

Changes in Marital Life Cycle in Taiwan: 1976 and 1989

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I. Introduction

Over the past two decades, unparalleled trends of marital formation and dissolution in Taiwan have occurred. The incidence of divorce has been rapidly increasing, the median age at first marriage has been gradually rising, and marriage rates have been continuously declining (Lin, 1982; Lee, 1984; Thornton, Lin and Lee, 1987). The significance of these trends is that it may signal fundamental changes in both the nature of the Chinese family and the structure of Chinese society on the island.

Unfortunately, such trends are only a snapshot which provides an image of what has transpired to that moment in the processes of marital formation and dissolution. The picture is static. They fail to describe the movement of persons from a state of being single to one of being married, from married to divorced or widowed, or from unmarried to remarried. To improve present understanding of recent developments and thus gain a better appreciation of the likely future course of marital events, we apply marital status life table model (Schoen and Nelson, 1974; Schoen, 1975; 1989) to describe the differential risks for persons moving from one marital status to another over time in this paper. Such a model has the dual advantage of providing a processual view of marital formation and dissolution while simultaneously accounting for the

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differential risks of dying for persons in a particular marital status category.

II. Method and Data

As an ordinary life table follows a cohort from births to the death of its last member, a marital status life table follows a cohort from birth to death recognizing the marital statuses of never married, presently married, widowed, and divorced and depicting the movements among those statuses. Changes in marital status are expressed in schedules of observed age-marital-specific marriage, divorce, widowhood, and death rates, a marital status life table can be constructed which allows those rates to express themselves on the closed cohort of the model. The data requirements for a marital status life table model are somewhat extensive because the model recognizes mortality and four distinct marital status categories. Data on population, death, and marriage are needed by age, sex, and marital status, and on widowhood and divorce by age and sex. The age categories employed here are five years up to 60 and an open ended category for ages 65 and over.

The present study emphasizes period data - 1976 (in the middle of population transition) and 1989 (near the end of population transition). A period marital status life table summarizes the experiences of persons of different ages in a single year, and therefore reflects the implications of a set of influences that may be of relatively short duration. It is more likely to be affected by transitory phenomena. However, by continuously updating projections derived from marital status life tables with current data as it becomes available, we can assess empirically to what extent in period data over time may have distorted the original extrapolation.

To construct period marital status life tables for 1976 and 1989, the following procedure was followed. In general, the necessary rates were calculated from published household registration and vital statistics data

(Taiwan-Fukien Demographic Fact Book, 1977 and 1990), but a considerable amount of adjustment was required. Data on the Taiwan's population by age, sex, and marital status are available only at the end of year for ages 0, 1-4, in five year intervals for ages 5-9 through 45-49 and an open ended category for ages 50 and over. Since data expressed in mid-year and in five-year interval through 60-64 were required, the following adjustments were made. First, data on mid-year and year-end population by age (0 to 85+) and sex are reported in household registration. Age grouped data over 65 were collapsed into a single category. Second, the proportionate distributions by marital status, age and sex at the end of the year were multiplied against the difference between the mid-year and the year-end population by age and sex to obtain estimated mid-year population by age, sex, and marital status for 1976 and 1989. Data on first marriage, remarriage, and divorce were expressed in five year interval for 15-19 through 60-64, and 65 and older except ages 30-39, 40-49, and 50-59 in 1976. To obtain data expressed in five years, the method of divided differences with a Newton fit was used. A third order equation yielded the best estimates on first marriage, remarriage, and divorce data expressed in five years of age. Since data on the incidence of widowhood by age are not reported in either the vital statistics registration system or the census, they were estimated by assuming that the husband was three years older than the wife. They were obtained from the age-specific married male and female death counts.

III. Results

Mortality

Table 1 presents summary measures from male and female marital status life tables for 1976 and 1989. Item 1 shows the significant gain in

Table 1: Summary measures from Taiwan marital status life tables:1976 and 1989

Item	1976 males	1976 females	1989 males	1989 females
1. Expectation of life at birth	68.1	73.5	71.1	76.2
2. Proportion ever marrying	.909	.949	.880	.935
3. Proportion ever marrying of those surviving to age 15	.953	.969	.906	.945
4. Average age at first marriage	27.1	24.1	29.7	27.3
5. Proportion of marriages ending in divorce	.083	.072	.154	.138
6. Proportion of marriages ending in widowhood	.270	.726	.236	.659
7. Proportion of marriages ending in death	.648	.203	.610	.204
8. Average age at widowhood	62.5	61.9	63.5	63.1
9. Average age at divorce	40.9	34.6	41.3	35.3
10. Marriages per person marrying	1.07	1.07	1.12	1.12
11. Proportion of widowed persons remarrying	.006	.003	.049	.019
12. Proportion of divorced persons remarrying	.810	.913	.592	.672
13. Average age at remarriage for widowed persons	38.8	35.8	56.6	52.2
14. Average age at remarriage for divorced persons	45.5	38.4	45.8	42.4
15. Average duration of a marriage	39.3	39.3	36.5	34.7
16. Average duration of a widowhood	8.0	11.6	7.7	11.8
17. Average duration of a divorce	9.2	6.3	16.2	20.3
18. Proportion of cohort life spent in never married state	.396	.334	.436	.380
19. Proportion of cohort life spent in presently married state	.563	.543	.504	.476
20. Proportion of cohort life spent in widowed state	.031	.116	.025	.106
21. Proportion of cohort life spent in divorced state	.011	.006	.035	.038
22. Probability of dying in never married state	.091	.051	.121	.065
23. Probability of dying in married state	.632	.206	.598	.213
24. Probability of dying in widowed state	.262	.736	.220	.675
25. Probability of dying in divorced state	.015	.006	.062	.047

Source: Edward Jow-Ching Tu, SUNY at Albany (December 26, 1991)

Note: Table 4.3 of Schoen (1988) provides detailed explanations of constructing items 1 to 25.

male and female life expectancy at birth between 1976 and 1989. Those born in 1989 could expect to live over three years longer than those born in 1976. Such increased longevity influenced numerous aspects of marriage and divorce, especially the probability that a newborn would survive to marriageable age. An examination of the age-specific death rates by marital status (Table 2) indicates that, in general, persons who are presently married, both females and males in both years, had the lowest death rate except few younger age groups due to small frequencies. Single persons had the second lowest death rate, followed by the widowed and divorced. These patterns are consistent with prior research in other society (Berkson, 1962; Gove, 1973; Carter and Glick, 1976; Woodrow, Hastings, and Tu, 1978). Among the widowed and divorced there was variability in death rates at selected ages. In Taiwan, single males had higher death rates than single females. Similarly, males presently married, widowed or divorced had higher death rates than did females. These patterns are also consistent with findings in other society (Woodrow, Hastings, and Tu, 1978). Sex differential in mortality was persistent, in different ages, regardless of marital status.

Entry Into First Marriage

Item 2 of Table 1 shows the proportion ever marrying. At least 90 percent of all persons born in Taiwan eventually married during their lifetimes except males in 1989. Female were more likely to marry at some point during their lives than males. For both sexes, the proportion of ever marrying declined steadily, with the male proportion decreasing .029 and the female proportion decreasing .014 between 1976 and 1989. The likelihood of marriage increased greatly as age increased. By age 15 (Item 3), only about three to nine percent of the surviving females and males remained unmarried eventually during the period of 1976-1989. However, the male proportion ever marrying fell by .047 and the female proportion fell by .024.

Table 2. Age-Sex-Specific Mortality (Occurrence/Exposure) Rates by Marital Status in Taiwan 1976 and 1989

Age	Single		Married		Widowed		Divorced	
	M	F	M	F	M	F	M	F
1976								
0	0.0276	0.0120	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1-4	0.0035	0.0015	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5-9	0.0006	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10-14	0.0006	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15-19	0.0012	0.0006	0.0025	0.0007	0.0882	0.0000	0.0000	0.0000
20-24	0.0016	0.0008	0.0017	0.0005	0.0315	0.0087	0.0048	0.0043
25-29	0.0026	0.0011	0.0013	0.0004	0.0134	0.0049	0.0026	0.0012
30-34	0.0052	0.0021	0.0019	0.0006	0.0096	0.0043	0.0035	0.0023
35-39	0.0072	0.0035	0.0025	0.0008	0.0088	0.0044	0.0057	0.0025
40-44	0.0108	0.0070	0.0039	0.0012	0.0117	0.0052	0.0087	0.0047
45-49	0.0090	0.0063	0.0052	0.0017	0.0130	0.0070	0.0100	0.0050
50-54	0.0140	0.0079	0.0082	0.0028	0.0055	0.0025	0.0124	0.0045
55-59	0.0192	0.0117	0.0131	0.0038	0.0124	0.0058	0.0185	0.0090
60-64	0.0247	0.0232	0.0311	0.0061	0.0374	0.0138	0.0205	0.0106
65+	0.0399	0.1823	0.0494	0.0247	0.2081	0.1322	0.0583	0.0999
1989								
0	0.0126	0.0052	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1-4	0.0018	0.0007	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5-9	0.0009	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10-14	0.0009	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15-19	0.0016	0.0005	0.0015	0.0009	0.0000	0.0000	0.0000	0.0000
20-24	0.0016	0.0006	0.0025	0.0006	0.0237	0.0117	0.0046	0.0041
25-29	0.0023	0.0009	0.0025	0.0006	0.0144	0.0038	0.0042	0.0026
30-34	0.0040	0.0013	0.0031	0.0008	0.0081	0.0033	0.0042	0.0019
35-39	0.0058	0.0017	0.0043	0.0011	0.0090	0.0028	0.0060	0.0022
40-44	0.0095	0.0024	0.0070	0.0016	0.0072	0.0035	0.0073	0.0029
45-49	0.0133	0.0035	0.0073	0.0027	0.0078	0.0039	0.0096	0.0033
50-54	0.0089	0.0041	0.0114	0.0036	0.0044	0.0013	0.0145	0.0041
55-59	0.0143	0.0043	0.0147	0.0044	0.0086	0.0036	0.0196	0.0068
60-64	0.0699	0.0090	0.0185	0.0055	0.0177	0.0076	0.0240	0.0109
65+	0.0964	0.0916	0.0369	0.0228	0.1833	0.1132	0.0499	0.0399

Note: Age-sex-specific (occurrence/exposure) mortality rates are derived from the results of the multistate life tables which are available upon request from the authors.

At the same time, the average age at first marriage (Item 4) rose 2.6 years for males and 3.2 years for females. The increase was somewhat faster for females than for males, reducing the average age difference between husbands and wives from three years to 2.4 years. In short, the majority of the cohort eventually married but did so at much later age, with females marrying younger than males.

Lifetime Spent in Marital States

Since life table model traces a birth cohort, age by age, until all members die, the proportion of the total lifetime of the cohort that has lived within a particular marital status can be obtained. Females in Taiwan spent much less time single than did males (Item 18) in 1976 and 1989. This sex differential in cohort life spent in bachelorhood and spinsterhood is explained by the later age at first marriage for males and the earlier age at which males die. The proportion of cohort life lived in never married state has been increasing for both males and females between 1976 and 1989. Males were more likely to spend a greater part of their life married than females (Item 19). This sex differential in time married is best explained by the higher rates of remarriage among males following divorce and widowhood as well as the earlier age at which males die. The proportion lived in presently married state has been declining for both males and females.

The proportion of marriages ending in divorce (Item 5) was higher for males than for females. It has increased greatly for both sexes. About one marriage in 12 ended in divorce for males and one in 14 ended in divorce for females in 1976. That proportion was doubled in 1989 (i.e., one in 6 for males and one in 7 for females). Furthermore, the average age at which divorce (Item 9) occurs for both females and males was quite old when compared with Western countries. Females tend to divorce at a younger age than males partly because of the females' younger age at first marriage. As divorce has been rising, the average age at divorce

has been slightly increasing. The probability of males who divorce and die before remarrying was higher than that of females (Item 25). This probability has been increasing during the period 1976- 1989. Males had a higher proportion of cohort life spent in a divorced state (Item 21). The proportion of life lived in the divorced state has risen appreciably, but it is still not significant. The rise in the proportion of marriages ending in divorce has influenced life cycle experiences in a number of ways. The number of marriages per person marrying (Item 10) has been rising steadily due to rising divorce. The average duration of a marriage (Item 15) was nearly 40 years in 1976 for both sexes and declined to 37 years for males and 35 years for females in 1989. There has been a decline in the proportion of marriage ending in widowhood for both sexes but ending in death only for males (Items 6 and 7), however, still more marriages ended in either death or widowhood than in divorce in 1989. Overall, the average duration of a divorce (Item 17) has risen about seven years for males and almost 14 years for females. Males remained divorced about one year longer than females did.

Patterns of widowhood have also been changing. Item 6 shows that the proportion of marriages ending in widowhood was much higher for females than males. It has declined for both sexes. The average age at widowhood (Item 8) has risen slightly as mortality has declined. This sex differential in proportion of marriages ending in widowhood is explained by the earlier age at death for males and is indirectly measured by the average age at widowhood. Once a female was widowed, the likelihood that she will remain so until her own death was much higher than for widowed males (Item 24). The female, therefore, is likely to spend a greater proportion of total cohort life (Item 20) in the widowed marital status than the male. This proportion has also declined for both sexes. The average duration of widowhood has declined slightly from 8.0 to 7.7 years, while it has increased from 11.6 to 11.8 years for females (Item 16).

The proportion that divorced persons will remarry (Item 12) was quite high (.810 for males and .913 for females) in 1976 and fell by .218 for males and .241 for females in 1989. The average age at remarriage for divorced persons (Item 14) has been stable for males (46 years of age) and increasing slightly for females (38 years of age in 1976 and 42 years of age in 1989). The proportion of widowed persons remarrying (Item 11) increased slightly but was very low, as the average age at remarriage for widowed persons has risen substantially (Item 13) for 1976-1989. Divorced persons had a higher probability of remarriage than widowed persons. The fact that remarriage occurs more often among those divorced than those widowed is accounted for by the younger age at which divorce occurs.

IV. Summary

The findings based on marital status life tables point to the trends and patterns of marital formation, marital dissolution, and mortality experience of Taiwan in 1976 and 1989. The findings indicate declines in the proportion ever marrying and increases in the average age at marriage. The average duration of a marriage and the proportion of cohort life lived in presently married state have been reducing. The proportion of marriages ending in divorce has been rising steadily, with 14-15 percent of marriages ending in divorce in 1989. The level, however, is still relatively low by international standard. The proportion of marriages ending in widowhood has been declining slowly due to improvement in mortality. For males the marriage most likely ends in death and for females it most likely ends in widowhood. The major portion of cohort life tends to be spent in presently married state for both sexes, with never married state the second.

Should the present patterns of marital formation, dissolution and remarriage continue, we shall be forced to modify many of our long held

beliefs about marriage and family life of Chinese society. In the near future we can expect single persons to remain single longer before marrying. More persons probably will remain unmarried beyond their reproductive years, if not throughout their lives. Those persons who eventually marry will do so at an older age than in the past. With gradually rising levels of divorce, more couples can be expected to divorce. The likelihood that a divorced person will go on to remarry is less than in the past.

REFERENCES

Berkson, Joseph

- 1962 "Mortality and Marital Status: Reflections of the Derivation of Etiology from Statistics." American Journal of Public Health, 52:1318-1329.

Carter, Hugh and Paul C. Glick

- 1976 Marriage and Divorce: A Social and Economic Study. Cambridge, Massachusetts: Harvard University Press.

Gove, W. R.

- 1973 "Sex, Marital Status, and Mortality." American Journal of Sociology, 79:45-67.

Lee, Mei-Lin

- 1984 "Social Correlates of Divorce in Taiwan." Chinese Journal of Sociology, 8:23-46.

Lin, Yi-Nan

- 1982 "Trends and Differentials of Divorce Rates in Taiwan." Journal of Sociology, 15. National Taiwan University.

Schoen, Robert and Verne E. Nelson

- 1974 "Marriage, Divorce, and Mortality: A Life Table Analysis." Demography, 11:267-290.

Schoen, Robert

1975 "Constructing Increment-Decrement Life Tables." Demography, 12:313-324.

1988 Modeling Multigroup Populations. New York: Plenum Press.

Thornton, Arland, H. Lin, and M. Lee

1987 "Social Change, the Family and Well-Being." Paper presented at conference on Economic Development and Social Welfare in Taiwan, Academia Sinica, January 6-12, 1987.

Woodrow, Karen, D.W. Hastings, and E.J.C. Tu

1978 "Rural-Urban Patterns of Marriage, Divorce, and Mortality: Tennessee, 1970." Rural Sociology, 43:70-86.

台灣地區婚姻週期之變遷

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(中文摘要)

本文依據多增減生命表，針對1976和1989年資料，進行了台灣地區結婚、離婚、鰥寡及再婚的趨勢。一般而言，男女兩性一生之中處於結婚的年限最長，次為單身的年限。結婚平均年齡逐漸提高，而生活在婚姻狀態的比例逐漸下降，離婚比例則逐漸上升。女性人口中，其婚姻多半以其終身伴侶去世為結束方式，而男性則以自身去世為婚姻結束方式。

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