	55.9	21.0	23.1	58.9	13.7	27.4	65.7	21.1	13.2	68.2	20.1	11.7	66.5	17.0	16.5
X	100.0	0.0	0.0	77.2	13.3	9.5	59.5	20.2	20.3	54.9	22.5	22.6	64.3	15.2	20.5	59.5	22.9	77.6	63.5	18.9	17.6
XI	100.0	0.0	0.0	64.9	25.0	10.1	60.1	17.4	22.5	49.4	27.5	23.1	45.4	26.1	28.5	52.0	25.8	22.2	54.4	24.2	21.4
XII	83.1	16.9	0.0	82.1	11.2	6.6	76.8	12.0	11.2	75.6	12.5	11.9	76.2	10.5	13.3	80.2	10.1	9.7	78.6	11.4	10.0

N = Not currently using
I = Currently using inefficient methods: rhythm, withdrawal, abstinence, withdrawal-condom, foam-aerosol, rhythm-withdrawal, rhythm-condom and others.
E = Currently using efficient methods: pill, IUD, ligation, vasectomy, injection and condom.