

Migration Selectivity In Taiwan

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Like most of the developing countries, internal migration within Taiwan has been largely a movement to cities. The major net flow of migration has been from rural areas to the major cities. In other words, in the course of internal migration, cities of Taiwan have a net gain of population, whereas rural townships have a net loss.

An important question about the net flow of migration either in cities or in rural areas is its effect on redistributions of areal characteristics of population. Relatively little is known about characteristics of net migrants in each major type of area in Taiwan. There are few studies dealing with migration selectivity in Taiwan in the past. Recently, two studies have touched on this area (Speare, 1974; Lee, 1974). However, these studies have sought to relate migration either to a few demographic characteristics of areas of origin or destination and have shown that young adults are generally the most migratory and that the propensity to move increase with education. It is still not clear the characteristics of net migrants within a certain type of area.

In this paper we shall use of published data obtained from a relatively large sample of migration and household records to examine some demographic and socio-economic characteristics of net migrants among three major types of administrative units in Taiwan in 1970 and also to investigate any differences in characteristics of migrants between intercounty and intracounty movements.

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Data, Measures and Approach

The present analysis is based on two sources of published data in Taiwan: the 1971 Taiwan demographic fact book and the sample statistics of migration data. The former contains detailed information on demographic data which were collected from population registration records and compiled by the government. The related data used for this study such as population by sex and age, in-migrants, out-migrants, measures of socio-economic status for Taiwan as a whole are available. The latter is a sample of household records for approximately one percent of the households in Taiwan, irrespective of migration status, in 1970. This sample was chosen on the basis of probability and representative of all migration in Taiwan with the exclusion of the migration of men serving in the military. These sample data cover in-migrants, out-migrants by sex and age and some selected socio-economic variables and further classified by intercounty or intracounty movements and by three major types of areas (cities, urban townships and rural townships). The migration streams between these types of areas are available.

The sample provides a valuable source of migration. Since this sample yields comparable data for migrants and the general population, we can compute migration rates for people with specific characteristics by using the migration data for numerator and the general population data for denominators and applying appropriate weights. The sample size is about 11,300 which is large enough to calculate migration ratios or rates for detailed subgroups of the population within each major type of area.

In-migration ratios for each subgroup of the population within each type of area were calculated as follows:

$$R.i = (m.i/P_i, t + n) \times (M/m) \times 1,000$$

where: i =Subgroup (e.g. age category, educational category).

$R.i$ =In-migration ratio for persons in the i th subgroup.

$m.i$ =Number of in-migrants in the i th subgroup obtained from the

sample data.

$P_i, t+n$ = Year-end population in the i th subgroup.

M = Total in-migrants obtained from the general population within a particular type of area.

m = Total number of in-migrants obtained from the sample data within a particular type of area.

For out-migration rates and net-migration rates similar equations were used.

These ratios or rates are subjective to two major types of errors: coverage errors and errors in characteristics reported on the records. The greatest source of coverage errors was delayed registration. According to the government regulation, people in Taiwan moving from one district or township to another are required to register their migration both at the place of origin and the place of destination. When people decide to move, they should first report their local registration office at the place of origin and fill out information which contains the new place of residence and information for migrants copied from the household records. A copy of the migration record goes with the migrant and is used in filling out the in-migration record at the place of destination. This procedure should be completed within 15 days or pay a fine. Since there is a tendency of many people to delay migration registration at the place of destination, those who move at the end of year are usually excluded from the in-migration records in that year, but included in that of the succeeding year. As a result, total out-migrants would be greater than total in-migrants in all Taiwan. However, this discrepancy is usually cancelled out by in-migrants who delay in-migration registration in the previous year. Therefore, total out-migrants will not be necessarily larger than in-migrants. The discrepancies between in-migrants and out-migrants for both males and females for our study year, 1970, are shown as follows:

	<u>In-migrants</u>	<u>Out-migrants</u>	<u>Difference</u>
Males	577,763	574,605	+ 3,058
Females	543,763	547,099	- 3,336

There were more in-migrants than out-migrants for males in Taiwan in 1970, but more out-migrants than in-migrants for females according to registered figures. For males, this was probably due to more migrants in 1969 who delayed in-migration registration but reported in 1970. In looking our statistical figures, we should keep in mind that the net-migration rates for males in each subgroup of the population may be slightly over estimated and lower estimated for females.

In addition to the quantitative errors, the bias would raise from differences in characteristics of migrants who delayed in-migration in the previous year and the study year.

Another source of coverage errors are nonmigrants who register as migrants. One of the important reasons for changing one's official residence without moving in Taiwan is that families living within commuting distance so that they can send their children to the city schools, which are usually superior. While these people tend to compensate numerically for those migrants who never register, their characteristics are not necessarily the same as those who never register.

The errors in reported characteristics vary with the demographic and socio-economic variables. Among them age is most reliably reported because date of birth is copied from the original household record. The errors in education and mobility status are similar to the errors in the 1950 U.S. census and the net errors for occupation and industry are considerably higher in Taiwan than in the United States (K. C. Liu, 1967; A. Speare, 1971). These errors are primarily the result of an overregistration of persons engaged in agriculture and service and underregistration of persons engaged in manufacturing. This is due to the fact that many people fail to report changes in occupation.

Three major types of areas, cities, urban townships and rural townships are directly derived from the government administrative units. Cities cover five major cities and eight small cities. Each city has a population of 100,000 or more. Although there is no definite distinction between urban townships and rural townships, the former usually has a much larger population than the latter, but less than 100,000.

In the following sections, we shall discuss overall migration selectivity in Taiwan and net migration rates by demographic and socio-economic characteristics among three divisions within the single year, 1970, in Taiwan.

Migration Selectivity for all Taiwan and Among Three Major Types of Areas

As we mentioned earlier, migrants tend to delay registration at the place of destination. We shall use the out-migration as indicator to measure migration selectivity.

Age and Sex

Most past migration studies has shown that migrations are highest for young adult. The universality of this relationship was clearly established in Dorothy Thomas' review of migration literature in 1938 (Thomas, 1938). The migration rates in terms of the out-migration rates for both sexes fit this pattern. The maximum migration rates for both sexes are for those aged between 20 and 34 (see the out-migration rates for Taiwan as whole in Table 1). However, the migration rates separated by age and sex reveal different patterns. For males, the higher migration rates fall in three age groups, 25-29, 30-34 and 40-44, and 20-24 and 25-29 for females.

Females are somewhat more migratory, on the average, than males. However, this varies considerably with age. The migration rates for boys and girls under 15 are similar. From 15-19, females are more migratory than males. This may be due in part to the fact that males in 15 to 19 year age group are more likely than females to be in school. Another explanation is that many factories prefer to employ single girls in this age range because they are more migratory than males or older women and are willing to work for relatively lower wages.

From 20-24, females are much more migratory than males. This may be due in part to the fact that a major of marriages take place in this

age range for females in Taiwan and those marry to persons who live in other districts of cities or townships will move across district or township boundaries and be classified as migrants. In Taiwan, the average age at first marriage is about 23 for females and 28 for males. About 60 percent of first marriage fall in this age range. Another explanation is that many of males in this age range are in the military services, who are totally excluded from our migration records.

From 25-29 the migration rates for males and females are approximately equal. At older ages, males are more migratory than females. The migration rates for older males are somewhat exaggerated by the erroneous inclusion of men who transferred their official residence in order to make some legal transaction, but who did not actually move (see Speare, 1971).

It should be noted that males are much more migratory than females for those aged 40-44. This may be partly due to the effort of the mainlanders who have an age distribution which is skewed toward the older ages. Since mainlanders tend to be more mobile than native Taiwanese, their inclusion leads to higher mobility rates for the older age groups than one observes elsewhere (Speare, 1974, p. 312).

The out-migration rates are positively associated with degree of urbanization. The average out-migration rate is highest for cities followed by urban townships and rural townships (see table 1). This may be largely accounted by the movements between districts within big cities. In fact, if we exclude those movements within big cities, the out-migration rates for both males and females are cut down almost one half. They are shown as follows:

Out-migration Rates (in thousands)

	<u>Males</u>	<u>Females</u>
Cities	53.6	57.2
Urban townships	61.8	64.7
Rural townships	51.1	58.1

The out-migration rate is highest for urban townships. Cities and rural townships have similar level of out-migration.

Since cities receive more in-migrants from urban townships and rural townships than out-migrants from cities, cities have a net gain in population. In contrast to this, a greatest net loss is in rural townships followed by urban townships. In cities, males have more net gain than that of females. For urban townships, the net loss for males and females are similar. For rural townships, female have more net loss than males.

The greatest net gain for both males and females are in the age group 25-29 followed by 20-24 in cities. This implies that although the out-migration rates for cities are comparatively high for these two age groups, the in-migration ratios for these two age groups are more higher. On the other hand, the greatest loss for males is also in this age range, while for females it falls in the age group 20-24. Again this may be partly due to the effect of marriage.

Education

Educational attainment is a clearly defined concept which can be reliably measured, it is perhaps the best available indicator of both the socioeconomic status of migrants and their qualifications for work at the destination.

Most of studies in developing countries have consistently found that migration to be selective of the better educated (Zachariah, 1966,

Research by Spore in Taiwan has

graduates. Three possible explanations are underlying:

(1) college educated women are more likely to marry to persons outside districts or townships they reside, (2) women right after college graduation are more likely to return to their home towns, (3) men who graduated from college should be in military services and they are excluded from migration records.

Although cities receive more in-migrants than out-migrants, two of educational categories, illiterate men and college graduated women had a net loss in population. In addition to the first two reasons we have just mentioned, it is also possible that recently many of female college graduates failed to find a teaching job in cities and got such an offer in urban townships where more teaching openings are available. The net loss for illiterate men may in part due to the fact that many of available jobs in cities require better education than in rural areas.

Within cities, the net gain was somewhat associated with the levels of education. Men who are college graduates have highest net migration rate and those who are literate but did not complete primary school education have lowest net migration rate. For females, net migration rate is highest for senior school graduates. However, for both males and females, the net migration rates for primary school graduates are much greater than that of junior school graduates. The reason for this is not clear and should be examined further.

Within urban townships, the greatest loss for males who are college graduates. The net gain is for males who are senior school graduates, junior school graduates, or primary school graduates. The coverage errors may account for a part of reasons. A more plausible explanation is that nature of jobs in urban townships are more suitable for people with these levels of education to do. The net gain for female college graduates may be in part due to the fact that teaching openings for junior schools are more available in urban townships than in cities. Those who could not get such a job in cities would try in urban townships.

For both males and females in rural townships, each educational category has a net loss of population. The greatest loss is for college graduates. The second large loss is primary school graduates for males

and senior high school graduates for females. Although illiterate people has least net loss, there is no strong relationship between net loss and education from literate people to senior high school graduates.

The high net loss for college graduates somewhat indicates that rural to urban migration in Taiwan is selective of the best educated ones. A plausible explanation is that migrants are drawn to cities by the hope of finding employment in the new jobs created by industrialization and the increase of trade. Since most employers in the newer industries prefer to hire the better educated men and women from among those apply for jobs, the hope of finding urban employment increases with one's education. However, in rural areas there are few jobs which require much education and the better educated rural residents must compete with the poorer educated ones for most of the available jobs. Under these circumstances, persons with better than average education have more to gain from moving to the city than those with less than average education.

Occupation, Industry and Status

The data on occupation, industry and status from the registered migration records are subjective to great bias. In addition to the errors we have mentioned earlier, many migrants who change their occupations at the place of destination usually fail to report their changes in occupations. As a result, the occupations for these people remain the same as in the place of origin. Nevertheless, it is still valid to examine the general occupational trend for Taiwan as a whole. However, the net gain or net loss within each type of area contains so large errors that we can not tell the gain or loss for each occupational category.

Since our sample migration data on occupation, industry and status are available for males only, the following discussions are restricted to them.

Occupation with the highest migration rate (out-migration rate

for all Taiwan) is clerical workers, whereas those with the lowest rate is agricultural workers (see table 3).

A major reason for the highest migration rate for clerical workers may be that these salary men typically are employed in medium or small bureaucratic organizations that are geographically scattered. The wage differentials persist among organizations and regions - higher in cities than in rural areas in Taiwan. Along with the expansion of nonagricultural sector, many new industries were established in urban areas and provided many such job opportunities which absorbed well experienced persons from rural areas to cities.

Another explanation is that this type of worker is semi-skilled labor and requires a short time of training to do this kind of work. Since these people are more easily recruited, they are fewer chance to get promotion either in salary or in position. They are more likely to response to higher wage rate in urban areas.

Several studies dealing with occupational selectivity in developed countries have shown that professional occupation has the highest migration (A. Miller, 1965, p. 2 ; Long, 1973, p. 255). In our study, they are lesser migratory than clerical workers and sale workers. This might be due to the fact that this occupational group includes both salaried and self-employed professionals. The self-employed professionals are less migratory because entrepreneurs they are tied down by heavy

investment in their business built up over many years. The rest of the professional group consists of salaried professionals who are more migratory. In our study, the migratory rate of salaried professionals is higher than that of self-employed professionals. This is because salaried professionals are more likely to be recruited by urban areas. In our study, the migratory rate of salaried professionals is higher than that of self-employed professionals. This is because salaried professionals are more likely to be recruited by urban areas. In our study, the migratory rate of salaried professionals is higher than that of self-employed professionals. This is because salaried professionals are more likely to be recruited by urban areas.

townships the highest out-migration rate is the clerical workers followed by the professionals, etc.

The higher out-migration rate for the professionals, administrators and managers than the sale workers in both urban and rural townships may be in part due to the fact that the sale workers tend to be lower educational level and do small scale of business which is self-employee.

The reporting errors are reflected on the net gain in several occupations. For example, the agricultural workers in cities have a net gain of its population for about 78 per thousand. It clearly shows that these people did not change their occupation at the place of destination or failed to report the changes in occupations at the place of origin because the agricultural workers would decrease as economic development progress especially in urban areas. On the other hand, it is also unreasonable for the decrease in the relative number of professional, administrative, managerial and clerical worker as the current stage of high economic development in Taiwan.

In part, the shift in occupations is a reflection of the changing industry distribution. The highest out-migration rate is for electricity, gas, water and sanitation (see table 5). Perhaps, this type of industry is highly geographically scattered and of course has higher migration rate. Since our data contain many errors, we will not discuss further.

Characteristics of Migrants Within Counties and Between Counties

Study of the differences in characteristics of migrants between long and short distance movement may be of considerable interest. However, measure of distance movement is difficult. Both data and criteria are usually lacking. Although in our migration statistics such data are not available, the tabulation from the published migration data provides the detailed classification of the origin and destination of each move among the three types of areas by intercounty and intracounty migration. This gives us a rough criteria for long or short distance movement in terms of intercounty or intracounty movement.

In general, for both males and females intercounty migrants from a given type of area to cities have more young adults aged 15-44 than that of intracounty (see table 6). For example, 58.6 percent of the male migrants from cities to other cities are the young adults aged 15-44 as compared to 50.2 percent of the male migrants who move between districts within cities. This is also true for the male migrants from each type of area to the urban townships. There is no consistent pattern for the female migrants from each given type of area to the urban townships. The inverse pattern in the stream from urban townships to cities may be due to the sampling error caused by the small sample size.

Age is highly associated with educational level. In general, young adults have more education than older persons. Since in our calculation for educational level by intercounty and intracounty movement we excluded children aged under 15 because they are in school, we may expect that migrants with more young adults tend to have higher education. With the exception of the females migrants from rural townships to cities, for both males and females intercounty migrants from a particular type of place to cities have better education than intracounty migrants in the corresponding streams (see table 7). This is also true for the male migrants from each type of place to the urban townships. The exception for the females from rural townships to cities may be due to the sampling error from the small sample size.

A possible explanation for this phenomenon is that persons with higher education tend to have larger awareness space. Study by Lansing and Mueller indicated that the number of alternatives considered and the number of sources of information used tended to increase with education (Lansing and Mueller, 1967, p. 214). Since most of male migrants in this age range 15-44 are response to job opportunities in Taiwan, for long distance migrants the informations are usually obtained from mass media such as newspaper, magazine, etc, and of course they are more likely to have higher educational level, whereas for the short distance migrants the information can be easily got from relatives or friends who live in other districts on townships but same county simply

because they have more chances to contact each other and they are not necessarily selective of better education. For females, this is in part due to the fact that wife's education has positively associated with that of husband. However, for single females the explanation for males can be applied on them.

Another explanation is that intracounty migrants are more likely to change their official residence without actually moving. For example, as we mentioned earlier, families live within commuting distance so that they can send their children to the city schools, which are usually superior.

Summary

In this paper we have made use of published data from the Taiwan Household Registration System and sample migration data from the household records for 1970 in an attempt to provide a comprehensive description of migration selectivity and characteristics of the net migrants within each major type of area in Taiwan. Although our migration data are subjective to errors, it is still valid to generalize the major trend.

During 1970 the major net flow of migration was from rural areas to cities in Taiwan. The net gain of population was found in cities, whereas the greatest loss was in the rural townships and the small net loss in the urban townships. Within cities males somewhat have more net gain than females.

In examining the characteristics of the net migrants, we found the following major points:

(a) For both males and females, cities have gained more young adults aged 20-29 than people from other age groups, whereas the rural townships have a greatest loss of young adults in this age range.

(b) Not all of educational categories have experienced a net gain of population within cities. There was a net loss for men who are illiterate and for women who are college graduates in cities. On the other hand, there is a net gain for illiterate men in both urban and

rural townships if we take overall errors into consideration and for female college graduates in urban townships. Nevertheless, net migrants in cities have been drawn disproportionately from senior school graduates or above.

(c) Occupations with higher migration rates are clerical worker, sale worker and professional, administrator and manager. These findings lead us to the conclusion that opportunity to obtain skilled or semi-skilled employment in cities may be an important factor in the decision to move in Taiwan especially for males.

Intercounty migrants from a particular type of area to cities, in general, have more young adults and better education than intracounty migrants. This finding somewhat indicates that the longer distance migrants are more rational response to job opportunities than the shorter ones.

TABLE 1 IN-MIGRATION RATIO, OUT-MIGRATION RATE, AND NET MIGRATION RATE
BY TYPE OF AREA AND BY SEX AND AGE GROUP IN TAIWAN, 1970

Age Groups	In-migration ratio (%)			Out-migration rate (%)			Net migration rate (%)		
	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
<u>Taiwan As A Whole</u>									
0 - 14	52.1	63.9	57.8	54.6	61.0	57.7	- 2.5	3.1	0.2
15 - 19	49.1	60.4	54.6	46.7	71.7	59.0	2.5	-12.1	- 4.6
20 - 24	82.3	136.0	108.5	76.3	158.3	116.9	6.5	-26.2	- 9.5
25 - 29	140.2	142.4	141.3	140.2	144.0	142.0	0.1	- 1.9	- 0.9
30 - 34	108.8	101.4	105.2	107.1	94.0	100.7	1.9	8.2	5.0
35 - 39	94.5	75.3	85.5	96.6	67.6	83.0	- 2.4	8.4	2.7
40 - 44	114.4	71.0	96.8	112.1	67.8	94.0	2.7	3.4	3.0
45 - 49	92.2	62.3	82.3	96.0	59.0	81.4	- 4.2	3.5	1.2
50 and above	64.0	47.9	56.5	59.8	38.5	50.0	4.5	9.8	6.9
Total	73.2	76.6	74.8	72.9	77.0	74.8	0.4	- 0.5	- 0.03
<u>Cities</u>									
0 - 14	88.5	99.7	93.9	74.4	86.5	80.2	15.3	14.5	14.9
15 - 19	91.2	86.4	88.8	73.3	82.7	77.9	19.4	10.6	15.1
20 - 24	156.8	199.6	178.9	110.2	181.9	147.8	53.7	21.8	37.2
25 - 29	247.1	200.9	223.5	201.3	179.9	198.7	59.1	25.9	42.0
30 - 34	198.2	150.2	173.8	159.5	135.2	146.9	47.4	4.0	27.2
35 - 39	152.1	115.4	134.6	136.6	100.2	119.2	18.4	18.3	18.4
40 - 44	148.6	113.0	135.0	131.9	98.9	119.2	22.8	15.9	19.9
45 - 49	131.4	100.5	120.4	121.8	98.5	113.4	15.2	2.3	9.7
50 and above	111.1	85.5	100.3	100.4	67.0	86.3	12.4	16.2	14.2
Total	124.6	119.4	122.2	104.0	105.8	104.9	22.7	14.6	18.8

To be continued....

Urban Townships

0 - 14	46.1	55.4	50.7	48.0	54.0	50.9	- 2.0	1.6	- 0.3
15 - 19	40.9	50.9	45.8	42.0	62.2	51.9	- 1.2	-11.9	- 6.4
20 - 24	65.5	110.5	56.6	68.8	142.3	105.0	- 3.5	-36.9	-19.7
25 - 29	112.8	114.4	113.6	122.4	118.2	120.1	-10.8	- 4.3	- 7.7
30 - 34	85.1	83.3	84.2	86.6	65.2	76.3	- 1.7	19.6	- 8.6
35 - 39	82.6	68.2	75.8	79.8	52.5	67.0	- 3.0	16.7	- 9.5
40 - 44	108.0	49.6	83.2	108.4	57.5	86.7	- 0.4	- 8.4	- 3.7
45 - 49	68.6	53.6	62.3	70.7	43.9	59.6	- 2.3	10.2	- 2.9
50 and above	43.4	36.2	40.0	40.9	28.0	34.7	- 2.7	8.4	- 5.4
Total	60.2	63.3	61.7	61.8	64.7	63.2	- 1.6	- 1.5	- 1.6

Rural Townships

0 - 14	29.2	36.8	32.9	41.6	42.9	42.2	-12.8	- 0.4	- 9.7
15 - 19	24.3	42.7	33.3	27.2	66.3	47.9	- 3.0	-28.0	-15.3
20 - 24	38.5	82.9	59.0	54.2	145.4	97.6	-16.5	-70.6	-41.9
25 - 29	69.8	88.1	78.2	97.1	118.9	107.2	-29.8	-34.4	-31.9
30 - 34	50.2	56.1	52.9	71.3	62.9	67.4	-22.5	- 7.2	-15.4
35 - 39	55.9	38.1	47.7	68.9	43.1	57.1	-13.8	- 5.2	- 9.8
40 - 44	90.3	42.6	70.2	93.7	44.0	72.8	- 3.7	- 1.5	- 2.8
45 - 49	67.5	29.9	51.3	78.5	28.4	57.2	-11.9	1.5	- 6.1
50 and above	37.8	24.9	31.5	30.0	69.1	26.3	- 8.0	2.5	- 5.4
Total	41.0	44.1	42.5	51.1	58.1	54.4	-10.6	-14.6	-12.6

1. In-migration Ratio = $\frac{M_i}{P_i, t+n} \times 1,000$

2. Out-migration Rate = $\frac{M_i}{P_i, t+n - M_i + M_i} \times 1,000$

3. Net Migration Rate = $\frac{M_i - M_i}{P_i, t+n - .5(M_i - M_i)} \times 1,000$

Where: M_i = Estimated number of in-migrants in ith subgroup.
 M_i = Estimated number of out-migrants in ith subgroup.
 $P_i, n+t$ = Year-end population in ith subgroup

The estimated figures are calculated on the basis of the equation described on page 3.
 Source: Based on data from: (a) 1971 Taiwan Demographic Fact Book, Ministry of the Interior, ROC., 1972.
 (b) Taiwan Demographic Monthly, Vol. 7, No. 8, Ministry of the Interior, Republic of China, November 1972.

TABLE 2 IN-MIGRATION RATIO, OUT-MIGRATION RATE, AND NET MIGRATION RATE
BY TYPE OF AREA, SEX, AND LEVEL OF EDUCATION IN TAIWAN, 1970

Highest School Completed	In-migration ratio (%)			Out-migration rate (%)			Net migration rate (%)		
	Males	Females	Both Sexes	Males	Females	Both Sexes	Males	Females	Both Sexes
<u>Taiwan As A Whole</u>									
College	187.5	248.8	201.3	188.9	346.2	228.3	- 1.7	-138.7	-34.4
Senior H.	146.6	152.5	147.8	135.7	150.0	140.2	11.4	3.4	8.5
Junior H.	81.6	93.6	86.0	80.7	95.9	86.4	0.9	- 2.9	- 0.4
Primary	74.6	91.6	81.9	72.0	97.4	83.0	2.8	- 4.8	- 1.2
Literate	72.7	87.8	79.7	75.8	93.3	84.0	3.4	- 5.2	- 4.6
Illiterate	40.0	48.9	46.5	48.9	45.5	47.0	-11.4	9.4	- 0.5
Under 15 years of age	52.1	63.9	57.8	54.6	61.0	57.7	- 2.5	3.1	0.2
Total	73.2	76.3	74.8	74.8	77.0	74.8	0.4	- 0.5	- 0.03
<u>Cities</u>									
College	241.8	266.6	247.9	203.0	543.8	278.4	49.9	-196.6	- 8.2
Senior H.	187.9	183.6	186.6	157.2	153.9	156.0	37.1	35.7	36.6
Junior H.	118.9	116.8	118.1	101.1	109.8	104.7	19.9	7.8	15.0
Primary	134.4	128.4	131.7	106.5	109.8	108.0	31.8	21.2	26.9
Literate	136.4	161.1	147.9	127.5	159.5	142.4	10.2	2.1	6.4
Illiterate	60.7	90.5	88.9	112.9	78.4	87.8	-31.2	13.1	1.3
Under 15 years of age	88.5	99.7	93.9	74.4	86.4	80.2	15.3	14.5	14.9
Total	124.6	119.4	122.2	104.0	105.8	104.9	22.7	14.6	18.8

To be continued.....

Continued

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Urban Townships

College	101.7	249.5	130.9	153.7	225.8	166.9	-60.4	31.1	-43.0
Senior H.	122.8	88.9	112.6	106.0	131.2	113.7	14.6	-47.5	- 4.3
Junior H.	68.8	72.5	70.2	69.4	85.9	75.7	0.2	-14.5	- 5.4
Primary	64.4	82.7	72.4	63.2	86.2	73.3	1.2	- 3.8	- 1.0
Literate	50.0	66.9	58.3	59.4	61.3	60.3	- 9.8	6.1	- 2.2
Illiterate	29.8	38.0	35.8	31.9	33.4	33.0	- 2.2	4.8	- 2.9
Under 15 years of age	46.1	55.4	50.7	48.0	54.0	50.9	- 2.0	1.6	- 0.3
Total	60.2	63.3	61.7	61.8	64.7	63.2	- 1.6	- 1.5	- 1.6

Rural Townships

College	171.5	162.4	170.0	195.6	304.5	215.2	-29.6	-185.5	-56.7
Senior H.	113.9	127.6	117.1	121.5	167.0	131.0	- 8.6	-39.1	-15.8
Junior H.	54.1	69.9	59.0	64.2	78.3	68.6	-10.7	- 9.0	-10.2
Primary	38.1	56.7	45.6	49.0	91.2	66.3	-11.4	-37.2	-21.9
Literate	49.0	51.0	49.9	52.7	69.2	60.3	- 3.9	-19.4	-11.0
Illiterate	24.7	30.2	28.6	27.3	33.6	31.8	- 2.7	- 3.5	- 3.2
Under 15 years of age	29.2	36.8	32.9	41.6	42.9	42.2	-12.8	- 6.4	- 9.7
Total	41.0	44.1	42.5	51.1	58.1	54.4	-10.6	-14.8	-12.6

Source: Same as Table 1

TABLE 3 IN-MIGRATION RATIO, OUT-MIGRATION RATE, AND NET MIGRATION RATE
BY TYPE OF AREA AND OCCUPATION FOR MALES IN TAIWAN, 1970

Occupation	In-migration ratio (in thousands)	Out-migration rate (in thousands)	Net migration rate (in thousands)
<u>Taiwan As A Whole</u>			
Professional, administrator and manager	105.4	108.8	- 3.7
Clerical worker	126.1	141.3	-17.6
Sale worker	134.0	119.5	16.6
Agricultural worker	49.9	47.7	2.3
Others	97.6	95.6	2.3
Jobless	94.1	91.9	2.4
Under 15 years of age	52.1	54.6	- 2.5
Total	73.1	74.8	0.4
<u>Cities</u>			
Professional, administrator and manager	125.4	110.9	16.4
Clerical worker	117.2	133.3	-18.4
Sale worker	182.2	155.0	32.7
Agricultural worker	206.6	141.6	78.1
Others	131.4	120.1	12.9
Jobless	110.2	106.1	4.6
Under 15 years of age	88.5	74.4	15.3
Total	124.6	104.0	22.7
<u>Urban Townships</u>			
Professional, administrator and manager	70.4	98.9	-140.6
Clerical worker	127.7	135.4	- 8.9
Sale worker	67.2	58.8	9.0
Agricultural worker	48.5	46.2	2.5
Others	69.4	69.7	- 0.4
Jobless	90.4	95.3	- 5.4
Under 15 years of age	46.1	48.0	- 2.0
Total	60.2	61.8	- 1.6

To be continued.....

	<u>Rural Townships</u>		Continued
Professional, administrator and manager	95.8	117.1	-23.8
Clerical worker	154.4	176.1	-26.0
Sale worker	84.7	90.4	- 6.3
Agricultural worker	24.8	35.7	-11.2
Others	66.5	77.5	- 1.1
Jobless	67.2	61.1	6.5
Under 15 years of age	29.2	41.6	-12.8
Total	41.0	51.1	-10.6

Source: Same as Table 1.

TABLE 4 MIGRATION RATES BY STATUS FOR ALL TAIWAN, 1970

Status	Migration rate (in thousands)
Employer	26
Government employee	105
Private employee	101
Self-employee	35
Farmer	45

Source: Same as Table 1.

TABLE 5 IN-MIGRATION RATIO, OUT-MIGRATION RATE, AND NET MIGRATION RATE
BY TYPE OF AREA AND INDUSTRY FOR MALES IN TAIWAN, 1970

Industry	In-migration ratio (in thousands)	Out-migration rate (in thousands)	Net migration rate (in thousands)
<u>Taiwan As A Whole</u>			
Agriculture	49.6	46.8	2.9
Mining	73.4	62.7	11.8
Manufacturing	77.7	70.4	7.8
Construction	44.2	68.9	- 6.4
Electricity, gas, water and sanitation	321.5	297.3	35.0
Commerce	141.4	138.2	7.3
Transportation, storage and communication	154.1	136.0	21.2
Services	104.6	108.4	- 4.2
Jobless	94.1	91.9	2.4
Under 15 years of age	52.1	54.6	- 2.5
Total	73.1	74.8	0.4
<u>Cities</u>			
Agriculture	220.6	136.3	102.6
Mining	92.5	118.6	-29.1
Manufacturing	122.9	84.7	40.4
Construction	58.0	74.9	-18.1
Electricity, gas, water and sanitation	377.6	266.3	161.1
Commerce	196.7	175.8	25.7
Transportation, storage and communication	209.6	172.9	45.3
Services	142.2	128.2	16.2
Jobless	110.2	106.1	4.6
Under 15 years of age	88.5	74.4	15.3
Total	124.6	104.0	22.7

To be continued.....

Continued

	<u>Urban Townships</u>		
Agriculture	47.4	46.1	1.4
Mining	35.3	27.2	8.4
Manufacturing	50.3	55.1	- 5.0
Construction	25.5	43.7	-18.5
Electricity, gas, water and sanitation	307.1	349.8	-63.6
Commerce	90.6	68.9	23.6
Transportation, storage and communication	88.6	64.6	2.6
Services	83.8	91.1	- 7.9
Jobless	90.4	95.3	- 5.4
Under 15 years of age	46.1	48.0	- 2.0
Total	60.2	61.8	- 1.6

	<u>Rural Townships</u>		
Agriculture	24.9	35.3	-10.7
Mining	108.7	54.5	58.9
Manufacturing	32.7	55.8	-24.2
Construction	38.7	78.3	-41.9
Electricity, gas, water and sanitation	279.5	300.4	-29.5
Commerce	101.9	103.4	- 1.7
Transportation, storage and communication	104.6	92.7	13.2
Services	82.0	95.8	-15.1
Jobless	67.2	61.1	6.5
Under 15 years*of age	29.2	41.6	-12.8
Total	41.0	51.1	-10.6

Source: Same as Table 1.

TABLE 6 PERCENTAGES OF AGE DISTRIBUTIONS OF MIGRANTS BY SEX, INTERCOUNTY OR INTRACOUNTY MOVEMENT, AND MIGRATION STREAMS, TAIWAN, 1970

Migration Streams	Males (%)		Total	N	Females (%)		Total	N		
	15-14	45+			15-14	45+				
From city to:										
Other cities	21.8	58.6	19.6	100.0	590	27.6	63.0	9.4	100.0	424
Same city but different districts	29.0	50.2	20.8	100.0	1,486	32.8	55.8	11.4	100.0	1,165
Urban townships of other counties	24.7	54.0	21.3	100.0	647	30.0	59.7	10.3	100.0	454
Urban townships of same county	36.9	45.6	17.5	100.0	46	32.0	60.0	8.0	100.0	25
Rural townships of other counties	22.8	59.9	17.3	100.0	460	35.3	55.2	9.5	100.0	337
Rural townships of same county	33.3	49.2	17.5	100.0	132	27.7	64.9	7.4	100.0	130
From urban townships to:										
Cities of other counties	25.4	61.8	12.8	100.0	456	29.9	60.0	10.1	100.0	387
City of same county	50.0	44.5	5.5	100.0	18	25.0	62.5	12.5	100.0	8
Urban townships of other counties	28.9	59.4	11.7	100.0	207	39.0	54.0	7.0	100.0	159
Urban townships of same county	38.1	45.2	16.7	100.0	126	35.1	56.3	8.6	100.0	151
Rural townships of other counties	29.8	54.4	15.8	100.0	171	32.8	64.3	2.9	100.0	134
Rural townships of same county	32.2	61.1	6.7	100.0	208	32.7	52.4	14.9	100.0	208
From rural townships to:										
Cities of other counties	29.6	59.3	11.1	100.0	578	31.1	61.5	7.4	100.0	447
City of same county	20.0	49.9	30.1	100.0	30	22.7	59.1	18.2	100.0	22
Urban townships of other counties	28.5	56.2	15.3	100.0	288	28.7	65.5	5.8	100.0	258
Urban townships of same county	40.2	41.8	18.0	100.0	296	33.3	59.4	7.3	100.0	303
Rural townships of other counties	32.2	53.5	14.3	100.0	273	26.2	69.4	4.4	100.0	225
Rural townships of same county	31.6	55.3	13.1	100.0	190	29.4	65.0	5.5	100.0	214

Source: Same as Table 1(b)

TABLE 7 PERCENTAGES OF MIGRANTS WHO ARE SENIOR SCHOOL GRADUATES BY SEX, INTERCOUNTY OR INTRACOUNTY MOVEMENTS, AND MIGRATION STREAMS, TAIWAN, 1970

<u>Migration Streams</u>	<u>Males (%)</u>	<u>Females (%)</u>
From city to:		
Other cities	37.5	27.0
Same city but different districts	32.6	23.1
Urban townships of other counties	33.8	33.5
Urban townships of same county	13.7	-
Rural townships of other counties	23.0	14.2
Rural townships of same county	34.0	15.9
From urban townships to:		
Cities of other counties	33.2	24.3
City of same county	22.2	16.7
Urban townships of other counties	32.0	16.4
Urban townships of same county	24.5	13.2
Rural townships of other counties	25.0	3.3
Rural townships of same county	24.2	4.9
From rural townships to:		
Cities of other counties	25.3	11.6
City of same county	25.0	17.5
Urban townships of other counties	27.0	6.6
Urban townships of same county	19.8	10.3
Rural townships of other counties	23.7	4.8
Rural townships of same county	16.8	5.8

Source: Same as Table 1(b).

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台灣地區人口移動之選擇性

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中文摘要

一般遷移傾向之研究多偏向於比較遷移者與非遷移者在遷出地或目的地之特性，藉以了解人口移動之選擇性，甚少全盤探討區域間遷出遷入後淨遷移人口之特性以及其所涉及之影響。本文係利用台灣地區四十二個選樣區民國五十九年全年遷徙登記資料，就三個主要行政區域，市、鎮、鄉、分析其男性和女性遷移者之年齡、教育程度、及職業別等特性。其中發現島內人口主要由鄉村流向都市，且都市淨遷入及鄉鎮淨遷出人口均趨向於年青男女，高教育程度，以及從事於佐理、買賣、專門性、技術性等工作者，同時遷移於外縣市者比同縣市的移動者較為年青且所受教育也較高。此等淨遷移人口之特徵，足以反映農村往都市之遷移主要為謀求都市待遇較高技術性工作，而青年且教育程度較高者比較適合都市工商業的需要，因此，都市的「拉力」似比農村的「推力」對台灣地區內部的移動較有決定性的影響力。

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