

Internal Migration: The Unorganized
Urban Sector and Income Distribution in Turkey,
1963-1973

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distribution. Using the data presented in Sections 3-7, Section 8 estimates the components of the distributional changes observed in Turkey between 1963 and 1973. Finally, Section 9 identifies the emerging trends and evaluates the probable impact of current and contemplated future policies as they relate to the problem of migration and income distribution.

At least since the late 1940s internal migration has been one of the most visible agents of economic change in Turkey. It has altered Turkey's pattern of growth and also has affected the distribution of national income. To date, however, the impact of migration has remained outside the mainstream of studies of the transformation of the Turkish economy. The present paper is a modest attempt to fill this gap in the literature.

The analysis below covers the period from 1963 to 1973, one coinciding with Turkey's first two five-year plans. The year 1963 is a natural starting point, primarily because it is the year of the first economy-wide surveys of income distribution and manufacturing industry. Likewise, 1973 is a convenient end-point because it marks the year of the latest study on income distribution. The main disadvantage of these dates is that they do not coincide with census years. Population censuses are available only for years ending in 0 and 5. It is possible, however, to derive demographic data for 1963 and 1973 by interpolation.

The three-way sectoral breakdown to be used in the analysis is presented in Section 1. Section 2 outlines the mathematics of the technique used to isolate the impact of inter-sectoral mobility on the distribution of income. Based on the sectoral division outlined in Section 1, Sections 3 and 4 estimate the sizes and growth rates of the sectoral populations. The body of existing information on the direction and magnitude of inter-sectoral mobility in Turkey is examined in Section 5. Sections 6 and 7 set out the changes between 1963 and 1973 in the sectoral mean incomes and the intra-sectoral patterns of income

operation that uses wage labor.² It should be noted that in terms of size and productivity levels large farms vary from one area to another in accordance with natural conditions and other factors.

Landless laborers have no claim on any land and must either lease land or work for wages. Once again, the distinction between small farmers and landless laborers is by no means clear-cut. There is a large category of peasants with limited tenure or even outright ownership of a small plot of land who must nonetheless seek work off their own land to supplement their income.

On the urban side, the characteristics which form the basis of the organized-unorganized sector dichotomy are also institutional. The unorganized sector is characterized by almost unrestricted opportunities for entry, a feature resulting from the prevalence of self-employment. By contrast, the significant characteristics of the organized sector is the low turnover of its labor force, which is ensured, partly by legislative measures, of full-time contractual employment. It is important to note, however, that these characteristics represent a pattern of continuous variation, so that the structural differences between organized and unorganized employment are more of degree than of kind. As development proceeds unorganized activities are gradually transformed into organized activities. But the purpose here is simply to capture the dualistic feature of the urban labor market prevalent in Turkey during the 1963-1973 period.

²Some small farms also use hired labor, but this is usually on a seasonal basis.

1. Defining the Three Sectors

In a developing country like Turkey the causal relationship between migration and income distribution can sensibly be analyzed by dividing the population into three mutually exclusive employment sectors: rural, unorganized urban, and organized urban. The rural-urban division is necessary because the predominant pattern in population flows is rural-urban migration. It is useful to apply the organized-unorganized sector distinction to the urban labor force since migratory inflows first create an institutional dualism in the urban economy and then give rise to movements between the two components.

Of the three sectors, it is easiest to isolate the rural sector. In it, which is composed of a multitude of small-scale settlements, agriculture constitutes the primary economic activity of the vast majority of the population. However, the rural population is by no means a homogeneous socio-economic category. The rural labor force can be broken down into three groups, differentiated on the basis of landownership patterns which are positively correlated with the distribution of rural income. Large landowners are at one end of the rural economic hierarchy and landless laborers at the other, with small landowners constituting a middle group. The boundary line between the two landowning groups reflects the institutional organization of the process of agricultural production. While small farms are family-operated, production on large farms takes place in the form of a large-scale

¹In contrast to landownership, secondary agricultural activities do not stand out in the Turkish rural sector as major determinants of the general socio-economic structure. Individuals engaged in animal husbandry are often interrelated by family ties with farmers, landed or landless, and many of them join the ranks of farmers during peak seasons. This illustration applies to other secondary activities as well.

Domestic servants, for example, are dependent as a group on favorable market conditions for continued employment, but due to the personalized nature of their services, individual domestic servants enjoy some protection from downturns in market conditions.

Some members of the unorganized sector, particularly the younger ones, have a tendency to move laterally between occupations, sometimes being engaged in several occupations at a time. The ensuing high turnover of labor within each occupation, combined with labor-intensive production methods, reinforces the lack of standardization and quality control of the sectoral output. A consequence is that earnings in the unorganized sector are typically lower than earnings from comparable activities in the organized sector.

Of equal pertinence to our analysis is the fact that the interpersonal variation of income is usually low in the unorganized sector. Large-scale establishments, which can bias the income distribution in the direction of inequality, seldom develop because producers have to rely on self-financing to carry out their operations.⁸ In a given area, whenever earnings in a certain occupation are driven to relatively high magnitudes, perhaps by changes in demand conditions, the number of competitors rises, lowering the level of earnings.

This is not to say that the unorganized sector exhibits perfect competition. On the contrary, unorganized labor markets in deprived regions are segregated from those in more prosperous regions owing to Turkey's large physical size. As discussed in greater detail below, this adds an inequality component to the distribution of income within the unorganized sector.

⁸ At any rate, when they do develop, they become, by definition, part of the organized sector.

The urban unorganized sector displays a lack of organization at several interrelated levels. First, there is little, if any, state intervention to provide privileged access to technology and financial capital. Second, there is no standardization among jobs. Job-seekers take advantage of job opportunities, often temporary, in their own way. Finally, owing to the absence of mechanisms (e.g., licensing, credential requirements) to discourage new entries, the unorganized sector acts as the residual employer in the urban labor market and a disproportionately high proportion of its labor force consists of women, young adults and children. The combined result is that the unorganized sector remains highly competitive with low output per worker.

The unorganized labor force is roughly composed of self-styled manufacturers and handicraft workers, and small-scale trade and service workers. The occupational groups in the last category include itinerant traders, small shopkeepers, dolmuş³ drivers, boyacıs,⁴ porters, barbers, tailors, domestic servants, kâpıcıs,⁵ değnekçis,⁶ arzuhalçis,⁷ and underground workers such as prostitutes, professional beggars and pickpockets. None of these occupational groups exhibits stability of employment, although the situation may be quite stable for individual members in certain occupations.

³The dolmuş is a for-hire vehicle which is found in large numbers in all Turkish cities. On the average a dolmuş carries six persons, while the taxi typically carries one or two.

⁴Shoe-shine boys.

⁵Apartment caretakers.

⁶Parking lot attendants.

⁷Public letter writers.

despite the availability in cities of job-seekers in elastic supply at lower levels of earnings.⁹ Wages are driven to relatively high magnitudes and kept there by forcing (through political and other means) the adoption of restrictions that make entry into the organized sector difficult to fresh job-seekers. In Turkey common forms of restriction include minimum-wage legislation, rationing of government jobs and irrelevant and excessive credential requirements.

Income disparities are very high in the organized sector. Among the factors often offered as explanations are the importance of education and ability as determinants of income and the differential availability of government revenues and bank credit. But the fundamental reason is to be found in the capital-biased, large-scale character of organized sector activities. The distribution of income is unequal because capital's share in sectoral output is high and wealth is concentrated in the hands of a relatively small number of households.

⁹For a general discussion of these institutional factors see Dipak Mazumdar, "The Urban Informal Sector," World Bank Staff Working Paper No. 211, July 1975, pp. 51-53. The author does point out, however, that there may be an interdependent set of relationships that would raise blue-collar wages even in the absence of an excess supply of labor. Among the components of Mazumdar's argument is the proposition that some workers, particularly those who have been attached to an establishment a long time, become sufficiently irreplaceable to obtain bargaining power that would shift up the wage level. With respect to Turkey, the author's argument appears to be best applicable to mining and heavy industry, two sectors of economic activity which use capital-intensive and technologically advanced production techniques.

However, barring regional differentials, the unorganized sector exhibits a markedly equal distribution of income relative to the rural and organized sectors.

In contrast, the organized sector is characterized by codes and regulations that standardize the activities comprising the sector and restrict the level of competition. The government, prompted by such private institutions such as trade unions and employers' associations, directly influences organized sector activities by legislating the terms and conditions of employment, licensing and controlling product standards. Another significant feature of the organized sector is its relatively capital-intensive production methods, which necessitate a specialized and skilled labor force. Consequently, productivity and income levels are quite high in comparison with the economy-wide averages.

The organized sector contains employers and employees in corporate enterprises and large-scale industrial, service and trade establishments as well as government employees and self-employed professionals. Throughout this sector income levels are considerably above the economy-wide average, but not without substantial variations. Two components of the organized sector's labor force are differentiated by the role that institutional protection plays in determining the level of income. For the high-level members of the organized sector (e.g., businessmen, corporate executives, lawyers, senior government officials, military officers, engineers, physicians) it is usually demand conditions that cause earnings to remain high, although government legislation is sometimes used to ensure this. In the case of the low-level members of the organized sector, on the other hand, trade unions and the government are solely responsible for pushing up the wages and salaries of blue- and white-collar workers,

Unfortunately, however, the household is an inappropriate unit for mobility analysis. When defined in terms of the household, the mobility matrix captures intra-generational mobility, but fails to account for inter-generational mobility.¹¹ A hypothetical example will serve to illustrate the point. If the son of a worker in the unorganized sector were to achieve organized sector employment, this movement would either show up as an exogenous addition to the organized sector or, in the case that the son continued to live in his father's home, not show up at all. Since the mobility matrix defined in terms of the individual fully captures inter-generational mobility in addition to intra-generational mobility we are basing our analysis on the individual. We assume that dependents are in the employment sector of the family head.

Net additions to the population are accounted for in the principal diagonal elements. In Turkey, birth rates exceed death rates, resulting in net additions to the diagonal elements, so some, if not all, of the columns of M sum to / more than one. International migrations are treated as exogenous leakages that result in subtractions from the diagonal elements.

The following vector symbols appear frequently and are defined here:

- x: 1×3 column vector such that $x_{t,i}$ is the number of individuals in sector i at time t .
- y: 1×3 column vector such that $y_{t,i}$ is the log mean income per capita in sector i at time t .
- v: 1×3 column vector such that $v_{t,i}$ is the log variance of income in sector i at time t .

¹¹ Sherman Robinson and Kemal Dervis (1977).

2. A Framework for Analysis

In this section we will develop an explicitly dynamic framework for isolating changes in the economy-wide distribution of income due to inter-sectoral mobility from changes due to other factors. Apart from migration, the distribution of income is affected by variations in the intra-sectoral distributions of income, differential growth rates of the sectoral populations and changes in the sectoral mean incomes. While in the spirit of a technique devised by Robinson and Dervis,¹⁰ the technique below offers additional structural detail.

Using matrix notation we proceed in terms of three sectors. The algebra is, however, exactly the same for n sectors.

Let M denote a 3×3 mobility matrix such that M_{ij} represents the share of sector j that moves to sector i during the period from t to $t+1$. Throughout the study sector 1 represents the rural sector, sector 2 the urban unorganized sector and sector 3 the urban organized sector.

The mobility matrix can be defined in terms of the household or the individual. In general, the household, consisting of all men, women and children who share a housing unit, is a more realistic basis of classification for the study of income distribution, since the income patterns of these individuals are strictly interrelated. Households contain individuals with markedly unequal earnings, so the distribution of income among households tends to be more equal than the distribution of income among individuals.

¹⁰ See Sherman Robinson and Kemal Dervis, "Income Distribution and Socio-Economic Mobility: A Framework for Analysis and Planning," Journal of Development Studies, 1977.

$$(1) \quad x_{t+1} = Mx_t$$

The sectoral log mean incomes per capita at time t+1 is obtained by applying the growth vector to y_t :

$$(2) \quad y_{t+1} = y_t + r_t$$

The total population at time t is a scalar (X_t) which can be written as:

$$(3) \quad X_t = x_t' u$$

The economy-wide log mean income per capita at time t is derived from (3):

$$(4) \quad \bar{Y}_t = y_t' x_t / X_t = y_t' x_t / x_t' u$$

The method to be used in estimating the effect of mobility on the overall log variance of income (V_t) is based on a formula for the decomposition of variances,¹³ which in matrix notation expresses V_t as the sum of the intra-sectoral and inter-sectoral log variances. It should be noted that V_t is a scalar.

$$(5) \quad V_t = s_t' v_t + s_t' ((y_t - \bar{Y}_t I)^2 u)$$

where I is an identity matrix and s_t is a 1×3 column vector such that $s_{t,i}$ is the share in the total population of sector i at time t . This shares vector is equal to:

$$(6) \quad s_t = x_t / X_t = x_t / x_t' u$$

¹³ See Sherman Robinson, "Income Distribution Within Groups, Among Groups, and Overall: A Technique of Analysis," Princeton University Research Program in Development Studies Discussion Paper, August 1976, p. 5.

r : 1×3 column vector such that $r_{t,i}$ is the growth rate of log income per capita in sector i at time t .

u : 1×3 column unity vector.

The transpose is denoted by x' , y' , etc. The symbol \wedge transforms a vector into a diagonal matrix.

It should be noted that we are using logarithmic means and variances as opposed to arithmetic means and variances. From the viewpoint of the present study the variance of the "logs" of income is a useful measure of inequality for a combination of reasons. For one thing, the use of the log variance facilitates inter-country and intertemporal comparisons, because the log variance is a very common index of inequality. Since it gives relatively greater weight to lower incomes, it is a popular measure, although it has some drawbacks.¹²

Secondly, the variance of logs is concerned with relative rather than absolute inequality. Other measures such as the arithmetic variance depend on absolute income differences and are therefore affected by proportional changes in all incomes. The log variance, like the widely used Gini concentration ratio, is unit free and independent of mean income.

Thirdly, as an aggregate measure the log variance is easily decomposable. This characteristic is of importance to us, since our objective is to isolate the sources of income variation.

Our basic relationship involves the mobility matrix. In terms x_t , the number of individuals in each sector at time $t+1$ is given by:

¹²See Richard Szal and Sherman Robinson, "Measuring Income Inequality," Appendix I, in Charles R. Frank, Jr. and Richard C. Webb (eds.), Income Distribution and Growth in Less Developed Countries, Brookings, 1977, pp. 500-501.

sizes constant over the period under consideration so that $r = 0$ (the null vector), $M = I$ (the identity matrix) and $s_{t+1} = s_t$. By substituting these values into (8) we obtain:

$$(9) \quad \Delta V_1 = (x_t/x_t' u)' (v_{t+1} - v_t)$$

Next, we define ΔV_2 as the change in overall log variance due solely to differential growth rates of sectoral log mean incomes over the period from t to $t+1$. We will refer to ΔV_2 as the mean growth effect. We now hold the log variance of income constant over time in all three sectors so that $v_{t+1} = v_t$. Also, assuming that there are no absolute or relative changes in the distribution of the population, we let $M = I$ and $s_{t+1} = s_t$. Accordingly:

$$(10) \quad \Delta V_2 = (y_t + r_t)' \hat{s}_t (y_t + r_t) - y_t' \hat{s}_t y_t \\ - (y_t' s_t + r_t' s_t)^2 + (y_t' s_t)^2$$

Third, we let ΔV_3 be the change in the overall log variance of income due to the growth in sectoral population sizes from sources other than inter-sectoral mobility. This we will call the population growth effect. Assuming that $M = M_1 + I$, $r = 0$ and $v_{t+1} = v_t$, we obtain by substitution into (8):

$$(11) \quad \Delta V_3 = ((x_t' (M_1 + I)/x_t' (M_1 + I) u) - (x_t'/x_t' u)) v_t \\ + y_t' (\hat{x}_t (M_1 + I)/x_t' (M_1 + I) u) y_t - y_t' \hat{x}_t (x_t'/x_t' u) y_t \\ - (y_t' (M_1 + I) x_t/x_t' (M_1 + I) u)^2 + (y_t' x_t/x_t' u)^2$$

Substituting (6) into (5) and rewriting we obtain:

$$(7) \quad v_t = (x'_t/x'_t u) v_t + (y_t - \bar{Y}_t)' (\hat{x}'_t/x'_t u) (y_t - \bar{Y}_t)$$

We now let $\Delta V_t^{t+1} = v_{t+1} - v_t$ denote the change in overall log variance of income between time t and t+1. By substituting and doing some algebra¹⁴ we finally get:

$$(8) \quad \Delta V_t^{t+1} = s'_{t+1} v_{t+1} - s'_t v_t \\ + (y_t + r_t)' \hat{s}'_{t+1} (y_t + r_t) - y'_t \hat{s}'_t y_t \\ - (y'_t \hat{s}'_{t+1} + r'_t \hat{s}'_{t+1})^2 + (y'_t \hat{s}'_t)^2$$

where $s_t = x'_t/x'_t u$ and $s_{t+1} = Mx'_t/x'_t u$

According to (8), overall log variance is affected by changes over time in intra-sectoral income distributions (v_t, v_{t+1}), differential growth rates of sectoral log mean incomes (r), and changes in the inter-sectoral distribution of population (M). To give explicit recognition to inter-sectoral mobility, M can be disaggregated into two components such that $M = M_1 + M_2$, where M_1 accounts for growth in sectoral population sizes due to sources other than mobility and M_2 for net mobility. In a straightforward manner, ΔV_t^{t+1} can be decomposed to distinguish the contribution to the change in overall log variance of each of the above elements.

First, let ΔV_1 be the change in overall log variance due only to changes in v affecting the intra-sectoral patterns of income distribution. Henceforth we will refer to ΔV_1 as the dispersion effect. To isolate the dispersion effect we hold log mean incomes and sectoral population

¹⁴For a full presentation of the algebra see Timur Kuran, "Rural-Urban Migration and Income Distribution: A Three-Sector Analysis of Turkey, 1963-1973," Unpublished A.B. Thesis, Princeton University, 1977.

3. Population Sizes of the Three Sectors

Owing to data limitations, measuring the sizes of the three sectors involves some arbitrary judgments. For the rural-urban distinction there is a choice among several definitions used in Turkey to distinguish between rural and urban areas.¹⁵ The one favored here accepts a quantitative dichotomy based upon the population size of settlements. All settlements with a population less than 10,000 are classified as rural. The choice of 10,000 as a boundary line reflects the existence of a strong negative relationship between population size and the proportion of population in agriculture. On the whole, localities seem to gain non-agricultural functional characteristics as they reach a population size of 10,000.¹⁶

For the organized-unorganized sector distinction, no information is directly available since the dual structure of the urban economy is not officially recognized. In Turkey employment and population statistics are presented in accordance with the standardized classification schemes of international organizations. We will thus have to resort to indirect methods to obtain the sizes of the two urban sectors.

A number of criteria for dividing the urban economy in Turkey have been suggested in the literature. Two of these deserve consideration. One approach that was put forth by İlhan Tekeli is based on the concept that all members of the organized sector enjoy social security privileges.¹⁷

¹⁵ See Michael N. Danielson and Ruşen Keleş (Chapter , Appendix I) for a review of these definitions.

¹⁶ For a detailed presentation of empirical evidence see Erol Tümertekin, Urbanization and Urban Functions in Turkey (Istanbul: Faculty of Letters Press, 1973).

¹⁷ See İlhan Tekeli, "Marginal Sector in Development and the Turkish Case," Unpublished paper, July 1974, p. 26.

Fourth, we define ΔV_4 as the change in overall log variance of income due to inter-sectoral mobility during the period under consideration. We will refer to ΔV_4 as the mobility effect. We now assume that $M = M_2$, $r = 0$ and $v_{t+1} = v_t$. Substitution of these terms for M , r and v_{t+1} into (8) yields:

$$(12) \quad \Delta V_4 = ((x'_t M'_2 / x'_t M'_2 u) - (x'_t / x'_t u)) v_t \\ + y'_t (\hat{x}_t M'_2 / x'_t M'_2 u) y_t - y'_t (\hat{x}_t / x'_t u) y_t \\ - (y'_t M_2 x_t / x'_t M'_2 u)^2 + (y'_t x_t / x'_t u)^2$$

There is also a fifth effect, ΔV_5 , which is due to interactions between ΔV_1 , ΔV_2 , ΔV_3 and ΔV_4 . An interactions effect exists because the four factors associated with income distribution do not operate independently from one another. Statistically, ΔV_5 has ten components. Six of these are two-way combinations of the four primary effects and the remaining four are three-way combinations. ΔV_5 can also be estimated as a residual:

$$(13) \quad \Delta V_5 = \Delta V_t^{t+1} - \Delta V_1 - \Delta V_2 - \Delta V_3 - \Delta V_4.$$

they are usually protected by barriers to entry involving aptitude and education. The self-employed and family workers in the remaining eight occupational categories, as well as the entire unknown category, are classified in the unorganized sector.

Considering our definition of the organized sector, Tekçe's approach is very useful for estimating the sizes of the organized and unorganized sectors. However, it has two serious drawbacks. First and foremost, accurate income data are almost unobtainable for the occupational categories used in the census. If at all possible, it is preferable to use a classification scheme which can be linked to the national income accounts. Second, the cross-classification of occupations with employment status is available for 1965 and 1970, but not for 1960.¹⁹ In the interest of inter-temporal symmetry, it is better to base our population figures for 1963 and 1973 on the 1960 and 1970 censuses.

The criteria for dividing the urban population that will be used in this study avoids the problematic features of the schemes put forth by Tekeli and Tekçe. It involves the cross-classification for urban areas of economic activities with employment status. The censuses accept ten categories of economic activity:¹⁾ agriculture, hunting, forestry and fishing, ²⁾ mining and quarrying, ³⁾ manufacturing, ⁴⁾ electricity, gas and water; ⁵⁾ construction; ⁶⁾ wholesale and retail trade, restaurants and hotels; ⁷⁾ transport, storage and communication, ⁸⁾ finance, insurance, real estate and business services, ⁹⁾ community, social and personal services, and ¹⁰⁾ unidentifiable activities. The employment statuses are the same as listed in our description of Tekçe's scheme.²⁰

¹⁹ The results of the 1975 census were not available at the time of writing.

²⁰ Unlike the 1960 census, the 1970 census does not include an "unknown" category in its breakdown by employment status.

Accordingly, the organized sector is estimated by aggregating the registration lists of İşçi Sigortaları (a social insurance institution for workers), Emekli Sandığı (Government Employees' Retirement Fund) and BAĞ-KUR (a social security institution for the self-employed). The size of the unorganized sector is then estimated as a residual of the urban labor force. This approach has many advantages, but the fact that BAĞ-KUR did not exist prior to 1971 hinders its applicability to the present study.

Another basis for distinguishing between the organized and unorganized sectors was suggested by Belgin Tekçe.¹⁸ Tekçe's scheme involves the cross-classification of occupations with employment status given in the census data. Turkish censuses use five categories of employment status and ten categories of occupation in classifying the urban labor force. The categories of employment status are: 1) employers, 2) employees, 3) self-employed persons, 4) family workers, and 5) the unknown. The occupational categories consist of 1) technical and professional workers, 2) managerial, administrative and clerical workers, 3) salesmen, 4) agricultural workers (includes lumbermen, fishermen and hunters), 5) miners and quarrymen, 6) workers in transport and communication occupations, 7) craftsmen and manufacturing industry workers, 8) unskilled workers, 9) service workers, and 10) workers in undefinable occupations.

In Tekçe's scheme, employers and employees are considered to be members of the organized sector. The self-employed and family workers in the first two occupational categories are also included in the organized sector, presumably because

¹⁸ See Belgin Tekçe, "Urbanization and Migration in Turkey 1955-1965," Unpublished Ph.D. thesis, Princeton University, pp. 153-154.

In terms of economically active individuals,²³ calculations for 1960 give 40.4 per cent and 59.6 per cent for the share of the unorganized and organized sectors respectively. The corresponding figures for 1970 are 37.3 per cent and 62.7 per cent. The sectoral population sizes are found by subdividing the urban population according to these proportions.²⁴ Given the sectoral population sizes for 1960 and 1970, we are able to obtain the figures for 1963 and 1973 by exponential interpolation. The results are shown in Table 1.

Table 1

The Sectoral Populations 1963-1973 (in thousands)

| | 1963 | | 1973 | |
|--------------------|--------|-------|--------|-------|
| Rural sector | 21,148 | 71.0% | 23,667 | 61.2% |
| Unorganized sector | 3,408 | 11.4 | 5,445 | 14.1 |
| Organized sector | 5,220 | 17.6 | 9,539 | 24.7 |
| Total | 29,776 | 100.0 | 38,651 | 100.0 |

Compiled from Census of Population, 23 October 1960 (Ankara: State Institute of Statistics, 1964), and 25. 10. 1970 Census of Population: Social and Economic Characteristics of Population (Ankara: State Institute of Statistics, 1976).

One issue remains to be dealt with in this section. It is some times argued that the gecekondu communities²⁵ provide an excellent basis

²³ The relevant tables in the 1960 and 1970 censuses exclude all economically active individuals under 15 years old and under 12 years old respectively. To achieve comparability, we subtracted from the unorganized component of 1970 the number of economically active individuals aged 12 to 14. The underlying assumption is that children in the labor force are family workers, who, by definition, are in the unorganized sector.

²⁴ In the absence of reliable statistics on labor force participation rates in the organized and unorganized sectors, we are assuming them to be equal.

²⁵ Gecekondus (literally built-in-the-night) are dwellings constructed on somebody else's land, usually the government's, and in violation of building codes.

As a first approximation, employers and employees can be included in the organized sector, with the other three employment statuses forming the unorganized sector. However, several adjustments should be made to refine the distinction.

First, urban employees engaged in agriculture and undefinable activities should be allocated to the unorganized sector. The adjustment concerning agricultural activities is needed because urban agricultural workers have little job security, due to the continuous expansion of industry and residential housing at the expense of agricultural land.

Second, the sum total of the domestic servants and building caretakers needs to be subtracted from the organized sector and added to the unorganized sector.²¹ The underlying reason is that domestic servants and building caretakers typically enjoy very little job security and have high turnover rates.

Third, for 1960, the persons with "unknown employment status in unidentifiable activities" have to be allocated to the organized sector, for they represent the armed forces. This adjustment does not have to be made for 1970, because the armed forces are already included in the organized sector as "employees in community services."²²

Considering the method outlined above, the first step in obtaining the sectoral population sizes for 1963 and 1973 is to find the rural and urban populations for 1960 and 1970. For each year, we then have to subdivide the urban population into its unorganized and organized components.

²¹The sizes of the two groups can be obtained from the occupational statistics in the censuses.

²²Turkish censuses give no "explicit" information on the armed forces, presumably for reasons pertaining to national security. It has always been possible, however, to locate this category in the tables because it is very large.

But all subsequent surveys point in the same direction as Hart's findings. The occupational data collected in 1966 by İbrahim Yasa in the squatter settlements of Ankara suggests that roughly 40 per cent of the family heads were in the organized sector.²⁸ Conducted in the same year, Kemal Karpat's survey, which covered three of the gecekondu areas in the northern hills of İstanbul, namely Hisarüstü, Baltaliman and Celadeddin Paşa, revealed that close to 80 per cent of the male residents were permanently employed in public or private enterprises, albeit in hierarchically low occupational categories.²⁹ More recently, Mübeccel Kıray, who in 1970 studied the Altındağ and Dikmen squatter settlements of Ankara, found that 27 per cent of the residents were skilled workers, while an additional 30 per cent were employees in public offices or private firms.³⁰ Finally, Emre Kongar's survey, which also covered the Altındağ area, showed that over 45 per cent of the squatters were employed by the government. In addition, 20 percent were employed by private firms and, interestingly enough, slightly over 2 percent were employers.³¹ This cursory glance at a few gecekondu studies indicates clearly that residence in squatter areas

²⁸ See İbrahim Yasa, "The Impact of Rural Exodus on the Occupational Patterns of Cities: The Case of Ankara," in Mübeccel Kıray (ed.), Social Stratification and Development in the Mediterranean Basin (The Hague: Mouton, 1973), pp. 152-155.

²⁹ See Kemal Karpat, The Gecekondu: Rural Migration and Urbanization (London: Cambridge University Press, 1976), pp. 100-106. The dissimilarity between Suzuki's and Karpat's surveys is striking. Apart from the fact that Suzuki's study restricted itself to only one of the three areas surveyed by Karpat, a possible explanation is that it takes migrants a few years to get assimilated into the organized labor market. Hisarüstü was founded in 1959, that is only five years before the Suzuki study was conducted.

³⁰ See Mübeccel Kıray, "Gecekondu: Az Gelişmiş Ülkelerde Hızla Toprakdan Kopma ve Kentle Bütünleşememe" (Gecekondu: Rapid Detachment from Land and Inability to Become Assimilated in the LDC City), Siyasal Bilgiler Fakültesi Dergisi, 3 (1972), p. 567.

³¹ See Emre Kongar, "Altındağ Gecekondu Bölgesi" (The Altındağ Gecekondu Area), Anne İdaresi Dergisi, 3 (1973), p. 121.

for the measurement of the size of the unorganized sector. The physical differentiations that exist between gecekondus and the more prosperous legal residential quarters are seen as a clear expression of the economic duality in contemporary urban Turkey. This view invites a commentary on the gecekondus' occupational composition, because gecekondus have a central place in inter-sectoral mobility. The vast majority of the squatters are rural migrants, so knowing the proportion employed in the unorganized sector could provide a key to understanding the impact of rural-urban migration on income distribution. Leaving the distributional implications to subsequent sections, we will now explore the validity of equating the gecekondu population with the unorganized sector.

During the period from 1963 to 1973 a number of surveys were conducted to find out, among other things, the occupational composition of the gecekondu settlements. An analysis of the ensuing information reveals that, contrary to what is often assumed, a substantial proportion of the gecekondu population is engaged in organized activities.

In 1962-1963, Charles Hart, whose team interviewed over 10,000 families in Zeytinburnu and Gültepe, two of İstanbul's largest gecekondu areas, found that the vast majority of the squatters were employed in near-by factories.²⁶ A year later, however, Peter Suzuki observed that the proportion of the organized labor force was much smaller in the Hisarüstü (İstanbul) gecekondu district. Here close to 80 percent of the male residents were either unskilled and seasonally employed or openly unemployed.²⁷

²⁶ See Charles W. Hart, "Peasants Come to Town," in Social Aspects of Economic Development (İstanbul: Economic and Social Studies Conference Board, 1964), pp. 67-68. For a more detailed analysis of the Zeytinburnu findings see Nephth Saran, "Squatter Settlement (Gecekondu) Problems in İstanbul," in Peter Benedict, Erol Tümertekin, and Fatma Mansur (eds.), Turkey: Geographic and Social Perspectives (Leiden: Brill, 1974).

²⁷ See Peter Suzuki, "Peasants Without Plows: Some Anatolians in İstanbul," Rural Sociology, 4 (1966), pp. 430-431.

to be 30.8 per cent, 23.7 per cent and 21.9 per cent for the rural, un-organized and organized sectors respectively.

The second source of variation in the sectoral growth rates was the exogenous subtractions caused by international migration. Between 1963 and 1973 Turkish government agencies sent over 775,000 workers to Europe and, according to a conservative estimate, an additional 100,000 went abroad through unofficial channels.³³ Around 30 per cent of the workers (or 232,000) had been accompanied by their wives,³⁴ and as of 1973, 205,000 children were / living with their parents abroad.³⁵ In sum, about 1,312,000 individuals left Turkey for Europe between 1963 and 1973. Of these, perhaps 240,000 had permanently returned home by 1973.³⁶ The net loss was therefore 1,072,000 individuals.

Despite the serious inadequacy of statistical information concerning the sectoral origins of external migrants, some general trends are observable. For one thing, it is clear that the rural-urban composition of the Turkish workers sent abroad has been biased against rural residents.

According to surveys conducted among emigrant Turkish workers in Europe

³³ Nermin Abadan-Unat, Turkish Workers in Europe 1960-1975 (Leiden: Brill, 1976), p. 386. The author cites the figure 790,000 for the number sent through official channels between 1961 and 1973. From this figure we subtracted 15,000, the number of workers who left in 1961 and 1962. The latter figure is from Suzanne Paine, Exporting Workers: The Turkish Case (London: Cambridge University Press, 1974), p. 182.

³⁴ Based on the results of the Abadan and German surveys (both of 1968) as cited in Suzanne Paine (1974), p. 106.

³⁵ Nermin Abadan-Unat (1976), p. 393.

³⁶ Based on Ronald Krane, "Effects of International Migration Upon Occupational Mobility, Acculturation and the Labor Market in Turkey," in Ronald Krane (ed.) Manpower Mobility Across Cultural Boundaries -- Social, Economic and Legal Aspects: The Case of Turkey and West Germany (Leiden: Brill, 1975), p. 162. Krane estimates that 210,000 persons had returned to Turkey by year's end 1972.

does not automatically imply employment in unorganized sector activities.

4. Sectoral Growth Rates of Population

In the 1963-1973 period, the population of all three sectors increased rapidly though the rate was not uniform. Apart from mobility, three factors contributed towards the inter-sectoral differentials in the growth of population. First and foremost, natural growth rates differed among sectors. Second, the gains and losses through international migrations were not in strict proportion to the sector's sizes. Third, there were "city births" at the expense of the rural population. These three factors are the components of the M_1 matrix described in Section 2. In this section, we will first discuss separately the components of the inter-sectoral differentials in population growth rates and proceed to derive M_1 for the 1963-1973 period.

According to the Turkish Demographic Survey of 1966-1967, the annual rate of natural increase was 2.72 per cent in rural areas and 2.07 per cent in urban areas.³² We have no direct comparison between the natural growth rate of the unorganized sector and that of the organized sector, but we might reasonably expect it to be higher in the former. Since fertility rates are in general negatively correlated with standards of living, we can justifiably assume that the annual rate of natural growth was lower in the organized sector. As reasonable estimates, we will use 2.15 per cent for the unorganized sector and 2.00 per cent for the organized sector. Assuming exponential growth, we find the ten-year natural growth rates

³²Vital Statistics from the Turkish Demographic Survey 1966-67 (Ankara: State Institute of Statistics, 1970), p. 37. The survey accepts an upper size limit of 2,000 to define rural areas. This is lower than our size boundary of 10,000, but in the absence of more suitable data we are constrained to use the results of the survey. If data were to be reaggregated according to the sectoral definitions of the present study, the resulting rural and urban rates would probably be approximately the same. See Belgin Tekçe (1974), p. 23, f. 5.

workers who settled in urban areas entered the organized sector.

Given the above proportions, we can easily estimate the sectoral rates of population loss due to emigration, using the 1963 population figures in Table 1 and the information that 1,072,000 individuals were lost to the outside world. Calculations yield the ten-year growth rates due to emigration as -1.4 per cent, -9.6 per cent and -8.7 per cent respectively for the rural, unorganized and organized sectors.

The third way the growth rates of the sectoral populations have been altered is by the "births of cities" between two censuses.⁴² Statistically, a "birth" occurs when a rural community reaches a population size of 10,000. The population of the community is then reclassified as urban, reducing the share of the rural sector in the total population.

According to the 1970 census, 105 of the 264 localities which were classified as urban in 1970 had fewer than 10,000 inhabitants in 1960.⁴³ These settlements had a total population of 709,010 in 1960. Since we are lacking information on the settlements that became urban between 1963 and 1973, we are constrained to use the corresponding information for the 1960-1970 period as a close approximation. Using the sectoral populations for 1963 given in Table 1, we find that the growth rate of the rural sector due to the reclassification of 105 settlements is -2.8 per cent. Assuming that city births do not alter the distribution of the urban population among the organized sector and the unorganized sector, we find the rate of growth due to the reclassification of settlements to be 6.9 per cent for both sectors.

⁴²The terminology is from Belgin Tekçe (1974), pp. 14-16; see Erol Tümertekin (1973), pp. 102-116 for a discussion on "city births" in Turkey.

⁴³1970 Census of Population, p. 49.

around 30 percent were in the rural sector prior to departure.³⁷ As for the emigrants living in urban areas prior to departure, there does not seem to have been any systematic bias in the selection among members of the organized and unorganized sectors. The State Planning Organization survey of 1971 indicates that 57 per cent of the emigrants from urban areas were employees or employers before departure.³⁸ Similarly, a recent DGB survey reveals that 59 per cent of the urban emigrants were employed as factory workers before leaving Turkey.³⁹ Given the results of these two surveys, it seems reasonable to assume that 60 per cent of the urban emigrants (or 42 per cent of the entire emigrant population) were from the organized sector, with the remaining 28 per cent being from the unorganized sector.

Studies on returned workers indicate that approximately 43 per cent have settled in rural areas.⁴⁰ Although information is scarce and unreliable on the jobs held by returned workers settled in urban areas, a decline has been observed in unorganized occupations. State Planning Organization data on the skill levels of migrants show a net increase in skilled occupations.⁴¹ We will assume here that 70 per cent of the migrant

³⁷ See the results of the Abadan (1963), SPO (1971), Aker (1970-71) surveys cited in Suzanne Paine (1974), p. 188, and the DGB survey cited in Nermin Abadan-Unat (1976), p. 20.

³⁸ Suzanne Paine (1974), p. 195.

³⁹ Based on figures cited in Nermin Abadan-Unat (1976), p. 20.

⁴⁰ Suzanne Paine (1974), p. 110. Since only 30 per cent of the emigrants lived in rural areas prior to departure, it appears that ex-rural migrants are more likely to return because of adaptation problems than migrants from the cities.

⁴¹ See results of the 1971 SPO survey in Suzanne Paine (1974), p. 194.

5. Inter-sectoral Mobility

In 1963, only 29.0 per cent of Turkey's population lived in urban centers. Ten years later the share of the urban population within the national total had risen to 38.8 per cent even though the sectoral differentials in natural growth rates favored the rural sector. This dramatic increase in the share of the urban population was due to large-scale migrations from villages to urban centers. Yet, much of the basic data on the process of rural-urban migration is still lacking. Most importantly, the role of the unorganized sector in migration is still not well-understood. With the primary aim of deriving the net mobility matrix (M_2) for 1963-1973, this section attempts to analyze the directional features of the inter-sectoral mobility mechanism in Turkey.

Rural-urban migration in Turkey is often viewed as a process that transfers landless peasants from village to town. This notion of the migration process has its origins in some of the early village studies which stress the relationship between the labor-displacing agricultural mechanization drive of 1946-1955 and the massive migrations to the large urban centers. Some more recent studies have shown, however, that many migrants owned some land in their village of origin. Karpal's *gecekodu* survey indicates that an overwhelming majority of the migrants owned (or still own) one or several plots in their village. Their move to the city was caused not so much by landlessness as by material hardships resulting from the lack of good available land, irrigation and the low productivity of soil.⁴⁴ The results of a survey conducted by Oğuz Arı among skilled factory workers in Ankara lend support to Karpal's findings.

⁴⁴Kemal Karpal (1976), pp. 73-74.

Given the determinants of the inter-sectoral differentials in population growth rates, finding M_1 is simply a matter of addition. But the growth rates thus obtained are not statistically exhaustive of the population growth observed in Table 1. In correcting our figures to account for the "unexplained" determinants of population growth (and data errors), we have chosen to give relatively greater weight to the two urban sectors, because cities have sometimes gained population through the redefinition of their municipal boundaries. Our final results, which are statistically exhaustive of the total population growth, are shown in Table 2. They indicate that the share of the organized sector would diminish over time if there were no inter-sectoral mobility. It should be noted that the figures in Table 2 correspond to the diagonal elements on M_1 .

Table 2

The Ten-Year Growth Rates of the Sectoral Populations Assuming No Inter-sectoral Mobility 1963-1973

| | |
|--------------------|-------|
| Rural Sector | 0.310 |
| Unorganized Sector | 0.280 |
| Organized Sector | 0.260 |

the period from 1965 to 1970.⁴⁸ The differential between the rates for the two periods is not surprising, when one considers that political and economic conditions were more favorable to rural-urban migration in the late 1960s than they had been in the earlier part of the decade. The organized sector was expanding rapidly increasing the attractiveness of the cities to potential job-seekers. At the same time, the migrant population in the urban centers was gaining considerable support from all political parties toward allowing the extension of public services to gecekondü settlements.⁴⁹ The intensification of rural-urban migration in the late 1960s can be ascribed, in part, to the concrete improvements in the living standards of gecekondü residents.

Rural-urban migration was given a further stimulus by the turbulent political atmosphere of the early 1970s. During these years of instability, national leaders recognized more clearly than before that active support of the gecekondü residents' request for land titles and public services was one of the essential components of success in urban elections. Unfortunately, we do not have recourse to Tekçe's estimates to verify empirically the proposition that rural-urban migration increased sharply in the 1970s, because her study does not cover the 1970-1973 period. However, the proposition can still be substantiated by examining data on construction activities in squatter areas. The annual increase in the number of squatter dwellings in urban Turkey was around 70,000 in the

⁴⁸ Begin Tekçe (1974), p. 28.

⁴⁹ Recognizing their growing strength in numbers, the squatters began in the early 1960s to engage in political bargains with contenders in national and municipal elections. To say the least, they achieved substantial material gains, in the form of roads, piped water, transportation services, etc., from their political endeavors.

Only 18.3 per cent of the migrant workers interviewed by Arı indicated that they did not possess land in the village at the time of their departure for the city.⁴⁵

The majority of migrants have tended to move directly to the city without any intermediary stops in other villages or smaller urban centers. Kongar found that over 85 per cent of the migrants in Altındağ had migrated there directly from the village.⁴⁶ Karpat's surveys in the gecekondu settlements of İstanbul also show that direct migration was the predominant pattern of movement from village to city. Over 50 per cent of the men and 60 per cent of the women in Karpat's sample had made one-step moves to İstanbul. Many of those who cited a multi-step migratory pattern had previously worked, usually on a seasonal basis, in towns and cities in the vicinity of their native village.⁴⁷

Statistical information concerning magnitudes of rural-urban population transfers cannot be obtained directly from the censuses, but reasonable guesses can be made on the basis of the available estimates of the components of urbanization in Turkey. Belgin Tekçe has estimated that, during the period between 1960 and 1965, the proportion of the urban population within the national total was growing at the rate of 2.5 per cent per annum as a result of inflows from the rural sector. Her calculations show that this rate increased to 3.2 per cent per annum during

⁴⁵Oğuz Arı, "Ankara'da Yetenekli Devamlı Endüstri İşçileri Sorununun İncelenmesi" (A Survey of Skilled Workers Employed in Manufacturing Industries in Ankara), Boğaziçi University Journal - Social Sciences, 1 (1973), p. 18.

⁴⁶Emre Kongar (1973), p. 117.

⁴⁷Kemal Karpat (1976) pp. 83-85.

If he is fortunate, he receives help from relatives, kinsmen and acquaintances familiar with the urban job market, or even gets institutional assistance. Commonly, however, he finds himself alone in the job search process.

Studies on the absorption of migrants into the urban economy convey the validity of this pattern. Only 19 per cent of the family heads in Ankara interviewed by İbrahim Yasa indicated that they found their jobs through relatives, kinsmen and acquaintances, while an additional 1 per cent acknowledged receiving help from an employment organization.⁵² Another survey conducted by Oğuz Arı and Cavit Orhan Tütengil among migrant industrial workers in İstanbul shows that 38 per cent had been assisted by their acquaintances and 15 per cent by formal organizations.⁵³ The differentials between the findings in the two surveys can be attributed to the fact that the sample used by Arı and Tütengil consisted of "successful" migrants, i.e., migrants who had achieved employment in the industrial segment of the organized sector.

If we accept that recent migrants have few means of contact with prospective employers, we would expect them to have a low chance of obtaining a permanent organized sector job. Openings in the organized sector would be filled by urban natives and not-so-recent migrants, who are more qualified and better informed than yesterday's peasants. The latter, would be forced to find some lesser means of earning a cash income, perhaps after an initial period of unemployment. We would, however, also expect those migrants managing to equip themselves with some useful skills and new sources of information, to show future upward mobility in the urban economy.

⁵² İbrahim Yasa (1973), p. 147.

⁵³ Oğuz Arı and Cavit Orhan Tütengil, "İstanbul'a Göç ve Çalışma Hayatına İntibak Araştırması" (Migration to İstanbul and Adjustment to the Occupational Milieu), reprint from İktisat Fakültesi Mecmuası, 4 (1968), p. 36.

early 1970s, up from 30,000 in the 1966-1969 period.⁵⁰ Since the proportion of the urban population was increasing at the rate of 3.2 per cent per annum between 1965 and 1970, we might postulate that the rate was considerably higher in the 1970-1973 period. We will assume here that migration was causing the proportion of the urban population within the national total to increase at the rate of 5.3 per cent per annum during the three years from 1970 to 1973.⁵¹

Given the information that the annual rate of change in the urban share of the population was 2.5 per cent in 1963-1965, 3.2 per cent in 1965-1970 and 5.3 per cent in 1970-1973, it is a simple matter to derive the share of the rural population that moved to the cities between 1963 and 1973. Using the population data in Table 1, we find that the rural outflow corresponds to 20 per cent of the sectors 1963 population. To summarize this information:

$$(14) \quad M_2(2,1) + M_2(3,1) = 0.200$$

Since the columns of M_2 sum to unity, we are able to find $M_2(1,1)$, the share of the rural population that remained in the rural sector, as 0.800.

On arrival in the city the typical rural migrant has little accurate information on specific job opportunities. Accordingly, his first occupation is determined by factors largely outside his control.

⁵⁰ A United Nations document shows that there were 408,375 gecekondu dwellings in 1966. The government's estimate for 1969 is 500,000. The figure given for the post-1970 period is based on official figures compiled from Kemal Karpat (1976), pp. 60,62.

⁵¹ Implicit in our calculation is that around 20,000 gecekondu a year were built by migrants of earlier periods, taking advantage of the government's failure to put into effect the gecekondu prevention and clearance laws.

Further information on the extent of occupational mobility in urban Turkey is provided by Taner Öç's study on the assimilation of rural migrants in Istanbul and Samsun.⁵⁷ Öç found that in both Istanbul and Samsun the migrant's present occupation was largely dependent on his first occupation. As of 1973, 78.3 per cent of the rural migrants of the pre-1950 period, whose first job was in the unorganized sector, were still holding an unorganized job. Among the migrants of the 1950-1960, 1961-1970 and post-1971 periods, the corresponding figures were 58.8 per cent, 65.4 per cent and 100.0 per cent respectively.⁵⁸ We can infer from Öç's findings that old migrants have greater chances of upward mobility. Interestingly, the author's findings also show statistically significant downward mobility from organized to unorganized activities, particularly among migrants of the post-1961 period.

The discussion so far has been concerned exclusively with intra-generational mobility. However, as we have mentioned before, the elements of the mobility matrix are also affected by inter-generational mobility. Several studies provide us with substantial evidence of pronounced inter-generational mobility in the urban economy. The 1968 income distribution survey shows, for example, that only 55.5 per cent of the children of small traders and artisans had entered their father's profession. 13.2 per cent of them had become skilled workers, while 12.7 per cent had

⁵⁷ See Taner Öç, "Assimilation of Displaced Rural Migrants in Istanbul and in Samsun, and the Role of Mass-Media in the Process," Unpublished Ph.D. thesis, University of Pennsylvania, 1974.

⁵⁸ Taner Öç (1974), Table A-10, p. 210. The author uses a typology of occupations that divides the urban economy into three sectors. The figures cited are for Type I occupations, which Öç defines as occupations requiring no skills and providing no job security (see p. 74 for the detailed definition). Some unorganized activities are classified in an intermediary category (Type II), which also includes, however, some organized activities.

Unfortunately, the available studies do not provide an accurate basis for strong conclusions about the degree of mobility in the urban economy. They do enable us, however, to depict the pattern of intra-urban mobility in very broad terms. In Kemal Karpat's survey, 55 per cent of the respondents indicated that they had held jobs in the past that were different from their occupations at the time of the survey. Considering that 80 per cent of the migrants in Karpat's sample were employed at the time in organized sector jobs, this is suggestive of a net movement over time from unorganized to organized activities. A more direct indication of high mobility is provided by Karpat's observation of a tendency among the migrants to move from unskilled to skilled and from low technology to high technology occupations.⁵⁴

In another survey, that of Arı and Tütengil on migrant factory workers, 61 per cent of the respondents cited that they had not held another urban job prior to becoming a factory worker. The rest had been engaged in other activities, presumably in the unorganized sector, before obtaining a factory job.⁵⁵

In contrast to the Karpat and Arı-Tütengil surveys, Kongar's study gives no indication of high occupational mobility: 65 per cent of the migrants in Kongar's Altındağ sample had never switched jobs.⁵⁶ However, no inferences can be drawn from this study, because it does not provide any information on the apportionment of the stationary population among the organized and unorganized sectors.

⁵⁴Kemal Karpat (1976), p. 105.

⁵⁵Oğuz Arı and Cavit Orhan Tütengil (1968), p. 29.

⁵⁶Emre Kongar (1973), p. 23.

summarize this information:

$$(15) \quad M_2 (1,2) + M_2 (3,2) = 0.450$$

It has been mentioned that there were substantial outflows from the organized sector in the 1960s. Indeed, it has been quite common in Turkey for factory workers and low-level government employees to open a small-scale retail business or service establishment, often after retirement. But compared to the unorganized sector, the organized sector has exhibited a markedly higher degree of occupational stability. In the absence of reliable statistics, it seems reasonable to estimate

$M_2 (3,3)$ as 0.800. Then, given this information, we can easily obtain the share of the individuals in the organized sector that has moved to the other two sectors:

$$(16) \quad M_2 (1,3) + M_2 (2,3) = 0.200$$

We now have at our disposal values for the three diagonal elements of the net mobility matrix. Remembering that $M = M_1 + M_2$, we can obtain the diagonal elements of M by summing the corresponding elements of M_1 and M_2 :

$$M (1,1) = M_1 (1,1) + M_2 (1,1) = 0.310 + 0.800 = 1.110$$

$$M (2,2) = M_1 (2,2) + M_2 (2,2) = 0.280 + 0.550 = 0.830$$

$$M (3,3) = M_1 (3,3) + M_2 (3,3) = 0.260 + 0.800 = 1.060$$

Using equation (1) and the sectoral population vectors, the elements of which are given in Table 1, we can derive in a straightforward manner three other relationships involving the six as-yet-unknown elements of M .⁶²

⁶²The procedure used for filling the unknown entries of our mobility matrix was put forth in Sherman Robinson and Kemal Dervis (1977).

obtained government employment.⁵⁹ Similarly, data gathered by Ruşen Keleş in the old quarters of Ankara indicate that a mere 39.3 per cent of the children of small traders and artisans are engaged in their father's profession. 11.6 per cent are civil servants and 7.1 per cent are technicians, self-employed professionals or industrialists.⁶⁰

These results seem less surprising when we consider that most urban families manage to send their children to school. The 1962-1963 research on Zeytinburnu exemplifies the inter-generational changes in educational attainment in terms of literacy rates: while 58.3 per cent of the fathers and 33.7 per cent of the mothers were literate at the time of the survey, the corresponding figures for school-age sons and daughters were 90.0 per cent and 85.5 per cent respectively.⁶¹

Relying on our error-prone ability to derive economy-wide statistics from disparate survey figures, we can now try to quantify $M_2(2,2)$ and $M_2(3,3)$, the shares of the individuals in the unorganized and organized sectors who did not experience inter-sectoral mobility between 1963 and 1973. Considering only the intra-generational mobility of individuals, a plausible figure for $M_2(2,2)$ seems to be 65 per cent. But in view of the added impact of inter-generational mobility, we might reasonably lower this figure to 55 per cent. Then, using the fact that the columns of M_2 sum to one, we find the share of the population in unorganized activities which experienced mobility to be 45 per cent. To

⁵⁹See Tuncer Bulutay, Serim Timur and Hasan Ersel, Türkiye'de Gelir Dağılımı - 1968 (Income Distribution in Turkey - 1968), (Ankara: Ankara University Faculty of Political Science, 1971), Table 6.D.

⁶⁰See Ruşen Keleş, Eski Ankara'da Bir Şehir Tipolojisi (An Urban Typology in Old Ankara), (Ankara: Ankara University Faculty of Political Science, 1971), Table 28.

⁶¹See Nephah Saran (1974), pp. 353-354.

$$M_2 (3,2) = M(3,2) = 0.393$$

$$M_2 (1,2) = M(1,2) = 0.057$$

For future reference M , M_1 and M_2 are shown in their entirety:

$$M = M_1 + M_2 = \begin{bmatrix} 0.310 & 0 & 0 \\ 0 & 0.280 & 0 \\ 0 & 0 & 0.260 \end{bmatrix} + \begin{bmatrix} 0.800 & 0.057 & 0 \\ 0.074 & 0.550 & 0.200 \\ 0.126 & 0.393 & 0.800 \end{bmatrix}$$

$$= \begin{bmatrix} 1.110 & 0.057 & 0 \\ 0.074 & 0.830 & 0.200 \\ 0.126 & 0.393 & 1.060 \end{bmatrix}$$

6. Sectoral Mean Incomes

In Turkey, as in most underdeveloped countries, rural incomes are much lower on the average than urban incomes. Concomitantly, incomes in the unorganized urban sector fall below incomes in the organized urban sector. These variations are largely attributable to productivity differentials. The inter-sectoral population movements of the 1963-1973 period, insofar as they had an impact on sectoral productivity levels, probably affected the inter-sectoral spread of mean incomes. In this section we will first attempt to determine the qualitative significance of inter-sectoral migration on incomes in our three sectors and then proceed to calculate, using national income accounts and other relevant data, the sectoral mean incomes for 1963 and 1973.

For a number of complementary reasons, the productivity of labor is strikingly low in Turkey's rural sector, where agriculture is the primary economic activity of the vast majority of the population.

$$(17) \quad 23,667 = 21,148(1.110) + 3,408M(1,2) + 5,220M(1,3)$$

$$(18) \quad 5,445 = 21,148M(2,1) + 3,408(0.830) + 5,220M(2,3)$$

$$(19) \quad 9,539 = 21,148M(3,1) + 3,408M(3,2) + 5,220(1.060)$$

The system composed of equations (14) - (19) has six unknowns, but it is linearly dependent and hence has no unique solution. We therefore have to attempt to assign a value to a fourth element of the mobility matrix.

Fortunately there exists some information on urban-rural migratory flows. Taner Öç's study on migrants in İstanbul and Samsun reveals that migrants in organized activities are very unlikely to go back to their village for work. A few of Öç's respondents acknowledged having made short visits to their village during periods of peak labor demand in agriculture. But the vast majority had completely severed their agrarian ties.⁶³ Even though our data base is weak, it seems reasonable to assume that there was no mobility from the organized sector to the rural sector:

$$M_2 (1,3) = M(1,3) = 0$$

We are now ready to solve for the remaining five unknowns. Substituting the value 0 for $M_2 (1,3)$ in equation (16), we obtain:

$$M_2 (2,3) = M(2,3) = 0.200$$

By further substitutions the remaining elements of M_2 and M are found to be as follows:

$$M_2 (2,1) = M(2,1) = 0.074$$

$$M_2 (3,1) = M(3,1) = 0.126$$

⁶³See Taner Öç (1974), pp. 106, 139-142. Also see pp. 131-133 for a discussion on the similarity of the author's findings with those of Hart and Arı-Tütengil.

Studies carried out by Kemal Karpaz concerning the effects of out-migration on several villages located in the area south of the Black Sea suggest, as we would have expected, that the decrease in population pressures has helped increase the remaining peasants' living standards by leaving more food per capita. Yet, in two villages, which had sent three-fourths of their population to urban centers, a few residents complained of labor shortages.⁶⁶ And migration had contributed to the total destruction of some villages where only a few old people remained as guards.⁶⁷ Considering, however, that these were small mountain villages which presumably are unsuitable for agriculture, the exceptional cases can be viewed as positive developments.

The most important way in which rural-urban migration has assisted rural development is by encouraging villages to change their methods of resource exploitation. The presence of migrants in cities provided a stimulus to agriculture by bringing villages into contact with new ideas concerning financing, production, management and marketing. Studying the migrant-sending villages near Sebinkarahisar, Kemal Karpaz noticed that soil analysis and problems related to irrigation had become major topics of discussion. Some returned migrants had assumed the dual role of village leader and technical innovator.⁶⁸ Others had played an active part in the formation of agricultural development cooperatives or the consolidation of subdivided plots.

⁶⁶ See Kemal Karpaz (1976), Chapter 7 (pp. 165-195). "A few villagers complained that on those rare occasions when they needed help they could not find workers to hire even though wages were up to 100 liras a day, almost twice the average wage earned in the city." (p. 178).

⁶⁷ Kemal Karpaz (1976), p. 186.

⁶⁸ See Kemal Karpaz (1976), pp. 187-195 for a detailed discussion on the migration-induced attitudinal changes in villages.

On the technical side, irrigation facilities are inadequate, and where water resources have been developed they are inefficiently used. The usages of fertilizers and high-yielding seed varieties are quite limited. And despite the mechanization efforts of the past three decades, particularly the last, the plough is still the most widely used farming tool. On the structural side, the system of landownership, which will be the subject of detailed discussion in Section 7 below, provides an obstacle to technological improvements. Although roughly three-quarters of the rural population are landowners, the land is very fragmented due to legal conflicts and inheritance rules.

The rural sector had a large surplus of manpower throughout the 1960s and early 1970s. Rough estimates made by the State Planning Organization in 1960 showed the surplus agricultural labor to be 8 per cent of the agricultural population in July and as high as 85 per cent in January.⁶⁴ Seven years later the unutilized manpower was estimated at 9 per cent for the peak agricultural season and 77 per cent for the slack season.⁶⁵ The existence of surplus manpower even in the busiest season has a profound implication for rural-urban migration: scarcities of human resources caused by outflows of population were probably insignificant for the rural sector as a whole.

⁶⁴First Five-Year Development Plan (1963-1967) (Ankara: State Planning Organization, 1963), p. 420. The methodology used in the calculations is left unexplained.

⁶⁵Second Five-Year Development Plan (1968-1972) (Ankara: State Planning Organization, 1969), pp. 147-148. These calculations were based on a 45 hour work-week. Yusuf Hamurdan, who corrected the S.P.O. results for biases, found that the surplus manpower was 13 per cent and 61 per cent in the busy and slack periods respectively. The author saw no signs of improvement in 1972. See his "Surplus Labor in Turkish Agriculture 1962-1972) in Duncan Miller (ed.), Essays on Labor Force and Employment in Turkey (Ankara): 1970(?), pp. 171-196.

Firstly, skilled, technical and high-level human resources, the prime agents of change, were concentrated almost exclusively in the cities. Secondly, capital investment policies were, before and during the period under consideration, biased towards industry and related infrastructure, owing to the vital role ascribed to industrialization in the country's long-term development strategy.⁷¹ The organized sector stood as the undisputed beneficiary.

But whether they held jobs in the organized sector or in the unorganized sector, rural-urban migrants fared far better in the city than in the village. It is very difficult to collect adequate income data from migrants, particularly from those in the unorganized sector who can easily conceal their earnings, but some supportive evidence exists in the relevant literature. Studying migrant families in the *gecekondu* settlements of Ankara Mübeccel Kiray estimated that earnings had at least doubled in the vast majority of cases.⁷² Likewise, in the Ari-Tütengil survey, the income of 72 per cent of the migrants in the sample was more than twice the village income.⁷³ Peter Suzuki observed that moving to Istanbul had improved the living conditions of the people in his sample: they ate and dressed better and enjoyed improved health facilities.⁷⁴

⁷¹In the First and Second Five-Year Development periods, which together spanned the decade beginning in 1963, around one-eighth of total fixed investments were in agriculture. Industry received slightly over a third. (Compiled from Turkey-An Economic Survey 1976 (Istanbul: Turkish Industrialists and Businessmen's Association, 1976).

⁷²Mübeccel Kiray (1972), p. 569. The author notes that the findings of İbrahim Yasa were similar.

⁷³Oğuz Ari and Cavit Orhan Tütengil (1968), p. 18.

⁷⁴Peter Suzuki (1966), pp. 430-431.

In addition to ideas, migrants have often provided the financial means for rural economic development. In her study on Ereğli, the site of Turkey's second steel mill, Mübaccel Kiray found that close to one fourth of the migrants were regularly sending money to their area of origin.⁶⁹ Karpaz provides several examples of the migrants' interest in and impact on rural development. In the Hisarüstü, Baltaliman and Celaleddin Paşa squatter settlements there are about 20 associations founded by squatters for the purpose of providing funds for^a specific village. The Yeniyoile Yardım Derneği (Association for Assistance to Yeniyoile) has collected 7,000 liras for irrigation works in the village. The Kirintayı Kalkındırma Derneği (Association for the Development of Kirintı) has sent to Kirintı books, tools, and machinery. Another development association had established for 45,000 liras a telephone line to the village.⁷⁰

Incomes in the rural sector, as will be shown below, were on the rise in the 1963-1973 period and rural-urban migration was one of the principal causes. Although some villages could be cited as counter-examples, population movements in Turkey have been instrumental in laying the foundation for the agricultural revolution that Turkey began experiencing in the mid-1970s.

Compared to rural activities, productivity levels were several times higher in urban activities between 1963 and 1973, and the differential was widening. Principally, two factors accounted for this situation.

⁶⁹ Mübaccel Kiray, Ereğli: Ağır Sanayiden Önce bir Sahil Kasabası (Ereğli: A Coastal Town Prior to Heavy Industry), (Ankara: State Planning Organization, 1964), p. 42. Most of those sending money were probably of rural origins. After industrial development began, Ereğli attracted large numbers of engineers, technicians and businessmen from other towns and cities, few of whom would have had any need to send money to their families.

⁷⁰ All these examples and others are contained in Kemal Karpaz (1976), pp. 171-172.

industrial component of the organized sector. While the trend in real wages in industry was upward between 1963-1973,⁸⁰ due perhaps to the impact of unionization,⁸¹ it is likely that this was dampened by migratory inflows.

It is more difficult to find empirical information concerning the impact of rural-urban migration on average earnings in the unorganized sector. However, the fact that dolmuş drivers and kâpıcıs (apartment caretakers), two of the largest components of the unorganized sector, established in recent years collective organizations in several cities, suggests that they feel threatened by the ongoing inflows from the rural sector. Their organizations have recently tried, with moderate success, to erect protective barriers against competition from new job-seekers.

Underlying the discussion so far has been the implicit assumption that monetary income reflects the quality of life. To be sure, this is not always the case. Public services (such as water supply, power, transportation, waste collection, education and sanitation) are among the critical determinants of living standards and there are biases in their provision.⁸² Another determinant of the quality of life is the right to command resources which manifests itself in terms of political power.

During the past few decades, political power in Turkey has rested in the

⁸⁰ Between 1963 and 1973, real (gross) annual wages in manufacturing establishments employing more than 10 workers rose at an average annual rate of 4.7 per cent. See presentation by Kemal Derviş in the proceedings of the August 1976 Istanbul Conference of the Princeton-Boğaziçi Income Distribution Project. Princeton-AID Income Distribution Project Working Paper No. 1, October 1976.

⁸¹ Workers' rights to unionize (in the Western sense) were recognized in 1963. According to the Ministry of Labor, close to 300,000 workers belonged to trade-unions in 1963 and over 2,500,000 in 1973. TISK (Turkish Employers Confederation) claims that the 1973 figures falls to 1,000,000 when one takes account of duplications in membership registrations. See Turkey: An Economic Survey-1976, p. 150.

⁸² See Danielson and Keleş (Chapter) for some evidence.

Finally, 90 per cent of the squatters in Kemal Karpat's sample indicated that their living standards had improved. Interestingly, some of those who were dissatisfied with their life in the city had come from rich village families.⁷⁵

Further indirect evidence of the positive impact of migration on the incomes of the individuals involved is provided by the Zeytinburnu survey. An overwhelming majority of the persons interviewed by Hart and his associates indicated that their living conditions had improved dramatically. To the question "Would you like to go back to your village?" 94.6 per cent gave negative responses. The migrants stated financial reasons when asked to explain their preference for city life.⁷⁶

While rural-urban migration has almost always resulted in improvements in the incomes of the new arrivals, it has probably depressed the average income of the low-level work force in both the organized and unorganized sectors. A recent econometric study has found a high degree of substitution between illiterates and primary school graduates in blue-collar jobs.⁷⁷ It also found a high degree of substitution between workers in the 15-24 age group and workers aged 45 and above.⁷⁸ Both these findings imply that new arrivals in the city, even if young and uneducated, can have a negative influence on job security in industry.⁷⁹ We would expect, therefore a negative relationship between rural-urban migration and wages in the

⁷⁵ Kemal Karpat (1976), pp. 106-107. The author ascribes the dissatisfaction of the formerly rich migrants to the fact that the city accords equal treatment to all villagers, rich or poor.

⁷⁶ Nephin Saran (1974), pp. 358-359.

⁷⁷ See Yusuf Hamurda, Türkiye'de İstihdamın Yapısı ve Yönlendirilmesi (The Structure of Employment in Turkey and its Directional Regulation) (Ankara: State Planning Organization, 1976), pp. 91-96.

⁷⁸ See Yusuf Hamurda (1976), pp. 96-100.

⁷⁹ Elsewhere in the employment literature on Turkey, it has been argued that labor turnover in industry has increased as a result of rural-urban migration. See for example, Nusret Ekin, Gelişen Ülkelerde ve Türkiye'de İşsizlik (Unemployment in Developing Countries and Turkey) (Istanbul: Istanbul University Faculty of Economics, 1971), p. 377. The author does not, however, substantiate his argument with empirical evidence.

population figures from Table 1, we find the rural mean income to be T.L. 1082 in 1963 and T.L. 3301 in 1973.

The allocation of the income derived from industry, construction and services between the two components of the urban economy relies on two crucial estimates. First, average earnings per worker in the unorganized sector are taken to be 0.40 times the average wage in the organized sector.⁸⁵ Second, 70 per cent of total profit income is assumed to accrue to the organized sector. The latter estimate is based on unpublished data from the 1973 Income Distribution survey.

To find labor income in industry we can use the information concerning the number of employees in production and the annual payments to the employees supplied by the surveys of the manufacturing industry. The surveys separate establishments employing more than ten workers from those employing less than ten workers, so these have to be aggregated to find the average organized sector wage.⁸⁶ The average organized sector

⁸⁵Based on data presented in the preliminary draft of Kemal Derviş, Planlama Modellerinde Dış Ticaret (Foreign Trade in Planning Models) forthcoming, 1978.

⁸⁶The following sources were used in the calculations: 1964 Census of Manufacturing Industries and Business Establishments: Manufacturing (Ankara: State Institute of Statistics (SIS), 1968); Annual Surveys of the Manufacturing Industries Results 1964-1968 (Ankara: SIS, 1976); 1970 Census of Industry and Business Establishments, Manufacturing Industries -- II. Small Scale Manufacturing Industries (Ankara: SIS, 1974); 1972 Yıllık İmalat Sanayii Anket Sonuçları (Geçici Sonuçlar) (1972 Annual Survey of the Manufacturing Industries (Preliminary Results)) (Ankara: SIS, 1974); 1973 Annual Survey of the Manufacturing Industries (Preliminary Results) (Ankara: SIS, 1974).

hands of a conservative coalition consisting of land-based proprietors, bureaucrats and military officers. This coalition, whose constituency has traditionally consisted of masses of disadvantaged peasants, has shown little genuine concern for the / plight of the poor, either urban or rural. By weakening traditional loyalties and freeing peasants from the economic domination of rural landowners, migration has expanded the political base of progressive forces

and this has potential implications for the inter-sectoral distribution of income. However, both these issues remain beyond the scope of this study. In turning to the calculation of the sectoral mean incomes in 1963 and 1973, we will continue to view monetary income as a reasonable proxy for the quality of life.

We have already mentioned that Turkish income data are not classified according to the sectoral breakdown used in the present study. Consequently, we have to use an indirect method to obtain estimates of the sectoral mean incomes. Our primary source will be the national income accounts, while the surveys of manufacturing and business establishments will enable us to subdivide the urban economy.

Based on national income accounts, Turkey's income can be divided into four categories of economic activity: agriculture, industry, construction and services. We will assume that all agriculture is rural.⁸³ Using the 1963-1973 estimates for agricultural income⁸⁴ at current prices and our

⁸³ Actually, 10.69 per cent and 11.97 per cent of the urban population was engaged in agriculture in 1963 and 1973 respectively. During the same two years, 10.46 per cent and 14.21 per cent of the rural population was in non-agricultural activities. (Derived by discrete exponential interpolation from the 1960 Census of Population, pp. 448, 457; and the 1970 Census of Population, pp. 186-189.) In the light of this information, our assumption appears quite realistic, since urban agricultural income is likely to approximate rural non-agricultural income.

⁸⁴ The national income figures used in the present study are from Dervi^ş and Robinson (Chapter). Agricultural income has been adjusted to smooth out extreme variations in weather conditions.

Table 4

Sectoral Log Mean Incomes Per Capita
(at current prices) and Their Ten-Year
Growth Rates 1963-1973

| | <u>1963</u> | <u>1973</u> | <u>Growth Rate</u> |
|--------------------|-------------|-------------|------------------------|
| Rural sector | 7.89 | 9.05 | 1.16 |
| Unorganized sector | 8.28 | 9.30 | 1.02 |
| Organized sector | 9.02 | 9.94 | 0.92 |

7. Intra-Sectoral Variances

By international standards, incomes in Turkey were very unequally distributed throughout the 1963-1973 period. In terms of the size distribution, the three surveys conducted in 1963, 1968 and 1973 all placed Turkey among the least equal of the developing countries. Basically, the situation stemmed from two sources: the inter-sectoral differentials, which we discussed in the preceding section, and the intra-sectoral differentials to which we now turn. After exploring the impact of rural-urban migration on the distributional characteristics of the sending and receiving sectors, we will proceed to derive from the available surveys estimates for the intra-sectoral distributions in 1963 and 1973.

It should be mentioned at the outset that intra-sectoral inequalities in Turkey are related in part to regional differences. Regional inequalities have come about as the result of two inter-related factors. First, developmental investments, both public and private, have been markedly biased in favor of the West. With the purpose of alleviating regional inequalities, a regional development program was established almost two decades ago, but

wage in industry was found to be T.L. 14,398 and the corresponding figure for the unorganized sector was obtained by multiplying this result by 0.40. The same procedure was used in estimating earnings in the organized and unorganized components of the services. All income from construction activities were allocated to the organized sector.⁸⁷

Having obtained average wage figures in each of the three activities, we derived total wage income by using census figures on the sizes of the unorganized and organized labor force in each activity for 1963 and 1973. Profit income was obtained as a residual of the non-agricultural income and allocated among the two sectors in the manner already described.

The sectoral mean incomes per capita are shown in Table 3. The log mean incomes, which will enter the calculations in Section 8, are presented in Table 4.

Table 3

Sectoral Mean Incomes Per Capita (at current prices)
and Their Ratios to the Economy-wide Average

| | <u>1963</u> | | <u>1973</u> | |
|--------------------|-------------|-----------------------|-------------|-----------------------|
| | <u>T.L.</u> | <u>Ratio to total</u> | <u>T.L.</u> | <u>Ratio to Total</u> |
| Rural Sector | 1,082 | 0.54 | 3,301 | 0.49 |
| Unorganized sector | 2,582 | 1.28 | 8,056 | 1.19 |
| Organized sector | 5,403 | 2.69 | 14,807 | 2.18 |
| Total | 2,012 | 1.00 | 6,785 | 1.00 |

⁸⁷The figures used to estimate earnings in construction and services are from Kemal Derviş (forthcoming, 1978). Using statistics provided by the Sosyal Sigortalar Kurumu (Social Security Organization), the author has estimated the 1973 average wage as T.L. 14,000 in services and 15,500 in construction. Our figures for 1963 are based on the 1973 ratios between wages in different activities.

In the sectoral discussions which follow we will barely consider the regional differences, but it should be remembered that they account for a substantial portion of each sector's variance.

Undoubtedly, the primary determinant of intra-rural inequalities is the unequal distribution of land. The 1963 Agricultural Census, the 1962-1969 Village Inventory Studies and the 1973 State Planning Organization survey all point out to the concentrated nature of land distribution in Turkey. In 1963, 79.9 per cent of the families engaged in agriculture owned 48.2 per cent of the land, while 12.0 per cent owned the remaining 52.8 per cent. 8.1 per cent of the families were landless.⁹⁰ The Village Inventory studies showed that 750 villages were owned in their entirety by a person, family or dynasty.⁹¹ Finally, the 1973 study indicated that 24.5 per cent of the families in the rural sector owned 73.4 per cent of the land. 66.0 per cent owned the remaining 26.6 per cent, while 9.5 per cent of the families owned no land at all.⁹²

These figures suggest that there was a moderate increase in the proportion of landless laborers between 1963 and 1973. The change was probably a consequence of the mechanization drive of the 1960s, for which rural-urban migration was partly responsible. Small farmers,

⁹⁰Based on the results of the 1963 Agricultural Census, as cited in Tunca Toskay, "Some of the Problems of the Turkish Agricultural Sector and the Need for Reform," in Problems of Turkey's Economic Development, Volume I (Istanbul: Istanbul University Faculty of Economics, 1972), pp. 396, 400.

⁹¹Korkut Boratav, "Türkiye Tarımının 1960'lardaki Yapısı ile İlgili Bazı Gözlemler" (Some Observations Concerning the Structure of Turkish Agriculture in the 1960s), Siyasal Bilgiler Fakültesi Dergisi, 3 (1972), p. 792. This figure corresponds to 2.1 per cent of the villages in the 56 provinces covered by the inventories.

⁹²These figures were derived from information contained in "Karsal Refah Politikaları Özel İhtisas Komisyonu Destekleme Politikaları Alt Komisyon Raporu," (Report of the Sub-Committee on Support Policies of the Special Commission on Welfare Policies), (Ankara: State Planning Organization, October 1976), p. 6. The figures in the report include the non-agricultural population of the rural sector in the landless category. The figures here, however, have been adjusted to exclude the non-agricultural population.

to date the record of implementation has been dismal. The widely publicized Keban project, which, in conjunction with the construction of the Keban Dam, was to have developed the agricultural and industrial potential of the Elaziğ region in the East, has largely failed to fulfill its promises related to economic development in the region.

Second, within each sector there are regional variations in the composition of economic activities and in the magnitude and distribution of incomes. In 1973, for example, the mean income of organized sector households varied from T.L. 45,316 in İstanbul to T.L. 16,254 in Eastern Anatolia.⁸⁸ This dramatic differential was due in large part to the variations in the composition of economic activities within each region. Capitalists and professionals, for instance, constituted 12 per cent of the sector in İstanbul, but only one per cent in Eastern Anatolia.

In the same year mean household incomes in the unorganized sector varied from 30,614 in the Black Sea region to 16,488 in Eastern Anatolia. Interestingly, the distribution was quite equal in the three metropolitan regions, but unequal in the five non-metropolitan regions.⁸⁹

Finally, in the rural sector there were also regional differences in mean incomes, due in part to climatic variations, but these were not as dramatic as the distributional differences. In the Mediterranean region, where land is most unequally distributed, the log variance was found to be as high as 1.67, while the corresponding figures for Western Turkey were 0.86.

⁸⁸Based on unpublished data from the 1973 Income Distribution Survey.

⁸⁹The log variance is 0.26, 0.27 and 0.42 in İzmir, İstanbul and Ankara respectively. In three of the five non-metropolitan regions it exceeds 0.71. (Source: Unpublished data from the 1973 Income Distribution Survey.)

that mutual aid facilities have a tendency to disappear as migrants become settled in the city.⁹⁴

A portion of the income variations in the unorganized sector stem from differentials in employment opportunities among different areas of settlement. For one thing, the income an individual derives from a given unorganized activity is a function of his geographical proximity to the prosperous residential quarters of the city. Although we have no empirical evidence to cite, there is reason to believe that caretakers in the most prestigious districts of the large cities (e.g., Çankaya and Kavaklıdere in Ankara and Nişantaş and Bebek in İstanbul) earn considerably more than caretakers in most other districts. There are probably even larger differences in average income between caretakers in the metropolitan centers of the West and the smaller cities of the East.

Income differences may also arise from variations between areas of settlement in the occupational composition of the unorganized labor force. Unorganized employment patterns in the squatter communities surrounding the city's legal residential areas probably differ from unorganized employment patterns in communities situated in the proximity of an industrial plant. In the former, the unorganized labor force might conceivably consist of household servants, small shopkeepers, peddlers and porters. In the latter, by contrast, there may be a high percentage of pre-industrial type artisans and manual day laborers.

The foregoing discussion suggests that the impact of migration on the distribution of income within the unorganized sector depends largely on the apportionment of migrants between different settlement areas. Since barriers to entry are negligible in the unorganized sector, disproportionately heavy inflows into a certain squatter settlement

⁹⁴ İbrahim Yasa (1973), p. 142.

unable to match the higher level of efficiency on mechanized large farms, may have had a tendency to sell their plots to large landowners, who were becoming increasingly cost-conscious and eager to expand the scale of their operations. The now-landless farmers would then have either joined the stream of out-migrants or become agricultural laborers for the unmechanized aspects of farming. To the extent that the tendency was to join the wage-earning agricultural work force, the scheme would be expected to have resulted in a higher degree of intra-rural inequality.

However, in assessing the distributional impact of migration, we must also consider that migration was mainly from small landowning families. The benefits accruing to these families would probably have reduced the level of intra-rural inequality. Given the virtual absence of information concerning the relative magnitudes of the inequality-promoting and inequality-reducing effects of migration on the intra-rural distribution of income, it is impossible to pass a judgment on this point.

Considering the discussion in Section 1, we would initially expect to find low income variations within the unorganized sector. Indeed, the low capital requirements and the absence of institutional barriers prevent the development of pronounced income disparities between different unorganized activities. Furthermore, the fluctuations over time in the incomes of individuals within the sector are reduced by intra- and inter-family cooperation. Interviewing migrant apartment caretakers in Ankara, Ned Levine found that informal welfare networks existed among caretakers from the same village.⁹³ Interestingly, however, Yasa noticed

⁹³ See Ned Levine, "Old Culture -- New Culture: A Study of Migrants in Ankara, Turkey," in Social Forces, 1 (1972), p. 367 and passim.

the contribution of these differentials to the overall level of intra-sectoral inequality is very small, owing to the heavy concentration of business and the liberal professions in a select number of Western cities.

The impact of rural-urban migration on the distribution of income within the organized sector was probably unfavorable in the 1963-1973 period. As we argued in the previous section, flows of migrants into urban centers must have depressed the wages of the blue-collar workers in the organized labor force. To the extent that the profits of capital owners increased as a result, inequality would have increased.

To estimate the sectoral log variances empirically, we will make use of the 1968 and 1973 income distribution surveys. The scheme of disaggregation presented in the 1973 survey enables us to obtain distributional indices for our three sectors by reaggregating, using the formula for the decomposition of variance, the survey's socio-economic groups. Of the survey's socio-economic groups, we have chosen to allocate farmers and agricultural laborers to the rural sector; small traders and artisans to the unorganized sector; and finally, capitalists, professionals, merchants, government employees, white-collar workers, rentiers, and blue-collar workers to the organized sector.

Unfortunately, the 1963 income distribution survey is not susceptible to the same three-way reaggregation scheme, nor to any other scheme which is comparable. Thus, for 1963, we are constrained to use the 1968 survey, which provides distributional information for some, though not all, of the socio-economic categories of the 1973 survey. Based on the 1973 ratio, our calculations assume that the log variance of artisans and small traders was 51 per cent higher than the log variance of capitalists and professionals, a sub-group within the organized sector.

would depress incomes in its predominant unorganized activity. To illustrate the point, if new arrivals settle in disproportionately large numbers in a gecekondu area containing a high percentage of street sellers, average earnings in this segment of the unorganized sector would fall. The distribution of income within the unorganized sector would worsen as a result, to the extent that the mean income of street sellers falls below the sectoral mean. There seems, however, to have been no systematic bias in the apportionment of migrants among different areas, so the effect of migration on the distribution of income within the unorganized sector was probably small.

In the organized sector, income differentials between different economic activities are very large. There are substantial gaps between the salaries of senior government officials and low-level civil servants. Among skilled workers, there are pronounced wage differentials according to levels of seniority and types of occupation. Marked inequalities also exist among lawyers, businessmen, bank managers, physicians, and self-employed professionals such as actors, musicians, writers and engineers. The level of competition varies in all these occupations according to credential requirements of specific positions. Due to low supply, positions requiring high levels of competence and efficiency yield enormous incomes.

At the same time, it appears that there are no important regional or inter-city income variations in the organized sector. Legislative measures ensure the minimization of salary differentials between government employees in developed areas and those in deprived areas. The wages of blue-collar workers are roughly standardized across regions, due to pressures exerted by trade unions. And although regional income differentials exist among businessmen, physicians, lawyers, managers and self-employed professionals,

Table 6

The Components of the Change in the
Overall Log Variance from 1963 to 1973

| | |
|--------------------------|-----------|
| Dispersion Effect | = -0.4348 |
| Mean Growth Effect | = -0.0706 |
| Population Growth Effect | = -0.0075 |
| Mobility Effect | = -0.0818 |
| Interactions Effect | = +0.0561 |
| Overall change | = -0.5386 |

An Analysis of the components of ΔV_{63}^{73} conveys that the decrease in income inequality observed in Turkey between 1963 and 1973 was due for the most part to improvements in the intra-sectoral distributions of income. Considering the large population share of the rural sector, the fall of this sector's log variance from 1.79 to 1.26 was the largest source of the dispersion effect, with smaller contributions from the reductions in the log variances of the two urban sectors.

Interestingly enough, our findings show that while the four primary components were all operating in the equalizing direction, the interactions effect was in the unequalizing direction. A large portion of ΔV_5 was due to ΔV_{14} , the interaction of mobility with dispersion. The value +0.0449 was obtained for ΔV_{14} . All other components of the interactions effect were found to be quite small in absolute value.

The impact on the overall income distribution of changes in the sectoral mean incomes was favorable, but small in magnitude. Because the sectoral rates of growth were slightly biased in favor of the rural sector, where the average income was much lower relative to the two urban sectors, the sum of the deviations from the overall mean income were reduced, thereby improving the degree of overall equality.

It needs to be mentioned that in both the 1968 and 1973 surveys the data adaptable to our purposes use the household rather than the individual as the recipient unit. Preferably, the surveys would have included information on differentials in household sizes between the socio-economic groups. Since they did not, we will simply accept the group distributions by households as close approximations to the corresponding distributions by individuals.

Our results are presented in Table 5.

Table 5

Sectoral Log Variances
1963-1973

| | <u>1963</u> | <u>1973</u> |
|--------------------|-------------|-------------|
| Rural sector | 1.79 | 1.26 |
| Unorganized sector | 0.84 | 0.62 |
| Organized sector | 0.86 | 0.67 |

8. Components of the Changes in Inequality

According to equations (8) - (13), the change between two points in time in the overall log variance of income can be measured and decomposed, given information on the intra-sectoral log variances, the sectoral log mean incomes and the sectoral population shares. All the necessary data have been presented in the sections above. The results obtained by applying equations (8) - (13) to our data are shown in Table 6.

9. Concluding Remarks

This study has shown that the improvements in the intra-sectoral distributions of income were by far the most important sources of the reduction in overall inequality observed in Turkey between 1963 and 1973. It has found the equalizing impact of inter-sectoral mobility to be several times smaller in absolute value than the dispersion effect caused by changes in the intra-sectoral variances.

However, we cannot conclude that the redistributive effect of mobility was insignificant, for the trends in each sector toward less inequality were not unrelated to mobility. In the rural sector, for instance, where the 1973 income distribution survey found the log variance of incomes to have decreased dramatically in comparison with the surveys conducted in 1963 and 1968, migration probably operated on the intra-rural income distribution by removing landless laborers and the poorest of the small landowners. Migration-induced changes in rural production methods and landownership patterns may also have reduced the degree of intra-rural inequality.

In the absence of reliable data, we were unfortunately unable to reach definitive conclusions regarding the composition of rural migrants or the impact of migration on the productivity and income levels of those remaining behind. The results presented in Section 8 suggest that a full understanding of the redistributive effects of mobility must await a detailed analysis of the mechanism through which migration affects the intra-sectoral distribution.

Our results have failed to prove that migration in Turkey had a strong equalizing effect on income distribution between 1963 and 1973.

The fact that the population of the rural sector grew at a faster rate than the populations of the other two sectors was, on the whole, the source of a tiny diminution in the degree of overall inequality. The population growth effect consisted of two counteracting components: an unequalizing component due to the reweighting of the intra-sectoral variances in favor of the relatively less equal rural sector and an equalizing component, slightly larger in absolute value, due to the reweighting of the sectoral deviations from overall mean income.

The mobility effect also consisted of two counteracting components. The reweighting of the intra-sectoral variances brought about by the net movement of population from the rural sector to the two urban sectors had a strong equalizing effect, but this was dampened by the reweighting of the sectoral deviations from the overall mean income. However, the final result of -0.0818 still overstates the impact of mobility on the distribution of income, when we consider that the inter-sectoral differentials in the intra-sectoral log variances were diminishing during the migration interval. ΔV_{14} , which captures the interaction of mobility with dispersion, was in the unequalizing direction, but somewhat smaller in absolute value than ΔV_4 .

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Nonetheless, they have at least refuted the belief popular in the current socio-political literature that migration has been harmful to equality and that it must be discouraged for this reason. According to our results, inter-sectoral mobility operated in the direction of greater equality and this effect may have been quite substantial if, in fact, migration-induced factors were responsible for the observed reductions in the intra-sectoral variances.

Looking into the future, there is every reason to expect the equality-promoting effects of rural-urban migration to persist. Undoubtedly, however, the potency of migration as a redistributive phenomenon will decrease over time as the existing inter-sectoral differentials in the intra-sectoral log variances and sectoral mean income levels diminish. To the extent that these differentials are, in fact, narrowed and the share of the rural sector within total population declines, intra-urban disparities will gain in importance in terms of their relative impact on overall inequality.

More importantly, the results of this study suggest that the surest way of reducing ^{overall} / inequality in Turkey would be to deal with rural inequality directly. Whether this task is accomplished through land reform, agricultural taxation or some other scheme involving selective price supports, the effect on the overall distribution of income promises to be strongly favorable.

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