The Socio - Economic Determinants of Contraceptive Use in Jordan

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Introduction

The Hashemite Kingdom of Jordan is a small Middle Eastern country. It's area is approximatly 97000 square Kilometres, divided by the Jordan River into two geographic regions, namely : Trans-Jordan (Known as East bank) , and the west Bank which was a palestinian land unifed in 1950 with Trans.Jordan to form together the Hashemite kingdom of Jordan. But since the war of 1967 the West Bank and other lands of neighbouring Arab countries has fallen under the lsraeli occupation.

Since June 1967 it has become Practically rimpossible to collect any statistical data from the west Bank, Therefore, all data which are collected and published for Jordan actually refer to the East Bank only .

The results of the 1961 census (1) showed that the population of the East Bank was 900776 inhabitants. In 1979 the population reached 2.15 millions (2) . This means that the annual rate of population growth during the period 1961 - 1979 was 4.5 percent . THis high rate of population growth has been ascribed to two main reasons. The first is the continuous influx of palestinian refugees and other displaced persons to the East Bank. Second, there has been a widening gap between the

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(1) Department of statistics, Jordan; first Census of Population and Housing, November 1971; Department of Statistics Press, 1964.

(2) Department of Statistics, Jordan; The Preliminary Results of the Population and Housing Census 1979.

birth and death rates due to marked progress and expa - nsion of bealth and sanitary services. The crude death rate. dropped from 18 in 1961 to 12 per 1000 population in 1976; The life expectancy at birth rose from 49 years in 1961 to approximately 57 in 1977. While the death rate has been decreasing, the birth rate - has remained very high. In fact it has shown a slight increase from 47.3 live births per 1000 population in 1960 to its present level of about 48 per 1000 population.(3)

In 1972 a national fertility samplesurvey followed by 1979 (JFS) fertility survey were conducted to obtain information about the fertility levels and the demographic and socio-economic factors affecting it.In addition data on knowledge and use of contraceptive were collected for the two surveys. Data of the two aformentioned fertility surveys indicate a pattern of high levels,and significant socio-economic differentials in fertility . Among the various factors associated with the high level of fertility in Jordan ave : (4).

(a) The participation rates in the workforce for women are very low .

(b) Predominance of illitracy and low levels of education among the Jordanian women.

(c) The relatively high levels of infant mortality.

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(3) United Nations Fund for Population Activities,Report of Mission on Needs Assessment for Population Assistance, Report No. 18 - Jordan (New York, 1979) PP.5-6.

(4) International Statistical Institute (World fertility survey; the Jordan Fertility Survey 1979- A summary of findings; No.20, March 1980; PP. 3-7.

And Hanna Rizk; National Fertility Sample Survey for Jordan, 1972- The Study and some Findings; Population Bulletin or the U.N Econimic and Social Office in Beirut; No 5 July, 1973, P. 19.

(d) The long periods of exposure to risk of pregnancy are common in the country.

(e) The Jordanian society sets a high value for marriage particularly for the females, and the overwhelming majority get married at an early age and remarry if the first marriage is dissolved; However, it was found that marriage is relatively stable, only 5 percent in 1972 and 7 percent in 1976 of all ever - married women were not currently married at the time of the two surveys due to separation, widowhood and divorce. It is worthmentioning that marriage is the only institution where childbearing and up bringing of children is acceptable in moslem and mainly traditional societies like Joedan.

Other factors of no less importance and relevence to the high levels of fertility in Jordan, have been identified in data analyses of the two above mentioned fertility serveys.

On the other hand, data on contraceptive Knowledge and use for the two surveys show high levels; a finding considered inconsistant with the prevailing high fertility levels.

In 1972, almost all respondents knew one or more of the conventional methods of birth control. The women who abmitted that had no knowledge of any contraceptives were 1.2 percent of the urban sample, 2.0 percent in the semi urban and 11.0 percent in the rural sample. In total, 95 percent of the sampled women knew of one or more methods of family planning; and 29.9 percent used some contraceptives in the past.The percentage of current users was 22.2 percent of all wives living with husbands at the time of interview(5).

(5) H. Rizk; OP. CIT P.26.27.

According to JFS 1976, almost 97 percent have heared of one efficient method, 46 percent reported use of contraception at one time or another, most (39 percent) reported use of an efficient method, twenty six percent of the exposed women reported current use of an efficient method and an additional 12 percent reported use of inefficient method . (6).

However, the findings on the fertiliy measures differrentials and determinants have a broad appeal to policy makers, And considered of great importance in intiating a national population policy in Jordan which has not yet been adopted, but,considered the main objective of the National Population Commission established in 1976 .

The "Principal Report of the Jordan Fertility Servey" (JES) (7) discusses the direct measurement of the impact of some demograhic and socio-economic factors on fertility; In addition, the report attempts to identify the various differentials in contraceptive use. Interesting findings with respect to the separate influence of the background variables on fertility and contraceptive use are presented in the first volume of the above mentioned report. WFS expressed the need for further analysis to identify among others factors associated with fertility levels particularly the impact of socio-economic factors on fertility and the determinants of contraceptive use in a multivariate context .

The objective of this paper, as part of the proposed second - stage analysis of the Jordan Fertility survey 1976 (JFS) is to identify the socio-economic determinants of contraceptive use in a multivariate context,

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(6) ISI (WFS), the JFS 1976; P.11

(7) Department of Statistics, Jordan Fertility Survey 1976 : Principal Reort; vol. 1. (Amman 1979).

in order to determine their combined predictive power, as well as their importance when controlling for other variables (i.e. demographi variables). In addition to the identification of the socio-economic differentials of contraceptive use, the study investigates the fertility differentials of the various contraceptive categories.

It is worth mentioning that the study has important policy implications, inasmuch as gaining an insight into the socio-economic factors that influence the use of contraception and its impacts on fertility, can be of great help in reaching target groups defined for family planning programs, and in judging the effect of socio-economic change on fertility.

This paper demonstrates the methodology and the technique used in the study, and presents some of the results obtained on the determinants of contraceptive use in Jordan.

JFS DATA AND THE CHOICE OF STUDY POPULATION

The departement of statistics conducted the Jordan Fertility Survey (JFS) as a part of the World Fertility Survey in 1976. The survey was implemented in two stages : a household survey and an individual survey, separated by approximately five weeks, The completed survey included 14493 households in the household survey and 3610 ever married women in the individual surevy.

The JFS utilized three questionnaires, The household schedule obtained information on the age, sex and marital status of household members. In addition, the WFS General Mortality Module was appended to the scheduale, The individual questionnaire obtained information from ever-married women in the childbearing age

regarding their marriage and maternity histories, knowledge and use of contraception, fertility intentions and preferences, and socio-economic characteristics; This questionnair was based on the WFS core questionnaire incorpoating in addition the Fertility Regualtion Module and some questions from the Abortion Module.The third questionnaire was the Community Level Module, which consisted of question on general characteristics and socio-economic conditions at the village level (9)

THe individual survey yeilded data that permits investegation of (quantum and tempo) of fertility for various subgroups of the sampled population. Levels and differentials, period and cohort measures of fertility, in addition to timig and specing of births are with in the scope of analyses of these data. Besides, the information obtained for ever-married women on the individual level permits examination of socio-economic differentials in contraceptive use and fertility differentials of various categaries of contraceptive users.

As mentioned previously, the focus of the present paper is on the socio-economic determinants of contraceptive use,utilizing data of the individual survey.

This research will be confind to variations in the contraceptive status among populations of different socio-economic, demographic, cultural and environmental background. The relationship between the intermediate variable and fertility is shown in the following diagram :

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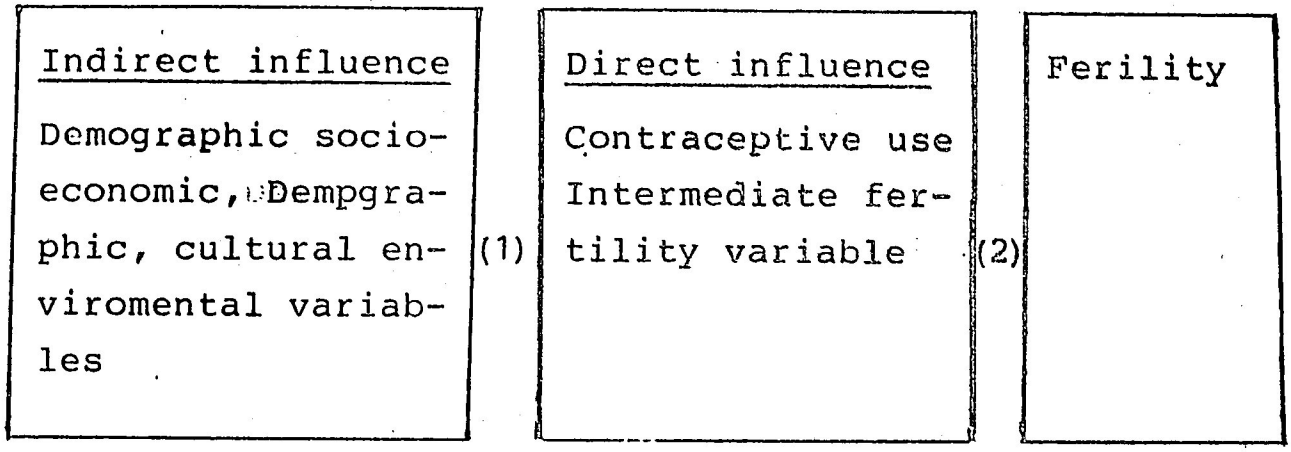
(9) Fer detailed information about the arganization and methodology of the survey see : Department of statistics-Jordan; Jordan Fertility Survey 1976-principal Report, Vol.1; (Amman, 1979)



Women who are currently married, fecund, not pregnant and exposed to the risk of conception (i.e. living with husband) including those who are sterlized for contraceptive purposes are sorted out of the sample population to from the study population. According to their report on contraceptive use; women under investegation were classified into three categories, those who never used any contraception method, those who reported use of contraception at one time or another (i.e.ever users), and currently users of contraceptives.

METHODOLOGY

"Stepwise Discriminat Analysis" is used in the presented study. Often this technique is recomended by researchers for handling classification problems; It gives us an idea about the influence of different independent variables in deciding how individuals are classified among various groups (i.e. the dependent variable) . In addition it enable us to determine those indpendent variables that are important in discriminating among the groups.

Generally, the are two research objectives of this technique : analysis and classification.

In the present study, "Discriminant Analysis" is used to analyze data on women included in the study population as defined earlier and whose group memberships is known. The technique is used here to provide us with tools for interpretation of data on the distribution of the study population by contracepting status and socio-economic background.

The foollowing analyses are identified :-

(a) Two-way discriminant analysis of ever used contraceptives versus never used any contraceptive method at any time.

(b(Two-way discriminant analysis of currently using any method of contraception versus not currently using any contraceptive method.

(c) Three-way discriminant analysis of currently using efficient metnod versus currently using inefficient method and currently not using any contraceptives.

The contracepting status of women included in the study population are considered as the dependent variable in the analysis. The independent variables were selected from the list of variables available on the data tape of JFS 1976 and considered broadly socio-economic in nature. The selection criterion of the independent variables (i.e. the discriminating variables) is that they contain most of the classificatory information as indicated by the findings of the preliminary analysis of cross tabulations. The technique (i.e. Discriminant analysis) used in this study involves the following steps :

(1) Constucting the relevent discriminant functions or scores based on the selected socio-economic variables .

(2) Identifying the socio-economic factors that contributes most in group differences (i.e, differentials of contracepting status) by interpreting the discriminant functions.

(3) Investigating the effects of the socio-economic variablews on the identity of each contraceptive group as indicated by the discriminant functions.

As the basic rationale in discriminant analysis is threefold : to determine statistically significant differences in variable profile scores among a number of groups, to differentiate them maximally through unique variable combinations and to build a predictive model which allows additional cases to be correctly classified (10). The researcher is convinced that this technique is very practical, it provides several tools for the interpretation of the data, and it is theoritically mor meaningful than other statistical techniques for the purpose and objective of the present study.

Table 1 (given in the appendix) presents the distribution of study population by socio-economic variables selected for the analysis.

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(10) R. Bibb ; Investigating group differences - Anexplication of sociological potential of discriminant analysis; Sociological Methods and Research, Vol.4. No.3, February 1979 P. 349 - 379.

TABLE 1 Distribution of Study Population by Contracepting Status by some Demographic and Socio-economic Variables Selected for Analysis

Demographic + Socio-economic		Total Study	Contracepting statu					
			ever use	never use	curre-nt use	not cu-rrently using	using effic-ient method	using inefficient metho
Region	Amman	902	617	285	476	426	335	14
	Other	1412	551	861	356	1056	232	12
Type of residenc	urban	1510	973	573	727	783	497	23
	non-urban	804	195	609	105	699	70	3
Religion	christian	140	129	11	111	29	75	3
	Moslim	2174	1039	1135	721	1453	492	22
Wife educa-tion	Non	1090	371	719	235	855	158	7
	Elem,	665	381	284	276	389	180	9
	Prep,	328	220	108	156	172	114	4
	Secn,	168	144	24	122	46	82	4
	Inst,	21	16	5	13	8	7	
	Univ,	42	36	6	30	12	26	
Husband's Educ-ation	Non	458	141	317	84	374	55	2
	Elem,	862	428	434	299	563	204	9
	Prep,	456	201	255	141	315	93	4
	Secn,	309	211	98	162	147	112	5
	Inst,	51	37	14	23	28	14	
	Univ,	178	150	28	123	55	89	3
Wife's last occup-ation since	Proffes	100	86	14	72	28	48	2
	Clerical	14	13	1	9	5	7	
	Skilled	76	48	28	34	42	21	1
	Sales	8	6	2	6	2	5	
	Household +services	7	5	2	4	3	2	
	Farm+ Agricl	127	33	94	15	112	8	
	No work	1982	977	1005	692	1290	476	2
Wif's last work status	Cash	104	30	74	17	87	10	
	Self-em-Ployed	73	43	30	32	41	19	
	Kind	146	115	31	91	55	62	
	Unpaid	9	3	6	0	9	0	
	Did not work	1982	977	1005	692	1290	476	2
Husbands occupa-	Proffes	306	247	59	189	117	125	
	Clerical	145	97	48	75	70	56	
	Skilled	704	369	335	256	448	168	
	Sales	262	154	108	118	144	84	
	Household +services	643	242	401	161	482	112	
	Farm + Agricl	202	43	159	22	180	14	
	Uskill-ed	50	15	35	11	39	8	
	No work	2	1	1	0	2	0	

TABLE 1 (CONTINUED)

emographic + cio-economic ariable		Total Study Pop.	Contracepting status					
			ever use	never use	curre- use	not cu- rrently using	using effic- ient method	usinc inffi cint method
sbands rk atus	Cach	1647	801	846	562	1085	385	177
	Selv em- ployed	650	360	290	264	386	177	87
	Kind	8	2	6	2	6	2	0
	Unpaid	7	4	3	4	3	3	1
	Did not work	2	1	1	0	2	0	0
pon- ts	20	209	41	168	27	182	21	6
	20-24	382	164	218	91	291	61	30
	25-29	485	248	237	171	314	122	49
	30-34	428	252	176	185	243	118	67
	35-39	374	220	154	170	204	119	51
	40-44	283	161	122	127	156	85	42
	45-49	153	82	71	61	92	41	20
at st riage	<15	479	220	259	143	336	96	47
	15-19	1334	677	657	488	846	339	149
	20-24	403	218	185	159	244	103	56
	25-29	83	47	36	37	46	25	12
	30+	15	6	9	5	10	4	1
tal ation	<5	475	160	315	108	367	73	35
	5 - 9	452	226	226	145	307	103	42
	10-14	424	224	220	158	266	107	51
	15-19	382	227	155	170	212	112	58
	20-24	312	178	134	138	174	96	42
	25-29	193	108	85	81	112	55	26
	30+	76	45	31	32	44	21	11
ng dren.	0	152	19	133	9	143	5	4
	1	195	69	126	50	145	36	14
	2	257	132	125	91	166	68	23
	3	251	138	113	93	158	61	32
	4	266	132	134	91	175	59	32
	5	246	134	112	100	146	75	25
	6	257	146	111	109	148	77	32
	7	212	118	94	90	122	62	28
	8	173	100	73	70	103	46	24
	9	146	86	60	68	78	44	24
	10	87	49	38	33	54	19	14
	11	41	28	13	18	23	8	10
	12	17	10	7	6	11	3	3
	13	12	7	5	4	8	4	0
	14	2	0	2	0	2	0	0

COMPUTATION

Subprogram "Discriminant" of the Statistical package for the Social Sciences (SPSS) (10) is used to carry out the present analysis. It enables us to distinguish between the groups of the dependant variable (e.g.ever used contra aceptives versus never used contraceptives) which are expected to differ on a selected set of soio-economic variables (i.e. discriminating variables).

Stepwise discriminant analysis is a procedure analagous to stepwise reqression for sequentially selecting out of the oriqinal colectionof variables those that contain most of the classificatory information. (11)

In the first step, the computer tries all the independant variables in the oriqinal set and picks the one that discriminates most among the different groups ; i.e. the one that maximizes the ratio of the mean sum of squares between groups to the mean sum of squares within groups, (this is the F ratio for testing the significance of difference among several group means on a single variable.) Next the computer tries combinging each of the remaining variables with the first one selected and chooses the second variable that goes best with the first one chosen, in terms of maximzing the F ratio (generalization of the univariate F) based on two variables, and so no until all variables are selected or untiI adding further variables doesn't yeild a

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(10) See : N.H. Nie etal .; SPSS Manual , Second Edition , McGraw Hill, New York, 1975. pp. 434 - 467.

(11) LL. Sanathanan; Discriminant analysis;
In: Daniel Amich et. al.(eds) Introductory Multivariate Analysis; Mccutchan Publishing Co,. Berkeley 1970 P.245.

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Stepwride discriminant analysis is a procedure analagous to stepwise regression for sequentially selecting out of the original colection of variables those that contain most of the classificatory information. (11)

In the forst step, the computer tries all the independant variables in the original set and picks the one that discriminates most among the different groups, i.e. the one that maximizes the ratio of the mean sum of squares between groups to the mean sum of squares within groups, (this is the F ratio for testing the significance of difference among several group means on a single .) Next the computer tries combining each of the remaining variables with the first one selected and chooses the second variable that goes best with the first one chosen, in terms of maximizing the F ratio (generalization of the univariate F) based on two variables, and so on until all variables are selected or until adding further variables doesn't yeild a high enough partial F value, (The partial F refers to the F ratio for testing the equality over all groups of the conditional distribution of the variable being added given the variables already entered in previous steps). A partial F value of 1 is taken as the minimum value below whic a variable is excluded from the analysis. At each step the selection criterion is computed. The new vaiable is selected to "enter the equation" if it maximises the F ratio also minimizes Wilks Lambda is a measure of

high enough partial F value, (The partial F refers to the F ratio for testing the equality over all groups of the conditional distribution of the variable being added given the variables already entered in previous steps). A partial F value of 1 is taken as the minmum value below which a variable is excluded from the analysis. At each step the Selection criterion is computed. The new variable is selected to "enter the equation" if it maximizes the F ratio also minimizes Wilks Lambda (Wilks Lambda is a measure of groups discrimination, the smallest lambda is equivalent to the largest overall multivariate F)

As variables are selected for inclusion, some variables previously selected may lose their discriminating power. This occurs because the information that they contain about group differences is now available in some combination of the other included variables, Such variables are redundant and should be eliminated. Thus at the beginning of each step, each of the previously selected variables is tested to determine if it still makes a sufficient contrubution to discrimination. If any are eligible for removal, the least useful is eliminated. A variable which has been removed at one step may re-enter at a later step if it satisfies the selection criterion at that time (12)

In addition to the standardized and unstandardized discriminant function coefficients (14) and various tests of discrimination, Subprogram "Discriminant" prints out the means, standard deviations for each group and for all cases, the pooled within groups converience (dispersion) matrix, the pooled within groups correlation matrix, the covariance matrix for, each group.... ets (13).

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(12) N.H. Nie,etal; OP. Cit . P. 447

(13) For detailed discussion of the mathematical derivation of the discriminant function coefficients see: W. Cooley and P.Lohnes, Multivariate Data Analysis, Wiley,New York 1971 PP. 243 - 250 .

It is worthmentioning that the size and sign (scaled in terms of standard units) of the esimated discriminant fuction cofficients reflect the influence of the independant (i.e. discriminating variables on how an observation is classified (i.e. the likelihood of an observation belongs to one group or the other).

Table (2) presents the standardized canonical discriminant function cofficients for the socio-economic variates (i.e. the independant vartiables) which "entered the equations" and the groups of the dependant variable (i.e. the contracepting status: ever used versus never used any method of contraception, currently using versus not currently using any method, and groups on the type of current method (i.e. not currently using any method, using inefficient method).

In addition to the discriminant function coefficients Subpogram "Discriminant" provides information about the poled with in - groups correlations between each particular canonical discriminant function (and hence its associated group) with each discriminating variable. (table 5)

TABLE 2 Standardized Canonical Discriminant Function Coefficients

Discriminating variables.	ever used contraceptives ever used / never used	currently using any method yes/No	Type of current metho Not using / using inefficient/ using efficent method
Number of living children +	+ 0.499	+ 0.256	+ 0.243
Wife's level of education (Years) +	+ 0.463	+ 0.412	+ 0.408
Type of place of residence urban (-) vs. rural (+)	- 0.297	- 0.250	- 0.246
Total children wanted +	- 0.275	- 0.194	- 0.189
Husband's level of education (years) +	+ 0.226	+ 0.274	+ 0.274
Desire for future birth *wants more (+) wants no more(-)	- 0.209	- 0.231	- 0.230
Husband's occupation (agricultur, farmer) (reference category: professional, clerical and sales)	- 0.158	- 0.110	- 0.105
Marital duration +	+ 0.126	+ 0.231	+ 0.232
No. of children wanted (1): No. of living children (2) 1=2 (reference category 1 > 2	+ 0.123	+ 0.214	+ 0.217
No. of children wanted (1): No. of living children (2) 1 >2 (reference category 1 > 2)	+ 0.122	+ 0.233	+ 0.239
Women's work status * never worked (-) ever worked (+)	+ 0.113	+ 0.969	+ 0.078
Religion * christian (-) vs Moslim (+)	- 0.105	- 0.137	- 0.138
Region * Amman (-) vs. other (+)	- 0.055	- 0.098	- 0.100

INTERPRETATION AND CONCLUSION

The use of "Discriminant Analysis" technique requires that attribute data are scaled on an interval level, discriminating variables are statistically independant and that group variance covariance matrices are equal, However equality of dispersion matrices is not an essential requirment whenever studies are based on large samples (14). Similarly we are also aware of possible multicolinearity that may exist in some of the predictor variables; However, the problem of multi colinearity can be tackeled through transformation or creating combined variables (15). But some of the discriminating variables entering in the present analysis do not meet the assumption of beingscaled on an interval level. To moke these variables suitable for the proposed technique, they were recoded or introduced in the analysis by means of a set of dichotomous dummy variables.

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(14) See: E.S. Gilbert; the effects of unequal variance-Covariance matrices on Fisher's linear discriminant function; Biometrices 25, Sept. 1969 PP. 505-515

And R.S. Melton; some remarks on the failure to meet assumptions in discriminant ana anlysis; 'sychometrika 28, March 1963 P.P 49-53.

(15) Rao suggests that in situations where multicalinearity is known or suspected, a set of mutually correlated variables can be transformed to obtain uncorrelated attributes by undertaking factor analysis on the independent variables thought to enter the problem prior to constructing the discriminant model.
C.R. Rao; A note on the distribution of D^2P + 9-D^2P and some computational aspects of the D^2 statistic and discriminant function; Sankhya 10 (Sept. 1950) PP. 257 - 268.

Results of stepwise discriminant procedure for data on socio-economic characteristics of study population crossclassified first by the TYPE OF CONTRACEPTIVE METHOD WHICH WOMEN ARE CURRENILY USING (i.e. not using any method, using inefficient method and using efficient method), and secondly by the response variable; EVER USED ANY NETHOD (i.e, ever use or never used any contraceptive method). The first set of data shows that sixteen of the twenty two original set of variables were selected and produced a high degree of separation between the three groups. The selected variables showed that they contain considerable discriminating power as indicated by Wilks Lambda (0.676). As we know Lambbda increases as the discriminating power of the variables decreases. Table (3) shows the change in Wilks Lambda (and its associated chi-square test of statistical significance). After placing some of the discriminating power into the first function (i.e. has been removed a very large, non-significand Lambda and non-significant Chi-square are found.

Table (3)Discriminating power of canonical discriminat function for type of current use of contraceptive method.

FUNCTION	EIGENVALUE	PERCENT OF VARIANCE	CUMCLATIVE PERCENT	CANONTCAL CORRELATION
1-	0.46632	98.35	98.35	0.5639327
2-	0.00784	1.65	100.00	0.0881862
AFTER FUNCTION	WILKS LAMBDA	CHI-SQUARED	D.F.	SIGNIFICANCE
0	0.6766763	899.66	32	0.0
1	0.9922232	7.984	15	0.2635

This means that the second function is not needed, because it would not significantly and to our ability to discriminate between the three groups. The same finding could be reached by looking at the eigenvalnes and their associated canonical corrdations. Clearly, these measures shows that the second fuction is unsignificant. In addition, the group centroids (i.e. the mean discriminant scores for each group on the respective function) clearly distingwish the first group from the other two (table 4).

Table(4)cononical Discriminant Function Evaluated at group means (Group Centroids)

Group		Function 1
Not using	1	-0.511
Using Inefficient method	2	0.860
Using Efficient method	3	0.933

This means that forming one linear combination of the discriminating variables that measure the characteristics of the study population) could satisfactorily distinguish between the groups. The relative contribution of each discriminating variable to the function is represented by the magnitude of the standardized discriminant coefficient of the respective variable (table 2). signs denotes whether the variable's contribution is in a negative or positive direction. The interpretation of these coefficients is in the manner of the higher the magnitude of the coefficient the more important the corresponding variable is in discriminating between the groups. Variables with coefficients

close to zero are not good discriminators. In other words, the more positive the coefficient is the more that variable contributes to classifying a respondant into the group associated with the particular likelihood discriminant function.

The most important discriminators between the three groups (i,e. not currently using, using inefficient method and using efficient method) are: Wife's educatin, husbands education, type of place of residence, number of children wanted by the woman is less than her living children, marital duration (17).However, with respect to "type current contraceptive us" the following findings are indicated by the extreme positive and negative coefficients presented in table (2) on a scale where current use of efficient method tales a higher value than current use of inefficient method and the non-current use takes the lowest value:

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(17) Some of the these variables are scaled continuous variables usch as wife and husband's eduction(measured in years), family size (represented by the number of living children,and marital duration (i.e. years since first married); Others are dichotomous variables such as type of place of residence (Amman or Other), religion (moslim or Other) which do not have any ordering between catigories. And categorical variables that have some ordering between categories such as" number of children wanted compared to number of living children" which have three categories: number of children wanted is (less) or equal or more than number of living children. This variable is represented by two indicator variables (wanted less than living and wanted equal living) taking one if the respondent belongs to any of the two categories and zern otherwise. The third category (wanted more than living) is the reference category.

1- The education of the wife and the husband contributes positively in increasing the likelihood of a respondant to be a current contraceptive user (and uses efficient metnod) as the wife's and / or husband's level of education increases.

The same interpretation applies to the "Family size" variable. The coefficient (+ 0.243, table 2 first line) indicates that "Family size" contributes positively smaller importance as compared with education, to classifying a women into any specific one of the three groups. This means that it is not necessarily that the more living children a woman has the more likely she is a current user of efficient or inefficient method of contraception. But to some extent it is valid if one concludes that the larger the family size of a woman the more likely she is a current user of contraception. In the absence of information on timing of use, one would expect that current users started to use contraceptive methods after having given birth to a considerable number of children.

2- The interpretation of the coefficient (+0.239,table 2 line 10) is that a change of one unit from the reference category (i.e. number of wanted children is more than number of living children) to the indicator variable (i.e. number of wanted children is less than number of living children) yeilds a positive contribution of the indicator variable in the likelihood discrimant function (amounts to 0.239).

The same way of interpretation could be used for the coefficient (+ 0.217) of the inidicator variable "number of wanted children is equal to number of living children"

3- The coefficients (- 0.246), (- 0.138), (- 0.100) (table 2 column 3) represents the negative contribution of the variables : type of place of residence (i.e. urban or non-urban), religion (christion or moslim) and region (i.e. Amman of other) respectively in the likelihood discriminant function. their magnitudes indicates relatively less importance of the variables in distingushing between the groups.

4- The interpretation of the correlation between the discriminating variables and the likelihood discricminant function is that high values for variables with high positive correlations. and low values for variables with high negative correlations.

Data presented in table (5) indicates that variables of wifes educational level, the education of the husband, number of wanted children less than number of living children, the manual, marital duration and number of living childen, are the variables that have positive correlation with the diseriminant fuction . Among others type of place of residence, region of residence and religion have low values as shown by their high negative correlations with the likelihood discriminant function.

Table (5) pooled within - groups correlations between canonical discriminant function "on the variable type of current method" and the discriminating variables.

Variable	Coorrelation
Tyepe of residence	- 0.543
Wife's education	+ 0.503
Desire for future birth	- 0.433
Region	- 0.428
Husband's education	+ 0.407
No children wanted: No of living children (wanted less than living) - reference category living more than wanted	+ 0.365
Total children wanted	- 0.345
Religion	- 0.344
Wife's occupation befor marriage(non-monual) - reference category : No work	+ 0.294
(No. of wanted children equals No. of living children).- reference category: living more than wanted	+ 0.257
Husband's occupation (agriculture and forming) reference category: Professional and clerical.	- 0.239
Years since first married	+ 0.232
Wife's occupation before marriage (agriculture)- reference category: No work	- 0.220
Number of Living children	+ 0.202
Husband's occupation (services and houshold) reference category: Professional and clerical	- 0.188
Age at first marriage	+ 0.116
Husband's work status (worker reference category: Own work	- 0.087
Ever work (yes)	+ 0.076

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