LABOUR SUPPLY AND EMPLOYMENT-CREATION IN THE URBAN AREAS OF IRAN, 1956 - 1966

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by

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ABSTRACT

Despite a high level of investment and rapid rate of growth in the urban economy of Iran during the decade 1956-1966, the amount of net new employment generated was relatively modest. Since the supply of labour in the urban areas grew at a faster pace than did new work opportunities, the incidence of open unemployment increased over the period. Furthermore, most of the new employment created was either in self-employment of a marginal nature or in wage employment of very low productivity and earnings in tiny production units or outside any establishment, mainly the consequence of the inability of the modern sector to absorb the great numbers of workers seeking employment at its gates. Other persons recorded by surveys as economically-inactive were in reality unemployed and (although not actively) were searching for work. When these "passive" job-seekers, the "disguised unemployed" in forced self-employment, and the openly unemployed actively seeking work are all recognized as components of unemployment, then the real extent of urban worklessness in Iran reaches great dimensions. However, the Iranian Government appears oblivious of the gravity of the problem and continues to treat employment generation only as a residual of the country's growth and development.

PREFACE

This dissertation is the product of six years of independent work, including one year in intensive study of the Persian language and two years of research in Iran. It was at the beginning of the writer's first stay in Iran (September 1964 - September 1965) that the problem of employment-creation in the country was firmly decided upon as the subject of the dissertation, largely as the result of the encouragement given the writer by Mr. Nils Ström, then the International Labour Office's manpower planning advisor to Iran.

This study represents the first thorough analysis ever made of the employment situation in Iran, either within or outside the country. It has involved, in addition to reference to an exhaustive number of published and unpublished materials, both in Farsi and in Western languages, a painstaking collection of hard-to-obtain data, a good part of which has been reworked to make of significance to the study. In particular, the statistics of the 1966 population census, results of which have only recently been released, have been adjusted in order to make them comparable to those of the 1956 census. Much of the data in this dissertation has never appeared in print, including that of the writer's own survey in 1967 of a district of Tehran, but also that extracted from the questionnaires of the Ministry of Labour's 1965 labour force sample household survey and the Central Bank of Iran's 1965 sample survey of family income and expenditure.

Only good personal relations with a wide range of Iranian Government officials and private persons, as well as with several non-Iranians, have made it possible to acquire the data and other

information utilized in this study. It is thus not surprising that the writer is indebted to a great number of individuals for assisting him in his research in Iran. In particular, the writer wishes to acknowledge the kind help extended by officials of the Ministry of Labour, the Ministry of Economy, the Plan Organization, the Central Bank of Iran, and of the University of Tehran.

In addition to allowing use of their office facilities during 1964-65, officials of the Ministry of Labour's General Department of Manpower Studies and Statistics placed the data derived from all their surveys at the disposal of the writer. In this respect, the assistance of Dr. Abbas Jame'i and Engineer Rastkar, director generals of the Department during 1962-66 and from 1966 to the present, respectively, is especially appreciated. The writer also wishes to acknowledge the help in providing information on the employment situation provided by officials of the Ministry's Employment Service, including that of the head of the Service, Dr. Ja'far Sepehr. Official cooperation of the Ministry of Labour with the writer was arranged for by Mr. Mohammed Kary, ILO liaison officer within the Ministry, whose sincere support in the preparation of this study is greatly appreciated.

In the Ministry of Economy, Engineer A. Sh. Shahin, Director-General of the Bureau of Statistics, unfailingly provided invaluable statistical data prepared by his office. Plan Organization assistance was particularly forthcoming from Mr. Sharif Adib-Soltani and Mr. Amir Maghen of the Budget Section, Dr. Nasser Movafaqian, chief of the Manpower Planning Section, and Mr. Ahmad Nouban of the Industry Section. For their kindness in putting office facilities and questionnaires of the 1965 household income and expenditure survey at his disposal, the writer is indebted to Mr. Ekbatani and

Mr. Shahidi of the Central Bank of Iran.

Of the University of Tehran officials who assisted in the execution of this study, the writer wishes first to acknowledge the support given by Dr. Hossein Pirnia, until recently head of the Institute for Economic Research, who arranged for the Institute as an official base of operations for the writer during 1964-65 and 1966-67. At the Institute of Social Studies and Research, particular appreciation is due Dr. Jean-Claude Chasteland, United Nations advisor on demography, and his Iranian colleagues, Dr. Mehdi Amani and Mr. Nasser Maroufi-Bozorgi, for provision of information on the demographic situation in Iran.

The invaluable assistance in so many aspects of the preparation of this dissertation given by the writer's Persian wife, her father, Mr. Mehdi Sepehri of the National Iranian Oil Company, and her brother-in-law, Engineer Khosrow Zahedi of the Ministry of Development and Housing, should not go unmentioned. The writer's wife has helped greatly in the procurement of various reports during her trips to Iran, as well as in the translation of Persian language materials, while her father and brother-in-law, in true Persian fashion, have spared no effort to locate and send numerous publications, including all 147 individual volumes of the 1966 census, as they have become available in Iran following the writer's departure in September 1967. Both also frequently arranged for the writer's introduction to Iranians in a position to provide assistance in his research. His deep appreciation to all three members of his "inherited" Iranian family is hereby expressed.

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CHAPTER ONE

INTRODUCTION

Many development economists with field experience have been drawing attention to "probably the most serious and intractable problem facing today's newly-developing countries"[1] --- the rising incidence of worklessness among their urban labour forces.[2] Ironically, such mounting urban unemployment appears to be occurring no less in those countries which are experiencing the most rapid rates of growth and transformation of their economies than in the slower-developing nations.[3]

This dissertation examines the urban unemployment situation as it has affected Iran, one of the most rapidly growing of the developing countries. For the period under review -- 1956-1966 -- the nature and extent of urban worklessness in Iran is analysed in depth, viewed in terms of a supply of labour outstripping the demand for it at prevailing earnings levels. In addition to analysis at the aggregate level, a sectoral breakdown is attempted and surpluses (as well as shortages) identified, in particular for the "modern" and the "traditional" sectors, but also for various occupational and skill groups.

The analysis of the Iranian situation begins (in Chapter Two) with a treatment of the supply side. Rapid growth of the labour force -- often

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1 F. Harbison, Educational Planning and Human Resource Development (Paris: International Institute for Educational Planning, 1967), p.27.

2 See, for instance, Harbison, loc.cit.; W. Arthur Lewis, "Unemployment in Developing Countries", The World Today, January 1967, pp.13-22 and "A Review of Economic Development", American Economic Review, Vol.55, No.2, May 1965, pp.1-15; Alec Nove, "The Explosive Model", Journal of Development Studies, Vol.3, No. 1, October 1966, pp.2-13; C.R. Frank, Jr., "Urban Unemployment and Economic Growth in Africa", Oxford Economic Papers, Vol.20 No.2, July 1968, pp.250-274, and M.F. Hassan, "High Growth, Unemployment and Planning in Venezuela", Economic Development and Cultural Change, Vol. 15, No.4, July 1967, pp. 452-464.

3 Lewis, "Unemployment..", op.cit., p.13, and Frank, op.cit, p.250. For country studies, see Hassan, loc.cit., (for Venezuela) and Lloyd G. Reynolds, "Wages and Employment in a Labor-Surplus Economy", American Economic Review, Vol.55, No.1, March 1965, pp.19-39 (for Puerto Rico).

unrelated to changes in demand conditions -- is shown to be a dynamic force in explaining the imbalance in the urban supply-and-demand for labour. Factors determining the size of this supply are identified and quantified where possible. Considerable attention is paid to the important rural immigrant component of the increase in the urban labour supply during the period.

The demand for this supply of labour is treated in Chapter Three in terms of the nature of the source of this demand. Again, in each case, the major determinants of this level of demand are identified and examined with regard to their effect on changes in demand.

Chapter Four brings together the supply of, and demand for, labour for each of the different labour demand sectors within the framework of the operation of the labour market mechanism. The resultant surpluses (and shortages) of labour are viewed in terms of the degree of flexibility of the price mechanism in seeking to redress these imbalances.

In Chapter Five, the aggregate surplus of labour in the urban areas (equivalent to the total number of the openly unemployed seeking [wage] employment) is quantified as a percentage of the economically-active urban population, and its age, sex, and educational characteristics described. The usefulness of the application of Western definitions and concepts of unemployment for the Iranian situation is questioned, and an attempt made to estimate the real level of worklessness in the urban areas using more applicable conceptual methods.

The ramifications of Government policies on the supply and demand situation for urban labour is the subject of Chapter Six. Such policies are analysed within the framework of Iran's Second and Third Development Plans, which spanned the review period. In particular, the implicit and explicit Government measures affecting the generation of new employment opportunities are explored in some detail.

The analysis of the urban Iranian labour situation concludes (in Chapter Seven) with a critical review of conditions over the 1956-66 period and a forecast of likely developments in the near future.

CHAPTER TWO

THE SUPPLY OF LABOUR

This chapter analyses the size of, and changes in, the supply of labour in the urban labour market over the 1956-1966 period. Although emphasis is placed on the supply of labour at the aggregate level, an analysis of the disaggregated supplies of labour to broad occupational (and skill) groups and to various labour demand sectors (as characterized by type of employer) is also attempted. For each approach, the main factors determining the size of and structural shifts in the labour supply are identified and their importance evaluated.

I. THE AGGREGATE LEVEL OF SUPPLY

The aggregate supply of labour here refers to the total supply of labour, or all persons offering their labour services in the market, whether for wage or non-wage employment. It includes all persons already employed as well as those unemployed and seeking work.

A. DETERMINANTS OF THE SIZE OF THE SUPPLY

The size of the aggregate supply of labour to the urban labour market at any particular time during the review period has been a function of the rate of labour force participation of the various age/sex cohorts of the urban population at that time. In turn, the size and age/sex structure of the urban population and the different rates of labour force participation of these cohorts have been determined by a variety of social, demographic, and economic factors. In the two following sub-sections, the quantitative changes, and the causes of these changes, in (1) the size and structure of the urban population and (2) the labour force participation rates (LFPR) of this population will be examined separately.

1. Urban Population Growth and Structure.

In view of the decline in the LFPR of the urban population[1] over the review period (see subsection 2 below), it is the rapid growth of the urban population that accounts for the expansion in the urban labour supply between 1956 and 1966. This population growth -- 55.7 per cent over the decade (see subsection 1c below) -- derived not only from the natural increase of the 1956-base urban population,[2] but also from the considerable (net) immigration from the rural areas that occurred over this period. Each of these two components of the urban population increase is examined separately below, followed by a comparison of the size and structure of the total urban population (including immigrants)at 1966 as against 1956..

a. Natural Rate of Increase

According to the best source of information on Iran's population -- demographers at the Institute of Social Studies and Research of the University of Tehran[3] -- the average annual compound rate of natural increase of the (total) population of Iran during the ten year period November 1956 - November 1966

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[1] For purposes of the analysis made in this dissertation, "urban population" is defined as that of those (186) places at the time of the November 1956 census reported as having 5,000 or more inhabitants each. In order to ensure comparability, only these urban places have been treated as constituting the urban areas in November 1966 also (except where otherwise indicated), despite the fact that a (net) additional 68 places reached 5,000 population each by that date. (See Appendix Tables 1 and 2 for names and population of urban places of 1956 and of new urban places in 1966, respectively).

[2] That is, that population living in the urban areas at November 1956 (regardless if born there or immigrants from villages). The expression "1956-base urban population" should not be confused with the term (used later in this chapter) "urban population 1956 basis", which refers rather to the universe of this dissertation, i.e. the population of the 186 places defined as urban by the 1956 census.

[3] Particularly Dr. Jean-Claude Chasteland, United Nations' advisor to the Demographic Analysis Group, and Dr. Mehdi Amani, Professor of Demography, who have collaborated on many studies used as the basis of the population analysis of this chapter.

was 2.791 per cent.[4] This rate has been estimated on the basis of assumptions of constant fertility and a decline in mortality from a life expectancy at birth of 45.0 years in November 1956 to 50.0 years in November 1966.[5] Since the average birth rate over this period has been 49.2 per thousand,[6] and accepting the rate of 27.9 per thousand for average annual increase, we derive an average annual mortality rate of 21.3 per thousand.

The natural rate of increase of the 1956-base urban population has been considerably greater than that of the country as a whole, and thus much greater than that of the (1956-base) rural areas of the country. Although the (average) birth rate was about 7 per cent lower in the urban areas than in the rural areas during the 1956-66 period, the mortality rate in the rural areas was considerably higher (by over 50 per cent that of the urban areas), so that the average annual compound rate of natural increase in the urban areas was 3.14 per cent, as compared to only 2.64 per cent in the rural areas. Table 1 below presents an estimate of birth, death, and natural increase rates for the urban/rural components of Iranian population for the 1956-66 period.

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4 As implied from five-year rates of natural increase of 2.73 per cent a year for 1956-61 and 2.87 per cent for 1961-66. See J-C Chasteland, M. Amani, and O.A. Puech, La Population de l'Iran: Perspectives d'Evolution, 1956-1986 (Tehran: Universite de Tehran, Institut d'Etudes et de Recherches Sociales, 1966), p.249.

5 Ibid., pp.247-48.

6 Dropping from 49.4 in November 1956 to 48.94 in November 1966. (1956 rate from J-C Chasteland, "Essai d'evaluation du niveau de la natalite et de la fertilite en Iran" [Unpublished Roneo] , Paper presented to the Congress of the International Union for the Scientific Study of Population, Sydney, Australia, 21-26 August 1967, p.3, and 1966 rate estimated by present writer on the basis of a general fertility rate of 235 [see Appendix Table 3] applied to women aged 15-44 years in the November 1966 census, assuming 98 per cent of all births attributable to them. (See Appendix Table 4.)

TABLE 1

COMPONENTS OF NATURAL INCREASE OF IRANIAN POPULATION

BY URBAN-RURAL DIVISIONS, 1956-1966

(Average Annual Rates: Persons Per Thousand Population)

Country Division	Crude Birth Rate	Crude Mortality Rate	Rate of Natural Increase
Urban areas	46.7	15.3	31.4
Rural areas	50.3	23.9	26.4
Total Country	49.2	21.3	27.9

Source: Appendix Tables 5 and 7 (for birth and natural increase rates). Mortality rates derived as the residual items in each instance.

The high (and rising) rates of natural increase for both the rural and the urban populations derive from the steady decline in mortality occurring throughout Iran during this period combined with high and constant fertility. As a result of the great improvements in health conditions in Iran -- including the provision of safe drinking water systems from Government development expenditures and mass innoculation programs of the Ministry of Health (such as those against typhoid fever, smallpox, and diptheria[7]) in the urban areas and the eradication of many communicable diseases in the rural areas[8] -- it has been estimated that the life expectancy at birth of villagers increased from 40.0 years in 1956 to 45.0 years in 1966, and of urban inhabitants from 50.0 years in 1956 to 55.0 years in 1966.[9]

In contrast to this drop in mortality, fertility has declined only slightly in the urban areas and has held constant in the rural areas during the review period,[10] thus maintaining the birth rate for both the urban and rural populations at a high level. The very high fertility rates of Iran have been occasioned by a combination of factors, including early age at marriage for females, almost universal incidence of marriage among females of marriageable age, and the virtual absence of birth control practices, particularly in the villages. In the urban areas, however, there has been a recent trend for females to marry at a somewhat higher age than

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7 See the American University, Special Operations Research Office, Foreign Areas Studies Division, U.S. Army Area Handbook for Iran (Washington: U.S. Government Printing Office, May 1963) pp.147 and 150.

8 International Bank for Reconstruction and Development, The Economic Development Program of Iran: An Appraisal (Washington: April 1963), pp.139-141.

9 See Appendix Table 8.

10 The general fertility rate (number of annual births per 1,000 women aged 15-44 years) for rural women is believed to have held constant at 243, while for urban women is estimated to have declined by 6 per cent, or from 234 in 1956 to 219 in 1966. See Appendix Table 3.

before,[11] as well as for an increasing number of married women -- though still very low as a percentage of the total urban married female population -- to receive birth control assistance from a few Government clinics established during the review period in the largest cities and from their physicians,[12] in each case practices which would tend to reduce the general fertility rate in the urban areas over the review period.

b. Net Immigration From Rural Areas

Making certain assumptions about fertility and mortality rates of the 1956-base urban population over the review period, it is possible to derive estimates of the level of net rural-to-urban migration between 1956 and 1966 by age and sex groups.[13] Such net immigration (or, more correctly, the survivors at 1966 of such migration[14]) is derived as the residual of the

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11 For instance, only 38.8 per cent of females aged 15-19 in the urban areas in 1966 were married, as against 44.0 per cent in November 1956. See Ministry of Interior, Public Statistics, National and Province Statistics of the First Census of Iran: November 1956, (hereafter referred to in this dissertation as November 1956 Census), Volume II (Tehran: June 1962), Table 5, p.22, and Plan Organization, Iranian Statistical Centre, National Census of Population and Housing: November 1966, (hereafter referred to as November 1966 Census), Volume 168 (Tehran: March 1968), Table 4, p.11

12 In early 1967, some 10,000 women were on the waiting lists of 17 hospitals and clinics providing family planning assistance in three large cities (including Tehran), while another 30,000 Tehran women were taking birth control pills. See Gregory Lima, "Bread and Love", Kayhan International, May 15th and 20th, 1967, p.4

13 Such an estimate can be made because the universe (the 186 urban places of the 1956 census) is the same and because the enumeration during both the 1956 and 1966 censuses was on the same (de jure) basis.

14 Including survivors of births to immigrant women following their migration to the urban areas during the ten-year period. Since such offspring do not derive from women in the 1956-base urban population, they are not a component of the increase of that population and must necessarily be treated as an increase in the urban population due to immigration instead. Most likely the greater part of the survivors of net immigration aged 0-9 years at November 1966 are in this category rather than actual immigrants. See Appendix Tables 9 and 10 for the total numbers of such children at 1966.

1956-base population at November 1966 and the actual urban population (1956 basis) at that date. Assuming an average expectancy of life at birth of 52.5 years for the 1956-66 period and a general fertility rate (for women aged 15-44 years) declining from 234 in November 1956 to 219 in November 1966 for this 1956-base urban population,[15] it can be estimated that there were 682,000 male and 487,000 female (net) immigrants from the rural areas during the ten-year period who were survivors at November 1966 in the urban population (1956 basis) at that date.[16]

Net immigration from the rural areas was an important component of urban population increase during the 1956-1966 period. Based on the estimates indicated above, 38.5 per cent of the net growth in male population and 30.8 per cent of that for the female population over the ten-year period can be attributed to such net immigration from villages. This pattern is illustrated in Table 2 below.

As a result of such significant levels of net immigration, the increase in urban population during the review period was over 50 per cent greater than would have occurred from natural increase of the 1956-base urban population only, while the rural areas lost almost 30 per cent of their expected natural increase in population over these years as a result of such migration. The effect of this migration on the urban and rural population resulted in an actual average annual compound rate of increase of 4.52 per cent for the urban population (instead of 3.14 per cent as occurred from natural increase alone) and only 1.94 per cent a year for the rural population (as against a natural rate of increase of 2.64 per cent). (See Table 3).

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15 Justification of the choice of these rates is made in Appendix Tables 8 and 3, q.v.

16 For the detailed Age/sex distribution of such immigrants, as well as for the calculations giving such totals for these cohorts, see Appendix Tables 9 and 10.

TABLE 2

COMPONENTS OF URBAN (1956 BASIS) POPULATION

CHANGE BY SEX

1956 - 1966

(In thousands of persons)

Sex	Net Increase in Urban Population, 1956-1966, Due to:					
	Natural Increase		Net Rural Immigration[a]		Both Sources	
	Number	Share (Pct.)	Number	Share (Pct.)	Number	Share (PCT)
Males	1,088	61.5	682	38.5	1,770	100.0
Females	1,095	69.1	487	30.8	1,582	100.0
Both Sexes	2,183	65.1	1,169	34.9	3,352	100.0

a/ Including survivors of births to females following immigration to urban areas between 1956 and 1966.

Source: As derived from data of Appendix Tables 9 and 10.

TABLE 3

EFFECTS OF (NET) MIGRATION ON URBAN AND RURAL POPULATION, 1956-1966

(In Thousands of Persons)

Region	Population in November 1956	Expected Increase, 1956-66, Due to Natural Increase		Actual Increase, 1956-1966		Net Gain (Loss) over Expectations	
		Average Annual Compound Rate of Natural Increase (Pct.)	Expected Cumulative Increase in Population	Number of Persons	Average Annual Compound Rate of Actual Increase (Pct.)	Number of Persons	As Pct. of Expected Increase
Urban (1956 basis)	6,017[a/]	3.140	2,180[a/]	3,349	4.524	+ 1,169	+ 53.6
Rural (1956 basis)	13,757	2.635	4,086[b/]	2,917	1.942	- 1,169	- 28.6
Total Country	19,774	2.791	6,266	6,266	2.791	-	-

a/ Does not agree with (combined) figure of Appendix Tables 9 and 10, which exclude 3,000 persons of "age not reported" in 1956 population and consequently indicate correspondingly higher increase for 1956-66 period.

b/ Residual figure (Total country minus urban).

Source: As calculated from figures of Appendix Tables 9, 10, and 14.

In analysing the reasons for the significant levels of (would-be permanent)[17] emigration of villagers to Iran's towns and cities, one should first differentiate between the case of dependent members of migrant families - children, wives, and old people - and that of heads of families and single, independent members of families. The migratory movement of dependents - who constitute the majority of emigrants[18] - is only in response to the decision of the head of family to migrate, while that of these heads of families, as well as independent persons, is based on their own decision to take this course of action. Accordingly, the evaluation of the causes of migration presented below is limited to the situation of these non-dependent persons.[19]

Both economic and non-economic factors have played a role in shaping the level of rural-to-urban migration, although the former have been of much greater consequence. These factors may be distinguished as being either of a "push" or a "pull" nature.

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17 See Chapter Four for mention of 'temporary' migration of people working seasonally or for short periods of time only.

18 For the year 1964-65, a Ministry of Labour sample survey indicated that 66.4 per cent of the gross number of persons who had migrated to urban places during that year (also including inter-urban migrants) were following other members of their families only. See Ministry of Labour and Social Affairs, General Department of Statistics, Investigation of Manpower in the Urban Areas of Iran (in Farsi), Research Report No.40 (Tehran: Shahrivar 1347), Table 1-18, p.38. Since these figures relate only to actual physical movement of migrants, adjustment to include children born to women following migration will raise the percentage of dependent migrants even higher.

19 Because these persons are almost all economically-active and thus (with their dependents who also seek work following migration of the family) have carried a great weight in the (net) increase of the urban labour supply (see subsection B below), the motives for their migration will be treated here at greater length than might seem logical in view of their very limited weight in the net increase in the urban population over this period.

"Push" factors causing the emigration of rural inhabitants to towns and cities have been very important during the review period[20] and have included (1) the loss of means of livelihood of farm and non-farm workers, (2) the failure of fast-rising numbers of offspring of landless families to gain any employment adequate to sustain themselves in the rural areas, (3) the inability of many sharecropper and smallholder heads of household to gain even a subsistence income for their families from their plots, and (4) the failure of some smallholders created by the land reform of 1962 to manage the operations of their new holdings.

Loss of livelihood has particularly affected landless agricultural labourers, who have been displaced in farming activities on a large scale during the review period[21] due to a lower aggregate demand for their services as a consequence of the increased mechanization of farming operations[22]

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20 For instance, of 1,090 main or independent earners in 957 slum families of rural origin surveyed in March 1965 in Tehran (most of whom had probably immigrated within the previous decade), 79.6 per cent gave reasons for their migration that could be regarded as of "push" nature (such as unemployment, poverty, drought, death of head of household, earthquake, illness, land disputes). (Percentage derived from total of all reasons for migration indicated in Ministry of Development and Housing, "Statistics of the Investigation of 254 Slum Families of Salsabil Region" and "Statistics of the Investigation of 703 Slum Families of Behjatabad Region" [in Farsi] [Unpublished - Mimeographed] [Tehran: no dates], no page numbers indicated.

21 As indicated by the drop in private wage employment in agricultural occupations (mainly of landless labourers) from 900,587 in 1956 to 765,912 in 1966. (November 1956 Census, Vol. II, Table 22, p. 309 and November 1966 Census, Vol. 168, Table 19, p. 53.) Note that the 1966 figure refers to settled population only and is thus slightly under-stated.

22 A study by the Government indicated that by the end of the year 1345 (March 1966-March 1967), 731,000 agricultural workers (virtually all of whom agricultural wage labourers or unpaid family workers) would have been made redundant by tractors and combines in service at that time. (Plan Organization, Central Planning Office, Office of Labour and Manpower, "The Effect of Mechanization on Employment in Agriculture" [in Farsi] [Unpublished - Roneo] [Tehran: Mehr 1345], p.10). Monthly (unpublished) reports (in Farsi) of the Ministry of Labour's Employment Service have also frequently noted increasing mechanization of agriculture as a major cause of the emigration of agricultural labourers to the urban areas in search of work.

and the preference of the new smallholders created by the 1962 land reform to utilize the labour of members of their own families in all operations rather than to hire outside help,[23] as the former landlords had done. The abolition of the old landlord-dominated tenure system also undoubtedly resulted in the loss of employment of considerable numbers of domestic servants and other retainers previously employed by the landlords.[24]

The small size of the plots worked by most families,[25] combined with rising average size of farm families,[26] has in many instances made it

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23 A Tehran University research team has noted that in the province of East Azarbaijan "Except for a few weeks at the climax of agricultural work [small landholders created by the land reform] seldom hire agricultural workers and employ their own labour and that of their family to work on the land." (See "A Study of the Rural Economic Problems of East and West Azarbaijan", Tahqiqat-e Eqtesadi, Vol.5, Nos. 13 & 14, January 1968, p. 193). Another Tehran University study has observed that a good part of rural immigrants to the cities is comprised of "landless proletariat" unable to eke out an existence following the implementation of the land reform, which did not provide for distribution of land to them. (See Ahmad Ashraf, "An Evaluation of Land Reform", in University of Tehran, Institute for Social Studies and Research, "Seminar on Evaluation of Directed Social Change: December 1966" [Unpublished-Roneo] [Tehran: no date], p.163.)

24 Between November 1956 and November 1966, the number of persons employed in (non-protective) service occupations (mostly domestic, personal, and related) in the rural areas dropped from 183,000 to 138,000. (1966 figure is slightly understated since it refers to the 1966-rather than 1956- basis rural population and excludes unsettled inhabitants). See November 1956 Census, Vol. II, Table 22, p. 322 and November 1966 Census, Vol. 168, Table 26, pp. 118-19.

25 The agricultural census of 1960 indicated that 53.6 per cent of the agrarian population attached to the land had plots to work of less than 5 hectares. (Ministry of Interior, Department of Public Statistics, Office of Agricultural Statistics, First National Census of Agriculture: Mehr 1339 (October 1960), Vol. XV, National Summary Report (Tehran: no date), p. 57.

26 The average size of rural families in November 1956 was 4.77 persons, but by November 1966 it had increased to 4.98 persons. (As calculated from November 1956 Census, Vol. II, pp. 5 and 398, and November 1966 Census, Vol. 168, pp. 3 and 173). Note, however, that by natural increase each rural family had 5.36 members in November 1966, but its size was reduced to 4.98 members as the consequence of emigration. (As indicated by figures of Table 3 of this chapter).

p.13

increasingly difficult for a sharecropping, leasing, or smallholder family to eke out a subsistence income, often resulting in the migration of male offspring of labour force age to the towns to ease the income situation or in the abandonment of the plot by the head of family.[27] In some cases, it has been noted that the poor nasaqdar (the sharecropping peasant with the traditional right to till the land) has sold his cultivation rights and left his village in search of work in the urban areas.[28] In some regions, natural disasters, such as earthquakes (destroying qanats - - subterranean irrigation channels) and, more commonly, prolonged droughts and advancing sands, have eliminated completely the possibility of carrying out farming operations and resulted in the mass migration of whole families from the affected regions.

Although on the one hand the implementation of the 1962 land reform has provided former sharecroppers with a new incentive to remain on the land, at least in some instances such recipients of land have abandoned their plots and migrated to urban areas due to an inability to manage their holdings profitably. Those new landowners who received plots of sub-marginal productivity previously subsidized by the former landlord have sometimes been unable to eke out an income on such holdings through their own efforts alone. Furthermore, in the event of a severe drought or a collapsed qanat, such smallholders may be unable to continue agricultural activities and consequently be forced to migrate. Others have reportedly been unable to meet their land reform payments because of financial weakness.[29]

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27 An American research team studying agricultural conditions throughout Iran reported as early as 1954 that "more people are trying to make a living on the land than it can presently support". (Quoted in Nikki Keddie, "The Iranian Village Before and After Land Reform", The Journal of Contemporary History, July 1968, p. 77).

28 Ashraf, op.cit., p. 164.

29 These problems have been noted in Khorasan province by Keith McLachlan in his seminar paper "Land Reform in Iran" given at the University of London in 1965 and by David F. Darwent, "Urban Growth in Relation to Socio-Economic Development and Westernisation: A Case Study of the City of Mashhad, Iran", Unpublished Ph.D. dissertation, Durham University, 1965, pp. 222-223.

Of the factors tending to "pull" villagers to Iran's urban areas, the most important have undoubtedly been of an economic nature. A combination of an increasing desire for money by the traditional rural family,[30] the attraction of a wage for unskilled work in the modern sector of the urban economy considerably greater than paid to most agricultural workers or than the average (imputed) daily income earned by a smallholder or share-cropping cultivator (see Chapter Four), and an increased level of demand for unskilled workers at such higher wages (particularly in factories, where they qualify quickly for semi-skilled positions) has provided the incentive for considerable numbers of un-schooled rural males not subjected to "push" conditions to leave their native villages in search of urban wage employment.[31] Many such would-be permanent migrants developed a preference for urban wage employment following habitual seasonal stays in the urban areas, where they gained temporary work in public and private construction projects; in addition to those offered permanent wage employment,[32] others abandoned their villages and remained in the cities even when job offers were not immediately forthcoming.[33]

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30 See Universite de Tehran, Institut d'Etudes et de Recherches Sociales, "Project d'Etude sur les Preconditions Psycho-Sociologiques du Travail Industriel" (Unpublished-Roneo) (Tehran: fevrier 1963), p. 16.

31 Emigration of relatively well-off peasants from their villages in order to gain a higher income in the cities has been noted, for instance, in Khorasan province by Darwent, op.cit., pp. 225-26.

32 As noted by Joseph Upton, The History of Modern Iran: An Interpretation (Cambridge: Harvard University Press, 1960), p. 121.

33 For instance, Ministry of Labour officials in Khuzestan province informed the writer in 1965 that large numbers of labourers employed in road and dam construction projects in the province during the 1959-64 period declined to return to their villages following termination of the work, instead migrating to the province's towns and cities in search of further wage employment.

Mixed economic and social motives explain the migration of many educated rural youth to the cities and towns during the review period. The expansion of primary school education in Iran's villages during the 1956-66 years[34] has undoubtedly resulted in the broadening of the outlook of rural children and in many instances encouraged them to seek their fortunes in the more challenging life afforded by the towns and cities in occupations of higher prestige and income than those of their forefathers, for which they believe their education qualifies them.[35] In addition, those youth temporarily absent from their villages in order to attend secondary school in a nearby town or city have often been reluctant to return to their villages following termination of their studies because of their new urban outlook and the absence of job opportunities in their villages corresponding to their education.

Military conscription has an effect similar to that of education on young village males, and is held by some Iranian observers to be the main factor leading to their migration to the towns and cities.[36] Thus many rural-origin conscripts have not returned home following completion of their two-year military service in towns and cities[37] for such reasons as the absence of demand in their villages for the urban-oriented skills

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34 Between 1956 and 1966, the percentage of boys aged 10-19 years attending school in rural areas increased from 13.1 to 31.9. (As calculated from figures of November 1956 Census, Vol. II, p. 209, and November 1966 Census, Vol. 168, p. 36).

35 Two observers of the Iranian situation have maintained that "Emigration to cities [in Iran] has often been the consequence of rural education". See Richard Blandy and Mahyar Nashat, "The Education Corps in Iran: A Survey of Its Social and Economic Aspects", International Labour Review, Vol. 93, No.5, May 1966, p. 527.

36 Including the University of Tehran source cited in footnote 30 above.

37 The American University, op. cit., p. 608.

newly-acquired during their military service[38] and/or attraction to the comforts and amusements of city life.[39] The system of conscription is also responsible for the migration of many conscription-age rural males to the anonymity of the cities in order to escape such forced military service.[40]

For all categories of economically-active (as well inactive) rural inhabitants, regardless of level of education, the much more favourable living conditions in the towns and cities than found in their villages constitutes an important non-economic inducement to their migration. In particular, better health and welfare conditions, the availability of educational opportunities for children and youth, as well as the amusement and variety afforded by urban life have served as an important magnet drawing villagers to the urban areas.[41]

The geographic mobility of peasants between village and town has been greatly increased as a result of the widespread improvement in transportation conditions facilitating such movements.[42] The ambitious road (and

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38 Ibid. Conscripts with some mechanical aptitude are taught vocational skills during their military service.(Ibid).

39 As cited in "The Migration of Villagers to Towns and the Means of Overcoming It" (in Farsi), Nashrieh-e Shoura-ye Ali-ye Eqtesad ("The Publication of the High Economic Council"), No.8, Khordad 1340, p. 36.

40 Village males believe that they cannot be traced by conscription authorities once they have left their rural homes. See J. Behrouz (ed.), Iran Almanac and Book of Facts 1962 (Tehran: Echo of Iran, 1962), p. 308.

41 The desire "to partake in a life of innovation" has largely accounted for the emigration of many Khorasan villagers during the review period. See Darwent, op. cit., pp. 225-26. Throughout Iran, habitual contact of seasonal migrants with the better conditions of urban life is viewed by some observers as one of the main factors leading to the permanent migration of villagers. (See source cited in footnote 30).

42 See Sharif Adib-Soltani, "Money Wage Behaviour in Iran from 1955-56 to 1957-58", Middle East Economic Papers 1960, p. 5.

railroad) construction projects of the Second and Third Development Plans[43] have linked up an increasing number of formerly-isolated villages with market towns through feeder roads and with larger centers of population through secondary and main roads.[44] The rapid expansion of inter-city transport services (particularly buses) serving the villages and towns along main and secondary roads traversed have afforded a relatively cheap means for peasants to move from village to town and city.

c. Size and Structure of the Urban Population

Between 1956 and 1966, the urban population (1956 basis, and adjusted for underenumeration of children aged 0-4 years) grew by 55.7 per cent, or an average annual compound rate of 4.52 per cent, increasing from 6,017,000 to 9,366,000. The rates of increase of individual age cohorts of this population varied greatly, due to the uneven effects on the urban population's age structure deriving from natural increase of the 1956-base urban population and from net rural-to-urban migration. As indicated in Table 4 below, the rate of growth of the urban population under 20 years of age was considerably greater in all age cohorts (with one exception[45]) than for the age cohorts of the population over 20 years of age, with the result that the urban population at 1966 was significantly more youthful than at 1956: 54.2 per cent of this population in 1966 was under 20 years of age, as compared to 49.6 per cent in 1956. The younger age structure reflects the combination of the disproportionately improved mortality conditions for infants and children and continued higher fertility of the 1956-base urban population during the review period more than offsetting a somewhat older

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43 See Chapter Six for a discussion of these projects.

44 Noted by Upton, op.cit., p.125, as an important factor stimulating rural to urban migration in the postwar period. See also Hossein Mahdavy, "The Coming Crisis in Iran", Foreign Affairs, Vol.44, No.1, October 1965, p.144.

45 The relatively high growth rate of the 35-44 years age cohort (64.4 per cent) is accounted for by a considerable (apparent) level of male migration in this age group as at 1966. See Appendix Table 9.

TABLE 4

URBAN (1956 BASIS) POPULATION INCREASE BY AGE GROUPS, 1956-1966

(In thousands of persons)

AGE GROUP (In Years)	NOVEMBER 1956		NOVEMBER 1966		NET CHANGE, 1956-1966	
	Population	Share of Total (Pct.)	Population	Share of Total (Pct.)	In Population	Cumulative Rate (Pct.)
0 - 4	989[a]	16.4	1,559[a]	16.6	+ 570	+ 57.6
5 - 9	841	14.0	1,410	15.1	+ 569	+ 67.7
10 - 14	629	10.5	1,201	12.8	+ 572	+ 90.9
15 - 19	523	8.7	904	9.7	+ 381	+ 72.8
20 - 24	556	9.2	737	7.9	+ 181	+ 32.6
25 - 34	895	14.9	1,231	13.1	+ 336	+ 37.5
35 - 44	605	10.1	995	10.6	+ 390	+ 64.4
45 - 54	467	7.8	606	6.5	+ 139	+ 29.8
55 - 64	302	5.0	399	4.3	+ 97	+ 32.1
65 and over	209	3.5	324	3.5	+ 115	+ 55.0
TOTAL	6,017[b]	100.0[c]	9,366	100.0[c]	+3350	+ 55.7

a/ Adjusted upwards by 7% from Census figures.

b/ Includes 1 age not reported.

c/ Does not equal components due to rounding.

Source: November 1956 Census, Vol.II, Table 3, p.5, and as calculated for 186 urban places of 1956 in individual Census district reports of November 1966 Census.

age distribution of the (net) immigrants from the rural areas (including offspring of immigrant women following migration).[46]

Because of the sex imbalance in the total of (net) immigrants to the urban areas during the 1956-1966 period (on the average 140 males migrated for every 100 females), the urban population became even more masculine than at 1956, with an average of 108.5 males for 100 females in 1966 compared to 106.5 males for 100 females in 1956. In all but two age groups (10-14 years and 55-64 years[47]), the ratio of males to females increased during the review period.[48]

2. Labour Force Participation Rates

Changes in labour force participation rates have greatly affected the size and structure of the urban labour supply. These LFPR have undergone significant shifts between 1956 and 1966, varying for each sex and as between age groups. This subsection will examine the direction of these shifts and seek to identify and analyze the factors explaining these changes. Estimates will also be made of the LFPR of the immigrant segment of the 1956-66 population increase and for the 1956-base urban population.

a. Rates of Economic Activity

Since Iranian authorities consider 10 years of age as the minimum age

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46 Of the survivors of (net) immigration at 1966, 48.7 per cent (or 569,000 of 1,169,000) were under the age of 20 at that date, while for the 1956-base urban population, 55.0 per cent was under the age of 20 at 1966 (or 4,505,000 of 8,197,000). See Appendix Tables 9 and 10.

47 Incorrect reporting of age in either (or both) the 1956 and 1966 censuses is most likely responsible for such an abnormal trend for these age groups.

48 See Appendix Table 15 for the absolute numbers of males and females and the ratios of males to females for each age cohort of the 1956 and 1966 urban populations.

for economic activity for the Iranian population[49] and consequently collect employment data for persons 10 years of age or over only, the following analysis of rates of labour force participation is necessarily limited to this segment of the urban population. In Table 5 below, the age-specific LFPR of persons aged 10 years and over in the urban population (1956 basis) is shown by sex for the years 1956 and 1966.

As indicated in Table 5, the crude rate for the total of persons aged 10 years and over dropped by almost 10 per cent over the review period, with a steep decline for males somewhat offset by a slight rise for females. LFPR dropped for each age group of urban males, with the heaviest rates of decline recorded for the age groups 10-19 years and 55 years and over. Since the urban population cohort of males aged 10-19 years is relatively large and increased its weight in total urban male population aged 10 years and over between 1956 and 1966,[50] the sharp decline in the LFPR for the 15-19 years cohort and the significant drop for the 10-14 years cohort were very important in explaining the crude LFPR drop among males from 78.5 to 69.0 per cent.

Explanations of the changes in the age-specific LFPR between 1956 and and 1966 are suggested in an examination of changes in the pattern of economic inactivity of these age/sex cohorts of the urban population over this period. Thus a great increase in the school attandance rates of

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49 Despite the fact that considerable numbers (though not high percentages of) urban children aged 7-9 years are economically active.

50 Between 1956 and 1966, the share of males aged 10-19 years in the total urban male population aged 10 years and over increased from 27.6 to 32.7 per cent, becoming the single largest 10 year age cohort of urban males of this age group in 1966. (As derived from census figures of Appendix Table 16).

TABLE 5

AGE-SPECIFIC LABOUR FORCE PARTICIPATION RATES BY SEX

1956-1966

(Urban Population 10 Years of Age and Over:1956 Basis)

Age (Years)	Males		Females		Both Sexes	
	1956	1966	1956	1966	1956	1966
10 - 14	20.4	16.9	8.0	8.4	14.5	12.9
15 - 19	61.9	48.2	10.0	9.3	36.5	29.4
20 - 24	89.1	85.5	8.2	11.9	50.2	50.6
25 - 34	97.4	95.6	8.2	10.2	54.1	54.4
35 - 44	98.5	96.9	10.3	10.6	58.2	57.6
45 - 54	97.1	91.5	11.7	11.0	54.3	53.5
55 - 64	91.3	74.0	11.0	9.0	53.1	41.8
65 +	69.6	45.2	8.2	5.8	38.8	26.5
TOTAL	78.5[a/]	69.0	9.3[a/]	9.8	45.2[a/]	40.8

a/ Including that for "age not reported" population.

Source: As compiled from figures of 1956 and 1966 Censuses as cited in Appendix Tables 17 and 18.

male urban youth[51] almost exclusively[52] accounts for the drop in male LFPR of the 10-24 year age group. In the cohort of urban males 55 years and over -- where LFPR also dropped precipitously over the 1956-66 period -- rates of those "unable to work"[53] have increased considerably[54] and explain this change.

A steep decline in the percentage of "homemakers"[55] in the female urban population aged 10-24 years has offset rises in the rate of school attendance (except in the age group 15-19 years) and resulted in the increase in LFPR for urban girls aged 10-14 and 20-24 years. On the other hand, decreases in LFPR for females 45 years of age and over recorded during this period -- as in the case of older males noted above -- derive from increased rates of "unable to work" females in these age groups. (See Appendix Table 20).

b. Determinants of Economic Activity Rates

The age-specific LFPR of the Iranian urban population have been influenced by many factors, social (particularly in the case of females) as well as economic. However, it can be argued that the LFPR of the Iranian urban working-age population is largely a function of the level of income of the family, with other considerations subordinate to this criterion, since such income levels strongly affect the LFPR of the important depen-

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51 Or from 65 to 81 per cent for those aged 10-14, 37 to 50 per cent for those aged 15-19, and 10 to 12, per cent for those aged 20-24 between 1956 and 1966. See Appendix Table 19.

52 The inexplicable drop in "other" forms of inactivity for boys aged 10-14 years (from 15 to 3 per cent -- see Appendix Table 19) is undoubtedly due to loose recording by 1956 census enumerators. (See Chapter Five).

53 Comprised of retired persons and those no longer required to work to earn an income as well as those truly physically unable to work.

54 Or from 9 to 21 per cent for those aged 55-64 and from 30 to 49 per cent for those aged 65 years and over. See Appendix Table 19.

55 Comprised of females engaged in domestic work at home who are not seeking outside employment. These include unmarried daughters and other family relatives as well as housewives.

dent[56] segment of the urban labour force, whose LFPR is subject to wide variations in contrast to that of heads of families and independent persons whose LFPR tends to be uniformly high under all income situations.[57] In this context we may distinguish between those families whose heads earn sufficient income to support their members at subsistence[58] (or higher) levels and those whose heads do not.

In the case of those urban families whose heads do not earn an income adequate to support their dependents (or even, in many cases, themselves alone), the head of the family is forced to put some or all dependent members of his family who are of working age (7 years or over) out to work to bring in an additional income to supplement his own

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56 Defined here as comprising those members of the family living at home other than heads of household. Members living away from home without families of their own are excluded and are considered independent persons here.

57 To the extent that physical inability does not prevent their being so, and except for those persons of independent means, retired with a pension, or receiving support from relatives, all heads of families and independent persons of labour force age may be assumed to be economically active. Thus the LFPR of heads of families and independent persons of sampled urban families in the Bank Markazi Iran study cited later in this subsection varied only from 90 to 97 per cent as between different head-of-family income groups, except in the case of the lowest income group, where an apparent higher incidence of incapacity for work (in turn responsible for such low levels of income) resulted in a LFPR of only 80 per cent for such persons.

58 Here defined as an income sufficient to provide only the barest physical requirements of a family. See footnote 63 for an estimate of what constituted such an income over a year for an urban Iranian family in 1965.

insufficient earnings (if any at all).[59] The number of dependent members who must work varies from family to family, depending on the amount of additional income required to bring total family income up to subsistence level and the earnings capabilities of the family's dependents.[60] In these families, "poverty-induced" participation rates are relatively high compared to LFPR of other families, as children of school age,[61] wives, and old persons beyond normal working age (but physically able) are forced to enter the urban labour market in search of supplementary income, however meagre.

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59 As noted by many observers of Iranian conditions. An American employment advisor has commented that many women and children in Iran must work "if possible, to supplement the meagre income of the men..." (Richard W. Gable, "The Public Service in Iran", Public Personnel Review, Vol. 22, No.1. 1961, p. 29). Similarly, it has been observed in a village in East Azarbaijan that "all other members" of the families of landless agricultural labourers "usually work to add to family income. Otherwise the income of one member could not provide for the living of the whole household even according to the low standards of Iranian rural life". ("A Study of the Rural Economic Problems of ... Azarbaijan", op.cit., p. 208). Children of poor families are commonly contracted out to employers for carpet-weaving for several years "in order to bring a few rials earnings to their parents." (Kayhan International, May 31, 1964). In the low-income south Tehran area, it has been observed that wives and children of men who do not have adequate income to support their families are forced to seek work of any sort. (Banu Faqieh, "Poor Peoples' Settlements of South Tehran" [in Farsi], in Investigations of the Social Problems of Tehran [in Farsi] [Tehran: University of Tehran, Institute of Social Studies and Research, Ordibehesht 1341], pp. 339-345). It should be noted that in traditional Iranian families, the income of dependent members of the family is turned over to the family head. See, for example, "Opportunities for Women", Kayhan International, April 6, 1964.

60 Capabilities, of course, determined by the supply-and-demand situation in the labour market for their services. Many children fail to find work and remain unemployed. (See Chapter 5).

61 In Iran "every year thousands of students [are] forced to leave their studies to earn their livelihood." See Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, A Study of Manpower in Iran (Tehran: April 1967), p. 83.

For that segment of the urban population whose family heads do earn adequate incomes to support their families (however tenuously), there is no absolute necessity to force many dependents into employment in order to provide a supplementary income to ensure survival of the family. Incomes of household heads rising progressively above sheer subsistence levels for the family are thus accompanied by decreasing pressure on their dependents to work, and growing significance of other factors in determining participation rates of dependents, including the level of wages offered for various skills and occupations and the attitude of the family head towards the idea of female dependents seeking work. In families whose heads earn incomes adequate for the social as well as physical subsistence requirements of the family, relatively greater percentages of children are able to finish their schooling, wives to remain in housework (if they wish), and old persons to withdraw from economically-active life.

In fact, a clear correlation can be observed between the income level of the head of family and the LFPR of dependent members of working age of the family. Table 6 indicates that the age-specific economic activity rates of the dependents of urban families aged 7 years and over in 1965 varied inversely with the income level of the heads of families of which they were members. This correlation for dependents would seem to support the contention that the level of head-of-family income is the basic determinant of LFPR of the urban Iranian population, forcing high rates in poor families and providing the requisite conditions[62] for relatively low rates in middle and high-income families.

As Table 6 shows, the [weighted] LFPR of all dependents in the lowest

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62 That is, permitting dependents to choose of their own free will whether to enter the labour market or not, a decision depending on social as well as economic considerations.

(below physical subsistence[63]) group under 20,000 rials was almost five times greater than for dependents in the 100,000 to 200,000 rials group (35.1 to 7.3 per cent). For male dependents (see Appendix Table 24a), the range is on the order of almost 4 to 1 and for female dependents (Appendix Table 24b), is over 7 to 1. In individual age groups, the LFPR in most instances[64] also vary inversely with head-of-family income.

When the other components of the urban population -- heads-of-families and independent persons -- are included with dependent members of families, the LFPR of the resultant total urban population of labour force age according to head-of-family income group can be shown. In Table 7 below, the LFPR of the sampled urban families of the BMI 1965 survey are indicated for the total of persons aged 7 years and over and for the total

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63 A Ministry of Labour study has estimated minimum daily living requirements of an unskilled worker, his wife, and two 12-year old children at 264.5 rials a day (equivalent to 96,543 rials a year) for the year 1965 in Tehran city (of which 137 rials daily [or 50,005 rials yearly] for food alone). See Akbar Bigdeli, "Investigation of the Wage and Salary Situation of the Economically-Active Population of Iran" (in Farsi), in Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Investigations of Manpower Problems (in Farsi), Volume Two, (Tehran: 1344), pp. 1409-1411.

Considering that on the one hand the figures of Table 6 exclude non-money income (which on the average constituted 72 per cent of the total family income of the lowest income group and 21 per cent of the next-lowest income group) and refer to Tehran city only, where living costs are somewhat higher than for the urban areas as a whole, while on the other hand the Ministry of Labour model family is smaller than that of income groups of Table 6 under 50,000 rials (with an average 4.7 members), we might maintain that families whose heads earn less than 20,000 rials money income are considerably below, and those whose heads earn between 20,000 and 50,000 rials are somewhat below, a physical subsistence level.

64 LFPR rates of persons of most normal working age (20-64 years) (particularly females) may be higher in the highest income group because of the influence of other factors than that of income of head of family.

TABLE 6

AGE-SPECIFIC ECONOMIC ACTIVITY RATES OF FAMILY DEPENDENTS[a/]

BY INCOME OF FAMILY HEAD

Sampled Families of 32 Urban Places, 1965.

(Both Sexes)

Average Annual Money Income of Head of Family (Rials)	Economic Activity Rates of Dependents by Age						
	7 - 9 years	10-14 years	15-19 years	20-24 years	25-64 years	65 yrs. and over	Total, 7 yrs & over
Below 20,000	13.1	33.6	56.5	56.7	33.6	11.1	35.1
20,000/50,000	0.6	12.5	26.0	49.6	16.5	8.8	18.6
50,000/ 100,000	0.0	2.3	20.9	31.5	10.7	6.1	10.3
100,000/ 200,000	0.0	0.5	6.2	37.1	10.2	0.0	7.3
200,000 & over	0.0	0.0	5.4	17.1	21.5	0.0	10.2
Total, All Heads	1.6	8.3	21.9	38.9	15.9	5.4	14.9

a/ Includes all members of families other than heads of families. Independent persons with no families of own (including those sharing quarters with other such persons) also excluded.

Source: As derived from (adjusted) raw data for 1,193 urban households sampled in the year 1344 (1965) on the basis of family income and expenditure by the Department of Economic Statistics of the Bank-e Markazi-ye Iran (Central Bank of Iran). Absolute figures for each income/age group cited in Appendix Table 25.

TABLE 7

LABOUR FORCE PARTICIPATION RATES OF FAMILY MEMBERS[a/]

BY BROAD AGE GROUPS, SEX, AND INCOME OF FAMILY HEAD

Sampled Families of 32 Urban Places, 1965

Average Annual Money Income of Family Head (Rials)	Members Aged 7 yrs. & over			Members Aged 10 yrs. & over		
	Males	Females	Both Sexes	Males	Females	Both Sexes
Below 20,000	70.0	30.1	48.8	76.0	32.0	53.0
20,000/50,000	67.6	8.9	38.2	74.7	9.9	42.5
50,000/ 100,000	55.9	4.1	29.8	64.3	2.2	34.0
100,000/ 200,000	49.0	4.0	26.0	55.1	4.6	29.3
200,000 & over	48.1	4.4	26.7	51.7	4.9	28.5
ALL HEADS	59.3	8.8	33.7	66.2	9.7	37.7

a/ Including independent persons living away from any family (each treated as a family head).

Source: As derived from (adjusted) raw data for 1,193 urban households sampled in the year 1344 (1965) on the basis of family income and expenditure by the Department of Economic Statistics of the Bank-e Markazi-ye Iran (Central Bank of Iran). Absolute figures for each income/age group cited in Appendix Tables 28, 29 and 30.

of persons aged 10 years and over by sex and according to the five income groups. The pattern of inverse relationship between head-of-family income and LFPR observed for dependents is shown to be maintained for the broader universe.

From the preceding, it should follow that the LFPR of dependents will decline as head-of-family income rises. In this connection, Table 8 indicates that accompanying an average annual compound increase in (real) urban family income for the 1959-65 period of 3.8 per cent has been a decline in the LFPR of persons 10 years of age and over in the urban areas of an average 0.9 per cent a year between 1956 and 1966. The drop for males has been considerable, amounting to an average 1.1 per cent a year, and offsetting an 0.5 per cent average annual compound rate of increase in the LFPR for females.[65] Since it can be assumed that average head-of-family income has increased at least at the rate for (total) family income for the 1959-65 period,[66] and that the drop in LFPR pertains almost exclusively to persons other than heads of families and independent individuals,[67] the relationship of increased head-of-family income with lowered LFPR of dependents seems

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65 The increase in female LFPR may represent the effect of a (likely) significant increase in the rates for females of normal working age (due to factors -- such as higher level of education -- other than head-of-family income) in families whose heads earn adequate incomes more than offsetting a likely decline in the LFPR of females in families whose heads previously required their financial assistance.

66 Since fewer dependents per family were employed in 1966 than in 1956, income increase of families must have accrued to their heads. (Although the average number of dependents per family increased in urban areas from 2.32 to 2.44 over this period [or by 5.2 per cent], the employment rate for dependents declined at a faster rate [greater than the decline of 10.4 per cent recorded for all persons of working age in the urban population for these years, since rates for heads of families and independent persons can be assumed to have been maintained at a high level over this period -- see footnote 67]. (Calculations based on data of number of families and urban population from 1956 and 1966 censuses).

67 Since heads of families who are physically able, with only few exceptions, can be assumed to have remained economically-active at the same rate over the review period.

TABLE 8

AVERAGE FAMILY INCOME AND SEX-SPECIFIC ECONOMIC ACTIVITY RATES

1956 - 1966

Urban Areas: 1956 Basis

Category	1956	1959	1965	1966	Average Annual Compound Rate of Change
Average Family Money Income (in 1959 Rials)	NA	77,320	96,501[a/]	NA	+ 3.8%
LFPR of Males aged 10 yrs. and over	78.5	NA	NA	69.0	- 1.1%
LFPR of Females aged 10 yrs. and over	9.3	NA	NA	9.8	+ 0.5%
LFPR of Both Sexes aged 10 yrs. and over	45.2	NA	NA	40.8	- 0.9%

a/ Adjusted downwards from reported money income of 112,906 rials for 1965 to take into account rise in cost of living of 17 per cent between 1959 and 1965 (according to Bank Markazi Iran indices).

Source: Table 5 (for labour force participation rates) and Bank Markazi Iran, Department of Economic Statistics, "Report of the Urban Household Budget Investigation in the Year 1344" (Unpublished-Roneo) (in Farsi) (Tehran: Ordibehesht 1346) (for income figures).

confirmed.[68]

Other factors (though usually related to the consideration of level of head-of-family income) also have influenced the level of LFPR of the Iranian urban population. The existence of job opportunities for dependents may be a factor accounting for a higher LFPR than would otherwise be the case in those instances where the dependent would have been inactive rather than unemployed (and thus active) in the absence of the work offer.[69] For families whose heads do not absolutely require that their children work, the intensity of desire to afford them an education (including willingness to forego the earnings children could otherwise have contributed to the family income), ability to provide them with the books, clothes, and other requirements associated with school attendance, and the availability of adequate school services in the locality all combine to determine school attendance rates of children (and, inversely, their LFPR, particularly in the case of boys, who generally enter the labour market if they do not attend school). The level of wages prevailing in the labour market and wage fluctuations may be an important factor to the extent that potentially-active persons are responsive to changes upwards and downwards and enter or withdraw from the labour market accordingly.[70] For persons past the normal

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68 Reduced LFPR of dependents as incomes of family heads rise have also been reported in other low-income countries of Asia. See, for instance, Ramesh Chandra, "Effect of Low Incomes on the Size of the Labour Force and Unemployment in India", Indian Labour Journal, December 1961, pp. 1166-1167, and Saw Swee Hock, "The Structure of the Labour Force of Malaya,", International Labour Review, Vol.98, No.1, July 1968,p.60.

69 For instance, women who would have remained as home-makers or children as students or "other" inactive (idle at home) in those families whose heads do not require that their dependents work. However, in very poor families where the income help of dependents is an absolute necessity, many dependents would be active regardless of the employment situation, since they would be unemployed and seeking work (although not always recorded as such by enumerators) in the absence of adequate job opportunities.

70 Mobility of persons of working age into- and out of the urban labour market as related to family income and wage rates is treated on pp. 54-57 of this chapter.

age of work (65 years and over), the degree of provision of (and adequacy of) retirement benefits paid by employers is a major factor in determining their LFPR (and those of their dependents, if such persons are heads of families). Thus dependent old persons receiving pensions who live in families whose heads earn below-subsistence incomes can provide supplementary income to the family without the need to remain economically-active to gain such income, while family heads retired with pensions adequate to support their families do not need to force their dependents into the labour market.[71]

In addition to the factors cited above affecting the level of LFPR of the working-age population in general, some additional important considerations influence the rates for females in Iran, particularly in those families not in dire need of additional income from their female dependents. In general, most family heads are opposed to their wives, daughters, and other female relatives seeking employment outside the home,[72] conditioned as they are to the traditional social/religious values in Islamic countries,[73] and make exceptions only reluctantly under the pressure of

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71 In general, however, few employers other than the Government provide pensions for their retired employees. Although the Social Insurance Acts of 1955 and 1960 provide for the payment of retirement benefits to workers aged 60 and over (55 and over in the case of females), the recipients must have made contributions for 10 years or more; thus such legislation has not been a factor explaining the lowered LFPR for persons 60 years and over recorded during the 1956-66 period. See American University, op.cit., p. 160, and "Evolution of Labour Legislation and Administration in Iran", International Labour Review, Vol. 79, No.3, March 1959, pp. 282-83.

72 As noted, among others, by the Iranian psychologist Nasser od-Din Saheb ol-Zamani, in his "Suffering Youth -2", (in Farsi), Majalleh-e Massayel-e Iran ("The Journal of Problems of Iran"), No.3, Azar 1341, p.62. However, there apparently is no great opposition to females working in the home in household industries, which are a great source of employment of children and females. (See Chapter Three).

73 Observed in these countries by Lee L. Bean, "Utilisation of Human Resources: the Case of Women in Pakistan", International Labour Review, Vol. 97, No.4, April 1968, p. 393.

poverty.[74] The degree of severity of this attitude does vary from region to region in Iran, however.[75] In individual families, the need for the household services of female members (in turn depending on the size of the family and the age of children) also helps determine whether a female will be permitted (or forced) to work; in poverty-stricken families in which other dependents can supplement the family income and in above-subsistence-level families, the relative merits of homemakers working or not working are weighed. The educational level of the female is also a factor; data indicate that the LFPR of working-age females not attending school increases greatly as the level of schooling completed rises.[76] While much higher LFPR for educated (secondary schooling and above) women may also indicate a more enlightened and liberal attitude towards the opposite sex on the part of the heads of the families of these females and their husbands (if ~~they~~ married), they and also reflect a more independent attitude on the part of these females developed as a by-product of their higher education, as well as a high demand they by employers for females with middle-level manpower skills. (See Chapter Four).[77]

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74 As suggested by the high LFPR of dependent females in the lowest head-of-family income group of the sampled urban families of 1965. See Appendix Table 24b.

75 Thus in the urban areas of Khuzestan province, where strict Arab values prevail, the LFPR was only 3.7 for females aged 10 years and over in 1956, as compared to 11.1 in that year in the urban areas of Gilan province, noted for its relatively permissive attitude towards its women. (November 1956 Census, Vol.II, Table 17, pp.213 and 232).

76 Adjustments of 1966 census data for the urban areas (1966 basis) indicate that the LFPR of females aged 10 years and over, excluding those attending school, ranged from 10.8 for illiterates to 15.7 - 27.1 for those who attended secondary school to 57.3 for secondary school graduates and 83.4 for those with university education. See Appendix Table 31.

77 It has been observed that most educated working girls in recent years in Iran continue to work after their marriage, using the training they received in school (and university) to take them out of the home. See Gregory Lima, "Shirin and Her Sisters", Kayhan International, May 21, 1965, p.4.

c. Variations in Economic Activity Rates Based on Migration Status

Fragmentary data on population of rural origin resident in urban areas indicate that such persons have higher LFPR in the case of both males and females than does the urban population as a whole (i.e. including those immigrants). In the present writer's 1967 survey of the Ku-ye 9 Aban district of South Tehran -- where 90 per cent of the adult population was found to be rural emigrants -- 79.5 per cent of males and 51.0 per cent of females aged 10 years and over were economically-active.[78] In the case of rural emigrants of the same age bracket who migrated to urban areas during the 12 months preceding the Ministry of Labour's sample labour force survey of May 1965, a very similar LFPR was found for males (80.9), although the rate for females was much lower, or 15.1 per cent.[79] These rates in both instances are much higher than those for the urban population 10 years and over in November 1966 (and including immigrants) -- 69.0 per cent for males and 9.8 per cent for females.

In Table 9, estimates are made of LFPR in 1966 for the 1956-base urban population as a residual item of LFPR for the urban population as a whole[80] and of rural immigrants who migrated during the 1956-1966 period.

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78 William H. Bartsch and Hamideh Tavassoli, "Results of a Labour Force Sample Survey of Ku-ye 9 Aban in August 1967" (Unpublished-Typewritten) (London: December 1967), pp.2-3. The very high LFPR for females is due to the heavy incidence of open unemployment of females who were recorded by the survey as unemployed whether they were actively or inactively seeking work. (See Chapter Five).

79 Based on unpublished data expressly extracted for the writer from the results of the urban 1965 survey of the Ministry of Labour's General Department of Manpower Studies and Statistics. (Since the age distribution of such rural immigrants was not indicated in the figures given the writer, an estimate of the numbers of male and female immigrants aged 10 years and over has been made on the basis of the age structure of the total number of urban immigrants [inter-urban as well as rural-urban] for the 12 month period). The LFPR for females excludes females only inactively seeking work. (See Chapter Five).

80 "Urban population as a whole" here refers to the urban population regardless of place of origin (i.e. immigrant or born in urban areas).

TABLE 9

ECONOMIC ACTIVITY RATES OF URBAN (1956 BASIS) POPULATION TEN YEARS OF AGE AND OVER BY IMMIGRANT STATUS AND SEX

NOVEMBER 1966

(Estimate)

IMMIGRANT STATUS	MALES			FEMALES		
	Population 10 years of age and over	Economic Activity Rate	Number Economically Active	Population 10 Years of age and over	Economic Activity Rate	Number Economically Active
1956-Base Urban Population	2,794,282[a]	66.7[b]	1,862,629[a]	2,643,111[a]	9.0[b]	236,784[a]
Survivors of (Net) Rural Immigrants to Urban Areas, 1956 - 1966	561,000[c]	80.9[c]	453,849[b]	400,000[c]	15.1[c]	60,400[b]
Total Urban Population	3,355,282	69.0	2,316,478	3,043,111	9.8	297,184

[a] Residual figures.

[b] Derived figures.

[c] Estimate.

Source: Appendix Table 18 (for census figures for total urban population) and Appendix Tables 9 and 10 (for numbers of male and female immigrants). Economic activity rates of immigrants are those of Ministry of Labour sample labour force survey of May 1965 (unpublished) in respect of 1964-65 year immigration only.

This exercise indicates that the LFPR of the 1956-base urban population in 1966 were significantly lower than those for immigrants in the case of both males and females. In fact, when post-1956 immigrants from the rural areas are thus excluded from the 1966 urban population, the 1966 urban LFPR for males is shown to have dropped even further from 1956 levels than that indicated for the total urban male population (i.e. including these immigrants) in 1966, or from 78.5 per cent in 1956 to 66.7 per cent in 1966 (instead of to 69.0 per cent). In the case of females, the 1966 rate for the 1956-base population is shown to be below that of 1956 (from 9.3 per cent in 1956 to 9.0 per cent in 1966, instead of to 9.8 per cent).

To better grasp the trends in LFPR between 1956 and 1966 as between the 1956-base urban population and the total of 1956-1966 period immigrants from rural areas, we can estimate an incremental LFPR for the 1956-base population and compare it with the rate for immigrants.[81] This is done separately for males and females in Table 10. As compared to an average of four out of five male immigrants aged 10 years and over entering the urban labour force, only one in four of the males aged 10 and over added to the 1956-base urban population during the 1956-66 period became economically active. Similarly, only one in 13 of the additions to the 1956-base urban female population aged 10 and over became economically active during the review period, as compared to one in seven of the female immigrants of this age.

The considerably higher LFPR of immigrants of labour force age to the urban areas than for persons of such age in the 1956-base urban population

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81 As in the case of Table 9, it is assumed here that the rates observed for immigrants for the one-year period 1964-65 of the Ministry of Labour survey for each sex are the same as for the <u>total</u> of immigrants 1956-66 to the urban areas as at 1966, which seems reasonable.

TABLE 10

INCREMENTAL ECONOMIC ACTIVITY RATES OF URBAN (1956 BASIS) POPULATION TEN YEARS OF AGE AND OVER BY IMMIGRANT STATUS AND SEX, NOVEMBER 1966

(Estimate)

IMMIGRANT STATUS	MALES			FEMALES		
	Increase in Population 10 years of age and over	Incremental Economic Activity Rate	Increase in Number Economically Active	Increase in Population 10 years of age and over	Incremental Economic Activity Rate	Increase in Number Economically Active
1956-Base Urban Population	621,809[a]	25.2[b]	156,946[a]	628,703[a]	7.8[b]	49,318[a]
Survivors of Net Rural Immigrants to Urban Areas, 1956-66	561,000[c]	80.9[c]	453,849[b]	400,000[c]	15.1[c]	60,400[b]
Total Urban Population	1,182,809	51.6[b]	610,795	1,028,703	10.7[b]	109,718

a/ Residual figure.
b/ Derived figure.
c/ Estimate.

Source: As calculated from figures of Table 9 (for immigrants) Appendix Table 16 (for change in total urban population) and Table 11 (for increase in number of economically-active persons in total urban population).

most likely can be explained in terms of their greater relative poverty, requiring that immigrant heads of family put greater relative percentages of their working-age dependents out to work in order to earn supplementary incomes for their families than is the case for the relatively better-off 1956-base urban families. Under such conditions, relatively few children of recent immigrant families can extend their schooling beyond primary school[82] (or even attend school at all), while wives and old dependents in such families must also seek work to a greater extent than those of 1956-base urban families.

B. SIZE AND STRUCTURE OF URBAN LABOUR SUPPLY

As a consequence of the demographic and LFPR changes analyzed in the preceding subsections, the size and structure of the urban Iran labour supply underwent significant transformations. In this subsection, the quantitative changes in this labour supply will be described and analyzed from several standpoints, including those of sex, age, in-and-out movement, and immigrant-nonimmigrant origin.

Between 1956 and 1966, the urban labour supply (both sexes) grew by 38.1 per cent, (see Table 11), equivalent to an average annual compound rate of increase of 3.2 per cent. While this rate of expansion was considerably below that for the total urban population of 55.7 per cent (or 4.5 per cent annually) because of the effects of a relatively faster rate of growth for persons below than above 10 years of age[83] and a declining

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82 Only 17.0 per cent of boys aged 13-19 years in two slum areas of Tehran in 1965 (comprised almost exclusively of ex-villagers and their offspring) were attending secondary school, as compared to 49.8 per cent of boys in this age range in such schools in all Tehran in November 1966. (As derived from figures in the two Ministry of Development and Housing reports cited in footnote 20 and from Volume 10: Tehran Shahrestan, of November 1966 Census, Tables 8 and 9, pp.81 and 96 respectively.

83 As calculated from data of Table 4, the urban population under the age of 10 years grew by 62.2 per cent, compared to a rate of growth of persons 10 years of age and over of only 52.8 per cent.

TABLE 11

SIZE AND CHANGE OF THE URBAN (1956 BASIS) LABOUR SUPPLY BY SEX

1956 - 1966

SEX	Size of Labour Supply at		Net Increase, 1956-66	
	November 1956	November 1966	Number	Pct. Increase
Males	1,705,683	2,316,478	610,795	35.8
Females	187,466	297,184	109,718	58.5
TOTAL	1,893,149	2,613,662	720,513	38.1

Source: As based on totals of November 1956 Census and (adjusted to urban areas 1956 basis) totals of November 1966 Census, as indicated in Appendix Tables 17 and 18.

LFPR, it was nevertheless considerable (particularly when related to the rate of increase in employment opportunities -- see Chapters Three and Four).

The combination of increased LFPR for females and reduced LFPR for males has more than offset the faster rate of growth of urban males of labour force age than of females[84] and resulted in a more rapid rate of growth of the urban female labour supply than of the male (58.5 to 35.8 per cent), as Table 11 shows. As a consequence of this development, the share of females in the total urban labour supply increased from 9.9 to 11.4 per cent between 1956 and 1966.

Tables 12 and 13 show the widely-varying rates of increase of different age cohorts of the male and female labour supply, respectively, which derive from the effects of the inter-action of differing rates of population increase with fluctuating LFPR for these age groups of the urban population over the review period. In the case of males, the greatest increase has occurred in the 35-44 years age group, where the considerable growth in population (largely comprised of immigrants from rural areas -- see Appendix Table 9), has combined with an only slightly reduced LFPR (Table 5) to give an increase of over 60 per cent in ten years. The significant rate of increase for males aged 10-14 years represents the great effect of population increase in this age cohort, since the LFPR declined. On the other hand, the relatively low growth rates of the population aged 55 years and over, combined with sharply-reduced LFPR, have made growth in labour supply in these age brackets insignificant. As

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[84] Due to the effects of greater male than female immigration from the rural areas noted in subsection A. (See Appendix Table 16 for the rates of change by age and sex of the urban population between 1956 and 1966.

TABLE 12

AGE STRUCTURE OF URBAN (1956 BASIS) LABOUR SUPPLY, 1956-1966

(Males)

Age Group (Years)	November 1956		November 1966		Net Change, 1956-66	
	Number	Pct.	Number	Pct.	Number	Pct. Change
10-14	67,690	4.0	106,540	4.6	+ 38,850	+ 57.4
15-19	165,261	9.7	225,472	9.7	+ 60,211	+ 36.4
20-24	257,104	15.1	331,071	14.3	+ 73,967	+ 28.8
25-34	447,851	26.3	609,561	26.3	+ 161,710	+ 36.1
35-44	323,763	19.0	525,294	22.7	+ 201,531	+ 62.2
45-54	226,464	13.3	292,934	12.6	+ 66,470	+ 29.4
55-64	144,379	8.5	148,856	6.4	+ 4,477	+ 3.1
65 & over	72,345	4.2	76,750	3.3	+ 4,405	+ 6.1
Age Not Rep.	826	0.0	---	--	- 826	--
TOTAL	1,705,683	100.0[a]	2,316,478	100.0[a]	+ 610,795	+ 35.8

a/ Does not equal components due to rounding.

Source: As calculated from census figures (unadjusted for underenumeration) of November 1956 and November 1966 censuses (and cited in Appendix Tables 17 and 18).

TABLE 13

AGE STRUCTURE OF URBAN (1956 BASIS) LABOUR SUPPLY, 1956-1966

(Females)

Age Group (Years)	November 1956		November 1966		Net Change, 1956-66	
	Number	Pct.	Number	Pct.	Number	Pct. Change
10 - 14	23,669	12.6	48,339	16.3	+ 24,670	+104.2
15 - 19	25,635	13.7	40,637	13.7	+ 15,002	+ 58.5
20 - 24	21,969	11.7	41,703	14.0	+ 19,734	+ 90.0
25 - 34	35,819	19.1	60,282	20.3	+ 24,463	+ 68.3
35 - 44	28,491	15.2	48,061	16.2	+ 19,570	+ 68.7
45 - 54	27,325	14.6	31,457	10.6	+ 4,132	+ 15.1
55 - 64	15,735	8.4	17,723	6.0	+ 1,988	+ 12.6
65 and over	8,571	4.6	8,982	3.0	+ 411	+ 4.8
Age Not Reported	252	0.1	---	---	- 252	---
Total	187,466	100.0	297,184	100.0[a]	+109,718	+ 58.5

[a] Does not equal components due to rounding.

Source: Same as for Table 12. (Figures cited in Appendix Tables 17 and 18).

regards the female labour supply, the greatest increases have been recorded in the age group of females under 45 years of age, where rises in LFPR (except for females aged 15-19 years) have combined with population increase to result in labour supply growth rates of 59 to 104 per cent between 1956 and 1966, as compared to only 5 to 15 per cent for the female labour force aged 45 years and over.

A more dynamic picture of the change in the age structure of Iran's urban labour force than afforded by Tables 12 and 13 can be gained from an analysis of the movement of persons into-and out of the labour force by age groups. In this connection, Tables 14 and 15 indicate the net[85] numbers of males and females, respectively, entering the urban labour force and withdrawing from it (due to death, retirement, or emigration) by age groups between 1956 and 1966. A comparison of these two tables indicates that the age structure of (net) entries into the urban workforce is much younger in the case of females than of males. It is evident from preceding analysis that the average age at entry into the urban labour force by males has been rising during the 1956-1966 period as a consequence of delayed entry into the labour market occasioned by a longer period of schooling than before .[86] In fact, if school attendance rates of males had not risen so sharply during this period and so reduced LFPR for school age youth, the numbers of economically-active males in the 10-24 years age group (in 1966) would have been much greater than was actually the case and

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85 Figures on gross entries into and separations from the urban labour force are not available and cannot be calculated. However they most likely are only slightly greater than net figures, since few persons leave the labour force before the age of 44 years and few enter beyond 35 years.

86 As implied by higher school attendance rates in 1966 than in 1956 for each age group of boys aged 10-24 years (See Appendix Table 19). In the case of females, however, no such conclusion can be reached, since their increased school rates have not necessarily occurred at the expense of LFPR, but often from homemakers and "other" inactives.

TABLE 14

NET IN- AND OUT-MOVEMENT FROM URBAN (1956 BASIS) LABOUR SUPPLY BY AGE GROUPS, 1956 - 1966

(Males)

Age in November 1956	Age in November 1966	Number Active in 1956	Number Active in 1966	Change, 1956 - 1966 Net Entries	Change, 1956 - 1966 Net Separations
0 - 4	10 - 14	---	106,540	106,540	
5 - 9	15 - 19	---	225,472	225,472	
10 - 14	20 - 24	67,690	331,071	263,381	
15 - 19	25 - 29	165,261	302,202	136,941	
20 - 24	30 - 34	257,104	307,359	50,255	
25 - 34	35 - 44	447,851	525,294	77,443	
35 - 44	45 - 54	323,763	292,934		30,829
45 - 54	55 - 64	226,464	148,856		77,608
55 & over	65 & over	216,724	76,750		139,974
Age Not Reported		826	--		826
TOTAL		1,705,683	2,316,478	860,032	249,237

Source: November 1956 Census, Vol. 2, Table 17, p. 208 (for 1956 figures) and adjusted 1966 census figures of urban areas (1956 basis) cited in Appendix Table 18.

TABLE 15

NET IN- AND OUT-MOVEMENT FROM URBAN (1956 BASIS) LABOUR SUPPLY BY AGE GROUPS, 1956 - 1966

(Females)

Age in		Number Active in 1956	Number Active in 1966	Change, 1956-1966	
November 1956	November 1966			Net Entries	Net Separations
0 - 4	10 - 14	-	48,339	48,339	
5 - 9	15 - 19	-	40,637	40,637	
10 - 14	20 - 24	23,669	41,703	18,034	
15 - 19	25 - 29	25,635	32,604	6,969	
20 - 24	30 - 34	21,969	27,678	5,709	
25 - 34	35 - 44	35,819	48,061	12,242	
35 - 44	45 - 54	28,491	31,457	2,966	
45 - 54	55 - 64	27,325	17,723		9,602
55 and over	65 and over	24,306	8,982		15,324
Age Not Reported		252	-		252
TOTAL		187,466	297,184	134,896	25,178

Source: November 1956 Census, Vol.2, Table 17, p.208 (for 1956 figures) and adjusted 1966 census figures of urban areas (1956 basis) cited in Appendix Table 18.

would have increased total labour supply in the urban areas considerably beyond actual 1966 levels.[87]

In terms of the total number of persons entering and leaving the urban labour force during this period, Tables 14 and 15 indicate that on the average for each male separating, almost $3\frac{1}{2}$ entered, while the ratio in the case of females was almost $5\frac{1}{2}$ entries per separation. In fact, the great expansion in the urban labour supply during the 1956-66 years has predominantly been the result of the very high rate of entry into the labour supply of both males and females, since the separation rates for the 10-year period have not been unusual for a country's labour force.[88] Table 16 shows these (net) rates of entry and separation by sex for the urban labour force over this period.

Of the total (net) expansion in the urban labour supply during the review period, it is estimated that over 70 per cent has been comprised of persons migrating from the rural areas between 1956 and 1966. As Table 17 illustrates, such immigration has affected the male working force more than that of females, only 55 per cent of whose increase is estimated to have derived from such immigration. The very high LFPR of 1956-66 rural emigrants compared to the low incremental LFPR of the 1956-base urban population (as noted earlier) have offset the much lower number of

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87 Thus if the LFPR had remained the same in 1966 as in 1956 for urban males aged 10-24, there would have been 100,000 more economically-active youth in such ages than was the case in 1966 (or 763,044 active as against 663,083), resulting in an increase of 41.7 per cent between 1956 and 1966 instead of 35.8 per cent.

88 For five-year entry and separation rates of countries grouped as "agricultural", semi-industrialized", and "industrialized", see Jan L. Sadie, "Labor Supply and Employment in Less Developed Countries", The Annals of the American Academy of Political and Social Science, January 1967, Table 4, p.126).

TABLE 16

RATES OF LABOUR FORCE ENTRY, SEPARATION, AND REPLACEMENT BY SEX

FOR TEN YEAR PERIOD 1956 - 1966

Urban Areas: 1956 Basis

SEX	Rate of (Net) Entry	Rate of (Net) Separation	Rate of Replacement a/
Males	50.4	14.6	35.8
Females	71.9	13.4	58.5
Both Sexes	52.6	14.5	38.1

a/ The difference between rate of entry and rate of separation, corresponding to the rate of increase of the labour force.

Source: As calculated by relating totals of numbers of entries and separations during 1956-66 period of Tables 14 and 15 to number of persons in the labour force in 1956 for each sex.

TABLE 17

ORIGIN OF INCREASE OF URBAN (1956 BASIS) LABOUR SUPPLY BETWEEN 1956 and 1966, BY SEX

(Estimate.)

SEX	Total Increase in Labour Supply	Increase Deriving from Net Immigration 1956-1966 from Rural Areas b/		Increase Deriving from Population Settled in Urban Areas in 1956 a/	
		Number	Share(%)	Number	Share(%)
Males	610,795	453,849	74.3	156,946	25.7
Females	109,718	60,400	55.1	49,318	44.9
TOTAL	720,513	514,249	71.4	206,264	28.6

a/ Residual figures.

b/ Estimate.

Source: As derived from figures of Table 10.

immigrants compared to the increase in numbers of the 1956-base urban population to account for this very significant development in the structure of the urban labour supply at 1966.

The effect of such heavy emigration of economically-active persons from the rural areas on the rural labour supply is shown in Table 18 below. It is estimated that over one-third of the total (natural) increase of the rural labour force between 1956 and 1966 migrated to the urban areas. This migration was much heavier for males than for females; on the average two out of five (net) additionally-active males withdrew from the rural labour supply in search of employment in the urban areas during this period, as compared to only one out of seven (net) additionally-active females.

II. THE SUPPLY OF LABOUR TO OCCUPATIONS AND TO DEMAND SECTORS

In addition to the aggregate supply of labour in the urban labour market, we may distinguish disaggregated supplies to particular occupational (and skill) groups and to different labour demand sectors (characterized by type of employer). This section will seek briefly to describe such separate supplies of labour, to identify the more important determinants of their size, and to quantify them in a rudimentary way where possible for the 1956-66 period.

A. SUPPLY OF LABOUR TO OCCUPATIONAL AND SKILL GROUPS

The supply of labour to any particular occupation (and to skills within that occupation[89]) at any moment may be defined as consisting of the stock of persons adequately qualified and capable of working in the particular occupation, including those who are seeking[90] as well as those already

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89 Further reference to the supply of labour to occupations will also imply the inclusion of its various skill components.

90 Consisting of new entries into the labour market and persons at work in other occupations through inability to gain employment in the occupation of their qualifications and desire.

TABLE 18

EFFECT OF EMIGRATION OF ECONOMICALLY-ACTIVE RURAL PERSONS ON RURAL (1956 BASIS) LABOUR FORCE, 1956-1966, BY SEX

(Estimate)

Sex	Actual Increase in Active Rural Persons	Loss of Active Rural Persons Thru Emigration a/	Expected Increase in Rural Labour Force if No Emigration	Percentage of Expected Increase Lost Thru Emigration
Males	658,795	453,849	1,112,644	40.8
Females	342,517	60,400	402,917	15.0
TOTAL	1,001,312	514,249	1,515,561	33.9

a/ Assuming no difference in LFPR if had remained in rural areas.

Source: As calculated from figures of Appendix Table 32 (for actual increase in rural labour supply) and of Table 17 (for loss thru emigration).

employed in the occupation. The size of the supply to each occupation in turn is a function of many variables, social (and personal) as well as economic, including level of earnings and benefits offered as compared to those of other occupations, prestige ranking in the occupational hierarchy, extent of employer demand for manpower in the occupation, degree of mobility of labour as between various occupations and into- and out of the labour force, and the talents, interests, and personal preferences of individuals in the labour force.

The above-mentioned factors have all been operative in varying degrees in determining the level of supply of manpower to individual occupations in Iran. An additional important determinant in the case of the urban labour force (to which this analysis is limited) is the differences between urban and rural conditions (including income levels) as they influence the supply of unskilled labour to the urban labour market.

Earnings differentials between various occupations (and groups of occupations) have been an important factor in determining the choice of occupation by those persons in a position to qualify themselves for various occupations, and thus in determining the size of the supply to these occupations. In view of the very wide differentials existing between manual and non-manual[91] occupations (see Chapter Four), it is not surprising that most such persons have sought to gain non-manual employment, particularly in high-level manpower positions,[92] where earnings

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91 "Manual" here referring to ISCO groups 3-9 (including agricultural, sales, craftsmen and production process, transport, and service occupations) and "non-manual" to ISCO groups 0-2 (including professional, technical, administrative, managerial, and clerical occupations).

92 "High-level manpower" positions are defined as those requiring university training (such as engineers, physicians, accountants, and many managers and administrators). "Middle-level manpower" -- the other component of non-manual occupations -- refers to those positions requiring some degree of secondary school education and sometimes additional post-secondary school training in technical schools. Examples are those of primary school teachers, nurses, technicians, clerks, secretaries, and bank tellers.

are the greatest. Similarly, the existence of a (real) earnings differential between agricultural occupations in the rural areas and unskilled labourer occupations in the modern sector of the urban areas has led many villagers to abandon their rural occupation and migrate to the towns and cities in search of better-paid work as labourers. (See Chapter Four).

In making a choice between various occupations, Iranians for whom a choice exists are heavily motivated by the amount of prestige associated with various occupations. Most persons seek to gain positions with the highest prestige in Iranian society, i.e. in the high-level manpower category, and scorn manual work as below their dignity, regardless of the skill level. (See Chapter Four).

The level of employer demand for manpower in particular occupations and skills (to the extent that it is known by the workforce) should influence choice of occupation by the economically-active population. However, in Iran, this factor appears less operative, and even when it is known that a particular occupation is over-crowded, additional supplies of manpower to it continue to build up, particularly in those occupations where earnings and prestige are relatively great. * A contributing factor to the over-supply in certain high-level occupations is the choice by university students of courses of study irrespective of their implications as training for an occupation.

* The considerations cited above pertain only to that (small) part of the labour force which is in a position to choose an occupation freely and to avail itself of the training (where required) to qualify for such work. For most economically-active Iranians, however, no such free choice exists, and it is rather the harsh realities of their situation — shaped by the poverty of their families and the lack of opportunities for qualifying for particular (desired) occupations — that dictate the choice of occupation

and are the effective arbiters of the size of the supply to various occupations and skill groups.* As a consequence of this situation, most economically-active persons tend to be occupationally immobile, locked into the occupation (or skill) for which their education or training first qualified them when they entered the labour market, regardless of how low the level of demand for their occupations and skills or how unsatisfactory the level of earnings prevailing for such occupations and skills. (See Chapter Four).

The poverty of most of those economically-active persons unable to move into other better-paying occupations prevents them from withdrawing completely from the labour market in response to the inadequate earnings levels in their occupation (or skill). That important segment of the supply of manual workers comprised of dependents of families whose heads earn below- or bare subsistence incomes is not permitted to drop out of the workforce regardless of how low the level of earnings received in its occupations, because of the dire need of additional income required by these families which forced their dependents into the workforce in the first place.[93] Similarly, main (and independent) earners in manual occupations will also accept below (individual) subsistence earnings rather than withdraw from the workforce[94] in the absence of other courses of

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93 As noted in subsection ~~II.A.~~ I.A.2. The additional supply of great numbers of these dependents in the manual workforce is largely responsible for the prevalence of earnings rates for such labour lower than would have been the case if they had not entered the labour market in the first place, of course.

94 An individual unskilled worker with no family required in 1967 at least 40 rials a day to meet his bare physical subsistence requirements in the urban areas, an amount which allowed for a tea, cheese, sugar, and bread diet and sleeping in a caravanserai (according to Hamadan Employment Service Branch in a 1967 conversation with the present writer). In summer, such a worker could sleep "rough" and save accommodation expenditure.

Yet studies by the Ministry of Labour in 1962-64 have indicated that manual workers in many lines of manufacturing in small establishments in the urban areas -- and most of whom may be assumed to be independent or main earners -- accept wages of less than this amount, earnings by any standard below the sheer physical requirements of a worker. (See footnote 116).

action[95] and under the pressure of acute poverty.

How is it possible that individual workers -- dependents and main earners alike -- can survive on below-subsistence earnings? The answer appears related to the economic unit being considered -- in Iran it is the family rather than the individual in most instances. In this situation, wages paid to children and other dependents may indeed be too low to ensure their survival as independent persons, but pooled with those of other family members who are also working are adequate to provide for the sheer physical subsistence needs of the family, benefiting as it does from the economies of scale in expenditures. Similarly, those heads of families with inadequate earnings to support themselves as individuals who receive the additional incomes of dependent workers also can survive under such conditions within the family unit. Independent earners -- such as recently-migrated labourers -- often share living expenses with other independent workers in a similar situation and can thus also survive on a wage (or self-employment earnings) otherwise below the requirements for an individual.[96]

The size and changes in the supply of labour to the various occupational groups (and individual occupations) and skills in the urban areas during the 1956-66 period reflect the socio-economic forces noted above. Although the absence of comparable data for 1956 prevents the comparison of figures of supply of labour by occupations with 1966, an

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95 Such as, in the case of rural immigrants "pulled" by the attraction of the cities (including higher wages), the option of returning to their villages and thus leaving the urban labour force.

96 "At other [than warm] seasons, a number of workers join together and rent an unfurnished room where they sleep on their own sheepskins." See U.S. Department of Labor, Bureau of Labor Statistics, Summary of the Labor Situation in Iran (Washington: International Cooperation Administration, October 1955) p. 16.

indication of the occupation changes by broad groups of occupations is afforded by a comparison of educational data for urban males aged 20-64 years -- from which over 80 per cent of the male urban labour force derives[97] -- for these years, since educational levels of males are a good indication of the type of occupation sought[98] and for which they are able to qualify during this period.[99]

As Table 19 shows, the supply of adult males aged 20-64 years in the urban areas with secondary school or university education has increased at a much greater rate than the supply of such males with primary school education or no education (illiterates and no formal schooling). The greatest growth rate is for males whose highest educational level is graduation from secondary school; this development is certainly the consequence of a combination of the heavy demand for high school diplomas and

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97 In 1956, 82.1 per cent, and in 1966, 82.4 per cent of active urban males were aged 20-64 years. Of the total number of urban males aged 20-64 years, virtually all were active: 95.3 per cent in 1956 and 91.3 per cent in 1966. (As calculated from November 1956 Census, Vol.II, Table 17, p. 208, and from November 1966 census figures indicated in Appendix Table 18.)

98 Persons of secondary or higher education generally shun manual occupations. In 1966, 76.7 per cent of the total of employed persons in the urban areas with any level of secondary school or university education were employed in non-manual occupations (including also military service occupations). (As derived from Table 17, p. 48 of November 1966 Census, Vol. 168). (See Chapter Four for a discussion of the attitude of such educated persons towards manual work).

99 Since for the 1956-66 period we have assumed university education for high-level, and secondary school education for middle-level, occupations, as indicated in wage and salary studies of the National Iranian Oil Company (cited in Chapter Four, q.v.) Of course, many older persons have lower qualifications, since they were hired when educational requirements were lower. (Thus in 1966 only 68.2 per cent of persons employed in non-manual occupations in the urban areas had some secondary or university education. Source cited in footnote 98). Illiterates may be considered to constitute a supply to unskilled occupations primarily, while those persons with primary school education may be regarded as a supply to semi-skilled and skilled manual occupations.

TABLE 19

HIGHEST LEVEL OF EDUCATION COMPLETED OF MALE POPULATION AGED 20-64 YEARS, 1956 AND 1966

URBAN AREAS (1956 BASIS)

EDUCATIONAL LEVEL COMPLETED	November 1956		November 1966		Change 1956-1966	
	Number[a/]	Pct.	Number	Pct.	Number	Pct. Change
Illiterate	845,311	57.5	927,493	44.4	+ 82,182	+ 9.7
Read only	41,908	2.9	56,353	2.7	+ 14,445	+ 34.5
Literate, but no formal education or level not reported	152,397	10.4	199,766	9.6	+ 47,369	+ 31.1
Primary school, 1-3 yrs.	31,390	2.1	58,418	2.8	+ 27,028	+ 86.1
Primary school, 4-5 yrs.	71,454	4.9	118,765	5.7	+ 47,311	+ 66.2
Primary school, 6 years	154,946	10.5	319,377	15.3	+ 164,431	+ 106.1
Secondary school, 1-3 yrs	66,690	4.5	134,702	6.4	+ 68,012	+ 102.0
Secondary school, 4-5 yrs	42,211	2.9	53,729	2.6	+ 11,518	+ 27.3
Secondary school, 6 years	29,977	2.0	131,181	6.3	+ 101,204	+ 337.6
Attended university	27,890	1.9	84,276	4.0	+ 56,386	+ 202.2
Literacy Not Reported	5,777	0.4	4,441	0.2	- 1,336	-
Total	1,469,951	100.0	2,088,501	100.0	+ 618,550	+ 42.1

a/ Includes "age not reported".

Source: As compiled from figures of Table 7, p.46 and Table 9, p.82 of November 1956 Census, Vol.II, and Table 6, p.17 and Table 7, p.20 of November 1966 Census, Vol.168 (after adjusting to 1956-basis urban areas).

the failure of most high school graduates to gain admission to the universities,[100] to which virtually all aspire.[101]

The relatively great increases in economically-active males with university studies implies an equally large increase in the supply of such males seeking high-level manpower positions, for which such education is the qualification. Similarly, the supply of manpower to middle-level occupations has also been greatly increased with the flow into the labour market of the considerable numbers of drop-outs and graduates from secondary school failing to gain admission to universities (as suggested by Table 19).[102]

The supply of male labour to manual jobs -- as reflected in the increases of males of below secondary school (or no) education -- has also been considerable. Such increases certainly derive mainly from the high level of rural-to-urban migration of active males during the review period, since few rural immigrants can have benefited from secondary school or university education.[103] The fact that the rate of increase of illiterates, read only, and no formal schooling males has been relatively low (as indicated by Table 19) implies that most immigrants have achieved some level of formal schooling before migrating. Nevertheless, regardless of their educational achievement (unless at secondary school level), most immigrants constitute a supply to unskilled positions only,[104] in light of the absence of rural skill-training programs at primary school level and their lack of work experience in other than unskilled positions.

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100 As publicized by Iranian newspapers each year after university entrance examination results have been announced.

101 See Chapter Four, subsection I.B.2.

102 Most secondary school graduates entering the labour force are reluctant additions to the stock of middle-level manpower, however, having failed in their aspirations to enter university (and thus qualify for high-level manpower positions). (See Chapter Four).

103 The exceptions are rural youth attending secondary schools outside of their villages who remained in the cities following termination of their studies.

104 Though following short on-the-job training in factories, many qualify as semi-skilled workers.

Table 20 below indicates the highest level of education completed of the actual labour supply (by sex) as at November 1966 for the 1966-basis[105] urban population. Although no comparison with the 1956 situation (for which such figures do not exist) is possible, this table does afford an insight into the relative size of the urban labour supply by different educational levels at our terminal date.

The relative size of the supply of labour in each occupation group is shown in Table 21 for the 1966-basis urban population (by sex) at November 1966. The relative insignificance of non-manual occupations in the total urban labour supply is striking: high- and middle-level manpower (comprising the first three occupational groups of the table) represented only 12.2 per cent and 19.5 per cent of the total supply of economically-active males and females, respectively, at that date.[106]

B. SUPPLY OF LABOUR TO DEMAND SECTORS

In this subsection, an attempt will be made to quantify the size of, and change in, the supply of labour to various sectors of the urban economy as characterized by the origin of the demand for labour. In this connection, we shall distinguish as between the demand for labour by the community as a whole and resulting in self-employment of the workforce and that by individual employers and resulting in wage (and salary) employment. Employer demand for labour will be further distinguished as between a modern sector (and its private and Government components) and a traditional sector of employers. The supply of labour in particular occupations to each demand sector will not be analyzed, except in those instances of relevance in understanding the characteristics of the supply to the demand sectors.

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105 Adjustment to 1956-basis not possible.

106 Assuming no persons working unwillingly in an occupation other than the one for which qualified.

TABLE 20

EDUCATIONAL LEVEL OF URBAN (1966 BASIS) LABOUR SUPPLY BY SEX

NOVEMBER 1966.

Highest Educational Level Completed	Males		Females	
	Number	Pct.	Number	Pct.
Illiterate	1,146,731	46.8	214,989	67.4
Read Only	63,767	2.6	4,824	1.5
Literate, but no schooling	199,898	8.2	3,553	1.1
Literate, but level not reported	10,995	0.4	1,254	0.4
Primary school, 1-3 years	90,788	3.7	6,486	2.0
" " 4-5 years	166,210	6.8	6,338	2.0
" " 6 years	400,070	16.3	17,861	5.6
Secondary school, 1-3 years	142,867	5.8	13,754	4.3
" school, 4-5 years	35,044	1.4	4,899	1.5
" school, 6 years	126,274	5.2	35,650	11.2
Attended university	64,265	2.6	8,782	2.8
Literacy not reported	2,389	0.1	673	0.2
TOTAL	2,449,298	100.0[a/]	319,063	100.0

a/ Does not equal components due to rounding.

Source: As compiled from November 1966 Census, Vol. 168, Table 17, p. 48 and Table 28, p. 170.

TABLE 21

OCCUPATIONAL GROUPS OF URBAN (1966 BASIS) LABOUR SUPPLY BY SEX

NOVEMBER 1966

OCCUPATIONAL GROUP	Males		Females	
	Number	Pct.	Number	Pct.
Professional, technical, etc.	115,422	4.7	48,563	15.2
Administrative and Managerial	10,820	0.4	376	0.1
Clerical and related	174,278	7.1	13,535	4.2
Sales	376,878	15.4	3,804	1.2
Service	258,960	10.6	85,958	26.9
Agricultural, etc.	204,728	8.4	9,852	3.1
Production and crafts, etc.	1,029,909	42.0	139,000	43.6
Not classified by occupation	243,716	10.0	12,486	3.9
New workers	34,587	1.4	5,489	1.7
TOTAL	2,449,298	100.0	319,063	100.0[a]

a/ Does not equal components due to rounding.

Source: As compiled from November 1966 Census, Vol.168, Table 19, p.54 and Table 29, p.171.

1. The Supply of Labour to Non-Wage Employment

To the extent that it acts in response to purely economic considerations, the supply of labour to the non-wage sector (comprising self-employment [including that of employers][107] and unpaid family work) of Iran's urban labour market derives from those economically-active persons who perceive greater economic advantages in this sector in their particular occupations (and skills) than in wage employment, and who have the requisite amount of capital to set themselves up in business.[108] In addition to this source of supply, however, there exist two other sources of effective supply, comprised of (a) those persons who prefer non-wage employment for non-economic reasons[109] in spite of lower earnings in that sector,[110] and (b) those persons who have been rejected for wage employment and who for lack of an alternative means of earnings an income are forced to take up self-employment[111] -- mainly in petty services, often outside of any fixed working place and requiring little capital investment -- regardless of the earnings derived. This "forced" supply of labour to self-employment is a not-unimportant part of the total supply of labour to the manual worker occupations of the urban non-wage sector in Iran. (See Chapter Five). To the extent that such persons still seek wage employment, they constitute at once an effective supply to the non-wage sector and a potential supply to wage employment.

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107 Who are, of course, self-employed persons who have hired one or more workers in carrying out their activities.

108 The amount of capital required to enter self-employment will vary from occupation to occupation, from the nominal sum needed for street peddling to the large amount required by professional persons (such as physicians) to equip their offices.

109 Including freedom from fixed hours of work and supervision. Most Iranian shopkeepers are self-employed reportedly because of the independence it gives them. ("Retail Trade", Kayhan International, February 29, 1964). Ministry of Economy officials indicated in conversations with the present writer in 1967 that many self-employed artisans refuse to work in factories despite higer earnings possibilities.

110 Part of which includes return on their capital investment, of course.

111 Except those persons of rural origin "pulled" to the cities who have option of returning to their villages to their former occupations.

If we assume that all those persons who sought entry to the non-wage sector -- reluctantly or not -- succeeded in their endeavour,[112] then it can be calculated that the aggregate supply of non-wage labour increased by 29 per cent between 1956 and 1966 in the urban areas.[113] It is not possible, however, to determine what part of this increase preferred such employment and what part was forced into it by the pressure of need for income following rejection for wage employment.[114]

2. The Supply of Labour to Wage Employment

The supply of labour in the urban areas of Iran seeking wage (or salary) employment from individual employers -- to the extent that it is responding to economic incentives -- is comprised of those persons in the urban labour force who perceive higher income from such employment in their particular occupations than from self-employment. These persons include those who are currently voluntarily employed in wage employment, those who are openly unemployed and (actively or inactively) seeking such employment, and those who are in forced self-employment but who are seeking to transfer out of it and would do so should job offers be made them.

The wage rate at which job-applicants have made themselves available during the 1956-66 period in the urban labour market has varied greatly and depended on many considerations, including the person's age and sex, dependency status, financial strength of his family (if a dependent), skill

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112 Since with few exceptions there is freedom of entry into self-employment. (See Chapter Four).

113 See Table 40. Due to poor recording by the 1956 census, this figure is understated to some extent.

114 For an estimate of the incidence of total "forced" self-employment, see Chapter Five.

and education and occupation, alternative earnings possibilities in urban self-employment, and, in the case of immigrants from the rural areas, alternative earnings possibilities in their native villages. As noted in subsection A above, manual workers appear ready to accept a below (individual worker) subsistence wage in the absence of higher earnings possibilities.

During the review period, the aggregate supply of labour seeking wage employment in the urban areas of Iran has been very great, although impossible to quantify.[115] There has clearly been a supply of manual labour available to employers at below (individual worker) subsistence wage rates.[116]

a. The Modern Sector of Employers

The supply of labour to the modern sector of wage employment (arbitrarily defined here as those employers hiring 10 or more workers each in their units -- see Chapter Three) is comprised of those economically-active persons who prefer such employment to that of the traditional sector of wage employment (see below) or in self-employment, based on considerations of relative financial reward or level of prestige. In light of the considerably higher wages and benefits paid by modern sector employers in all

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115 An estimate of the size of this supply at 1966 is made in Chapter Four, however, q.v.

116 In April 1962, 16.7 per cent of all employees of establishments in Tehran city were earning less than 43 rials a day, an amount clearly lower than their minimum (individual) physical subsistence requirements (see footnote 94). See Ministry of Labour and Social Services, General Department of Manpower Studies and Statistics, Statistics of Establishments and Engaged Persons in Tehran City in Farvardin 1341 /in Farsi/ (Tehran: no date), Table 2-21,p.69.

Similarly, in the first quarter of 1964, unskilled operatives in small establishments (9 employees or less) in the urban areas were earning an average daily wage of only 19.5 rials a day. (As calculated from Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Statistics of Establishments and Engaged Persons of the Country: Fourth Quarter of 1342 /in Farsi/ /Tehran: no date/, Table 5-3, p.12.

occupations than in the traditional wage sector (see Chapter Four) and in most occupations than in self-employment,[117] as well as the relatively higher prestige associated with modern sector employment, the potential supply of labour to the modern sector has been very great, comprised of most of the unemployed and the new entries into the urban labour market, as well as considerable percentages of those persons in "forced" self-employment and in low wage traditional sector employment.[118]

x i. Government Employment

xFor numerous economic and social reasons, virtually all economically-active persons, regardless of occupation, skill, sex, or level of education, give top preference to employment in the Government component of modern sector employment, from the illiterate peasant seeking a tea boy job to the university graduate aspiring to an administrative position.[119] The economic advantages of such Government employment include (a) higher

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117 With the probable exceptions of physicians and some other categories of professional manpower.

118 See Chapter Four for an estimate of the total supply of labour to the modern sector of wage employment at 1964.

119 It has been observed that "Among the lower classes, there seems to be a ... preference for getting on the regular Government payroll". (Leonard Binder, Iran: Political Development in a Changing Society /Berkeley: University of California Press, 1962/, p.134) Similarly, "anyone who has finished the first half of the secondary school program looks primarily to the government for a job" (Ibid). An Iranian economist claims that" ... by far the largest percentage of those who have gone to schools expect to sit behind desks in some Government office" (Heshmat Ala'i, "Civil Servants", Kayhan International, July 5, 1964, p.4). An American advisor has held that the demand for Government positions for the educated is particularly great. (Gable, op.cit., p.29). In 1963 the Minister of Education complained that secondary and university education has been thought of by students only as training for Government employment. (Kayhan International, February 18,1963).

wages and salaries in most occupations than found elsewhere, (b) retirement benefits,[120] (c) security of employment,[121] (d) a wide range of fringe benefits, [122] (e) the fewest number of workdays (due to numerous public holidays), (f) shorter (and more convenient) working hours,[123] (g) generous annual and sick leave benefits, and (h) in many cases, fixed payment of overtime work, even if not performed.[124] From the socio-political standpoint, "Government positions are held in the highest esteem by the community ... they are prestigious, powerful, and relatively easy" and provide "valuable political connections."[125] As a consequence of this situation, the supply of labour (including potential) to Government employment has been enormous, probably constituting at one time or another most of the ~~entire~~ urban work force.

ii. Private Employment

In most instances, the supply of labour to the private modern sector has consisted of persons who preferred work with the Government (because of the greater social and economic advantages), but turned to private employers as second best choice as a consequence of the inadequate number

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120 An important advantage, since the retirement plans of private enterprises are "rudimentary on non-existent". (Heshmat Ala'i, "Civil Servants", loc.cit.)

121 When recruited, a Government civil servant becomes a permanent public charge, providing a "virtual life-time security", since he cannot be sacked, unless convicted by a court of a crime. (See Jahangir Amuzegar, "Administrative Barriers to Economic Development in Iran", Middle East Economic Papers 1958, p.9). Such job security is cited by another observer as "the main point in favour of becoming a Government employee". (Heshmat Ala'i, "Job Security", Kayhan International, August 17, 1965, p.4).

122 Such as free health services, co-operative stores, and cheap land, (Alfred Bakhash, "The Bureaucrats", Kayhan International, June 6, 1963, p.4).

123 Allowing a Government employee to hold another (part-time) job after office hours.

124 "Public Service gets the Best Brains", Kayhan International, January 11,1966

125 Amuzegar, op.cit., p.14. See also Gable, op.cit.,p.30. A considerable number of persons with other sources of income seek employment with the Government"... largely to protect their own wealth and if possible augment it". ("Budget Problem-1", Kayhan International, June 5, 1962, p.2).

of job opportunities of the Government.[126] The effective supply of labour to the private modern sector during the review period has been very great (though impossible to quantify), deriving from the large numbers of persons rejected for Government employment who shun the low-wage traditional sector and non-wage employment because of their poorer financial and social advantages as compared to those of the private modern sector. These persons have been at the same time, however, a latent supply of labour to the Government employer, since they would shift out of the private sector should job-opportunities develop in Government service for them.[127]

b. The Traditional Sector of Employers

The effective supply of labour to the traditional sector of wage employment (comprised of employees in establishments of less than 10 workers each and of non-establishment employees -- see Chapter Three) derives from two sources: (1) those persons who, despite the much lower wages (and prestige) in such employment than in modern sector employment (see Chapter Four) prefer (or are immobile in) such employment because of non-economic and -prestige considerations, such as those based on personal relations between traditional sector worker and employer,[128] and (2) those persons unable to gain employment in the modern sector who (reluctantly)

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126 In some occupations in which the pay has been higher with private modern sector employers than with the Government (particularly in the professions, such as for engineers and teachers), job-seekers qualified in these fields have often preferred private modern sector to Government employment.

127 Such inter-employer movement occurred frequently during the review period as the number of Government positions expanded.

128 In Asian countries "Smaller establishments ... often exhibit pre-industrial features, e.g. ... labour relations entrenched in custom, kinship ties, etc." (See Kailas C. Doctor and Hans Gallis, "Modern Sector Employment in Asian Countries: Some Empirical Estimates", International Labour Review, Vol.90, No.6, December 1964, p.548.

seek (and remain) in this sector[129] in preference to (or due to an inability to take up) self-employment (if earnings levels are higher there) or, if immigrants, returning to their native villages, if possible. This second category of effective supply to the traditional sector of wage employment, of course, also constitutes at the same time a latent supply to modern sector employers, from whom it would accept employment if offered.

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129 A good example of this situation is that prevailing in the handloom industry of Iran, whose workforce is willing to accept the very low wages paid there because of the absence of more profitable employment opportunities in the modern sector of industry. See Kazem Sherkat, "A Nation-wide Survey of Cotton-Synthetic Textile Industry in Iran" (Unpublished-Roneo) (Tehran: Industrial and Mining Development Bank of Iran, July 28, 1963), p.62.

CHAPTER THREE

THE DEMAND FOR LABOUR

This chapter will examine the demand for labour in the urban areas of Iran from several standpoints, including at the aggregate level, by industrial activity, for occupation (and skill) groups, and by nature of employer. For each of these approaches, quantitative levels and rates of change in demand will be indicated, and the major factors influencing such demand levels and changes discussed. Throughout the analysis, a "modern" and a "traditional" sector of labour demand will be distinguished and, where possible, estimates made of the size of and change in labour demand in each.

I. AGGREGATE DEMAND FOR LABOUR

The aggregate demand for labour is comprised of the manpower requirements for current production of goods and services by (a) specific employers and (b) the community at large (for self-employed persons) at the earnings rates for the various occupations and skills of such labour prevailing in the labour market. It corresponds at any moment in time to the total of persons employed plus the unfilled demand of employers (vacancies). Over a period of time, new labour demand arises from the replacement needs of employers deriving from workers separating (through death, retirement, or migration) plus the (net) new labour needs stemming from (net) expansion of operations as occasioned by increased demand for goods and services.

A. NATION-WIDE LEVEL OF LABOUR DEMAND

Because of the absence of any figures on the number of vacancies existing as at 1956 and at 1966, it is not possible to quantify exactly the change in the aggregate demand for labour in Iran during

the review period. However, since the percentage of unfilled demand in total demand is very small at any time,[1] we may regard the change in the number of persons employed as a good indication of the change in labour demand[2]. On this basis, we can say that aggregate demand for labour throughout Iran increased by 26.7 per cent between 1956 and 1966. (See Table 22).

The principal factors determining the generation of such labour demand may be identified as (1) the volume, nature and direction of investment, (2) the degree of capital-intensity of this investment, (3) the level of demand for Iranian-made goods and services, and (4) the rate of change in productivity of labour. Each of these determinants will be treated very briefly below as they affected aggregate demand for labour.

Despite a recession in the Iranian economy during the years 1961-64, which adversely affected capital formation during this period, the level of aggregate investment was relatively high during most of the review period in terms of its share of gross national product. For the seven-year period 1338-1345 (1959-66) for which relatively reliable figures are available, gross domestic fixed capital formation averaged 17.3 per cent of gross national product. (See Appendix Table 33). Investment by the public sector was an important component of total investment, constituting 36.2 per cent

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[1] In 1958, only 1.9 per cent of the total demand for labour by specific employers in establishments represented unfilled demand (or 26,451 vacancies in a total demand of 1,397,053 workers). See Ministry of Labor and Plan Organization, National Manpower Resources and Requirements Survey: Iran 1958 (Tehran: Governmental Affairs Institute, July 1959), Table 1, p.1.

[2] Ignoring the fact that some of the increase in wage employment was "surplus" and that much self-employment increase represented more the pressure of poor job-seekers to take up some income-generating activity than any real increase in demand by the community for the goods and services of such self-employed persons. (See Section IV).

of gross domestic fixed capital formation during this period.[3]

However, over two-thirds of total (public plus private) gross domestic fixed capital formation during the 1338-1345 period was in construction (as noted in Appendix Table 33), most of which had relatively little employment-generating effect except in the creation of considerable levels of temporary work (or "revolving" employment) during the construction phase. Private construction investment was concentrated in erection of residential buildings,[4] involving no new permanent employment, while public construction investment was mainly in infrastructure projects (dams, roads, airports etc.) resulting in little new permanent work opportunities (or "sedimented" employment)[5] deriving from operation of the assets following termination of their construction.[6] Furthermore, much of the Government's

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[3] Or 172.3 billion rials of the total of 475.5 billion rials of fixed capital formation. (See Appendix Table 33). Such a significant amount of public investment was made possible by the high and steadily-rising level of oil revenues accruing to the Government during these years. Such oil revenues were the major factor accounting for Iran's economic growth during the review period, providing three-fourths of Iran's foreign exchange requirements for import of capital goods, raw materials and consumer goods, as well as the funds for financing over two-thirds of total Government development expenditures and one-fourth of administrative budget outlays. See William H. Bartsch, "The Impact of the Oil Industry on the Economy of Iran", in Raymond F. Mikesell (ed.), Foreign Investment in the Petroleum and Mineral Industries: Case Studies on Investor-Host Country Relations (Baltimore: Johns Hopkins University Press, forthcoming).

[4] For instance, in the years 1344 and 1345, 88.7 and 82.1 per cent, respectively, of the total value (excluding cost of land) of private construction in urban areas represented erection of residential or residential/business buildings. See "Privately-Owned Construction Activity in Urban Areas of Iran: Fourth Quarter and Annual Report 1345", Bank Markazi Iran Bulletin, Vol. 6, No. 33, September-October 1967, p.358.

[5] "Revolving" and "Sedimented" employment are the terms used by K. N. Raj. See his Employment Aspects of Planning in Underdeveloped Economies (Cairo: National Bank of Egypt, 1957), p.19.

[6] The employment-generation aspects of public investment are discussed in Chapter Six, q.v.

development expenditures in its projects was wasteful,[7] resulting in a lower level of employment generated per unit of capital than would otherwise have been the case.[8]

Although no data to substantiate this conclusion are available,[9] there are indications that investment during the review period was more capital-intensive than in previous years. With the public investment component constituting an important part of total fixed capital formation and more concentrated in sectors of relatively high capital-intensity than before,[10] the direction of aggregate (public plus private) capital formation was shifted more towards sectors of higher capital/employment ratios. At the project level, private modern sector investment tended to be more capital-intensive than before (see subsection B below), raising average capital/employment ratios in individual industrial activities too. In view

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7 The Iranian predilection for "conspicuous construction" ("show" projects) and other "spectacular but economically-useless projects" involving wasteful use of public funds has been observed by Norman Jacobs in his The Sociology of Development: Iran as an Asian Case Study (New York: Praeger, 1966), pp. 74-78.

8 Iran's case would appear typical of developing countries, which a noted development economist maintains "waste capital in a big way", resulting in a lower level of new employment generated than anticipated. See W. Arthur Lewis, "Unemployment in Developing Countries", The World Today, January 1967, p.18.

9 No figures of the value of capital stock are available to allow compilation of average capital/employment ratios at 1956 and 1966 and observation of changes in such ratios.

10 Public investment during the Second and Third Development Plans (1955-68) was concentrated in infrastructure (see Chapter Six), whereas in earlier periods the Government had favoured direct investment in types of projects of a more directly-productive (and employment-generating) nature, such as in factories. (For an analysis of the direction of investment in Iran during the period 1900-1966, see Julian Bharier, "Capital Formation in Iran, 1900-1966", Unpublished Ph.D. dissertation, University of London, 1969).

of the heavy weight of modern sector investment in total fixed capital formation,[11] and assuming no shifts in choice of technique towards greater labour intensity in the traditional sector, it would appear that the average capital intensity of aggregate investment rose during the review period.

The demand for labour was stimulated by the high rate of increase of aggregate demand for Iranian-made goods and services between 1956 and 1966. As an indication of this growth, expenditure on gross national product increased (at constant prices) at an average annual compound rate of 6.7 per cent between 1959 and 1966, despite the slowing effect of the recession of 1961-64. (See Appendix Table 33).

The productivity of labour was raised throughout the economy over the 1956-66 years; such increases had a restrictive effect on the growth of labour demand during this period. As against the average annual compound rate of increase in GNP of 6.7 per cent noted above, aggregate employment grew by only an average compound 2.4 per cent a year between 1956 and 1966.[12] Such productivity increases were concentrated in the modern (mainly urban) sector of the economy. (See below).

B. LABOUR DEMAND IN THE URBAN AREAS

Although data detailing urban/rural divisions of capital formation and production are not available, indications are that the increases in investment and in demand were concentrated in the urban

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[11] Though not possible to quantify because of the absence of any breakdown of total investment by characteristics of investor.

[12] As indicated by the rate of increase of 26.7 per cent noted in Table 22 below.

areas of Iran and for urban-made goods and services. With the imminence of land reform felt during the 1956-61 years and following the acquisition of land by small cultivators during the 1962-66 period, new private investment in agriculture is believed to have been very low,[13] while public fixed capital formation in rural areas was considerably less than in the towns and cities, where large sums were expended on urban development projects. (See Chapter Six). Private investment was centered in the urban areas, particularly in manufacturing, commerce, transport, housing construction, and services. Similarly, non-agricultural GNP - which may roughly be regarded as the output of urban productive units - increased by an average compound rate (at constant prices) of 8.7 per cent a year,[14] compared to only 2.8 per cent for agriculture (basically representing the output of the rural areas).[15] As a consequence of this concentration of new investment and production increase (indicative of demand increase) in Iran's towns and cities, it is not surprising that the rate of increase in the demand for labour should have been considerably higher in the urban than in the rural areas between 1956 and 1966 (as indicated in Table 22 below).

The increase in urban employment indicated in Table 22 was,

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13 During the pre-land reform period (1955-61), net investment in agriculture was "probably negative", according to Henry J. Bruton. See his "Notes on Development in Iran", Economic Development and Cultural Change, Vol. IX, No. 4, Part 1, July 1961, p. 630.

14 Or from 191.0 billion rials in 1338 (1959-60) to 343.9 billion rials in 1345 (1966-67), at constant 1338 prices. Figures derived from Bank Markazi Iran, Economic Research Department, National Income of Iran 1338-1344 (1959-1965) (Tehran: 1968), Table 29, p. 79, and Bank Markazi Iran, Annual Report and Balance Sheet as at 20 March 1968 (Tehran: no date), Table 25, p.82.

15 Or from 87.3 billion rials in 1338 to 105.8 billion rials in 1345. (Same source as cited for footnote 14).

TABLE 22

IRANIAN EMPLOYED POPULATION BY URBAN/RURAL DIVISIONS

1956 - 1966

Division[a]	Number Employed in		Net Change, 1956-66	
	November 1956	November 1966	Number	Pct. Change
Urban	1,807,325	2,465,974[b]	+658,649	+36.4
Rural	4,100,341	5,019,030[c]	+918,689	+22.4
All Iran	5,907,666	7,485,004	+1,577,338	+26.7

a/ 1956 basis (i.e. population of 186 urban places of 1956 treated as urban and balance of population as rural).

b/ Does not include 9,043 seasonally-unemployed in agriculture.

c/ Estimate, based on application of employment rate for rural settled population (30.5 per cent) to total rural population (including unsettled).

Source: 1956 Census, Vol. II, Table 17, p.207; 1966 Census, Vol. 168, Table 1, pp.1-2 and Table 12, pp.35-36 (adjusted to 1956 basis of urban/rural divisions), and Plan Organization, Iranian Statistical Centre, Preliminary Report of the Population of Iran of the National Census of Aban 1345 (in Farsi) (Tehran: Dei 1345), Table 2 (for unsettled population).

however, substantially lower than would have been the case if labour productivity in the urban areas had not increased as greatly as it did and thus restricted the expansion in such labour demand. The increase in productivity is readily apparent from a comparison of the average annual compound rate of growth in non-agricultural GNP of 8.7 per cent noted above with the average annual compound rate of increase in urban employment of 3.2 per cent.[16] Such productivity increase was not only due to the increased capital intensity of non-agricultural investment,[17] but also to the improved quality of the urban workforce believed to have occurred over this period (stemming from better training and physical capacity for work than in earlier periods) and considerable "disembodied labour-saving technical change"[18] (deriving from improved work organization, supervision, and management) in the modern sector units of the urban economy.[19]

II. DEMAND FOR LABOUR BY INDUSTRIAL ACTIVITY

Between 1956 and 1966, significant changes occurred in the demand for labour within individual industrial activities. As in the case of aggregate demand, these changes may be attributed to

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16 As indicated by a rate of increase of 36.4 per cent over the 1956-66 period. (SeeTable 22).

17 At least in the case of the important manufacturing sector as indicated by managers of 23 factories visited by the writer during 1966-67. Most managers reported substituting labour-saving machinery and equipment on a large scale in their units during the review period. (See Section II below).

18 The term is that of C. R. Frank, Jr. See his "Urban Employment and Economic Growth in Africa", Oxford Economic Papers, Vol. 20, No. 2, July 1968, p. 257.

19 The modern sector (both public and private) introduced rationalization schemes in all lines of activity - but most obviously in manufacturing - involving a reduced level of labour demand per unit of output with no change in the level of capital investment. (See Section II below).

certain factors which heavily influence labour demand, mainly the volume and nature of investment, its capital-intensity, the level of demand for goods and services of each industrial activity, and changes in productivity. Although data on none of these key determinants of labour demand are available, some general observations can be made regarding their characteristics.

Table 23 illustrates the magnitude of shifts in the sectoral distribution of the employed workforce in the urban areas between 1956 and 1966. As might be expected, there has been an absolute decline in the numbers employed in agriculture, as many self-employed and daily-wage labourers have left low-productivity agricultural work performed in the outlying areas of towns and cities to meet an increased demand for labour in non-agricultural activities in the urban areas. Labour demand has increased most rapidly in the electricity-gas-water-sanitary services activity, but in terms of additional numbers employed, expansion has been concentrated in manufacturing, services, commerce, and construction.

Figures of change in numbers employed and rates of employment change in each industrial activity (Table 23) provide little insight into the dynamics of change in labour demand within these activities, however, since they are not broken down according to scale of operations.[⊙] As in other developing countries, each industrial activity in the urban areas of Iran is characterized by a strong technological dualism, with a relatively small modern sector of larger units of relatively high productivity, capital-intensity, and wage payment existing side-by-side with a large traditional sector of small units of low productivity, low wages, and high labour intensity. During the review period, considerable transformation took place in many industrial activities, as their modern sectors have expanded, often in competition with and at the expense

TABLE 23

EMPLOYED URBAN (1956 BASIS) POPULATION BY INDUSTRIAL ACTIVITY

1956 - 1966

Industrial Activity	November 1956		November 1966		Net Change, 1956-66	
	Number	Pct.	Number	Pct.	Number	Pct. Change
Agriculture	217,927	12.6	159,670[a]	6.6	- 58,257	- 26.7
Mining and Quarrying	9,698	0.6	7,535	0.3	- 2,163	- 22.3
Manufacturing	473,572	27.4	691,964	28.8	+218,392	+ 46.1
Construction	178,266	10.3	250,150	10.4	+ 71,884	+ 40.3
Electricity, Gas, Water and Sanitary Services	8,847	0.5	45,724	1.9	+ 36,877	+416.8
Commerce	262,669	15.2	401,698	16.7	+139,029	+ 52.9
Transport, Storage, and Communications	146,413	8.5	162,554	6.8	+ 16,141	+ 11.0
Services	429,429[b]	24.9	686,937	28.5	+257,508	+ 60.0
Total of Reported Activities	1,726,821	100.0	2,406,232	100.0	+679,411	-
Activities Not Adequately Described	80,504	-	59,742	-	- 20,762	-
Total, All Activities	1,807,325	-	2,465,974	-	+658,649	+ 36.4

a/ Does not include 9,043 seasonally-unemployed.

b/ Excludes estimated 75,000 conscripts (included under previous industrial activity above)

Source: 1956 Census, Vol.II, Table 25, p.343 and 1966 Census, Vol.168, Table 21, p.60 (as adjusted to include 186 urban places of 1956 only).

of their traditional sectors, creating new labour demand in the former and destroying existing demand in the latter.

Employment trends and transformations in manufacturing industry have probably been more significant than in any other industrial activity. Since the end of World War II Iranian manufacturing industry has been undergoing a rapid structural change from primarily labour-intensive artisanat production to semi-automatic and automatic machinery techniques of production, jumping over the intermediate stage of universal machines.[20] Iranian industrialization has been a mixture of (a) introduction of manufacture of new consumer and capital goods of a type not previously produced in Iran, and (b) the replacement of artisanat production of consumer goods by machine production.[21] While the former type of manufacturing has had a beneficial effect on labour demand in manufacturing,[22] the latter had a deleterious effect. Production of (and demand for) machine-made types of goods previously turned out by small workshops has cut deeply into the market of artisanat producers of such items and resulted in the closure of many workshops and diminished production in others,[23] occasioning reduced demand for labour. During the

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20 As noted by Ehsan Naraghi, "Problemes Sociaux de l'Industrialisation dans un Pays du Tiers Monde", Civilisations, Vol. XV, No. 4, 1965, p. 506.

21 See, for instance, Heshmat Ala'i, "Mechanization", Kayhan International, August 18, 1965, p.4, and "Industrial Survey (3)", Kayhan International, August 23, 1965, p. 4, and Gregory Lima, "The Artisan", Kayhan International, June 27, 1967, p. 4.

22 Though not as favourable as it might have had, in view of the choice of labour-saving technology in most instances. (See below).

23 The Ministry of Economy indicates that between 1342 (1963-64) and 1345 (1966-67) the output of small manufacturing units (less than 10 workers each) of the urban areas (in current prices) declined by 13.0 per cent. See Ministry of Economy, General Department of Industrial and Mining Statistics, Report on the Results of Annual Industrial Survey of Iran: 1963 (1342) (Tehran: January 1966), page c., and Ministry of Economy, Bureau of Statistics, Report on the Results of Annual Industrial Survey in 1966 (1345) (Tehran: no date), Table 1, p. 1.

review period, factory production has practically eliminated traditional producers of soap,[24] candles, pottery, wooden combs, locks, scissors,[25] milled flour and rice, and reduced greatly that of artisanat producers of shoes,[26] handloom textiles, leather, pots and pans, furniture, glassware,[27] cooking fat, biscuits and candies, and many other goods.

Home workshops have traditionally accounted for an important part of total artisanat manufacture of many consumer goods in Iran. An indication of their decline in the urban areas is provided by Table 24, which shows changes in the number of homeworkshops by type of goods produced. Except in the (important) case of carpet-weaving units - whose numbers increased due to the unique position of carpets in traditional sector production[28] - the number of home workshops declined sharply, faced with lowered demand for their output deriving from competition with mass-produced, cheaper factory production of

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[24] Severe competition from factories established in the 1949-54 years wiped out about two-thirds of the production of hand-made soap workshops which previously had accounted for total soap consumption. See Plan Organization, "Report on the Soap, Detergent, and Candle Industry" (in Farsi) (Unpublished-Roneo) (Tehran: no date), p. 7.

[25] Items cited in Lima, "The Artisan", loc. cit.

[26] The Shoemakers' Guild in 1966 claimed that it was facing bankruptcy because of the drop in demand for hand-made shoes occasioned by the competition from factory-made shoes, and warned of the danger of closure of 4,500 shoemaking shops employing almost 75,000 workers. (Tehran Journal, November 27, 1966). The traditional producer market has been weakened by the opening of numerous sales outlets throughout the country by shoe factories and the lower prices charged by these outlets. (Kayhan International), June 20, 1968).

[27] Items noted by Ala'i, "Industrial Survey (3)", loc. cit., and Plan Organization, "Report on the Leather Industry (in Farsi) (Unpublished-Roneo) (Tehran: no date), p.1.

[28] Carpet-weavers face no competition from factory producers (all hand production), enjoy a strong demand for their product as an art item from Iranian and foreign buyers, and require little capital investment to set up a workshop.

TABLE 24

HOME WORKSHOPS IN URBAN (1956 BASIS) AREAS BY TYPE OF MANUFACTURING ACTIVITY

1956 - 1966

Manufacturing Activity	November 1956		November 1966[a]		Net Change, 1956-66	
	Number	Pct.	Number	Pct.	Number	Pct. Change
Weaving of carpets, gelims, zilus	32,497	33.1	42,521	56.9	+ 10,024	+ 30.8
Spinning, weaving and processing yarns	29,104	29.6	14,660	19.6	- 14,444	- 49.6
Sewing and knitting clothes, making canvas shoes	16,893	17.2	11,717	15.7	- 5,176	- 30.6
Cleaning cotton and rice, grinding grain	3,058	3.1	536	0.7	- 2,522	- 82.5
Preparing foodstuffs	3,486	3.5	3,430	4.6	- 56	- 1.6
Other (incl. extraction of inedible vegetable oils, making soap and candles)	13,216	13.5	1,891	2.5	- 11,325	- 85.7
Total	98,254	100.0	74,755	100.0	- 23,499	- 23.9

a/ Excludes Nadiv, Naft-e Sefid, and Khash, for which separate figures not available.

Source: As compiled from 1956 Census, Vol.II, Table 32, p.456, and from 1966 census, Vol.168, Table 46, p.178 (adjusted to 1956 basis urban areas).

similar items. If we assume 1.1 full-time workers per home workshop (see Table 25), we may estimate a decline of 39,000 persons in employment in non-carpet urban home workshops.

With the expansion of the modern sector of manufacturing, demand for labour in factories increased greatly (Table 25), although not commensurate with the even greater rise in the rate of factory output.[29] Many existing factories introduced modernization schemes involving replacement of hand- and semi-automatic operations with semi-automatic and automatic techniques,[30] as well as rationalization measures to utilize labour more effectively,[31] in each case resulting in lower demand for labour per unit of output than before.[32] Newly-established factories tended to incorporate the latest labour-saving technology of the West in their operations.[33] Furthermore, a considerable number of

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29 For instance, during the three-year period 1342-45, manufacturing units employing 10 or more workers (excluding the oil industry, but including electricity production) in the urban areas increased the value of their output (at current prices) by 86.7 per cent, whereas their employment rose by only 47.1 per cent. (Source cited in footnote 23).

30 Such schemes were commonplace in the factories visited by the writer during 1966-67. Mr. Malek of the Personnel Management Division of the Industrial Management Institute confirmed to the writer during a conversation of July 20, 1967 that factory management was pursuing such policies during the 1956-66 period.

31 Malek, loc. cit. George Fry and Associates (Chicago) case studies on Iranian industrial management also have indicated increases in such "disembodied labour-saving technical change" in many factories during the review period.

32 Most strikingly so in the case of the oil industry. (See section IV).

33 Noted, among others, by Hushang Mehr Ayin, "Iran's Industries Get Bigger Every Year", Kayhan International, June 9, 1968, p. 5, and by Ministry of Economy officials granting going-into-operation licenses. For instance, in the newest sugar factories, "modern techniques involving labour-saving machinery and automatic systems of process control have been introduced". ("Aim for Self-Sufficiency in Sugar", Financial Times, May 24, 1968, p.24). (Explanations given for increasing the capital-intensity of industry are treated in section IV below, q.v.)

factories failed during the 1956-66 years, resulting in discharge of their entire workforces, because of excessive competition deriving from irrational entry of new producers into already overcrowded lines of production,[34] mismanagement, and precarious financial position.

In Table 25 an estimate is made of the change in urban manufacturing employment by type of production unit between 1956 and 1966. The dynamic rate of employment expansion in the (non-oil) modern sector is well-illustrated by these figures, indicating a 2½-times increase in only ten years.[35] Traditional sector employment, though declining as a share of total manufacturing employment, was not reduced in numbers: a net 108,000 persons were added between 1956 and 1966, or virtually the same as additionally-employed in the modern sector. However, if we exclude the increase in carpet-weaving (63,000),[36] it is apparent that there was only a modest increase (45,000) in remaining traditional sector employment, with the increase in non-carpet artisanat workshop employment (84,000) greatly offset by the decline in that of non-carpet household industry (39,000).

The fact that the traditional sector did not decline in numbers employed, despite the sector's difficult competitive situation, may be attributed to a number of factors. In some lines of artisanat manufacturing, production has not been competitive with modern sector units (most notably in the case of carpet-weaving), while in other lines, many workshops have changed their form and nature in order to

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34 As noted by the series of Plan Organization reports on the condition of each line of manufacturing in 1964.

35 This increase is most likely over-stated, due to an under-reporting of factory employment in 1956. (See footnote 110).

36 Or from 47,000 in 1956 to an estimated 110,000 in 1966 (117,000 for the 1966-basis urban areas), according to census figures for each year.

TABLE 25

EMPLOYMENT IN MANUFACTURING INDUSTRY BY TYPE OF WORKPLACE

URBAN AREAS (1956 BASIS)

1956-1966

Type of Workplace	No. Employed in:		Net Change, 1956-66	
	November 1956	November 1966	Number Employed	Pct. Change
MODERN SECTOR[a]	109,000	219,000	+110,000	+100.9
(Oil Refining)	(39,000)	(34,000)	(-5,000)	(-12.8)
(Other)	(70,000)	(185,000)[b]	(+115,000)	(+164.3)
TRADITIONAL SECTOR[c]	365,000[d]	473,000	+108,000	+29.6
(Artisanat Units)	(249,000)[e]	(383,000)[e]	(+134,000)	(+53.8)
(Home Workshops)	(108,000)[f]	(82,000)[f]	(-26,000)	(-24.1)
(Outside Any Estab.)	(8,000)[g]	(8,000)[g]	(---)	(---)
TOTAL MANUFACTURING	474,000	692,000	+218,000	+46.0

a/ Comprised of all mechanized units employing 10 or more workers.

b/ Estimate, based on Ministry of Economy figure of 214,307 for 1345 (1966) for all units of 10 or more workers, minus 7,114 in power production, minus estimated 22,000 in unmechanized units of 10 or more workers (as estimated from 1341 figures of Ministry of Economy).

c/ Comprised of all unmechanized units and mechanized units employing less than 10 workers.

d/ Residual item (total manufacturing minus modern sector)

e/ Residual item.

f/ Estimate, assuming 1.1 workers per home workshop.

g/ Estimate (figure of 1964 Ministry of Labour survey).

SOURCE: 1956 and 1966 censuses (for oil refining and total employment - 1966 figures adjusted to 1956 urban areas basis as indicated in Table 23); Ministry of Industries and Mines, Bureau of Industrial Statistics, Industries and Mines Statistical Yearbook 1956-57 (Tehran: no date), pp. 76-79 (for 1956 "other" modern sector employment); Ministry of Economy, Bureau of Statistics, Report on the Results of Annual Industrial Survey in 1966 (1345) (Tehran: no date), Table 1, p. 1 (for "other" modern sector employment, 1966); Table 24 (for number of home workshops); and "Investigation of Manpower Problems in the Urban Areas of Iran" (in Farsi), in Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Investigations of Manpower Problems (in Farsi), Vol. III (Tehran: 1344), Table 3-24, p.2304.

perform functions subsidiary to those of factories.[37] In other instances, the loss of demand for their products has resulted in less work and income for artisan-owners (and in discharge of some of their wage employees), but not in actual closure of the workshops,[38] because the inadequacy of alternative job opportunities for owner-workers (as well as their unpaid family assistants),[39] particularly in the case of the great number of older artisans, forces them to remain in business despite a deteriorated demand and income situation.

In the urban construction industry, virtually all demand for labour has been for workers hired only temporarily by artisan entrepreneurs (me'mars) on various public and private construction projects contracted and subcontracted to them by individuals and construction firms.[40] Since few persons are employed directly by construction firms,[41] most employment in construction may be regarded as being in

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37 As noted in the case of Asian countries by B. F. Hoselitz, "Urbanisation and Economic Growth in Asia", Economic Development and Cultural Change, Vol. 6, No. 1, October, 1957, p. 48. Iranian examples are garages and the numerous repair shops for items previously manufactured (such as in the case of shoes).

38 As observed in developing countries by International Labour Office, Employment Objectives in Economic Development (Geneva: 1961), p.22.

39 Non-wage employment (employers, own account workers, and unpaid family workers) in urban artisanat workshops employing less than 10 workers in the year 1345 (1966) constituted 43.9 per cent of total number of persons engaged in such units. (As calculated from Ministry of Economy industrial survey of 1966 cited in Table 25 , Table 3, p. 3).

40 The employment structure of the construction industry is well-described by P. Vieille, "Ahwaz: Ecologie et Socio-Economie" (Unpublished-Roneo) (Tehran: University of Tehran, Institut d'Etudes et de Recherches Sociales, Juillet 1963), pp. AR-1 to AR-4.

41 Only an estimated six per cent of employment in urban construction activities in 1964 was in establishments. (See Table 27).

the "traditional" sector.[42] During the review period, the level of demand for construction workers has increased considerably throughout the urban areas as a consequence of the heavy investment in construction (noted in Section I) and little change in the traditional labour-intensive technique in building construction.

The rate of increase of employment in electricity-gas-water and sanitary services was higher than registered in any other industrial activity. This rapid expansion of employment was almost exclusively due to growth of labour demand in Government units, which accounted for about 32,000 of the (net) increase of 37,000 in this activity.[43] This Government demand increase derived from the requirements for manpower to operate the facilities created by heavy public investment in urban electrification and piped water systems occurring during the Second and Third Development Plans. (See Chapter Six).[44]

In the important (employment-wise) tertiary activities of commerce, transport-storage-communications, and services, substantial shifts in labour demand have occurred in both the modern and traditional sector. In banking, insurance, communications, and Government administrative and community services - all predominantly modern sector activities - employment has expanded greatly[45] in response to rising demand for such

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[42] Where nature (and size) of workplace by definition here is the criterion. (See Section IV).

[43] As is clear from a comparison of Tables 23 and 37.

[44] Urban employment between 1956 and 1966 in electricity and gas production grew from 4,316 to 8,168 and in water supply and sanitary services from 4,531 to 39,721, according to census figures. (Figures for 1966 are for 1966-basis urban areas and are thus about 5% higher than for 1956-basis urban areas).

[45] Modern sector employment in banking-insurance-real estate is estimated to have almost tripled between 1956 and 1966, while over the same period employment in services provided by the Government increased by over 40 per cent. (See Table 35).

services.[46] Traditional sector employment in tertiary activities has also been growing, especially in trade and in services.[47] While an increased demand for services in these two tertiary activities has redounded primarily to the traditional sector units, who are the main suppliers of such services,[48] expansion of the important self-employment component of such traditional sector employment in many instances derives more from the inadequacy of other job opportunities for manual workers of no particular skill. (See Section IV).

An estimate of the numbers in modern and traditional sector urban employment according to industrial activity for the year 1964 is presented in Table 26. (Percentage distributions are indicated in Table 27). Size and nature of workplace have been used here as the criterion for differentiating between the two sectors of employment.[49]

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46 Expansion in Government employment in these activities has, however, often been due to non-economic factors. (See Section IV).

47 Of an estimated net increase of 115,000 in employment in trade (of total increase of 139,000 in commerce -- see Table 23), 111,000 gained employment in small units or outside any establishment (since only an estimated increase of 4,000 occurred in the modern sector -- see Table 35). Similarly, of the increase of 66,000 in non-Government services (183,000 of services of Table 23 /after adjusting to include 75,000 conscripts in the 1956 figures/ minus 117,000 of Government services of Table 35), an estimated 63,000 accrued to the traditional sector (since only an estimated 3,000 additional persons gained employment in the modern sector of this activity -- see Table 35).

48 As indicated by the fact that in 1964, 96 per cent of urban workers in trade and 93 per cent (or 210,000 of 226,000) of those in private services were employed in small units or outside any fixed place. (See Tables 26 and 27).

49 All persons working in Government units or in private establishments employing 10 or more workers are treated as in the modern sector and all others (those employed in smaller units, in homes, or outside any fixed working place) are regarded as in the traditional sector. Except as elsewhere indicated (specifically, in the case of manufacturing industry), this criterion will also be used in distributing wage employment as between the two sectors. (See Section IV).

TABLE 26

URBAN (1956 BASIS) EMPLOYMENT BY INDUSTRIAL ACTIVITY AND NATURE OF WORKING PLACE

NOVEMBER 1964

(Estimate)

Industrial Activity	Modern Sector			Traditional Sector				
	Government Units	Large Private Units a/	Total	Small b/ Units	Home	No Fixed Working Place	Total	Total c/
Agriculture	(1,000 d/)	(5,000) e/	6,000	(6,000) e/	(-)	(166,000) f/	172,000	178,000
Mining	(5,000) d/	(3,000) e/	8,000	(-)	(-)	(-)	-	8,000
Manufacturing	(36,000) h/	(164,000) i/	200,000	(328,000) i/	(87,000) j/	(8,000) k/	423,000	623,000 m/
Construction	(2,000) d/	(6,000) e/	8,000	(6,000) e/	(-)	(219,000) f/	225,000	233,000
Electricity-Gas-etc.	(25,000) n/	(6,000) o/	31,000	(2,000) o/	(-)	(-)	2,000	33,000
Trade	(9,000) e/	(4,000) e/	13,000	(264,000) e/	(-)	(61,000) f/	325,000	338,000 p/
Banking-Insur.-RlEst.	(14,000) e/	(7,000) e/	21,000	(11,000) e/	(-)	(-)	11,000	32,000 m/
Trans-Stor.-Comm.	(41,000) d/	(3,000) e/	44,000	(10,000) e/	(-)	(106,000) f/	116,000	160,000
Services	(371,000) n/	(16,000) e/	387,000	(98,000) e/	(90,000) n/	(22,000) k/	210,000	597,000 m/
Total, Reported g/ Activities	(504,000)	(214,000)	718,000	(725,000)	(177,000)	(582,000)	1,484,000	2,202,000

a/ Establishments employing 10 or more workers.

b/ Establishments employing less than 10 workers.

c/ Based on average annual compound rates of change, 1956-66, except as where otherwise indicated.

d/ November 1966 Census figure.

continued....

TABLE 26

(continued)

e/ Ministry of Labour 1964 establishment survey figure.

f/ Residual figure.

g/ Assuming all private mining employment in large units.

h/ 47,000 of November 1966 census minus (est.) 11,000 Consortium employees included erroneously under Govt.

i/ Ministry of Economy figure.

j/ Based on average annual rate of decrease of 2.7% (1956-66) in numbers of home workshops and assuming 1.1 workers per home workshop.

k/ Ministry of Labour 1964 household survey figure.

l/ Ministry of Economy (establishment) figure of 492,000 plus (est.) 36,000 in petroleum refining minus employment in Govt. and small units.

m/ Sum of components.

n/ Assuming share of total employment in 1964 same as in November 1966.

o/ Non-govt. residual figure (8,000) distributed on basis of pattern indicated in footnote e.

p/ Residual item of total employment of Commerce (including Banking-Insurance-Real Estate); total figure for Commerce (370,000) based on average annual rate of increase, 1956-66.

q/ Based on total of industry activity figures and excluding activities not reported (according to pattern of censuses of 1956 and 1966).

Source: Compiled (as indicated above) from data of 1956 and 1966 censuses (indicated in Table 23); Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Statistics of Establishments and Engaged Persons of the Country: Fall 1343 (in Farsi) (Tehran: no date), Tables 2-1, 3-1, 4-1, and 5-1, pp.48, 58, 68 and 78 respectively, and Investigations of Manpower Problems (inFarsi), Vol.3, (Tehran: 1344), Table 3-24, p.2305 (for 1964 household survey); Ministry of Economy, Bureau of Statistics, Report on the Results of Annual Industrial Survey in 1964 (1343), (Tehran: no date), Table 1, p.1; and Table 24.

TABLE 27

URBAN (1956 BASIS) EMPLOYMENT BY INDUSTRIAL ACTIVITY AND NATURE OF WORKING PLACE

NOVEMBER 1964

(Percentages of Total)

Industrial Activity	Modern Sector			Traditional Sector				
	Government Units	Large Private Units	Total a/	Small Units	Home	No Fixed Working Place	Total a/	TOTAL
Agriculture	(0.6)	(2.8)	3.4	(3.4)	(-)	(93.3)	96.6	100.0
Mining	(62.5)	(37.5)	100.0	(-)	(-)	(-)	-	100.0
Manufacturing	(5.8)	(26.3)	32.1	(52.6)	(14.0)	(1.3)	67.9	100.0
Construction	(0.9)	(2.6)	3.4	(2.6)	(-)	(94.0)	96.6	100.0
Electricity-Gas etc.	(75.8)	(18.2)	93.9	(6.1)	(-)	(-)	6.1	100.0
Trade	(2.7)	(1.2)	3.8	(78.1)	(-)	(18.0)	96.2	100.0
Banking-Insur.-RlEst	(43.7)	(21.9)	65.6	(34.4)	(-)	(-)	34.4	100.0
Trans-Stor-Comm.	(25.6)	(1.9)	27.5	(6.3)	(-)	(66.2)	72.5	100.0
Services	(62.1)	(2.7)	64.8	(16.4)	(15.1)	(3.7)	35.2	100.0
Total, Reported Activities	(22.9)	(9.7)	32.6	(32.9)	(8.0)	(26.4)	67.4	100.0

a/ May not equal components due to rounding.

Source: As derived from Table 26.

As Table 27 shows, less than one-third of the total number of urban employed in 1964 is estimated to have been occupied in the modern sector, and these mainly in Government units. Another one-third did not work in any open establishment at all, but rather in homes (household industry workers and domestic servants) or outside any fixed working place,[50] (agricultural and construction workers, street salesmen, self-employed taxi, truck,[51] and animal-drawn vehicle drivers, porters, and odd-job service workers). A final third of the urban employed was engaged in small units of less than 10 workers each,[52] concentrated in manufacturing, trade, and services activities (accounting for 95 per cent of the total).

III. DEMAND FOR LABOUR BY OCCUPATIONS

The trends in the demand for labour in particular occupations (and of various skills and qualifications) will be examined in this section. As elsewhere in this chapter, quantitative evaluation will equate "numbers employed" with demand, although it is recognized that

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[50] The numbers with no fixed place of work are understated to the extent that census enumerators missed persons with no fixed address in the urban areas, most of whom can be assumed to have no fixed working place either. These persons are notoriously difficult to locate by enumerators and probably account for most of the underenumeration (excluding infants) in Iran's censuses. Furthermore, census definitions stipulate that persons working "temporarily" away from home must be counted in their usual home rather than where found; this requirement has the effect of reducing figures on the numbers of urban employed in casual occupations, who are mostly temporary migrants from rural areas.

[51] Though they work outside of an establishment, self-employed taxi and truck drivers should probably not be classed as "traditional sector" workers because of the relatively high value of the capital equipment they operate and the "modern" nature of their activities.

[52] On the average, each such urban unit employed only 2.2 persons in 1964. (Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Statistics..... Fall 1343, op. cit., Table 2-1, p. 48).

unfilled demand for labour has been a significant part of total effective demand in certain occupations and skills.

Table 28 illustrates the changes in employment (both sexes) in the urban areas by broad occupational groups. Employment in non-manual occupations[53] has been growing considerably faster than that of manual workers,[54] increasing its share of total employment from 11.2 to 14.1 per cent. The most rapid expansion of any occupational group has been in the professional and technical workers category, mainly reflecting the increased demand for teachers and medical personnel, whose numbers grew by 2½ times between 1956 and 1966 and who comprised over 70 per cent of all professional and technical workers in the urban areas in the terminal year.[55] Of the other non-manual occupational groups, the important clerical workers increased by over one-half, mainly reflecting the increased demand for their services by private employers.[56] The reported decline in administrative and managerial personnel is undoubtedly erroneous in view of the expansion of public administration and private management during the 1956-66 period; incorrect enumerating is due to the great difficulty of recording persons in such occupations accurately.[57]

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[53] ISCO groups 0-2 (professional and technical, administrative and managerial, and clerical workers). (See Chapter Two).

[54] ISCO groups 3-9 (sales, service, agricultural, transport and communications, and production and crafts workers). (See Chapter Two).

[55] In the urban areas between 1956 and 1966 (1966 basis), the number of teachers increased from 30,000 to 85,000 and of medical professionals from 14,000 to 31,000, according to census figures.

[56] According to census figures, private wage employment of clerical workers expanded from 6,835 in 1956 to 45,479 in 1966. (See Appendix Tables 35 and 36), but the 1956 figure is understated due to an error in the summary volume of the census. (See footnote 72).

[57] Persons in administrative and managerial positions are often professionals by training (engineers, doctors, etc.) and may be erroneously recorded as such by enumerators.

TABLE 28

URBAN (1956 BASIS) EMPLOYMENT BY OCCUPATIONAL GROUP

1956-1966

(Both Sexes)

Occupational Group	November 1956		November 1966		Net Change, 1956-66	
	Number	Pct.	Number	Pct.	Number	Pct. Change
Professional & technical	67,586	3.7	157,147	6.4	+89,561	+132.5
Administrative & Managerial	14,023	0.8	10,978	0.4	-3,045	-21.7
Clerical	120,196	6.7	180,933	7.3	+60,737	+50.5
Sales	255,767	14.2	356,692	14.5	+100,925	+39.5
Service	251,226	13.9	326,591	13.2	+75,365	+30.0
Agricultural	236,556	13.1	160,225[a]	6.5	-76,331	-32.3
Crafts and Production[b]	745,305	41.2	1087,399	44.1	+342,094	+45.9
Military and not reported	116,666[c]	6.5	186,009	7.5	+69,343	+59.4
Total:	1807,325	100.0[d]	2465,974	100.0[d]	+658,649	+36.4

[a] Excludes 8,992 seasonally-unemployed.

[b] Includes transportation and communications occupations.

[c] Excludes estimated 75,000 conscripts (included under previous civilian occupation).

[d] Does not equal components due to rounding.

Source: 1956 Census, Vol. II, Table 22, pp. 314-16 and 1966 Census, Vol. 168, Table 16, p. 45 (as adjusted to correspond to 186 urban places of 1956).

In the manual occupations, an absolute decline has been recorded in the employment of agricultural workers, as would be expected in view of the drop in employment in urban farming activities (noted in section II). The major increase in demand for manual workers has been in the category of craft and production workers, who constituted over three-fourths of the (net) increase in employment in manual occupations. About one-half of the growth in this occupational group was centered in two occupations: construction workers and carpet-weavers.[58] The expansion in sales workers has mainly occurred in the non-wage sector,[59] where over three-fourths of such workers were employed in 1966 (see Appendix Table 36). In the service workers group, the growth in demand has been concentrated in the domestic and personal service occupations.[60]

Tables 29 and 30 indicate changes in employment by occupational group for males and females. Since males comprise virtually all of total urban employment (88 per cent in 1966), their occupational distribution and characteristics of change between 1956 and 1966 differ only slightly from those for the entire workforce noted earlier. However, the situation of labour demand for females is quite different. The most striking instances are in the professional and technical and in the service occupation groups; much higher percentages of employed

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58 Urban employment between 1956 and 1966 (1966 basis) grew from 177,000 to 282,000 in construction worker occupations (including labourers) and from 47,000 to 117,000 in carpet-weaving occupations, according to census data.

59 Of a total increase of 101,000 sales workers, 74,000 were employers, self-employed, or unpaid family workers. (See Tables 28 and 32).

60 In which employment increased from 152,000 (excluding labourers) to 283,000 (including labourers) between 1956 and 1966 (1966 basis), based on census data.

TABLE 29

URBAN (1956 BASIS) EMPLOYMENT BY OCCUPATIONAL GROUP

1956-1966

(Males)

Occupational Group	November 1956		November 1966		Net Change, 1956-66	
	Number	Pct.	Number	Pct.	Number	Pct. Change
Professional & Technical	52,237	3.2	109,717	5.0	+57,480	+110.0
Administrative & Managerial	13,353	0.8	10,605	0.5	-2,748	-20.8
Clerical	113,964	7.0	167,517	7.7	+53,553	+47.0
Sales	252,136	15.6	353,084	16.2	+100,948	+40.0
Service	182,993	11.3	243,472	11.2	+ 60,479	+33.0
Agricultural	229,465	14.2	154,517[a]	7.1	-74,948	-32.7
Crafts and Production[b]	661,681	40.8	962,954	44.2	+301,273	+45.5
Military and Not Reported	115,438[c]	7.1	178,014	8.2	+62,576	+54.2
Total	1621,267	100.0	2179,880	100.0[d]	+558,613	+34.5

[a] Excludes 7,992 seasonally-unemployed.

[b] Includes transportation and communications occupations.

[c] Excludes estimated 75,000 conscripts (included under previous civilian occupation).

[d] Does not equal components due to rounding.

Source: 1956 Census, Vol. II, Table 22, pp. 316-18, and 1966 Census, Vol. 168, Table 16, p. 45 (as adjusted to correspond to 186 urban places of 1956).

TABLE 30

URBAN (1956 BASIS) EMPLOYMENT BY OCCUPATIONAL GROUP

1956-1966

(Females)

Occupational Group	November 1956		November 1966		Net Change, 1956-66	
	Number	Pct.	Number	Pct.	Number	Pct. Change
Professional & Technical	15,349	8.2	47,430	16.6	+32,081	+209.0
Administrative & Managerial	670	0.4	373	0.1	-297	-44.3
Clerical	6,232	3.3	13,416	4.7	+7,184	+115.3
Sales	3,631	2.0	3,608	1.3	-23	-0.6
Service	68,233	36.7	83,119	29.1	+14,886	+21.8
Agricultural	7,091	3.8	5,708[a]	2.0	-1,383	-19.5
Crafts and Production[b]	83,624	44.9	124,445	43.5	+40,821	+48.8
Military and Not Reported	1,228	0.7	7,995	2.8	+6,767	+551.1
Total	186,058	100.0	286,094	100.0[c]	+100,036	+53.7

[a] Excludes 1,000 seasonally-unemployed.

[b] Includes transportation and communications occupations.

[c] Does not equal components due to rounding.

Source: 1956 Census, Vol. II, Table 22, pp. 318-20, and 1966 Census, Vol. 168, Table 16, p. 45 (as adjusted to correspond to 186 urban places of 1956).

women are in these occupations than is the case for males, reflecting the high level of demand for schoolteachers and domestic servants in total demand for female workers.[61] In professional and technical and in clerical occupations, the rate of increase in employment has been double that of males in these occupations in response to the great demand by the modern sector for schoolteachers, nurses, secretaries, typists, office machine operators, etc. In terms of additional numbers employed, the largest gain was made in crafts and production worker occupations, on net entirely due to the rise in the numbers of carpet-weavers.[62] In fact, by 1966, employment in just three occupations of females - schoolteachers, domestic servants, and carpet-weavers - accounted for 58 per cent of the total of females employed in the urban areas in that year.[63]

Shifts in demand for different skills of manual labour have been significant, though impossible to quantify because of the limited scope, imprecision, and unreliable nature of the data available from Ministry of Labour surveys. It is most likely that the aggregate demand by employers for unskilled workers (except those hired specifically for training to semi-skilled positions) has declined relative to that for semi-skilled and, in particular, skilled workers (although not absolutely), as employer requirements for more highly skilled workers increased rapidly during the 1956-66 period in connection with

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61 In 1966 in the urban areas (1966 basis), 70 per cent of professional and technical females were schoolteachers and 82 per cent of female service workers were domestic servants, according to the November 1966 Census, Vol. 168, Table 26.

62 Whose numbers rose from 23,311 in 1956 to 72,530 in 1966 (1966 basis urban areas), based on census figures. See November 1956 Census, Vol. II, Table 22, p.319, and November 1966 Census, Vol. 168, Table 27, p. 155.

63 Or 34,015 teachers, 70,504 domestic servants, and 72,530 carpet-weavers of the total of 307,382 employed in 1966 in the urban areas (1966 basis). See November 1966 Census, Vol. 168, Table 26.

the replacement of simpler technology with more sophisticated production processes, especially in the important manufacturing sector.[64] However, in construction work, where employer demand for unskilled workers has been concentrated, a significant increase has apparently been registered in demand for unskilled labour between 1956 and 1966, supported by the building boom in the urban areas and a combination of continued highly labour-intensive methods in construction work and a skill-mix favourable to the employment of unskilled labourers.[65]

Changes in demand for unskilled workers have greatly affected the employment situation of the important rural immigrant component of the urban labour force, which is the main source of such workers. Much of the demand for unskilled immigrant labour has been self-created in a myriad of petty activities rather than deriving from employer requirements, a consequence of the great numbers of ex-peasants flooding the urban labour market.[66]

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64 As observed by the Personnel Management Division of the Industrial Management Institute (based on its analysis of manpower conditions in 70 factories) and mentioned to the writer during 1967 conversations.

65 Between 1956 and 1966 (1966 basis), the total number of production workers (regardless of skill) in construction work in the urban areas increased from 177,000 to 261,000, or by 47 per cent (according to census figures). In the latter year, 58 per cent of such construction workers were general (unskilled) labourers. Assuming no change in the skill-mix in building activities between 1956 and 1966, the rate of increase in employment of unskilled construction workers was probably on the order of magnitude of that for all construction workers indicated here.

66 In 1962, it was reported that their wage employment possibilities were so limited that the majority "try anything that is offered them and accept the lowest possible wages." (J. Behrouz [ed.], Iran Almanac and Book of Facts 1962 [Tehran: Echo of Iran, 1962], p. 308). Of all employed male immigrants from rural areas living in two slum districts of Tehran city in 1965, 29.4 per cent were engaged in (self-employed) peddling activities, their main source of employment. (As indicated in Ministry of Development and Housing,"Statistics of the Investigation of 254 Slum Families of Salsabil Region" and "Statistics of Investigation of 703 Slum Families of Behjatabad Region" [in Farsi] [Unpublished-Roneo] [Tehran: no dates], Tables 2 and 1, respectively.)

The changes in the demand for particular occupations and skills noted in this section have derived from (1) fluctuations in the total level of demand for labour within each activity, as occasioned by the factors affecting such fluctuations,[67] and (2) shifts in the skill- (and occupational-) mix in the production processes used in these activities as brought about by changes in the production techniques used. As a reflection of the first type of factors, the significant expansion in employment in modern sector services, banking, manufacturing, power production, and water supply has been manifested in greatly increased demand for the professional and technical, clerical, and production workers mainly required in such activities, while the decline in employment of agricultural workers stems from the contraction of labour demand in agricultural activities.

Skill- (and occupational-) mixes - the second great influence on the level of demand for various skills and occupations of labour - have shifted substantially in many activities, particularly in manufacturing, power production, and communications, towards higher ratios of manpower in technical occupations and of high skills relative to unskilled and semi-skilled labour. Such changed skill-mixes derive from the expansion of the modern sector (with its heavier requirements of higher skilled workers) relative to the traditional sector and from the modern sector's shift towards increasingly more complicated technology imported from the West.* Newly-established modern sector units thus hire fewer unskilled and semiskilled workers relative to skilled than was previously the case,[68] while modernization of existing units results in a shift in the composition of the (reduced) workforce

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[67] Described in section II of this chapter.

[68] As often noted in Ministry of Economy announcements on the establishment of new factories.

in affected units towards a higher percentage of highly-skilled workers and technicians relative to lesser-skilled workers. However, the inadequacy of the supply of manpower in the required skills and occupations has generally kept skill-mixes somewhat more favourable to the employment of lower-skilled labour than indicated by the technology, as employers have been obliged to substitute less qualified workers for their highly-skilled labour requirements, as well as to employ greater numbers of (lower-skilled) workers than used per machine in the country of origin of the capital equipment. (See Section IV).

IV. DEMAND FOR LABOUR BY TYPE OF EMPLOYER

In this section, an analysis will be made of changes in the demand for labour by the source of such demand, i.e. as between different types of employers. Basically, a differentiation will be made between non-wage and wage employment in view of their very different characteristics. Wage employment will be further divided into a "modern" and a "traditional" sector of employers to illustrate the dualistic nature of such labour demand. In each instance, determinants of the level of demand and factors influencing its change will be identified.

A. URBAN EMPLOYMENT ACCORDING TO WORKER STATUS

The national censuses of Iran have distinguished five (and in 1966, six) types of worker status for the employed population, generally following international definitions on such division of a country's workforce. Non-wage employed are treated separately as employers, own account workers, or unpaid family workers,[69] and wage

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[69] Although the new 1966 census entry of "unpaid apprentices" represents an additional form of non-wage employment, it is here treated as wage employment in order to make employment figures comparable with those of 1956, when such workers were apparently included under the "private employees" classification of the census.

employed as private or Government employees. Changes in the numbers employed in the urban areas between 1956 and 1966 by such worker status are shown in Table 31 below.[70]

The most striking change indicated in Table 31 is the high rate of increase in the number of employers, who expanded by over 2½ times between 1956 and 1966. Such growth is not difficult to explain, however, since it probably reflects a considerable number of former own account workers hiring an employee (or two) each and thus qualifying as employers. This development to a large extent would also explain the relatively slow rate of increase of own account workers, although the inclusion of conscripts under their previous civilian status[71] and the steep drop in the number of agricultural workers on their own account (by about 39,000 - see Appendix Tables 35 and 36) are the main factors here. The fall in agricultural worker employment also accounts for the decline in the number of unpaid family workers - in all other occupations (except administrative and managerial) they increased. Government (adjusted) and private wage employment

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[70] Appendix Tables 35 and 36 break down employment by worker status into the various occupation groups for 1956 and 1966, respectively. However, it is not possible to show employment by industrial activity group and status for the 1956-66 period, since the figures of the 1966 census refer to the 1966-basis urban areas and cannot be adjusted to correspond to the 1956-basis urban areas (as they can in the case of occupational/status groups). Nevertheless, estimates will be made for employment by industrial activity and status later in this section to show modern and traditional sector distribution of wage employment.

[71] The 1956 census counted all conscripts (Government employees by 1966 census definitions) under their previous civilian occupation and status (but not residence). (See November 1956 Census, Vol. II, pp. xxxii and xxxiv). Since the great majority of conscripts are believed to have been peasants, the numbers of agricultural workers (who are mainly own account workers) recorded in census figures for the 1956 urban areas are overstated. If we assume that 50,000 of the estimated 75,000 conscripts in urban barracks as having been included as own account workers in 1956, then the rate of growth of own account workers between 1956 and 1966 would be of the order of 36 per cent (instead of 22 per cent indicated in Table 31).

TABLE 31

URBAN (1956 BASIS) EMPLOYMENT BY WORKER STATUS

1956 - 1966

Worker Status	November 1956		November 1966		Net Change, 1956-66	
	Number	Pct.	Number	Pct.	Number	Pct. Change
Employer	35,381	2.0	93,932	3.8	+58,551	+165.5
Own Account Worker	473,697	27.2	575,824	23.5	+102,127	+21.6
Government Employee	328,447[a]	18.9	552,608	22.5	+224,161	+68.2
(Ditto, adjusted)	(403,447)	(23.2)	(552,608)	(22.5)	(+149,161)	(+37.0)
Private Employee	858,370	49.4	1,188,004[b]	48.5	+329,634	+38.4
Unpaid Family Worker	42,790	2.5	40,388	1.6	-2,402	-5.6
Total, Reported Status	1,738,685	100.0	2,450,756	100.0[c]	+712,071	---[d]
Status Not Reported	68,640	---	15,218	---	-53,422	---
Total	1,807,325	---	2,465,974	---	+658,649	+36.4

[a] Excludes estimated 75,000 conscripts (reported under previous civilian status). (Adjusted figures include this number).

[b] Includes 14,410 unpaid apprentices.

[c] Does not equal components due to rounding.

[d] Pct. increase calculated only for total (including status not reported).

Source: 1956 Census, Vol. II, Table 21, p. 268, and 1966 Census, Vol. 168, Table 15, p. 42 (as adjusted to correspond to 186 urban places of 1956).

expanded at about the same rate, with the increase in the former (of 149,000) mainly due to growth in professional and technical occupations (by 67,000) and service workers (by 35,000) and that of the latter (of 330,000) explained by the increases in crafts and production workers (by 227,000) and clerical workers (by 39,000[72]). (See Appendix Tables 35 and 36).

B. DEMAND FOR LABOUR IN NON-WAGE EMPLOYMENT

The demand for the labour of employers, own account workers, and unpaid family workers - the self-employed (or non-wage employed) - is self-created, in response to the community's demand for their goods and services. Thus, in effect, it is the random members of the community who are the real employers of the labour time of the self-employed, through these persons' purchases of their goods and services.[73] However, the link between community demand and the numbers engaged in non-wage employment is very tenuous, with the result that the decision to enter (or to remain in) self-employment often bears little relationship to changes in (or the existing level of) actual community demand for the self-employed's labour services, being more frequently shaped by the pressure on the worker to earn some sort of income in the absence of adequate alternative possibilities in wage employment.

Changes in the numbers of self-employed persons by occupational group in the urban areas between 1956 and 1966 are shown in Table 32. Rates of change over the ten-year period varied widely as between

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[72] Too high, due to an under-recording in the summary census volume (volume II) of private wage employees in clerical occupations in 1956. (The total indicated for the urban areas is less than that reported for Tehran city alone).

[73] As also noted by Simon Rottenberg, "Note on 'Economic Progress and Occupational Distribution'", The Review of Economics and Statistics, May 1953, p. 169.

TABLE 32

NON-WAGE[a] URBAN (1956 BASIS) EMPLOYMENT BY OCCUPATIONAL GROUP

1956-1966

Occupational Group	Number Employed in		Net Change, 1956-66	
	Nov. 1956	Nov. 1966	Number	Pct. Change
Professional and Technical	14,286	17,270	+2,984	+20.9
Administrative and Managerial	4,396	3,922	-474	-10.8
Clerical	3,734	7,419	+3,685	+98.7
Sales	199,366	273,768	+74,402	+37.3
Service	26,526	49,720	+23,194	+87.4
Agricultural	142,064	86,588[c]	-55,476	-39.1
Crafts and Production [b]	156,985	264,238	+107,253	+68.3
Occupation Not Reported	4,511	7,219	+2,708	---
Total	551,868[d]	710,144	+158,276[e]	+28.7[e]

[a] Excludes unpaid apprentices.

[b] Includes transportation and communications occupations.

[c] Excludes seasonally-unemployed.

[d] Overstated due to inclusion of (unknown) number of (Government wage paid) conscripts under former civilian positions in non-wage employment.

[e] Understated due to over-recording of 1956 base figure.

Source: As derived from 1956 and 1966 census figures indicated in Appendix Tables 35 and 36.

different occupational groups, but on the average total non-wage employment increased by about 29 per cent.[74] Offsetting the considerable drop in self-employment in agricultural occupations have been very high rates of increase in service and crafts and production worker employment and a great numerical increase in sales workers, the largest category of non-wage employment. Increases in self-employment in non-manual occupations have been of little impact, however, due to the relative unimportance of such occupations in the total of non-wage employment.

Non-wage employment in the three manual occupational groups where virtually all of the total of the increase in such employment occurred during the 1956-66 period (sales, service, and crafts and production) in most instances - and especially that outside of any establishment (except in motor vehicle driving occupations) and in one-man units where such self-employment is concentrated[75] - requires relatively little skill, education or capital outfit. Although impossible to quantify, it is likely that a combination of the rapid growth in supply of manual workers (most of it occasioned by the heavy migration of [mainly unskilled] workers from the rural areas - see Chapter Two) and the relatively limited increase in employer

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[74] Understated to the extent that 1956 figures of self-employed include conscripts whose previous occupation had been in self-employment. (See footnote 71).

[75] A 1962 survey in the largest 83 urban places of Iran of employment in establishments indicated that 46.8 per cent of the total non-wage employed (or 143,000 of 305,500) were working in one-man units. (See Ministry of Labour and Social Services, General Department of Manpower Studies and Statistics, Annual Statistical Publication of Establishments and Engaged Persons: 1341 Year [in Farsi] [Tehran: no date], Tables 1 and 14-1, pp. 2 and 51, respectively). When the numbers in self-employment in home workshops and outside any fixed working place are also taken into consideration, it is clear that about 65 per cent of non-wage employed in these three occupational groups work in one-man units or outside any establishment.

demand (against wage payment) for labour in these occupations (see subsection D below) has resulted in a significant part of total non-wage employment increase represented by "forced" self-employment (particularly in the case of own account and unpaid family workers) as against that part preferring such self-employment in response to a corresponding increase in the demand by the community for their goods and services (and as manifested in a sustained level of earnings in such occupations).[76] (See Chapter Five).

C. DEMAND FOR LABOUR IN WAGE EMPLOYMENT

The demand for labour in wage employment originates from the needs of employers for workers of various skills and occupations (at the prevailing wage rates and under existing technological conditions) in carrying out their economic activities. In this subsection, the level of, and changes in, the demand by employers for wage labour in the urban areas will be analyzed. In view of the strong dual nature of wage employment, differentiation will be made between the "modern sector" and "traditional sector" components of this employment.

1. Aggregate Demand for Wage Labour

Demand by employers (both public and private) for wage labour was the main source of employment for the urban workforce during the review period, in 1966, accounting for 71 per cent of total urban employment. (See Appendix Table 36). In many instances, these employment levels were higher than actual labour demand based on employer requirements; for various reasons employers kept surplus workers on their payrolls.[77] In other instances, however, effective

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[76] The role of comparative earnings levels in determining changes in self-employment is discussed in Chapter Four.

[77] Such surplus workers were concentrated in the modern sector of large, private employers and the Government. (See below).

demand of employers was somewhat greater than indicated by the numbers employed due to persistent inability to staff certain positions because of skill shortages.[78] Much of the total demand by employers for wage labour was of a temporary, impermanent nature only,[79] particularly that for agricultural labourers and building workers in construction projects.[80]

As indicated by Table 33, aggregate wage employment in the urban areas increased by almost 47 per cent.[81] Wage employment in non-manual positions (excluding the /misleading/ case of administrative and managerial workers) registered the greatest growth rate, particularly in the case of professional and technical workers, whose numbers increased more than 2½ times (due mainly to increased Government demand for such manpower - see Appendix Tables 35 and 36). In the manual occupations, the number of wage-receiving agricultural workers declines, but significant increases were registered in wage employment for sales and crafts and production workers and a modest

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[78] The problem of unfilled demand for certain skills and occupations applied almost exclusively to the modern sector.(See below).

[79] A sample survey of a poor district of Tehran city in August 1967 revealed that 45.3 per cent of males in wage employment were in irregular employment only. See William H. Bartsch and Hamideh Tavassoli, "Results of a Labour Force Sample Survey of Ku-ye 9 Aban in August 1967" (Unpublished-Typewritten) (London: December 1967), Table 6, p.4.

[80] In 1966, 14.2 per cent of total wage employment in the urban areas (1966 basis) (or 257,680 of 1,809,173) was made up of workers in construction occupations (assuming all to be wage employees). An additional 4.8 per cent of total wage employment was comprised of workers in agricultural occupations (or 87,347). Other examples of irregular wage employment would include workers in odd-job service occupations employed in temporary projects.

[81] This rate of growth is exaggerated because of the erroneously low 1956 base figures of wage employment due to the practice of the census authorities in that year of transferring all (Government wage employed) conscripts to their former occupations in the census figures. Figures of total wage employment in 1956 will thus be lower by the (undoubtedly considerable) number of conscripts recorded as non-wage employed in their previous occupations. (See footnotes 71 and 74).

TABLE 33

WAGE EMPLOYMENT[a] IN URBAN AREAS (1956 BASIS) BY OCCUPATIONAL GROUP 1956-1966

Occupational Group	Number Employed in		Net Change, 1956-66	
	Nov. 1956	Nov. 1966	Number	Pct. Change
Professional And Technical	53,045	139,359	+ 86,314	+162.7
Administrative and Managerial	9,608	7,030	- 2,578	- 26.8
Clerical	116,304[c]	173,264	+ 56,960	+ 49.0
Sales	55,270	82,475	+ 27,205	+ 49.2
Service	223,858	276,137	+ 52,279	+ 23.4
Agricultural	87,715	73,167[d]	- 14,548	- 16.6
Crafts and Production[b]	581,513	821,135	+239,622	+ 41.2
Military and Not Reported	59,504[e]	168,045	+108,541	---
Total	1,186,817[f]	1,740,612	+553,795[g]	+ 46.7[g]

a/ Includes unpaid apprentices.

b/ Includes transportation and communications occupations.

c/ Understated due to error in under-recording private wage employees.

d/ Excludes seasonally-unemployed.

e/ Excludes estimated 75,000 conscripts (rpported under previous civilian status and occupation).

f/ Understated due to exclusion of (unknown) number of (Government wage paid) conscripts recorded by census under former civilian positions in non-wage employment.

g/ Overstated due to under-recording of 1956 base figure.

Source: As derived from 1956 and 1966 census figures indicated in Tables 35 and 36.

one for service workers. Virtually all of the net increase in wage employment in crafts and production occupations and in sales occupations originated in the private sector, whereas that in service occupations was mostly due to growth in Government employment. (See Appendix Tables 35 and 36).

The factors influencing the level of and change in demand for wage labour derive from the decisions of employers regarding their labour requirements, as affected by expansion (or contraction) of operations (in turn dependent on the level of demand for goods and services and the availability of investment funds) and the choice of technique used in the production process. Since such considerations have varied greatly depending on the type of employer (Government or private, "modern" or "traditional" sector), their discussion is reserved for the following subsection.

2."Modern vs "traditional" Sector Demand for Wage Labour

Of total wage labour demand, it is possible to distinguish between that of employers in a "modern" sector and of employers in a "traditional" sector. Various criteria can be used for assignment of the wage labour of employers to one or the other sector - including level of technology, average worker productivity, average amount of capital equipment per worker, etc. - but as elsewhere in this chapter (see section II), the size (in terms of number of workers employed) and nature of the workplace will be the determining factor. Thus all wage employees of the Government or in private units of 10 or more workers will be regarded as in the modern sector of wage employment and all those employees in smaller establishments, in homes, or outside any fixed working place will be treated as in the traditional sector. Such division of wage employment by size of establishment in

most instances[82] would also accommodate the other criteria for determining modern and traditional sectors, since average productivity, capital-intensity, and level of technology are usually closely associated with size of unit.

Because of the absence of data on wage employment according to size of unit at either 1956 or 1966, it is not possible to divide total urban wage employment for these years into "modern" and "traditional" sectors even by this relatively simple criterion of nature and size of work unit. However, based on certain assumptions about the percentage divisions of private wage employment as between its "modern" and "traditional" sector components deriving from an estimate for 1964 according to industrial activity groups (see Appendix Table 37) and data on manufacturing employment at 1956 and 1966 by size of unit, an estimate has been made by the writer on the size of and change in the modern and traditional sectors of urban wage employment over the review period. This estimate is presented in Table 34 below.

As Table 34 clearly illustrates, the modern sector of urban wage employment expanded at twice as fast a rate as that of the traditional sector of such wage employment between 1956 and 1966, mainly as a consequence of an (estimated) doubling of private modern sector employment. Nevertheless, despite this rapid rate of growth, over two out of the (net) five additions to wage employment during this period were obliged to accept employment in the low-wage traditional sector, and by 1966, 55.0 per cent of all urban wage employees were still engaged in the traditional sector.

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[82] The main exception would be traditional, non-mechanized production in the large workshops in many lines of manufacturing, such as carpet-weaving, fruit drying and packaging, and unmechanized brick production. (All unmechanized manufacturing employment has consequently been assigned to the traditional sector in this chapter). Similarly, the modern banking activity has many small branches that by the criterion of size of unit would appear under the traditional sector.

TABLE 34

ESTIMATE OF MODERN AND TRADITIONAL SECTORS OF WAGE EMPLOYMENT

1956-1966

Urban Areas - 1956 Basis

Sector	Number Employed at:		Net Change, 1956-66	
	Nov. 1956	Nov. 1966	Number	Pct. Change
MODERN SECTOR	490,000	783,000	+293,000	+59.8
(Government)	(371,000)	(543,000)	(+172,000)	(+46.4)
(Private)	(119,000)	(240,000)	(+121,000)	(+101.7)
TRADITIONAL SECTOR	746,000[a]	958,000	+212,000	+28.4
TOTAL	1,237,000[b/c]	1,741,000	+504,000[c]	+40.7

a/ Estimated 25,000 conscripts believed reported by 1956 census under private wage employment deducted from this total and transferred to (Government) modern sector total.

b/ Includes 50,000 (of 75,000) conscripts estimated as reported by 1956 census under former non-wage occupations and consequently transferred here to wage employment totals.

c/ Does not equal components due to rounding.

Source: Table 36 (for Government employment, deducting estimated 32,000 /private/ oil Consortium employees in refining operations in 1956 and 10,000 in 1966); Table 38 (for private modern sector employment); Table 39 (for traditional sector wage employment).

a. Characteristics of Modern Sector Wage Labour Demand

Despite the rapid rate of increase of private modern sector wage employment, the Government continued as the dominant employer of the modern sector, providing work for over two-thirds of the modern sector wage labour workforce at 1966 (as determined from figures of Table 34). Almost three-fourths of these Government employees were civil servants engaged in service activities (mainly administrative and community services). (See Table 37).

In Table 35 an estimate of the size of, and changes in, urban modern sector employment according to industrial activity of this employment is presented. The high rates of increase in modern sector employment were concentrated in only three activities: manufacturing, electricity-gas-water-sanitary services, and banking-insurance-real estate. Including Government services, these activities accounted for 278,000 of the total (net) increase of 293,000 recorded in the modern sector. In fact, in 1966 just two activities - manufacturing and Government services - employed over three-fourths (76.5 per cent) of the total urban modern sector workforce at that date.

The nature of, and factors shaping, these employment trends will be examined separately below for the Government employer and private employer components of the modern sector.

i. Government Demand for Labour

From the standpoint of occupational distribution, the greatest additional numbers gaining employment in Government work were persons in professional and technical, and in service, occupations, who accounted for over two-thirds of the total (unadjusted) increase of 149,000 employees.[83] (See Table 36). In terms of changes by

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[83] As indicated when (private) oil Consortium employees are recorded as Government employees, a practice followed by both the 1956 and 1966 censuses. As indicated by the (adjusted) figures of Table 36, the actual increase in Government employment in the urban areas was an estimated 171,000 persons.

TABLE 35

ESTIMATE OF MODERN SECTOR WAGE EMPLOYMENT BY INDUSTRIAL ACTIVITY

1956-1966

Urban Areas - 1956 Basis

Industrial Activity	Number Employed at:		Net Change, 1956-66	
	Nov. 1956	Nov. 1966	Number	Pct. Change
Agriculture	12,000	6,000	-6,000	-50.0
Mining	9,000	8,000	-1,000	-11.1
Manufacturing[a/]	106,000	213,000	+107,000	+100.9
Construction	9,000	8,000	-1,000	-11.1
Electricity-Gas-Water-Sanitary Services	6,000	42,000	+36,000	+600.0
Trade	3,000	7,000[b/]	+4,000	+133.3
Banking-Insurance Real Estate	11,000	29,000	+18,000	+163.6
Transport-Storage -Communications	33,000	42,000	+9,000	+27.3
Government Services	280,000	397,000	+117,000	+41.8
Private Services	17,000	20,000	+3,000	+17.6
Not Adequately Described	4,000	11,000	+7,000	+175.0
Total	490,000	783,000	+293,000	+59.8

a/ Mechanized units only.

b/ Includes estimate of 4,000 for Government component based on total for Government sales occupations.

Source: As compiled from data of Tables 37 and 38 (Estimated 32,000 Consortium refining employees in 1956 and 10,000 in 1966 deducted from totals of Table 37 and included above as private employees).

TABLE 36

GOVERNMENT EMPLOYMENT BY OCCUPATIONAL GROUP

1956-1966

Urban Areas - 1956 Basis

Occupational Group	Number Employed at:		Net Change, 1956-66	
	Nov. 1956	Nov. 1966	Number	Pct. Change
Professional and Technical	44,571	111,436	+66,865	+150.0
Administrative and Managerial[a]	8,775	5,189	-3,586	-40.9
Clerical	109,469	127,687	+18,218	+16.6
Sales	1,662	3,780	+2,118	+127.4
Service	42,982	78,021	+35,039	+81.5
Agricultural	5,105	5,343	+238	+4.7
Crafts and Production[b]	71,247	76,896	+5,649	+7.9
Military and Not Reported	119,636[c]	144,256	+24,620	+20.6
Total	403,447	552,608	+149,161	+37.0
(Ditto, adjusted to exclude /private/ oil Consortium employees)	(371,447)	(542,608)	(+171,161)	(+46.1)

[a] Figures believed erroneous.

[b] Includes transportation and communications occupations.

[c] Includes estimated 75,000 conscripts.

Source: Census data as indicated in Appendix Tables 35 and 36.

TABLE 37

GOVERNMENT EMPLOYMENT BY INDUSTRIAL ACTIVITY

1956-1966

Urban Areas - 1956 Basis

Industrial Activity	Number Employed at:	
	November 1956	November 1966[a]
Agriculture	6,600	1,236
Mining[b]	8,159	4,887
Manufacturing[b]	58,221	45,275
(Ditto, adjusted to exclude oil Consortium employees)	(26,221)	(35,275)
Construction	5,977	1,919
Electricity-Gas-Water-Sanitary Services	2,226	34,044
Commerce	10,705	26,530
Transport-Storage-Communications	29,982	39,115
Services	280,465[c]	396,404
Not Adequately Described	1,112	3,198
Total	403,447	552,608
(Ditto, adjusted to exclude oil Consortium employees)	(371,447)	(542,608)

[a] Each cohort of 1966-basis urban areas figures reduced by .036455 to make total of cohorts conform to 1956-basis urban areas total.

[b] Includes (erroneously) private employees of Consortium of foreign oil companies.

[c] Includes estimated 75,000 conscripts.

Source: 1956 Census, Vol. II, Table 25, p.343, and 1966 Census, Vol. 168, Table 24, p.69.

industrial activity, very high rates of growth were recorded in electricity-gas-water-sanitary services and in commerce (mainly banking), though the greatest absolute numbers of additional employees were engaged in services, the result of rapid employment growth in community services (mainly education and health) and in Government administrative services[84] (including the armed forces).

The increases in Government employment noted in Tables 36 and 37 to a great degree reflect an increased demand for public services.[85] Between 1956 and 1966, the rapid urbanization of the country created a great need for expanded health and educational, communications, electric power, and water services, all provided mainly by the public sector; in response to this demand, heavy public development expenditures were made in such infrastructure. (See Chapter Six). This period also saw a build-up of Iran's military and security forces following the near overthrow of the Shah's regime in 1953.[86]

However, and as frequently pointed out by informed foreign and Iranian observers, many Government organizations have been set up in the absence of any real need for their services by the community (or the regime),[87] while in other Ministries and agencies the level of employment has usually exceeded or been unrelated to the real

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84 Urban employment in Government administrative services increased from 245,000 (including an estimated 75,000 conscripts excluded from such totals in census figures) in 1956 to 288,000 in 1966 (1966-basis urban areas), according to census data.

85 Part of which has been unfilled, particularly in such occupations as for teachers, judges, and power station operators.

86 Between 1956 and 1963, it is estimated that the Iranian armed forces expanded from 130,000 to 175,000 officers and men. (Communication from UK Ministry of Defence, 24 June 1966).

87 An Iranian editor maintains that such organizations have been created "to provide positions for certain individuals". (Post-e Tehran /Farsi/, as quoted in "Press Review", Kayhan International, August 15, 1962.)

requirements of such organizations to carry out their functions.[88] Surplus employees have been maintained on the Government payroll throughout the public sector,[89] but especially in administrative bodies,[90] the railways,[91] and Government-owned factories.[92] This situation has developed as a consequence of the employee security provisions of the Civil Service Code: Government employees (except factory workers),[93] once hired, cannot be discharged,[94] and thus

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88 Ibid. This assertion has also been made by Jahangir Amuzegar, "Administrative Barriers to Economic Development in Iran", Middle East Economic Papers 1958, p.8, and by Richard W. Gable, "The Public Service in Iran", Public Personnel Review, Vol. 22, No. 1, 1961, p.30.

89 Some estimates are as high as 50 per cent of the total Government workforce, according to Gable, op. cit., p.31.

90 In 1954 the Ministry of Finance alone reportedly had 7,000 surplus employees. (Ibid.)

91 In 1961 the railways were "heavily overstaffed . . . competent sources estimate that a reduction of about 30 per cent would bring the staff down to a reasonable level." (International Bank for Reconstruction and Development, The Economic Development Program of Iran: An Appraisal /Washington: April 17, 1963/, p.79). Subsequently the employment in the railways was reduced, from 37,884 in March 1961 to 32,048 in November 1966. (Data given the writer in September 1967 by the Technical Department of the Iranian State Railways).

92 In 1959 a management consulting firm identified 4,500 staff and workers as surplus to needs under current organization (equivalent to about one-fifth of the total /non-National Iranian Oil Company/ Government factory workforce - see footnote 105). (George Fry and Associates, Management Assistance Project for Plan Organization Companies, Volume One (Chicago: April 29, 1960), Exhibit B, Sales Exhibit V(5).)

93 Who, nevertheless, have not been laid off because of the policy of the Government against such a course of action (based on political rather than economic considerations). (Kayhan International, July 11, 1959).

94 Except in cases of criminal offenses, subversive activities, or extreme insubordination. Even then the employee may instead be declared a surplus worker and continue to receive his basic salary. (See T. Hilliard Cox, "High Level Manpower Development in Iran" /Unpublished - Roneo/ /Tehran: Governmental Affairs Institute, May 1960/, p.58).

become the permanent charges of the Government.[95] Furthermore, each Ministry and agency has been free to hire as many employees as it wished (subject to the limitations of the administrative budget - see below), unhampered by any central control over such recruitment.[96] Particularly influential administrators have inflated their organizations with unessential staff in order to boost their position and prestige.[97] With each change in the Government or Ministers, new staff owing loyalty to the new Government or Ministers has been brought in, with the former holders of their positions going into inactive status (but remaining on the payroll).[98]

In order to counter the growth of Civil Service employment beyond real requirements, the Government secured passage of a law in June 1958 prohibiting hiring of new staff except in certain essential occupations;[99] this law remained in effect until March 1964, when it was abrogated.[100] However, the law seems to have had only a limited

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95 Ibid. See also Gable, op. cit., p.31, and Amuzegar, op. cit., p.9.

96 Gable, op. cit., p.31, and Amuzegar, op. cit., p.8.

97 Post-e Tehran, loc. cit.

98 Amuzegar, op. cit., p.10. Other civil servants have deliberately sought to get themselves suspended from their positions in order to pursue business activities of their own while drawing two-thirds of their salary (to which all suspended employees are entitled). Total number of all suspended employees estimated at 8,000 in 1968. (Kayhan International, July 1, 1968).

99 Including teachers, judges, engineers, technicians, physicians, druggists, midwives, nurses, librarians, typists, drivers, postmen, policemen, gendarmerie, cooks, and laundrers. See "Law on Permission to Employ Staff for Ministries" (in Farsi), in Compendium of Laws of the Year 1337 (in Farsi) (Tehran: no date), pp.191-92.

100 By Note 37 of the 1343 Budget Act. See "Amended Budget Act of the Country for 1343", Bank Markazi Iran Bulletin, Vol. 3, No. 14, July-August 1964, p.185.

effect in curtailing the expansion of non-essential employment,[101] as individual Ministries and agencies devised tactics to circumvent its stipulations.[102]

Schemes to reduce surplus employment in Government factories appear to have been more successful. The Government favoured a policy of transferring surplus workers to units requiring additional labour,[103], resulting in a net decline in employment in several of the oldest and largest factories as modernization and rationalization programs were successfully executed.[104] Total manufacturing employment was reduced[105] as a result of implementation of the policy introduced in the early 1960's to sell many Government-owned units to private entrepreneurs.

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101 Despite the law, "a number of non-professional individuals managed to penetrate the civil service ranks", according to J. Behrouz (ed.) Iran Almanac and Book of Facts, 1966 (Tehran: Echo of Iran, 1966), p.601. Between April 1962 and April 1963, only 1,000 of the 7,000 new employees hired by Ministries were authorized. (Alfred Bakhash, "The Bureaucrats", Kayhan International, June 6, 1963, p.4).

102 Mainly by hiring new employees as temporary or contractual workers and using them in positions usually filled by permanent civil servants. (Conversation with Ali Nazeri, State Organization for Administration and Employment Affairs, July 16, 1967. This practice also noted by The American University, op. cit., p. 295, and in "Budget Problem - 1", Kayhan International, June 5, 1962, p.2.)

103 Kayhan International, July 11, 1959.

104 Between 1956 and 1965, employment in two of the largest (Government-owned) textile mills in the country was reduced by 10 per cent in each while production increased significantly. (See Iranian Factories Company, Ten-Year Report of the Textile Company /in Farsi/ /Tehran: Mordad 1345/, pp. 26-32 and 44-51).

105 Excluding employment in the Government-owned National Iranian Oil Company (whose urban staff is estimated to have increased by about 14,000 during the review period), it is estimated that urban manufacturing employment in Government units declined from 20,000 in 1956 to 16,000 in 1966. (Figures derived by subtracting estimated totals of Consortium and NIOC employment from census figures of Government manufacturing employment for these years).

The level of employment in Government service is, of course, circumscribed by the possibilities afforded by the budget (development as well as administrative) and the prevailing rates of remuneration paid by the Government for each category of employee,[106] with development budget expenditures providing the basic capital facilities for creation of new jobs and the administrative budget meeting the costs of employing Government staff. However, to a large extent because of the pressure on the Government to provide positions for the multitude of job-seekers of all levels of education (see Chapter Two) - the basic factor accounting for the expansion of Government employment beyond real needs - Government administrative expenditures have spiraled,[107] over two-thirds of which typically have gone towards meeting the wages, salaries, and benefits of public servants.[108] As noted by one observer, resistance to pressure for Government positions is (politically) "next to impossible".[109*]

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106 See Chapter Four for wage rate considerations in Government employment.

107 Between 1335 (1956-57) and 1345 (1966-67), administrative budget expenditures more than tripled, rising from 17.8 to 58.7 billion rials. See Plan Organization, Report on the Execution of the Second Seven Year Plan (in Farsi) (Tehran: 1343), Appendix Table 12, and Bank Markazi Iran, Annual Report and Balance Sheet as at 20 March 1968 (Tehran: no date), Table 80, p. 225. (During the same period, consumer prices rose by only 40.5 per cent, according to Bank Markazi indices published regularly in its Bulletins.)

108 For instance, in the budget year 1344 (1965-66) 69.3 per cent of total (closed account) administrative expenditures (or 37,705 of 54,385 million rials) represented personnel costs. (As calculated from figures of Plan Organization, Central Budget Office, Budget Bill of 1345 for the Country /in Farsi/ /Tehran: Bahman 1344/, part 6, pp. 1-62, and part 4, pp. 1-6).

109 "Budget Problem -1", loc. cit. Political pressures exerted by educated job-seekers have been particularly severe and difficult to withstand. (Heshmat Ala'i, "Civil Servants", Kayhan International, July 5, 1964, p. 4; Amuzegar, op. cit., p.8; and Kayhan International, June 27, 1964). However, even at lower educational levels, "political pressures have compelled the Government at various times to hire more freely.." See Leonard Binder, Iran: Political Development in a Changing Society (Berkeley: University of California Press, 1964), p.134.

ii. Private Employer Labour Demand

The very high rate of increase in urban private modern sector wage employment estimated to have occurred (102 per cent) was due almost exclusively to expansion of the (mechanized) manufacturing sector, which is estimated to have employed a (net) additional 98,000 workers (of the total /net/ increase in private modern sector employment of 121,000).[110] While rates of increase in some of the other activities were also high, the relatively small numbers employed in non-manufacturing activities in 1956 meant that quantitatively the additional numbers gaining work in these activities had no great impact on private modern sector employment. Estimates of such employment by industrial activity at 1956 and at 1966 are given in Table 38.

To some extent, employment levels in private modern sector units have been higher than actual demand for labour by employers. Many factories (particularly the older ones) have sought to lay off workers who have become surplus to requirements following changes in work organization or as the consequence of modernization schemes,[111] but have been obliged to maintain them on the payroll because of the regulations of the Labour Law governing dismissal of workers.[112]

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110 Excluding oil Consortium refinery employment (estimated at 32,000 in 1956 and 10,000 in 1966 in the urban areas), urban private modern sector manufacturing wage employment appears to have increased from 48,000 in 1956 to 168,000 in 1966, based on the estimates of Table 38. However, such figures should be regarded with a degree of caution; a likely understatement of 1956 employment in large (10 or more employees) private manufacturing units in the Ministry of Industries and Mines source on which the 1956 figure is based (see Statistical Appendix) will result in a corresponding overstatement of rates of growth and of additional numbers employed in private manufacturing during this period.

111 Examples are leather factories switching to mechanized techniques of production and textile mills introducing semi-automatic and automatic machinery.

112 Article 33 of the 1959 Labour Law specifies 15 days' wage payment for each year of service if a worker is laid off. Many employers complain that they cannot afford to meet the payments due workers who have been employed for 20 or more years.

TABLE 38

ESTIMATE OF PRIVATE MODERN SECTOR[a] WAGE EMPLOYMENT BY INDUSTRIAL ACTIVITY, 1956-1966

Urban Areas - 1956 Basis

Industrial Activity	Number Employed at:		Net Change
	November 1956	November 1966	1956-1966
Agriculture	5,000	5,000	---
Mining[b]	1,000	3,000	+2,000
Manufacturing[c]	80,000	178,000	+98,000
Construction	3,000	6,000	+3,000
Electricity-Gas-Water-Sanitary Services	4,000	8,000	+4,000
Trade	2,000	3,000	+1,000
Banks-Insurance-Real Estate	1,000	6,000	+5,000
Transport-Storage-Communications	3,000	3,000	---
Services	17,000	20,000	+3,000
Not Adequately Described	3,000	8,000	+5,000
Total	119,000	240,000	+121,000

[a] Establishments with 10 or more workers each.

[b] Excludes Consortium employment in crude oil operations. (indicated /erroneously/ under Government employment)

[c] Mechanized units only. Includes estimate of Consortium employment (32,000 in 1956 and 10,000 in 1966).

Source: Based on calculations indicated in Appendix Table 39.

Direct pressure from the Ministry of Labour has also on occasion been applied against the management of larger industrial units seeking to discharge considerable numbers of employees, the most notable case being that of the Consortium of foreign oil companies, which had inherited a bloated workforce from the former Anglo-Iranian Oil Company.[113] However, following prolonged negotiations with the Iranian Government, the Consortium succeeded in winning approval for an extensive lay-off scheme against generous lump-sum severance payments[114] and was able largely through this program to reduce its total workforce (crude oil and refining operations) to 17,000 in 1966 from 46,000 in 1956.[115]

Unfilled demand in certain occupations and skills has kept employment in many private modern sector units below potential levels, particularly in factories.[116] Industrial employers generally have difficulty in recruiting qualified technicians, foremen and

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113 The Anglo-Iranian Oil Company (apparently for political reasons) had followed a policy of employing more workers than necessary in its operations. See U.S. Department of Labor, Bureau of Labor Statistics, Summary of the Labor Situation in Iran (Washington: International Co-operation Administration, October 1955), p.3.

114 The American University, Special Operations Research Office, Foreign Areas Studies Division, U.S. Army Area Handbook for Iran (Washington: U.S. Government Printing Office, May 1963), p. 510.

115 Iranian Oil Operating Companies, Annual Review 1956 (Tehran: no date), p. 3, and Annual Review 1967 (Tehran: 1968), p. 42. The transfer of considerable numbers of Consortium employees performing non-basic services (health, housing, education etc.) to the National Iranian Oil Company over this period as a consequence of the NIOC's assumption of responsibility for such non-basic services of the oil industry also was an important factor accounting for the decline in Consortium employment.

116 Furthermore, to the extent that would-be investors have been discouraged by shortages of key personnel from setting up new units, new employment opportunities for workers of all skill levels have been foregone, of course.

skilled workers to staff positions in their factories.[117] As a consequence, they have often been obliged to fill vacant posts with workers of inadequate skill. (See Chapter Four).

The great increase in labour demand by private modern sector employers may be attributed to a combination of the high levels of investment by such entrepreneurs and the rapid expansion of demand for their goods and services. Although data on investment by large private sector entrepreneurs is not available, that in manufacturing is believed to have been very high,[118] especially at the beginning[119] and at the end of this period.[120] Demand for private modern sector goods and services has undoubtedly risen at a much faster rate than the (high) rate for all producers in the urban areas, as consumers shifted their purchases to modern sector producers to the detriment of the traditional sector. (See Section II).

Notwithstanding the impressive increase (apparently) registered

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117 According to interviews of the writer with managers of 23 factories visited during 1966-67.

118 For the Third Plan period (September 1962 - March 1968), private (mainly modern sector) investment in manufacturing is estimated by Iranian planners at 46 billion rials, or 50 per cent higher than the target set for such investment by the Plan. See Plan Organization, Fourth National Development Plan, 1968-1972 (Tehran: no date), p.118.

119 Extension of considerable amounts of Government credits to private industrial entrepreneurs in the years 1957-60 resulted in much higher levels of private investment in manufacturing than recorded previously. See Richard Elliot Benedick, Industrial Finance in Iran (Boston: Harvard University, 1964), pp. 19-20.

120 As an indication, investment in machinery and in industrial and mining equipment (including that of the Government) rose from 5,228 million rials in 1342 (1963-64) to 15,252 million rials in 1345 (1966-67). See Bank Markazi Iran, Annual Report and Balance Sheet as at March 20, 1968 (Tehran: no date), Table 47, p.137.

in urban wage employment in private modern sector manufacturing activities between 1956 and 1966 in the urban areas, a definite trend towards rising capital-intensity in factory operations (as well as disembodied labour-saving technical change also increasing worker productivity) in effect has restricted labour demand in manufacturing to a level lower than would have been the case if employers had not shifted to more labour-saving techniques. (See Section II). In many cases, entrepreneurs setting up new factories have maintained that they have had no alternative to using the highly capital-intensive techniques of industrialized countries, whose technology, they assert, is the only one available to them in the line of manufacturing chosen.[121] Nevertheless, even where some flexibility in choice of technique has existed (and been known to them),[122] Iranian industrialists have generally opted for the latest technology in setting up a new factory, often based on irrational considerations, such as prestige or a desire to be as "modern" as possible. Introduction of the latest Western technology in new factories - as well as replacement of older, relatively labour-intensive techniques in existing factories with more automatic processes - has also been explained by entrepreneurs as a means of avoiding (or reducing) the "trouble" of employing a large

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[121] As stated to Hushang Mehr Ayin, "Iran's Industries Get Bigger Every Year", Kayhan International, June 9, 1968, p. 5. Such an argument would appear valid in the case of heavy industry (petrochemicals, oil refining, steel, chemicals, etc.). Furthermore, in those frequent instances where the Iranian entrepreneur is in a joint venture with the branch of a Western manufacturing firm, the choice of technique is dictated by the foreign partner.

[122] Ignorance of the range of techniques available in a particular production process is certainly a reality in Iran.

and unwieldy number of workers,[123] who may also prove difficult to discharge (if necessary) because of the regulations of the Labour Law.[124] On the other hand, industrialists have also often justified such actions on the basis of the economic criterion of cost reduction (and profit-maximization), maintaining that Iranian labour is indeed as expensive (or even more so, in view of rising wage rates[125]) as that of Western countries in terms of total labour costs per unit of output (and using the same capital equipment)[126], and that more capital-intensive methods also result in lower wastage of raw materials and more uniform quality of product.[127] In light of the distortedly low price of capital in Iranian factor markets (see Chapter Six), such preference for capital-intensive methods by entrepreneurs may indeed

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123 Managing a great number of workers is allegedly "much more difficult than a few highly skilled operators", according to industrialists interviewed by Mehr Ayin, loc. cit. One entrepreneur (brick-making) had preferred to buy an earth-digging machine that did the work of 500 labourers to hiring that number of workers because such an action involved "less trouble" to him. (According to Dr. Sepehr, Head of Iranian Employment Service, in a conversation of October 16, 1966).

124 As noted in footnote 112.

125 Often as a result of their own wage policies, however. See Chapter Four.

126 A point made by many managers of factories visited by the writer during 1966-67, but impossible for the writer to verify. High labour costs per unit of output derive from a combination of the failure of the workforce to operate the machinery as efficiently as in the country of origin (with resultant lower output per machine) and the need to use more labour per machine than in the country of origin. (As a consequence of the latter situation, of course, the capital intensity of Iranian factory operations is in actuality lower than as implied by the type of machinery as used in the country of origin).

127 From the standpoint of sales, high quality and good appearance would be particularly important for those Iranian products that must compete with similar imported items from the West.

in many instances be economically rational on their part.[128]

b. Characteristics of Traditional Sector Wage Labour Demand

The rate of increase of 28 per cent that is estimated to have occurred in (private)[129] traditional sector urban wage employment between 1956 and 1966 was almost entirely due to high rates of increase in employment in only two activities, trade (82 per cent) and construction (45 per cent). (See Table 39). The small retail and wholesale outlets of the traditional sector were able to hire considerable numbers of additional workers because of the increased level of sales activity and the lack of any effective competition from the very small modern sector of commercial trade, while the greatly increased level of construction activity during this period similarly benefited the dominant small-scale sector of artisan builders who carried out most of the actual construction work (and hired most of the workers in construction activity) in the urban areas during this period. (See Section II).

Wage employment in traditional sector manufacturing, on the other hand, grew by only 22 per cent, or less than the average for the traditional sector as a whole. This level of increase is an accurate reflection of the state of change in demand for wage labour

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128 Though not in terms of the best use of Iran's resources, of course. (See Chapter Six). Furthermore, introduction of very sophisticated technology may be definitely disadvantageous to entrepreneurs in those instances where the workforce is not skilled enough to operate the machinery at rated capacity, or where the absence of a qualified maintenance staff results in lengthy idle periods for the machinery following breakdowns, a common occurrence due to the carelessness and bad treatment of the machinery at the hands of an unmotivated and inadequately-qualified workforce. In many Iranian factories, these conditions have prevailed.

129 All traditional sector workers are in private employment, of course.

in manufacturing.[130] Changes in the demand pattern for artisanat products may be regarded as the main factor in the low rate of growth in such employment;[131] dying artisanat (and home workshop) activities discharged wage employees in numbers only somewhat lower than the increases in wage employment registered in small-scale activities with a rising demand for their goods.[132] Wage employment in artisanat activities is more sensitive to downward shifts in demand than is non-wage employment, since employers are free to discharge their few wage employees in such a situation,[133] while most self-employed (particularly older) artisans will accept lower incomes rather than leave their work, mainly because of the lack of any alternative

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130 Since artisan employers generally carry no surplus workers on their payrolls nor have any (prolonged) unfilled demand for labour. A UN advisor to Iran has observed that there are few surplus workers in small manufacturing units "because the small manufacturer cannot afford to carry the burden of "passengers". He can also train any labour required himself. See G.L. Peace, "Report on the Development of Small-Scale Industries in Iran" (Unpublished-Roneo) (Tehran: UN Bureau of Technical Assistance Operations, December 12, 1961), p.69.

131 The lack of information on investment and choice of technique, as well as productivity changes, in small industry prevents an evaluation of their roles. Whatever increases in investment that have occurred during the review period probably have more affected own account worker employment than wage employment.

132 As an example of downward and upward shifts in wage employment as a result of demand changes for artisanat goods, it has been noted in Shiraz (Iran's sixth largest city) that employers in carpentry shops have been forced to dismiss most of their apprentices because of lack of sufficient orders for wood products, while wage employment in metal furniture, automobile repair, and home appliance repair workshops is on the increase. (Heshmat Ala'i, "Artisan's Income", Kayhan International, June 9, 1965, p.4).

133 Regulations of the Labour Law, including that making discharge of wage employees difficult, are generally not enforced in small workshops. (See Chapters Four and Six).

TABLE 39

ESTIMATE OF TRADITIONAL SECTOR WAGE EMPLOYMENT[a]

BY INDUSTRIAL ACTIVITY, 1956-1966

Urban Areas - 1956 Basis

Industrial Activity	Number Employed at:		Net Change 1956-1966
	November 1956	November 1966	
Agriculture	81,000	65,000	-16,000
Mining	---	---	---
Manufacturing[b]	233,000	284,000	+51,000
Construction	150,000	217,000	+67,000
Electricity-Gas-Water-Sanitary Services	1,000	3,000	+2,000
Trade	49,000	89,000	+40,000
Banks-Insurance-Real Estate	1,000	4,000	+3,000
Transport-Storage-Communications	75,000	79,000	+4,000
Services	161,000	187,000	+26,000
Not Adequately Described	20,000	30,000	+10,000
Total	771,000[c]	958,000	+187,000
(Ditto, adjusted to exclude estimate of conscripts)	(746,000)	(958,000)	(+212,000)

[a] Employees in units of nine or less workers or outside any fixed working place.

[b] Includes all unmechanized units regardless of number of workers.

[c] Includes (estimated) 25,000 conscripts reported by 1956 census under previous (traditional sector) wage employment.

Source: Derived as residual of total private wage employment and estimate of modern sector component of such employment as indicated in Appendix Table 39.

employment possibilities for them.[134]

D. DEMAND FOR WAGE vs. NON-WAGE LABOUR

In this subsection, a comparison will be made between wage and non-wage labour demand in a very few broad occupational groups in the urban areas between 1956 and 1966. This type of classification should make clear certain basic patterns of change that occurred during these years as between demand for manual and non-manual labour in wage and non-wage employment. Employment changes in (non-agricultural) manual occupations will be observed in greater detail in view of the heavy weight of such occupations in total urban employment.[135]

Table 40 breaks down total urban employment in 1956 and 1966 by four occupational categories and according to the worker status of the employed. This table indicates that the increase in employment in non-manual occupations was almost entirely centred in wage employment, which accounted for over 95 per cent of the net expansion in employment. However, in non-agricultural manual occupations (where employment is five times greater than in non-manual occupations), the rate of growth of non-wage employment outstripped that of wage employment, by 53.5 to 37.1 per cent, as two out of five of the (net) new entries into such occupations went into self-employment. In agricultural occupations, non-wage employment declined at a rate over

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[134] Self-employment in activities of declining demand may actually increase to the extent that new workers take up such work for want of any other means of earning an income. In contrast to the very low rate of increase of wage employment in traditional sector manufacturing noted above, total non-wage manufacturing employment grew by 43 per cent over the review period, or from 132,000 in 1956 to 189,000 in 1966. (Derived by subtracting traditional sector wage employment in urban manufacturing of Table 39 from total employment in urban traditional sector manufacturing /including non-wage employed/ of Table 25).

[135] In 1966, 71.8 per cent of total urban employment (or 1,770,682 of 2,465,974) was in (non-agricultural) manual occupations. (See Table 28).

TABLE 40

DISTRIBUTION OF URBAN (1956 BASIS) EMPLOYMENT BY TYPE OF OCCUPATION AND EMPLOYMENT STATUS,

1956-1966

Type of Occupation	Worker Status	Number Employed in:		Net Change, 1956-66	
		Nov. 1956	Nov. 1966	Number	Pct. Change
Non-Manual	Non-Wage	22,416	28,611	+6,195	+27.6
	Wage	178,957	319,653	+140,696	+78.6
Non-Agricultural Manual	Non-Wage	382,877	587,726	+204,849	+53.5
	Wage	860,641	1,179,747	+319,106	+37.1
Agricultural	Non-Wage	142,064	86,588	-55,476	-39.1
	Wage	87,715	73,167	-14,548	-16.6
Military and Not Stated	Non-Wage	4,511	7,219	+2,708	---
	Wage	59,504	168,045	+108,541	---
Total	Non-Wage	551,868	710,144	+158,276	+28.7
	Wage	1,186,817	1,740,612	+553,795	+46.7

Note: Footnotes to Tables 32 and 33 also apply to this table.

Source: As compiled from 1956 and 1966 census figures cited in Tables 32 and 33 of this chapter.

twice as fast as that of wage employment.[136]

Of the three occupational groups comprising non-agricultural manual employment, rates of growth in non-wage employment outpaced those of wage employment in service and in crafts and production worker occupations, while lagging somewhat behind that of wage employment in the sales worker category. (See Table 41). However, net additional numbers employed in non-wage sales occupations were three times greater than those additionally employed in wage positions. The patterns of change in employment in these very important (employment-wise) occupations suggest that demand by employers for labour in most occupations of manual workers has been rising more slowly than the increase in the supply of labour to these occupations during the review period, with the excess supply forced into (traditional sector[137]) self-employment in these occupations. (See Chapter Four).

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[136] In all three of these occupational groups, as well as for the total of urban employment, the rates of increase in non-wage employment indicated in Table 40 are understated (and those of wage employment overstated) due to the distorting effect of mis-classification of an estimated 75,000 (Government wage employed) conscripts in 1956 under their previous, rather than current, occupation and status, as noted earlier.

[137] Assuming that all non-wage employed in manual occupations are engaged in small units, in homes, or outside any fixed working place.

TABLE 41

DISTRIBUTION OF NON-AGRICULTURAL MANUAL WORKER EMPLOYMENT BY WORKER STATUS AND OCCUPATIONAL GROUP

URBAN AREAS (1956 BASIS)

1956 - 1966

Occupational Group	Non-Wage Employed				Wage Employed			
	Number Employed in		Net Change 1956-66		Number Employed in		Net Change, 1956-66	
	Nov. 1956	Nov. 1966	Number	Pct. Change	Nov. 1956	Nov. 1966	Number	Pct. Change
Sales	199,366	273,768	+ 74,402	+ 37.3	55,720	82,475	+ 27,205	+ 49.2
Service	26,526	49,720	+ 23,194	+ 87.4	223,858	276,137	+ 52,279	+ 23.4
Crafts and Production [a/]	156,985	264,238	+107,253	+ 68.3	581,513	821,135	+239,622	+ 41.2
Total	382,877	587,726	+204,849	+ 53.5	860,641	1,179,747	+319,106	+ 37.1

a/ Includes transportation and communications occupations.

Source: As compiled from 1956 and 1966 census data cited in Tables 32 and 33 of this chapter.

CHAPTER FOUR

SURPLUSES AND SHORTAGES OF LABOUR WITHIN THE CONTEXT OF THE OPERATION OF THE LABOUR MARKET MECHANISM

This chapter initially discusses the prevalence of surpluses and shortages of labour in the different demand sectors (characterized by type of employer) and relates such imbalances to the functioning of the price mechanism. Surpluses and shortages in different occupational and skill groups are identified and treated separately for each demand sector where possible. In a final section, the nature and extent of price-induced labour mobility in overcoming surpluses and shortages of labour in various demand sectors, occupation/skill groups, and regions is examined.

I. EXTENT AND CAUSES OF LABOUR IMBALANCES IN DEMAND SECTORS

In this section, surpluses and shortages of labour are quantified (where possible) for various demand sectors. In keeping with the format used throughout this dissertation, differentiation is made between the non-wage and wage sectors, with the latter further divided into "modern" and "traditional" components. In each instance, the market forces shaping supply-and-demand conditions for labour and the degree of flexibility of (and obstacles to) the market mechanism in bringing intra-sectoral supply-and-demand of labour into balance are analyzed.

A. THE NON-WAGE SECTOR OF LABOUR DEMAND

In strictly economic terms, it is not possible to speak of "surpluses" and "shortages" of labour in non-wage employment in the urban areas of Iran because of the unhindered free operation of the

market mechanism in allowing supply-and-demand of labour in various occupations and skills in this sector of the labour market to come into balance at particular earnings levels. Except in a few instances, freedom of entry into such self-employment has been unrestricted,[1] while the price of labour paid by its employer - the community at large - is allowed to fluctuate to the degree necessary in adjusting supply and demand.[2]

However, a combination of the pressure for any sort of income and the "shortage" of employment opportunities in the wage-paying sector due to failure of the market mechanism to function properly (see subsection B below) has obliged the surplus of labour to the wage sector who cannot afford open unemployment (nor to train for an occupation or skill in demand, nor who are able to return to their villages /if immigrants/) to crowd into the non-wage sector regardless of the level of earnings prevailing for their occupations and skills, which they force even lower through their entry. These

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[1] Iranian guilds have blocked new entries into various trades, while municipal and national government authorities, through exercise of control over issuance of licenses, have restricted the numbers of butchers' and bakers' shops, as well as taxi and truck drivers, for instance. ("Butchers' and Bakers' Shops", Kayhan International, October 24, 1963; Kayhan International, February 22, 1964; and "Taxis - Comment", Kayhan International, December 16, 1964). Similarly, the Iranian Bar Association "very severely restricts entry into the /legal/ profession". (The American University, Special Operations Research Office, Foreign Areas Studies Division, U.S. Army Area Handbook for Iran /Washington: U.S. Government Printing Office, May 1963/, p.325).

[2] As noted in developing countries by Simon Rottenberg, "Note on 'Economic Progress and Occupational Distribution'", Review of Economics and Statistics, May 1953, p. 169. In Iran, in some instances, however, such as for taxi drivers, earnings rates are fixed by Government authorities. (Shapour Rahbari, "The Wind of Change Sweeps Taxi Ranks", Kayhan International, April 29, 1967, p. 4).

persons may be regarded as "surplus" to the non-wage sector, here[3] in the sense that they would not enter (or remain) in such employment at the low prevailing earnings rates if not forced to by their poverty and the obstacles to their desired movement into wage employment. (See Subsection B). Considerable (though unquantifiable)[4] numbers of unskilled manual workers have been occupied in sales and petty services occupations on their own account or as unpaid family workers as a consequence of these conditions. (See Chapters Three and Five).

B. THE WAGE SECTOR OF LABOUR DEMAND

During the review period, the supply of labour to the wage-paying sector of the urban labour market considerably outstripped employer demand for it, giving rise to large and persistent surpluses of labour. On the other hand, in certain occupations and skills labour shortages developed as employers were unable to fill their requirements. These surpluses and shortages - and the market forces causing them - will be viewed first at the global level of wage employment and then within the framework of "modern" and "traditional" sectors, where conditions have differed greatly.

1. The Global Level of Wage Labour Demand

The size of the total surplus of labour to the wage-paying sector of urban labour demand cannot be quantified exactly because data on two of the three components of this excess supply - the openly

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[3] But elsewhere often defined as surplus in the sense that their marginal productivity is very low or zero. (Marginal productivity analysis is outside the scope of the /labour market/ approach followed in this dissertation, however, and will consequently not be taken up here).

[4] An estimate of their numbers as at November 1966 is made in Chapter Five, Section IV, and included in Table 42, q.v.

unemployed passively seeking /wage/[5] employment (see Chapter Five) and those non-wage employed seeking to transfer into wage employment - do not exist. It appears likely, however, that this surplus has been rising, both in numbers and as a percentage of the total supply (including those already wage-employed), over the years 1956-1966, as suggested by the rising size of the third component of this surplus, viz. the openly unemployed actively seeking /wage/ employment.[6]

Although not possible to do for the initial year of the review period (and thus to show the change over this period), an estimate of the size of the total surplus to wage employment can be made for the terminal year. (Table 42). According to this estimate, over one-fourth of the total supply of labour to the wage-paying sector is shown to be excessive to requirements of employers in 1966.

It is not possible to make any valid estimates of the extent of surpluses to wage employment in individual (or groups of) occupations or by skill level of manual workers. In the non-manual occupations, excess supplies are believed to be very great in general clerical work (representing considerable numbers of openly-unemployed youth),[7]

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5 We may assume that all unemployed persons, whether actively or passively seeking work, are in effect seeking wage-paying employment, in view of their freedom to enter non-wage employment if they desired.

6 The numbers of these unemployed persons increased from 85,824 to 138,696 during this period (see Table 46), comprising 6.7 per cent of the supply to wage employment (when this supply limited to the total of wage employed persons plus unemployed actively seeking work) in 1956 and 7.4 per cent in 1966. (Supply in 1956 amounted to 1,272,641, of which 1,186,817 wage-employed, and in 1966 to 1,879,308, of which 1,740,612 wage-employed). (Numbers of wage employed from Table 33).

7 During the 12-month period May 1963-May 1964, a Ministry of Labour sample labour force survey of urban areas in May 1964 reported that of 25,931 persons seeking clerical work during this period, only 4,034 (or 15.6 per cent) succeeded in their endeavour. (Derived from data of Tables 3-25 and 3-53, pp. 2307 and 2338, respectively, of "Investigation of Manpower Problems of the Urban Areas of Iran" /in Farsi/, in Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Investigations of Manpower Problems /in Farsi/, Volume Three, /Tehran: 1344/).

TABLE 42 ✓

ESTIMATE OF TOTAL SURPLUS TO WAGE EMPLOYMENT, 1966

Urban Areas (1956 Basis)

Source of Supply to Wage Employment	Supply to Wage Employment (1)	Surplus to Wage Employment (2)	Rate of Surplus (Pct) (2 ÷ 1)
Wage employed	1,740,612	----	0.0
Openly-unemployed Actively Seeking /Wage/ Employment	138,696	138,696	100.0
Openly-unemployed Passively Seeking /Wage/ Employment (est.)	351,977	351,977	100.0
Non-wage Employed Seeking Wage Employment (est.)	119,400	119,400	100.0
Total	2,350,685	610,073	26.0

Source: As calculated from data of Table 33 (for number of wage employed) and Table 50 and footnote 40 of Chapter Five (for numbers of unemployed and non-wage employed seeking wage employment, respectively).

while surpluses in manual worker occupations occur mainly among the mass of unskilled,[8] some of whom are openly unemployed and actively seeking work, but a greater number of whom are in non-wage employment or are unemployed but only passively seeking work.[9]

In contrast to the significant incidence of surplus labour to wage employment, the extent of shortages (as a percentage of total demand for labour by employers) has not been great; a 1958 manpower requirements survey indicated that only 1.9 per cent of employer demand in that year represented vacancies which employers had not been able to fill "over a reasonable period of time."[10] Nevertheless, in certain occupations and skills (concentrated in the modern sector), shortages have been significant and difficult to overcome, particularly in the middle-level manpower positions (see subsection B.2 below). Of all vacancies reported to the Ministry of Labour's Employment Service over the ten-year period 1957-1966 by employers,[11] almost half (45.6 per cent) could not be filled by the Service from among its

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8 Great surpluses of unskilled manual workers have been noted by many observers of the labour situation, including Richard W. Gable, "The Public Service in Iran", Public Personnel Review, Vol. 22, No. 1, 1961, p.29, and officials of the Ministry of Labour's Employment Service in conversations with the present writer.

9 As compared to 102,000 openly unemployed and actively seeking /wage/ work with less than secondary school education (Table 51) (who may be considered the manual unemployed), an estimated 119,000 (low-skilled) manual workers in non-wage employment seeking to transfer to wage employment and most of the 352,000 (mainly housewives of no skill) inactively unemployed were surplus to wage employment.

10 As calculated from figures of Ministry of Labor and Plan Organization, National Manpower Resources and Requirements Survey: Iran 1958 (Tehran: Governmental Affairs Institute, July 1959), Table 1, p.1.

11 Excluding the year 1962 (1341), for which data are lacking.

registrants.[12]

Theoretically, these surpluses and shortages can be attributed to a mal-functioning of the price mechanism in failing to bring about an optimum allocation[13] of labour of various occupations and skills as between different employers. In this sense, surpluses are due to the maintenance of a floor wage too high to clear the market of such labour, while shortages reflect an inadequate upward adjustment of wages for labour in short supply to bring supply and demand into equilibrium. Thus at the prevailing wage rates for labour in these occupations and skills, there are "excess supplies" and "shortages" of labour.[14]

The limited efficacy of the price mechanism in stimulating adjustments in the supply of and demand for labour through wage rate changes may be attributed to many factors, here broadly classified as (a) market imperfections, (b) institutional interferences, (c) wage leadership practices of the Government, and (d) irrational (economic) behaviour on the part of employers. While specific aspects of the last three causes relate to, or vary widely in their effect as between, different sectors of wage employment (and thus

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12 Or 64,162 vacancies of the total 140,796 referred to the Employment Service. (Totals from [unpublished] data of the Employment Service provided the present writer). As an indication of the degree of coverage of the Service, in 1958, vacancies listed with it (10,372) represented about one-third of the total found by the survey indicated in footnote 10 (or 26,451).

13 That is, with the ratio of the marginal product of labour to wages equal in all occupations and for all degrees of skill, maximizing the economic advantages to both employer and employee.

14 See, for instance, Simon Rottenberg, "The Meaning of 'Excess Supplies of Labour'", Scottish Journal of Political Economy, February 1961, p. 69.

will be treated separately under those sectors where of widest relevance),[15] in all sectors market imperfections have had a more or less equally deleterious effect on the proper functioning of the price mechanism.

Specifically, the state of knowledge on market conditions by employer and worker alike has been very weak, preventing each from optimising his relative position in the labour market. Workers have lacked information on the existence of job openings and the rates of pay being offered by different employers for their skill and occupation in their local markets as well as in those of other regions of the country. Similarly, employers have not known of the availability of various categories of manpower (except of the manual unskilled, in general oversupply throughout the urban areas) or the rates of pay they must offer to elicit an adequate supply of labour in the skills required for staffing their production units. The effectiveness of the Ministry of Labour's Employment Service in improving the state of market knowledge by providing information to worker and employer alike has been very limited.[16] No system of vocational guidance exists for assisting youth in choosing a suitable occupation. To a large extent as the consequence of such imperfect knowledge of labour market conditions, individual workers have frequently accepted

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[15] See subsection B.2 (modern sector wage employment) for institutional interferences and subsection B.2 (b) (private modern sector wage employment) for wage leadership of Government and irrational economic behaviour of employers.

[16] Largely because of the limited use of its services by both job-seekers and employers, as acknowledged by the head of the Service to the present writer. As in other Middle Eastern countries, traditional means of seeking and filling jobs (personal contacts, informal communication, etc.) are generally preferred to the more formal approach of an employment service. (See "Employment Prospects of Children and Young People in the Near and Middle East", International Labour Review, January 1963, pp. 64 and 66).

remuneration lower, and individual employers offered payment higher, than rates of pay that would have brought supply and demand in various skills and occupations of labour into balance.

2. The "Modern Sector" of Wage Labour Demand

The "modern sector" of wage labour demand here refers to that of private employers hiring 10 or more workers and that of the Iranian Government. It may also be termed the "high wage" sector of wage employment, in view of the much relatively higher rates of remuneration modern sector employers pay than do those of the traditional sector. (See section II for an indication of the range of wage differentials between the two sectors).

No data exist to allow a quantification of the level of excess supply of labour to modern sector employers. However, it is possible to make a rough estimate of the size of such surplus for the year 1964 based on certain assumptions about the characteristics of the unemployed and of persons reported by a Ministry of Labour survey in that year as wishing to change their work,[17] and the present writer's calculations of the level of employment in different demand sectors during the same year. According to this estimate, shown in Table 43 below, for every person employed in the modern sector in 1964, another 1.1 persons were vainly seeking to gain work there.

Most of the heavy surplus of manpower to modern sector employers indicated by Table 43 has been concentrated in a relatively few occupational and skill groups of labour. Among manual workers, the

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[17] Mainly that these persons wished to gain modern sector wage employment. This assumption seems reasonable, in view of the much higher earnings rates prevailing in this sector of wage employment than in non-wage and traditional sector wage employment during the review period. (See section II).

TABLE 43

ESTIMATE OF LEVEL OF LABOUR SURPLUS TO MODERN SECTOR WAGE EMPLOYMENT, NOVEMBER, 1964

Urban Areas (1956 Basis)

Source of Supply to Modern Sector	Supply to Modern Sector Employment	Surplus to Modern Sector Employment	Pct. of Supply Surplus
Employed in Modern Sector	709,000	---	0.0
Openly-unemployed and Actively Seeking Employment [a]	139,000[b]	139,000[b]	100.0
Openly-unemployed Passively Seeking Employment [c]	352,000[b]	352,000[b]	100.0
Non-wage Employed Seeking Work Change [d]	92,000[e]	92,000[e]	100.0
Traditional Sector Wage Employed Seeking Work Change [f]	212,000[g]	212,000[g]	100.0
Total Supply	1,504,000	795,000	52.9

[a] Assuming all openly-unemployed persons actively seeking employment were seeking modern sector wage employment.

[b] Figure for November 1966 (from Table 42).

[c] Assuming all openly-unemployed persons passively seeking employment were seeking modern sector wage employment.

[d] Assuming that all non-wage employed seeking to change their work were seeking modern sector wage employment.

[e] Equivalent to 13.2 per cent of non-wage employed (as in 1964 Ministry of Labour survey) of the present writer's estimate for 1964 (of 694,000) (Table 26 and Appendix Table 37).

[f] Assuming that all private wage employees seeking to change their work were in the traditional wage sector, and were seeking modern sector wage employment.

[g] Equivalent to 21.1 per cent of private wage employed (as in 1964 Ministry of Labour survey) of the present writer's estimate for 1964 (or 1,004,000) (Appendix Table 37).

Source: Tables 26 and 42; Appendix Table 37; and "Investigations of Manpower Problems of the Urban Areas of Iran", op. cit., Table 3-26, p. 2308 (for percentages indicated in footnotes e and g above, as derived from indicated figures of employed persons wishing to change their work).

unskilled and semiskilled of no particular occupational specialization have been in considerable oversupply, most being rejected for employment in factories at whose gates they have applied for work in great numbers.[18] The situation has been similar for the greatly-increasing numbers of secondary school graduates (and drop-outs) aspiring to general non-manual positions (mostly to clerical work) in the modern sector, for whom relatively few opportunities have existed.[19] A clear sign of the acute imbalance in the supply-and-demand situation in the modern sector for manual workers of lower skills and untrained secondary school-educated youth is their willingness to pay large bribes and "fees" to hiring authorities and "fixers", respectively, in order to gain employment in modern sector firms.[20]

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18 For instance, managers of 14 factories visited by the present writer during 1966-67 reported rejecting from 73 to 97 per cent of the unskilled and semiskilled manual workers applying at their gates during the year preceding the writer's visit. Similarly, an Iranian manpower planner notes that "the number of /manual worker/ candidates for work /in factories/ is always greater than the number of empty positions". See Nasser Movafaqian, "The Problem of Vocational Training in Iranian Industry" /in Farsi/, Majalleh-e Otaq-e Sanaye' va Ma'adan, No. 2, Shahrivar 1342, p.32. (In view of the frequent observation that virtually all economically-active persons aspire to Government /modern sector/ employment /see Chapter Two/, the percentages of non-wage and traditional wage sector employed wishing to change their work as reported by the Ministry of Labour survey /see Table 43/ appear too low).

19 As an example, in 1967 the largest vegetable oil factory in Iran received applications from 1,200 high school graduates in answer to its newspaper advertisement for 12 sales positions it was seeking to fill. (Conversation with Mr. Malek, Industrial Management Institute, July 20, 1967).

20 In 1968, it was reported that workers seeking drivers' positions with the Tehran Bus Company had been paying from 15,000 to 30,000 rials ($200 to $400) to hiring officials in order to secure appointments. (Kayhan International, September 10, 1968). A Ministry of Labour official (in a private conversation with the writer on September 3, 1967) stated that high school graduates were so desperate for /modern sector/ desk jobs that they were paying 20,000 rials ($267) and more to professional "fixers" of influence adequate to arrange jobs for them.

The difficulties experienced by secondary school graduates in finding (modern sector) wage employment have regularly been the subject of heated discussion by Iranian officials and the press, usually from the standpoint of the costly waste of educating such youth when no jobs were available for them. The crux of the problem is on the supply side: a fast-rising secondary school student population,[21] resulting in a parallel rate of increase in the number of graduates turned out,[22] only a small percentage of whom can gain admission to Iranian universities (to which virtually all aspire[23]) and the rest of whom are obliged to enter the labour market in search of the middle-level manpower desk jobs almost all desire if unable to enter university. However, there are indications that the increasing difficulty in obtaining such non-manual positions is causing some graduates to consider accepting lower-status (and lower-paid) manual work instead.[24]

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[21] Between 1956 and 1966, the number of male secondary school students increased by 221 per cent (from 122,916 to 394,425) and the number of female students by 356 per cent (or from 40,654 to 185,291). See Ministry of Education, Bureau of Statistics, Department of Planning and Studies, Educational Statistics in Iran (in Farsi) (Tehran: Esfand 1346), Tables 2 and 6, pp. 12 and 16 respectively.

[22] Between June 1959 and June 1966, the number of annual graduates jumped from 11,950 to 29,321, according to figures of the Ministry of Education given the writer.

[23] A sample survey of secondary school students in Tehran in their last three years of study in 1964 revealed that 90.4 per cent of the boys and 79.6 per cent of the girls intended to seek admission to university after graduation. See Ministry of Education, General Department of Studies and Programs, Department of Research and Evaluation, Research Regarding the Educational and Occupational Desires of Youth (in Farsi) (Tehran: Khordad 1345), Table 5, p.10.

[24] Many high school graduates, especially those who after the completion of their military service have remained unemployed, "are prepared to take up even low-income and low-status work for an income. They have lost their youthful ambition." (R. Ettemadi, "A Zero for the Ministry of Education and a Question for High School Graduates" [in Farsi], Javanan, 23 Mordad 1346, p. 3).

In most instances, whatever shortages of labour in various occupations and skills that have occurred in the wage sector have affected the modern sector only, where such skills are in demand. While these shortages have not been significant when viewed in terms of the total demand for labour by modern sector employers, they have been important from the standpoint of supply and demand in particular occupations and skills. Thus modern sector employers have reported acute shortages of middle-level manpower in such occupations as accountants, teachers, nurses, specialized clerical workers, technicians, foremen, and for manual machinery operators of very high skill.[25] These skills are generally of a type not previously existing in Iran and requiring considerable specialized training.

The great surpluses and persistent shortages of labour in the modern sector to a great extent[26] may be attributed to the failure of the market mechanism to adjust the prices of various skills and occupations of labour to reflect their real scarcities to the modern sector. For skills in general over-supply, wage rates have been

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[25] Managers of factories visited by the writer during 1966-67 maintained that they had considerable difficulty in filling their demand for technicians and highly-skilled machinery operators. Shortages of technicians, nurses, stenographers, laboratory assistants, and primary school teachers have been noted, inter alia, by William F. Delaney, Labor Law and Practice in Iran (Washington: U.S. Department of Labor, May 1964), p. 46; Kayhan International, May 24, 1965 and December 24, 1967; and "Wide Gap in the Middle", Tehran Journal, November 27, 1966. Shortages of skilled manual workers have been observed by G.L. Peace, "Report on the Development of Small-Scale Industries in Iran" (Unpublished-Roneo) (Tehran: United Nations TAO, December 12, 1961), p. 40; Gable, op. cit., p. 29; and The American University, op. cit., p. 496. The manpower requirements survey of 1958 reported acute shortages of nurses, accountants, stenographers and secretaries, and serious shortages of draftsmen, cartographers, surveyors, medical technicians, statisticians, and teachers. (See Table 2, pp. 3-5, of Ministry of Labor and Plan Organization, op. cit.)

[26] Inadequate labour mobility in response to favourable price movements to some degree is also responsible for shortages in some occupations.

downward-inflexible, maintained at levels higher than could clear the market. At these prevailing rigid (or even rising[27]) rates for labour in surplus supply, modern sector employers have hired up to their technical needs and rejected the rest; thus in effect the (downward-inflexible) rates have determined the level of demand of employers,[28] rather than employers' demand determining the rates.[29] In the case of the mass of unskilled manual workers in greatest oversupply to the modern sector, prevailing rates have borne little relationship to those for skill either in the agricultural sector or in the traditional sector of wage employment. (See Section II).

As regards shortages of labour to the modern sector, persistent shortfalls in the supply of particular skills and occupations of manpower should indicate that upward-adjustments in wage rates for such

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[27] As in the cases of unskilled manual workers in office attendant positions and of general office clerks, class 1 and class 2, whose earnings rates between 1960 and 1964 in modern sector units employing 200 or more workers rose by 114, 48, and 78 per cent, respectively (or from 3,970 to 8,502 rials, 6,096 to 9,020 rials, and 8,742 to 15,600 rials, respectively). (Source: National Iranian Oil Company, "Report on the Investigation of Salaries, Wages, and Benefits of the Principal Employers of Iran in 1339" and "... in Farvardin 1343" /in Farsi/ /Unpublished-Roneo/ /Tehran: no dates/, no page numbers indicated). Similarly, between 1955 and 1967, the minimum wage rate for unskilled workers in the oil industry rose from 82 to 136 rials. (U.S. Department of Labor, Bureau of Labor Statistics, Summary of the Labor Situation in Iran /Washington: International Co-operation Administration, October 1955/, p.16, and Heshmat Ala'i, "Labour Contracts in the Oil Industry", Kayhan International, April 1, 1967, p.4).

[28] However, to the extent that employers' wage policies are responsible for the downward-inflexibility of such wage rates (see subsection B.2 (b), employers have disregarded price considerations in determining the number of workers in general oversupply to be hired by their units.

[29] As observed by W. Arthur Lewis in the case of the modern sectors of developing countries. See his "Unemployment in Developing Countries", The World Today, January 1967, p.15.

categories of manpower have not been adequate to bring supply-and-demand into balance at new, higher rates. In some skills in short supply, rate increases have indeed been too (relatively) modest to elicit higher supply levels and reduced employer demand.[30] On the other hand, in other skills and occupations, very high rates of wage increases have been recorded,[31] but supplies still have not met demand for such labour. In these instances, to the extent that short-run supply inelasticities are not the explanation, non-price factors have been responsible, including relatively low prestige associated with the skill/occupation and inability of persons to train for the skill/occupation due to poverty and/or inadequacy of training programs. (See section II and Chapter Two, subsection II.A).

The price mechanism for labour in the modern sector has been hindered in its operation by the existence of market imperfections, institutional interferences, the wage leadership activities of the Government, and irrational (economic) behaviour on the part of employers. While the latter two forms of obstruction affect only the private employers of the modern sector (and will be treated separately later), institutional interferences have pertained to the whole modern

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30 For instance, the average monthly wages and benefits of master craftsmen in artisan occupations employed in the largest modern sector firms increased by only 11.9 per cent (from 9,986 to 11,903 rials a month) between 1960 and 1964, as compared to an increase of 44.9 per cent (from 3,733 to 5,408 rials) for semi-skilled artisans in less demand (source cited in footnote 27), and higher rates of increase for unskilled and untrained manpower. (See footnote 27).

31 For instance, between 1960 and 1964, remuneration of accountants, auditors, head accounts clerks, professional nurses, and draftsmen employed in the largest modern sector units increased by 129,106, 92, 112 and 67 per cent, respectively. (Based on earnings data of source indicated in footnote 27).

sector of wage employment. They may be identified as (a) minimum wage legislation, (b) profit-sharing regulations, and (c) the actions of trade unions.

Although minimum wage rate regulations were introduced and legal minima set for various skills of manual workers in 1946, rates have not been revised (except in the case of the oil industry) since that date and have fallen so far behind in real terms that they are lower than the competitive floor rate paid by the Government and most private modern sector employers and consequently do not constitute an effective form of interference in the fixing of minimum wage rates.[32] During the review period, the Government consciously maintained a stance of non-intervention in the determination of minimum wage rates for manual workers.[33]

Since January 1963, the main direct interference by the Iranian Government in wage rate determination in the modern sector has derived from the implementation of its Profit-Sharing Law enacted in that month, which requires employers to share gains from productivity increases by making additional payments to their workers of up to 20 per cent of their additional profits, as based on various formulae to be worked out in negotiations between each factory's workers and management.[34] By the end of 1966, the Ministry of Labour

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[32] Only two of fifteen factories responding to questions on wage rates posed by the present writer on his visits during 1966-67 reported paying the legal minimum wage (35 rials) to their unskilled workers.

[33] See Chapter Six for a more detailed account of Government policy towards minimum wage rates.

[34] For the text of this Law, see "Profit-Sharing Decree for Workers of Industrial and Manufacturing Establishments", Bank Markazi Iran Bulletin, July-August 1963, p.222. (The Law was originally issued in decree form and later ratified by the Majles (parliament).

claimed that 89,706 workers, or 43 per cent of the total (wage) employed in modern sector manufacturing and power production (excluding the oil industry)[35] were covered under collective agreements reached between employers and workers' representatives during the first four years of the law's life; such bonus payments allegedly averaged from 10 to 15 per cent of workers' previous annual wages.[36]

While it represents a potential force in determining wage rates of manual workers, the trade union movement of Iran has in practice been of virtually no significance in improving the bargaining position of the workforce in modern sector establishments. The few unions sanctioned by the Iranian Government either do not represent the economic interests of their members, or are powerless to force wage increases through collective bargaining.[37] In fact, until the implementation of the 1963 Profit-Sharing Law, no collective agreement had ever been reached between workers' representatives and employers,[38] despite the provisions of the 1959 Labour Law allowing such agreements.[39]

Supply-and-demand conditions for labour and the operation of the

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35 As based on figures of wage employment in units of 10 or more workers (for 1966-67) in Ministry of Economy, Bureau of Statistics, Report on the Results of Annual Industrial Survey in 1966 (1345) (Tehran: no date), Table 3, p.3.

36 J. Behrouz (ed.), Iran Almanac and Book of Fact 1967 (Tehran: Echo of Iran, 1967), pp. 511-12.

37 The American University, op. cit., p. 489; Delaney, op. cit., p. 33; and Arnold Beichman, "Iran: Time vs the People's Struggle for Progress", American Federationist, November 1962, p. 22. An exception to the ineffectiveness of the union movement, however, is the oil industry's union, which has been empowered since 1964 to bargain collectively with the Consortium of foreign oil companies in determination of annual wage rates. (See Iranian Oil Operating Companies, Annual Review 1965 /Tehran: no date/, no page number indicated).

38 Delaney, op. cit., p. 37

39 See Articles 27 and 35 of the Law.

price mechanism in response to them have varied considerably in the modern sector as between private and the public employers. Those aspects peculiar to one or the other type of employer will be examined separately below.

a. The Government Employer

In view of the fact that virtually all economically-active persons in the urban labour market, regardless of skill, occupation, or education, give top preference to, and actively seek at one time or another, positions with the Iranian Government (see Chapter Two), while the number of Government job-opportunities has been very limited, the surpluses of labour are believed to have been greater to Government employment than to any other sector (private modern sector wage, traditional sector wage, or non-wage) of employment, although impossible to quantify.[40] In particular, the percentages of applicants with general secondary school education rejected for employment have been great.[41] On the other hand, in certain middle-level and high-level manpower occupations - particularly in teaching and the judiciary - the public sector has experienced a persistent shortage of applicants.[42]

The price mechanism in the Government sector of wage employment

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40 According to the Deputy Director of the Civil Service Employment Bureau, 36,000 of 40,000 applicants for positions with the Civil Service between June 1966 and June 1968 were rejected for employment. (Kayhan International, June 2, 1968).

41 As an indication, in 1962 only 200 of 3,000 high school graduates applying for admission for training as police officers in the Police Academy were accepted. (The American University, op. cit., p. 587).

42 See, for instance, Leonard Binder, Iran: Political Development in a Changing Society (Berkeley: University of California Press, 1964), p. 268, and Kayhan International, December 24, 1967.

functions largely irrespective of supply-and-demand conditions for the categories of labour which it employs,[43] thus permitting at once the build-up of considerable surpluses of job-seekers and the persistence of shortages of manpower in other occupations. As a non-profit-maximising employer, the Government has not sought to minimise its labour costs, offering remuneration for skills in general over-supply to it much higher than necessary to elicit a supply sufficient for its requirements; in fact, in opposition to market forces, it has been increasing wages of labour with skills in over-supply[44] and thus encouraging the growth of even bigger surpluses. On the other hand, it has not adjusted upwards wages and salaries for skills in short supply to it adequately to resolve the shortages.[45]

Rates of remuneration in the Civil Service are formally based on the educational attainment (and years of service) of job-seekers and those already employed. These rates have originally been set, and are adjusted frequently, by political forces, the effective arbiter of prices to be paid to labour in the Government sector. Consequently, the rates of pay for various categories of labour reflect these groups' degree of relative power and influence in Iranian society. On some

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43 Commenting on the period 1955/56 - 1957/58, an Iranian economist maintains that the public sector has "tended to remain fairly irresponsive to what the market circumstances dictate" in setting rates for various skills of manpower. See Sharif Adib-Soltani, "Money Wage Behaviour in Iran from 1955-56 to 1957-58", Middle East Economic Papers 1960, p.8

44 As an example, the minimum wage for a Government employee (i.e. those with minimum educational qualifications, who are surplus supply throughout the labour market) was raised to 3,000 rials a month in 1960 and to 4,000 rials a month in 1966. (The American University, op. cit., p. 496, and J. Behrouz (ed.), op. cit., p. 542.

45 Most notably in the case of teachers, whose rates of pay lag considerably behind those of other occupations requiring the same amount of education despite frequent increases during the review period.

occasions, occupational groups have been able to force up their earnings rates by direct threats to the regime,[46] though more commonly only veiled influence is used. The Government also has freely granted pay increases to less influential groups of its employees and across-the-board increases for all employees based on general political and social considerations.[47]

b. Private Employers

Although confirming data are not available, there are clear indications that there have been large surpluses of both manual and non-manual workers to private employers in the modern sector.[48] These persons are the rejects of the great numbers of persons currently employed in the non-wage sector and in the low-wage traditional sector, as well as the openly-unemployed, who have sought to improve their earnings situation by a transfer to the private modern sector of wage employment.[49] On the other hand, at least in the manufacturing industry - the dominant source of labour demand in the

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[46] As in the case of teachers, a prticularly vocal pressure group, who in 1961 went on strike for higher pay; their demonstrations led to the resignation of the Prime Minister. See Delaney, op. cit., p. 39.

[47] For instance, in order to ensure their co-operation in accepting the new State Employment Law introduced in mid-1966, the great majority of Government employees received higher pay under the Law's provisions. (As indicated in J. Behrouz, op. cit., p. 541). Between July 1956 and December 1963, the average monthly remuneration and benefits paid to civil servants more than doubled, rising from 3,364 to 6,761 rials. See Ministry of Interior, Public Statistics, Publication of the Statistics of Government Employees in Tir Month 1335 (in Farsi) (Tehran: no date), Table No. 8, and Plan Organization, Iranian Statistical Center, Results of the Census of Government Employees in Azar 1342 (in Farsi) (Tehran: 1346), p. 125.

[48] See footnotes 18 and 19.

[49] Many have sought employment in the private sector only as a second-best choice following failure to gain positions in the Government, however.

private modern sector[50] - employers have not been able to fill their requirements for skilled manual workers, foremen, and technicians, and have consequently been obliged to import foreign technicians[51] and substitute less-skilled workers[52] or machinery for unfilled skilled worker positions.

As in the case of the Government sector, the price mechanism for labour in the private modern sector also has not functioned properly in response to supply-and-demand conditions, particularly in the case of labour with skills in over-supply, whose earnings rates have not only been downward-inflexible, but have risen.[53] While persistent shortages of skills in short supply to some extent reflect the operation of non-economic considerations (see section II), in many instances inadequate upward-adjustment of rates of pay may explain such longer-run shortages.[54]

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50 Accounting for over three-fourths of private modern sector wage employment in 1964. (See Appendix Table 37).

51 As indicated by the figures of the number of such technicians working in Iran of the Employment Service. See Ja'afar Sepehr, Unemployment (in Farsi) (Tehran: Amir Kabir, Mordad 1345), p.317.

52 Adib-Soltani, op. cit., p. 10.

53 As indicated by increases paid to unskilled workers in factories visited by the writer during 1966-67. In five instances, managers reported increases for such workers of from 30 to 100 per cent between 1963 and 1967, while only two had not increased their rates during this period.

54 Short-run inelasticity of supply in certain skills has prevented the price mechanism from overcoming these shortages; indeed, private employers have often been willing to pay "scarcity rents" for labour with skills in acute short supply. (As noted in the case of Esfahan textile factories by A. Partou A'azam, "Problems Related to the Execution of the Labour Law in the Province of Esfahan" /in Farsi/ /Unpublished-Roneo/ /Tehran: Ministry of Labour, Ordibehesht 1341/, p. 19).

The payment of higher-than-equilibrium prices for labour in various occupations and skills by private modern sector employers to some extent has been the consequence of the existence of great imperfections in the urban labour market (noted earlier). In addition, in the case of manual workers, various other factors - including the implementation of the 1963 Profit-Sharing Law and in some individual situations, trade union activity[55] and direct intervention of the Government following worker demonstrations[56] - have contributed to the maintenance of rates for such workers higher than the market forces have indicated necessary. Very importantly, private sector remuneration of most manpower in middle- and high-level occupations has been largely dictated by the wage leadership position of the Government in the market for such skills, with private employers being forced to offer rates high enough to match (or exceed) the above-equilibrium levels of pay of the Government - the dominant employer of most of such skills[57] - to ensure an adequate

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55 In the case of the Consortium of foreign oil companies. (See footnote 37).

56 Thus a spontaneous strike of 30,000 to 60,000 brick kiln workers in south Tehran in 1960 who were demanding a 35 per cent increase in wages led to intervention by the Government (fearing political repercussions) and a 20 per cent increase in pay rates. (See Binder, op. cit., pp. 193-94). Similarly, oil Consortium employees striking in 1961 were awarded higher wages following the intervention of the Ministry of Labour and the PrimeMinister. (The American University, op. cit., pp. 509-10). No other instances of such direct Government intervention in adjusting workers' wages upwards are known to the writer, however.

57 In 1966, 70.3 per cent of professional and technical, 47.1 per cent of administrative and managerial, and 69.8 per cent of clerical workers were in the employ of the Government. (Calculations based on figures of November 1966 Census, Vol. 168, Table 19, p.53). In 1960, the Government employed 85 per cent of the total of scientific, professional, and technical manpower of Iran holding a university degree. (See Plan Organisation, "Employment Status and Educational Characteristics of Scientific, Professional, and Technical Personnel: Iran 1960" [Unpublished-Roneo] [Tehran: no date], Table 1).

supply of such skills to themselves.[58]

However, in the case of manual workers with skills known by employers to be in general over-supply to the private modern sector, an important explanation for the payment of wages higher than required lies with the employers themselves. Although as (apparent) profit-maximisers they should seek to minimise their costs, including those of labour, per unit of output, most have of their own volition offered rates of pay to unskilled and semi-skilled workers (each group implicitly assumed by employers to be of uniform productivity[59]) higher than necessary to command a supply of such workers adequate to meet their needs under existing technology,[60] usually because of

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58 The considerable increases in salaries and benefits of middle- and high-level manpower employed in large modern sector units recorded between 1960 and 1964 in aforementioned NIOC surveys largely represent those awarded to Government employees - who make up an important part of the total number of the employees included in these surveys. Increases to private employees recorded by these surveys undoubtedly to a large extent were made in response to Government pay increases. Furthermore, in some manual occupations where the Government is also a major employer (such as for office servants and watchmen), the Government's wage leadership role also affects the rate of remuneration offered by private modern sector employers for these occupations.

59 Though such is not really the case, of course. For instance, differences in productivity of unskilled and semi-skilled workers can be quite wide as between those of urban and of rural origin, with the latter also raising capital costs by frequent damage to machinery. Actually, employers are bidding for categories of labour of particular productivities rather than of skills, which can be of interest to them only as an indication of their ability to produce a certain amount of output.

60 In many instances unskilled manual workers have offered their services to modern sector employers at rates considerably below those offered by employers for such skills. For instance, the managers of eight factories visited by the writer in 1966-67 reported this practice on the part of unskilled and semiskilled job-applicants. Similarly, the Azar 1343 (December 1964) (unpublished - in Farsi) report of the Employment Service reported that unskilled immigrants to Tehran were referring to (modern sector) employers and proposing to work "for the least possible amount of wages." It is likely that even at rates 25 per cent below those prevailing, there would be a supply forthcoming to private modern sector employers of unskilled workers to meet their requirements of such labour.

social or humanitarian considerations.[61] Except in those instances (a) where individual employers have sought to attract (and hold) the more productive segment of a particular skill group, or (b) where payment of higher-than-equilibrium wages results, ceteris paribus,[62] in a corresponding (or higher) increase in labour productivity in the longer run (thus leading to an equivalent or greater reduction in labour and/or capital costs per unit of output) than would be the case at a lower wage rate,[63] this willingness of private employers to disregard the price of an important segment of its total workforce[64] is economically irrational,[65] in the sense that they are incurring higher labour costs of production than necessary under existing technology.

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61 Sometimes given as a reason for increases in wages of unskilled workers by managers of factories visited by the writer during 1966-67. Other factories follow the practice of passing on to their workers some of the benefits of increased per-worker output gained through work re-organization or increased capital-intensity.

62 That is, assuming no changes in the amount of capital equipment at the disposal of the worker, in his level of training, or in work organization or supervision.

63 Most likely to occur when lower, nearer-equilibrium wages do not provide the basic physical needs of a worker and thus impair his ability to work and his attitude towards his work. Most managers of factories visited by the writer in 1966-67 maintained that payment of higher wages to their unskilled and semiskilled workers had not led to any extra output attributable to improved worker performance only.

64 Implying a weak link between the level of demand for such skills and its price. Managers of all 23 factories visited by the writer in 1966-67 maintained that they would not hire more unskilled or semiskilled labour if wage rates were reduced (nor less if they were increased). If such assertions were a true indication of the situation, it would appear that the wage elasticity of demand by private modern sector employers for such skills is very low.

65 Though not necessarily politically irrational, since the payment of very low, below subsistence-level wages could lead to demonstrations by dissatisfied workers and intervention by the Government on behalf of the "exploited" workers to the detriment of employers' interests. (See footnote 56 for examples of such intervention).

3. The "Traditional Sector" of Wage Labour Demand

The "traditional sector" of wage labour demand refers to that of employers hiring less than 10 workers each in establishments, as well as to that of all employers with workforces employed outside of any establishment, regardless of number of workers hired (such as in the case of artisan-builders in the construction industry). By this definition, "traditional" includes the whole "small scale" sector. From the standpoint of the price mechanism approach followed in this chapter, the traditional sector can also be viewed as the "low-wage" sector of wage employment.

A complete lack of data or information on supply-and-demand conditions in the traditional sector makes impossible any attempt to determine the existence (and size) of any possible surpluses or shortages of labour in this sector. Although the relatively slow growth in demand by traditional sector employers for wage employees[66] and the prevalence of large surpluses of labour to modern sector employers during the 1956-66 period would appear to suggest excessive supplies of labour (previously rejected by the modern sector) to traditional sector employers, this is not necessarily so, since much of the surplus to the modern sector was already employed in the traditional wage sector and most of the rest may have preferred non-wage employment or open unemployment (in the case of those who could afford it: see Chapter Five) to employment against the low wages prevailing in the traditional sector. The existence of shortages of labour in the traditional sector is unlikely, since any unfilled demand in the relatively unsophisticated occupations and skills in demand in the traditional sector has usually been overcome by the

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[66] See Table 39.

small-scale employer through his provision of apprenticeship or other on-the-job training to unskilled recruits. (See Chapter Three).

The price mechanism in the traditional sector of wage employment appears to be responsive to market forces, adjusting the rates of remuneration for various skills and occupations of labour in accordance with supply-and-demand conditions and consequently discouraging the build-up of surpluses and shortages. Thus, for the important construction worker category,[67] daily-rate prices of labour of various skills have fluctuated widely,[68] seasonally and over the years, in response to supply-and-demand conditions for such workers.[69] Most significantly, the wage rates for construction workers with skills in (temporary) oversupply have been downward-flexible,[70] unlike the situation for surplus workers in the modern sector. Although wage rate data are not available for other occupational groups of the traditional sector, the absence of any obstacles (except market imperfections) to the proper functioning of the price mechanism (see below) would suggest the likelihood of flexibility in

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[67] Which in 1964 comprised 24.8 per cent of the total of employees in the traditional wage sector. (See Appendix Table 37).

[68] Such flexibility in adjustment in wage rates is largely made possible by the day-to-day nature of employment of construction workers in the traditional sector.

[69] As indicated by monthly and annual indices of wage rates of unskilled construction workers and bricklayers maintained by the Central Bank of Iran since 1338 (1959-60). For instance, between 1338 and 1345 (1966-67), the annual average rates for unskilled workers ranged 99.9 to 112.5 and for bricklayers from 93.1 to 114.1. (1338 = 100.0). (Data provided the writer by the Statistics Department of the Central Bank of Iran /Bank-e Markazi-ye Iran/).

[70] A study of the Central Bank reports that at certain times of the year, the over-supply of unskilled construction workers in Tehran forces their daily-wage rates down "by as much as 20 per cent". (As cited in Kayhan International, October 8, 1968).

the setting of wage rates for these groups of labour too.[71]

The operation of the price mechanism in the traditional sector has been virtually free of interferences, with the only obstruction to its proper functioning deriving from the general ignorance of market conditions (typical of the urban labour market as a whole) on the part of employers and workers alike. No legal minimum "floor wage" has been enforced because the Ministry of Labour has "temporarily" exempted units with less than 10 workers from the provisions of the 1959 Labour Law and its minimum wage regulations.[72] Similarly, the 1963 Profit-Sharing Law has not been implemented in the small-scale sector of manufacturing. There are no known instances of trade union activity in the traditional sector, whose employees have also been too politically unimportant to attract Government attention and intervention in the event of disputes with their employers. Government wage leadership has little effect on the prices paid labour by traditional sector employers, who employ virtually no middle- or high-level manpower,[73] in which occupations such wage leadership practices are significant. Nor do these employers seek to compete with private modern sector employers for the services of manual workers by offering wages matching those of such larger employers.

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[71] A study of employment conditions in Latin America reports a similar sensitivity of the price mechanism in the low-productivity sector to supply-and-demand conditions, with downward-adjustments of wage rates for labour with skills in oversupply. See "Structural Changes in Employment within the Context of Latin America's Economic Development", Economic Bulletin for Latin America, Vol. 10, No. 2, October 1965, p.166.

[72] Delaney, op. cit., p. 33.

[73] In 1964, of 3,025 (formally-educated) technicians and engineers employed in establishments in mining, manufacturing, construction, and electrical power production in the urban areas of Iran, only 3 were reported as working in units of less than 10 workers. See Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Statistics of Establishments and Engaged Persons for the Country: Fall 1343 (in Farsi) (Tehran: no date), Tables 1-4 and 2-4, pp. 41 and 51, respectively.

Furthermore, unlike private modern sector employers, small-scale employers, usually in precarious financial situation (often due to severe competition with modern sector firms producing similar goods and services at lower prices), must seek to minimise costs per unit of output, including those of labour, which bulk larger in total costs than is the case for modern sector firms. Thus such employers have offered wages at rates only high enough to elicit an adequate supply of the skills required, with little concern for public relations[74] or the subsistence requirements of their workers.[75] In their endeavour to get the cheapest source of labour,[76] employers in many lines of artisanat activity have hired primarily children and women, to whom they have paid wages much lower than male adults would be willing to accept.[77]

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74 Since their operations are too small to draw the attention of the public; however, carpet workshop employers in recent years have been subjected to press criticism for exploiting child labour.

75 Ministry of Labour studies show that average wages paid to employees in units with less than 10 workers are considerably below minimum physical requirements of an adult worker, based on Ministry criteria. See Akbar Bigdeli, "Investigation of the Wage and Salary Situation of the Economically-Active Population of Iran" (in Farsi), in Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Investigations of Manpower Problems (in Farsi), Volume Two, (Tehran: 1344), pp. 1415-1426. It would appear that such workers can subsist only within the multi-income family structure prevalent in Iran. (See Chapter Two).

76 Not necessarily resulting in the lowest labour cost per unit of output, of course, which such unlettered employers may not realize. The opportunity to lower labour costs per unit of output by paying higher wages to get even higher productivity may not exist in this sector, however, in the absence of means of bringing about such productivity increase through provision of machinery and training for workers.

77 Under apprenticeship contracts lasting as long as 10 years, traditional sector artisans have acquired in children a source of wage labour against only nominal wage payment. (See Habib Naficy, "The Problems of Manpower and Work for the Youth of Iran" /in Farsi/, Majalleh-e Masayel-e Iran, No. 6, Farvardin 1342, p. 268). The (employment-wise) important carpet industry hires virtually only children and women, and at rates of pay much lower than prevailing for adult workers in the same skill class.

II. MANPOWER IMBALANCES AND THE PRICE-INDUCED MOBILITY OF LABOUR

This section will discuss the responsiveness of labour to price signals of the market mechanism in overcoming surpluses and shortages of manpower in various demand sectors, occupations (and skills), and regions, as well as the obstacles to its actual inter-sectoral, - occupational, and - regional movement. Such "price-induced"[78] mobility will specifically be viewed in terms of the sectoral, occupational, and regional earnings differentials prevailing in the labour market. Where relevant in explaining mobility (or lack of it) on the part of labour, non-price factors will also be considered.

A. INTER-SECTORAL MOBILITY

Rates of earnings for each occupation and skill of labour have varied greatly as between different demand sectors of the urban labour market, particularly between, on the one hand, the non-wage and the traditional wage sectors and, on the other hand, the modern wage sector. While absolutely no data on earnings rates for occupations in self-employment is available, it is likely that whatever differentials existed in 1956 have widened as between the self-employed and the wage-employed in the modern sector in the case of most manual occupations, in view of the substantial wage increases recorded in modern sector firms[79] and the probable stagnation (or

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[78] Mobility of labour as a reaction to the availability of job opportunities will not be treated, except in passing, here, since the creation of demand for labour derives from the response of employers, rather than of labour, to the level of market prices for labour.

[79] Earnings studies of the National Iranian Oil Company (cited earlier in this chapter) indicate that the average wages and benefits of manual (and non-manual) employees in the largest firms of the country (200 or more employees each) rose greatly over the review period, including by 40 per cent between 1956 and 1960.

decline) of earnings in self-employment.[80] In 1964, fragmentary data indicated that earnings rates were considerably higher in skills and occupations in the modern wage sector than in the traditional wage sector.[81] In the important category of production workers, Government and private modern sector employers in that year were paying from one-fourth to four times more for skill groups of labour than were traditional wage sector employers, as indicated in Table 44 below.

The degree of responsiveness - as manifested in the form of mobility - of workers in the non-wage and traditional wage sectors to the much greater levels of earnings prevailing for their occupations and skills in the modern sector of wage employment cannot be measured accurately due to the lack of data indicating their propensity to move out of their lower-income pursuits. Nevertheless, if certain

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80 As a consequence of a 54 per cent expansion in the numbers of (non-agricultural) manual non-wage employed over the review period (see Table 40) and a likely reduced demand by the public for their goods and services (see Chapter Three). For instance, many former small landowners who set up retail sales shops in the Tehran bazaar in recent years have become bankrupt as earnings proved inadequate as the consequence of the excessive number of such small tradesmen crowding into Tehran's distributive trade. (See Mehdi Beheshtipur, "Disguised Unemployment in the Bazaar", /in Farsi/, Tehran Economist, 27 Azar 1344, p. 35, and Heshmat Ala'i, "What and How", Kayhan International, September 22, 1965, p. 4.

81 Retail trade employees (who may be assumed to be almost entirely sales workers) in private modern sector establishments in the urban areas in 1964 were earning an average 37.2 rials an hour, as compared to only 9.0 rials an hour for those in traditional sector establishments. (Source: as calculated from data of pp. 56-57 and 66-67 of source indicated in Table 44).
Similarly, in the case of unskilled manual workers, average basic weekly wages, based on a 48-hour week, during the first quarter of 1964 varied from 103.9 rials for those in units employing less than 10 workers to 454.9 rials for those in units employing 10 workers and more, to 796.3 rials for those in establishments with 200 or more employees. (As compiled from data of Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Statistics of Establishments and Engaged Persons: Fourth Quarter of 1342 /in Farsi/, Tables 5-2 and 5-3, pp. 11-12, and National Iranian Oil Company "Report...1343", op. cit., Table No. 5.)

TABLE 44

AVERAGE HOURLY WAGES PAID TO OPERATIVES IN ESTABLISHMENTS BY SKILL GROUP AND TYPE OF EMPLOYER, AUTUMN 1964

(Urban Areas - 1956 Basis)

Skill Group of Operative	Average Hourly Wages (in Rials)		
	Modern Sector Government	Modern Sector Private	Traditional Sector (Private)
Unskilled	10.1	6.9	2.6
Semiskilled and skilled	19.0	9.6	6.2
Leadmen (sar-e kargar)	18.0	19.1	10.7
Foremen/master craftsmen (ostadkar)	34.3	15.3	12.1
Technicians (motakhases-e diplomeh)	34.1	55.1	a/
University-educated specialists (motakhasess-e ali)	124.7	149.8	b/

a/ Only three employed

b/ None employed.

Source: As compiled from figures of weekly wages and hours worked of Tables 2-5 and 2-6, pp. 52-53, Tables 3-5 and 3-6, pp. 62-63, and Tables 4-5 and 4-6, pp. 72-73, of Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Statistics of Establishments and Engaged Persons for the Country: Fall 1343 (in Farsi) (Tehran: no date).

assumptions are made about persons in non-wage and private wage employment reported as wishing to change their work in a 1964 Ministry of Labour survey of the urban workforce, we can estimate that about 17 per cent of manual own account workers and 27 per cent of traditional sector wage employees in that year were seeking to transfer into modern sector wage employment.[82] In view of the wide differentials noted above (as well as the preference of virtually all economically-active persons for Government [modern sector] employment), this level of mobility among workers in the low-earnings sectors of the urban workforce -- assuming that it is not an understatement -- does not seem particularly great.

The lack of mobility on the part of those persons in self-employment and low-wage employment in occupations and skills for which earnings have been much higher in the modern sector to a large extent may be attributed either to ignorance of the existence of such wide earnings differentials, or more likely, the knowledge that job opportunities in the modern sector are so scarce that actively seeking to find work there would be a futile effort. Self-employed persons may also remain immobile because of a preference for the freedom and lack of supervision afforded in such employment, advanced age or physical handicaps making any transfer difficult, or, in the case of wives and child family workers, disapproval of the head of family. Employees in the small units of the traditional sector may also prefer to remain in

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[82] Assumptions include: (a) that the total of employers and own account workers reported as wishing to change their work were all in own account work in manual occupations, (b) that the total of private wage employees reported as wishing to change their work were all in the traditional sector of wage employment (estimated in 1964 at 799,000 -- see Appendix Table 37), and (c) that in both cases these workers were seeking to transfer to modern sector wage employment. (Figures of dissatisfied workers from "Investigation of Manpower Problems of the Urban Areas of Iran", op. cit., Table 3-26, p.2308.

their current low-wage work due to close personal relations with their employers, typical of work conditions in this sector.

Nevertheless, from the standpoint of level of demand for labour in the modern sector, the price-induced mobility of workers currently employed in the non-wage and low-wage sectors has been very great, resulting in desired transfers by such workers considerably in excess of the modern sector's requirements for such labour (at prevailing wage rates) (as noted in section I.B.2). It is not any limited responsiveness of labour to the price signals of the market that has been responsible for the persistence of large surpluses in the modern sector of wage employment, but rather the downward-inflexibility of the prices in that sector for all skills and occupations of labour encouraging the build-up of supplies of labour to it too great to be absorbed at these prices and thus blocking the actual movement into this sector of the large numbers of "surplus" non-wage and low-wage workers seeking such a transfer.[83] If modern sector prices had been allowed to sink, and thus have resulted in the narrowing of these sectoral earnings differentials, the supply of non-wage and low-wage labour pressing for employment in the modern sector would have been reduced and tended towards balance with the (likely)[84] rising demand for it by modern sector employers, including the Government.

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[83] As well as discouraging a higher degree of price-induced mobility on the part of non-wage and low-wage workers, as noted above.

[84] The (apparently) low wage elasticity of demand of private modern sector employers for such unskilled and semiskilled workers (suggested in footnote 64) would have restricted new demand for such labour resulting from its cheapened price to a low level, however.

B. INTER-OCCUPATIONAL (AND -SKILL) MOBILITY

The earnings rates of labour have varied greatly as between different occupations and between different skills in occupational groups. In the largest units of the modern sector (those with 200 or more employees each), for which earnings data are available, these occupational and skill differentials were very wide,[85] with experienced engineers in 1964 receiving remuneration on the average 17 times higher than did unskilled labourers. (See Table 45). Differentials were also wide as between individual occupations within the three broad categories of manpower: a senior surveyor earned 2.2/3rds times more than an office clerk with three years of secondary school, and a master artisan received 3.1/3rd times greater earnings than an unskilled labourer. Overlapping of earnings rates between these three categories was very rare; in 1964 earnings for all reported manual occupations (except for master artisans) were lower than for any middle-level occupation, while in only four instances in that year did a middle-level occupation pay more than the lowest-remunerated high-level occupation.[86]

In general, labour has been responsive to the wide differentials existing as between manual and non-manual occupations and as between middle-level and high-level manpower positions, by seeking (where possible) to move up the occupational (and skill) ladder. In addition

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85 As compared to those typical of developed countries. In England, for instance, the average non-manual worker earns only two times more than the average manual worker, while typical rates in Western countries for skilled workers are only 15 - 40 per cent above those for unskilled workers. See H. A. Turner, Wage Trends, Wage Policies, and Collective Bargaining: The Problems for Underdeveloped Countries (Cambridge: Cambridge University Press, 1966), p. 16.

86 Experienced surveyors, auditors, cashiers, and tellers received higher remuneration than translators, according to NIOC data.

TABLE 45

INDEX OF EARNINGS FOR VARIOUS OCCUPATIONS/SKILLS
IN LARGE ESTABLISHMENTS (200+ EMPLOYEES)

JANUARY-APRIL 1964

Occupation/Skill	Class of Occupation	Average Monthly Earnings (incl. Benefits) (Rls).	Index
Senior engineer[a]	High-level	58,717	1698.0
Physician	"	39,510	1141.9
Junior engineer[a]	"	35,703	1032.5
Junior accountant	"	26,910	777.7
Junior chemist	"	25,120	726.0
Senior surveyor	Middle-level	24,180	699.2
Junior auditor	"	23,880	690.2
Junior cashier	"	16,710	482.9
Head X-ray Technician	"	16,530	477.9
Office clerk (with Secondary School diploma)	"	15,600	451.1
Junior draftsman	"	15,600	451.1
Junior professional nurse	"	14,620	422.5
Junior accounts clerk	"	14,350	414.7
Junior storekeeper	"	13,300	384.7
Junior teller	"	11,640	336.5
Master artisan	Manual	11,401	329.7
Office clerk (with three yrs. secondary education)	Middle level	9,020	260.8
Master machinery operator	Manual	8,503	245.9
Office attendant	"	8,502	245.9
Skilled artisan	"	8,383	242.4
Skilled machinery operator	"	5,419	156.7
Semiskilled artisan	"	5,115	147.9
Semiskilled machinery operator	"	4,018	116.2
Unskilled labourer	"	3,458	100.0

[a] Average for civil, electrical, and mechanical engineers.

Source: As compiled from earnings data of National Iranian Oil Company, "Report on the Investigation of Salaries, Wages and Benefits of the Principal Employers of Iran in Farvardin 1343" (Unpublished-Roneo) (Tehran: no date), Tables 4-6.

to the earnings incentive for such mobility, pervasive social pressures -- sometimes even stronger than relative price factors -- encourage upward-mobility into non-manual positions, particularly into the high-level occupations held in highest esteem, and away from any form of manual work, regardless of skill level, relegated to the bottom of the social scale.[87] Thus most youth seek to gain the (university) education required to qualify for high-level manpower positions, or, failing that, to attend secondary school, which provides the credentials required for non-manual work in middle-level manpower occupations. Price factors -- such as the existence of wide differentials or a drop in the price of one occupation relative to another -- have also been important in stimulating inter-occupational mobility within the three broad categories of labour,[88] although in some cases in the middle-level manpower category, social considerations have outweighed price factors and deterred inter-occupational mobility when indicated by wide earnings differentials. (See below). To some extent, price-induced inter-skill mobility among manual workers has been offset by the no higher prestige accorded highly skilled than unskilled workers.[89]

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87 For an analysis of social considerations in choice of occupation in Iran, see Norman Jacobs, The Sociology of Development: Iran as an Asian Case Study (New York: Praeger, 1966), Chapter 4, pp. 153-175.

88 Primary and secondary school teachers have often left their middle- and high-level positions, respectively, to accept other non-teaching middle- and high-level positions paying much higher salaries. See Binder, op. cit., p.135, and Manuchehr Afzal, "Problems of Secondary Education in Iran", Comparative Education Review, October 1962, p. 88. Similarly, construction workers have switched into other manual worker positions in response to drops in their earnings rates during slumps in construction activities. (Hushang Bakhtari, "Preliminary Investigation of Problems Relating to Skill and Specialization" [in Farsi], in Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Investigations of Manpower Problems [in Farsi], Vol. Two [Tehran: 1344] p. 987.)

89 As noted by Jacobs, op. cit., p. 169 and Delaney, op. cit., p.16. In view of the very narrow differential between unskilled workers and semi-skilled machinery operators (see Table 45), price factors may also explain any limited mobility propensity of unskilled into such semiskilled positions.

Despite the generally high degree of mobility propensity occasioned by price (and social) factors, effective mobility into skills and occupations has been deterred by the inability of the great majority of Iranians to gain the necessary formal education or skill-training required for non-manual and manual occupations.[9] Most Iranian families cannot afford to finance the education of their youth past primary school level, who are thus prevented from qualifying for either a middle-level position (through academic secondary school education) or a skilled manual job (through /secondary level/ vocational training).[90] Unskilled and semiskilled workers have relatively few opportunities to reach skilled level or train for other manual occupations because of the absence of any employer-organized skill training programs[91] and the very limited scope of Government skill-upgrading courses available to them;[92] the illiteracy of most such workers is an effective block where training requires reading ability. Only a small percentage of youth desiring high-level manpower positions from families able to finance their higher education are accepted by universities each year; those who are rejected are obliged to reduce their aspirations to middle-level positions, many

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90 All vocational training schools in Iran require at the minimum a primary school diploma of candidates to qualify for admission.

91 Such as Training-Within-Industry. Traditional sector employers, however, may train apprentices to what may be regarded as a skilled level in a few artisanat occupations.

92 The Ministry of Labour operates only four skill-upgrading centers, each with a very limited student capacity. Thus during the four-year period 1960-64, the Tehran center provided in-service training for only 391 workers. (See Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Investigation of the Activities of the General Department of Training /in Farsi/ /Tehran: no date/, Table 2, p.17.)

of which require specialized diploma training not always available in sufficient degree in Iran.

Furthermore, actual movement of persons into those occupations and skills for which they are qualified (and to which they constitute a supply of labour) has often been blocked by the inadequate demand by employers relative to the supply at the prevailing prices for such skills, resulting in the build-up of surpluses in these skills. Thus the oversupply to the modern sector of secondary school-educated youth qualified for (and seeking) general clerical work and of general labourers suitable for unskilled and (when given on-the-job training) semiskilled work derives mainly from the payment by modern sector employers of prices for such skills too high to clear the market of such supplies (as noted in section II). At the same time, of course, at such high prices for general clerical workers, differentials with other lower-paid middle-level and manual occupations where prices have been more in line with supply-and-demand conditions have been too great,[93] discouraging the (price induced) mobility of surplus clerks into such middle-level and manual occupations.[94] Similarly, the high price for unskilled workers in the modern sector relative to average income in agricultural occupations (see subsection C below) has not provided the necessary condition for the return to the villages of unskilled workers of rural origin surplus to the modern sector and unable (or unwilling) to find work as construction

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[93] A new graduate of secondary school in clerical work is paid more (15,600 rials a month) than all but two other junior middle-level workers and all manual workers, even those of highest skill and experience, indicated in Table 45.

[94] Considerations of relative prestige (see footnote 96) may have often also counteracted propensity of mobility into middle-level occupations paying more than in clerical work. Similarly, in view of the stigma attached to all manual work, it is debatable if social factors have not been stronger than price considerations in discouraging the mobility of secondary school-educated youth into manual positions.

labourers in the traditional sector.

The (longer-run) shortages of labour in certain skills and occupations have also been largely due to the inadequate adjustments of the price mechanism; rates of remuneration for many skills in short supply have not been increased sufficiently to bring supply-and-demand into balance through a combination of the price-induced mobility of persons in other pursuits into these occupations[95] and the downward-adjustment of employer demand at such higher prices. In those instances where the prices of certain technical middle-level skills have been high relative to others, but shortages persisted, non-price factors negating price-induced propensity to mobility of high school-educated youth[96] or inadequacy of training facilities blocking the mobility of those seeking such work (to the extent ignorance of market conditions is not the explanation) may be held responsible for shortages. Shortfall in supplies in certain skills and occupations of manual labour may similarly be attributed to (a) the wide price and prestige differentials with all middle-level occupations, deterring mobility of educated youth into such work, and (b) where they are responsive to the higher prices paid for such skills, the inability of most youth from poorer families and of lower-skilled manual workers to gain the training necessary to qualify for these occupations and skills.

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95 For instance, many middle-level occupations characterized by supply shortages during the review period (such as professional nurses, X-ray technicians, and financial clerks) have been remunerated at rates lower or only slightly more than general office clerks requiring only a diploma from an academic secondary school as a qualification. (See Table 45).

96 In Iran, technical occupations carry less prestige than do unspecialized ones, such as clerical. (See Jacobs, op. cit., pp. 153-157).

C. INTER-REGIONAL MOBILITY

The mobility of labour as between different regions of Iran in response to the existence of regional earnings differentials has varied for individual occupational and skill groups. Generally speaking, Iranians resist relocating because of strong family and regional ties,[97] but in the case of the mass of the workforce earning sub-subsistence incomes, the opportunity to earn higher incomes in another region is a stimulus to mobility. Thus the higher wages paid to unskilled labour in urban areas than to agricultural labourers[98] and share-croppers[99] in many regions of Iran have "pulled" great numbers of such agricultural workers to the cities. Similarly, the demand for unskilled labour at the relatively high wages paid by contractors in public works projects (such as road- and dam-construction) in relatively isolated parts of the country has easily been

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97 As noted by Delaney, op. cit., p. 25

98 In 1964 an unskilled construction worker in the urban areas (at 75 rials a day) was receiving a wage from 25 to 300 per cent, and an unskilled labourer in a large modern sector firm (200 or more employees) (at 132.7 rials a day), a wage 220 to 530 per cent, higher than that paid to landless agricultural labourers in five selected villages of three provinces of Iran in that year (whose daily wage varied from 25 to 60 rials). (Source: Tehran Economist /in Farsi/, various issues of 1343 year /for construction worker wage/; as calculated from monthly earnings of NIOC survey of 1964 /Table 45/ /for unskilled labourer in modern sector unit/; and "A Study of Rural Economic Problems in East and West Azarbaijan", and "A Study of Rural Economic Problems in Khorasan and the Central Province" /in Farsi/, Tahqiqat-e Eqtesadi, Nos. 13 & 14, January 1968, pp. 176 and 208, and Nos. 15 & 16, Bahman 1346, pp. 205, 221, and 251, respectively /for agricultural labourer's wages/).

99 As compared to annual incomes of 41,500 rials (12 months x 3,458 rials) for the modern sector unskilled worker (cited in footnote above) and an estimated average of 18,750 rials for the unskilled construction worker (assuming 250 days' work at 75 rials a day, thus allowing for some intermittent unemployment), share-croppers (nasaqdar) in nine regions of Iran in 1963 and 1964 were reported as having average annual incomes of 14,300 to 27,900 rials (assuming an average 3.9 dependents per nasaqdar, as indicated by census figures for rural population). (Sharecropper income as converted from per capita figures cited in Ahmad Ashraf, "An Evaluation of Land Reform", in University of Tehran, Institute for Social Studies and Research, "Seminar on Evaluation of Directed Social Change" /Unpublished-Roneo/ /Tehran: December 1966/, p. 165).

filled by villagers willing to move considerable distances for such wages.[100] Semiskilled workers, particularly in the large textile industry, are also relatively mobile between different regions in response to regional earnings differentials.[101] In many cases, however, high mobility propensity, particularly on the part of unskilled workers in intermittent employment and in dire need of a full year's income, has been more in response to the opportunity for work at any wage rate in different regions;[102] such workers may shift their place of work several times a year.[103]

On the other hand, educated manpower, with adequate income in its present locality, is generally unresponsive to considerably higher earnings potential in other regions for its skills. Thus acute shortages of teachers, doctors, and nurses, as well as other Government personnel in middle- and high-level occupations, in smaller urban places and in the rural areas have mainly been the

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100 As noted by officials of the Ministry of Labour's Employment Service branches in Khuzestan in the case of the extensive dam and road construction projects undertaken in that province during 1959-64. Construction of the major Karaj highway (Central Province) also drew great numbers of farmers away from their villages in neighboring provinces, anticipating work against relatively high wages. ("Tehran Again", Kayhan International, April 17, 1963, p. 2).

101 As indicated by Kazem Sherkat, "A Nation-wide Survey on Cotton-Synthetic Textile Industry in Iran" (Unpublished-Roneo) (Tehran: Industrial and Mining Development Bank of Iran, July 28, 1963), p. 15.

102 Unskilled workers "will follow their job wherever it may lead as long as there is adequate food and shelter" (U.S. Department of Labor, op. cit., p.12), often drifting from one place to another "in a desperate, possibly life-long search for steady work". (Delaney, op. cit., p. 25).

103 As exemplified by the great amount of seasonal shifting of labourers between agriculture and urban construction work. Some landless labourers, in order to gain enough income to subsist over the year, are reported to move four times a year between short-term jobs in different locations. See "An Evaluation... Central Province", op. cit., p.224, for the case of agricultural labourers in Birjand district of Khorasan province.

consequence of the resistance of Government employees to serve outside the capital city or the largest provincial centers even when the financial attraction is very great.[104] In such cases, considerations of relative comfort and entertainments, as well as the objections of dependents to such transfers, are sufficient to offset the price factor.

Because the surpluses of unskilled labourers in the urban areas have been heavily comprised of migrant villagers, the mobility of rural workers to Iran's towns and cities, from the standpoint of the demand for such skills, could be regarded as excessive. However, it is the maintenance of a price for unskilled labour in the urban areas (at least in the modern sector) out-of-line with average earnings in the rural areas for agricultural workers, rather than any irrational response by rural workers to relative earnings rates in their skill, that is the real factor accounting for such surpluses.

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104 Government employees stationed in Tehran may resist assignment to the provinces despite the payment of allowances "that can often double a man's basic salary." (George B. Baldwin, "Iran's Experience with Manpower Planning: Concepts, Techniques, and Lessons", in Frederick Harbison and Charles Myers (editors), Manpower and Education: Country Studies in Economic Development /New York: McGraw-Hill, 1965/, p. 141). Even technical experts, whose real function is in field work (such as those of the Ministry of Agriculture) balk at being assigned outside of Tehran or provincial centers. (Kayhan International, February 18, 1968).

CHAPTER FIVE

THE NATURE AND EXTENT OF UNEMPLOYMENT

This chapter will examine the nature and extent of unemployment in the urban Iranian labour force during the 1956-1966 period. In keeping with the labour market approach used throughout the dissertation, unemployment will refer to the status of the surplus of labour seeking wage employment over the demand for it by employers.[1] The two forms of unemployment of such surplus manpower -- "open" and "disguised" -- will be characterized and, where possible, quantified. Since under-utilization of the employed workforce lies outside the scope of the approach of this study, no identification or analysis of "underemployment" (in terms of marginal productivity of labour) will be attempted.[2]

I. THE DEFINITION AND INCIDENCE OF OPEN UNEMPLOYMENT IN IRAN

The available data on the incidence of open unemployment in Iran derive from two sources: the national censuses of 1956 and 1966 (undertaken by the Department of Public Statistics of the Ministry of Interior and the Iranian Statistical Centre of the Plan Organization, respectively) and the Ministry of Labour's household labour force sample surveys of 1964 and 1965.[3] The definition of

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[1] See Chapter Four. All persons seeking self-employment are assumed to be successful in their aspiration, and thus cannot be unemployed.

[2] "Surplus" workers in wage employment (who could be considered underemployed) are discussed in Chapter Three.

[3] The results of earlier Ministry of Labour surveys of unemployment were not released to the public. (See Chapter Six). Figures on numbers unemployed on the registers of the Ministry of Labour's Employment Service are too low to be of any value in assessing the extent of unemployment, due to the incomplete coverage by its branches of the urban areas and the absence of an important incentive for the unemployed in these places to register, viz. payment of unemployment benefits.

open unemployment in each of these surveys has been similar in scope: the unemployed person must be of labour force age (10 years and older), physically and mentally able to work, and have been actively seeking work during a reference period.[4] In the 1966 census' definition, the person's activity during most of the reference period was the deciding factor in his classification as between employed and unemployed or as between unemployed and economically-inactive,[5] but (apparently) no such refinement of definition was issued to, or used by, enumerators in the Ministry of Labour surveys or in the 1956 census.[6]

Based on the relevant definition of unemployment indicated above, the numbers of openly unemployed and rates of such unemployment in

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[4] The 1956 census did not indicate a reference period, simply asking for the "present" or "current" status of persons aged 10 years or over (implying "same day" as a reference period?) (See 1956 Census, Vol. II, p. xxxii). The reference period of the 1966 Census was the week preceding the enumerator's call (See 1966 Census, Vol. 168, page "C"). The exact length of the reference period in the Ministry of Labour surveys is not mentioned in the publications of the results of the surveys. See, for instance, the case of the 1965 survey in Ministry of Labour and Social Affairs, General Department of Statistics, Investigation of Manpower of the Urban Areas of Iran (in Farsi), Research Report No. 40, (Tehran: Shahrivar 1347), p. 80.

[5] A worker jobless for 4 of the previous 7 days (and actively seeking work) would thus be recorded as unemployed. Homemakers and students who spent most of the week seeking work rather than in homemaking or studying, respectively, were also to be recorded as unemployed. (See Plan Organization, Iranian Statistical Center, General Census of Aban 1345: Instructions to Census Officials /in Farsi/ /Tehran: no date/, p.40). In practice, however, enumerators probably did not follow such conditions closely, indiscriminately recording all full-time students and homemakers as economically-inactive.

[6] The 1956 census lumped all "housewives, students, and similar groups" in the category of the economically-inactive, regardless of whether any of these persons were also actively seeking work. (See 1956 Census, Vol. II, p. xxxii). A similar practice was also apparently followed in the Ministry of Labour surveys, though separate mention was made elsewhere in the publications of the surveys of the numbers of homemakers and students "wanting work". (See Section II of this chapter).

the urban labour force at the time of the four surveys indicated above are given in Table 46 for each sex. However, an evaluation of the unemployment rates of the sample surveys of the Ministry of Labour reveals that they are too high for both males and females, a result of the understatement of the size of the economically-active urban population attributable to a gross underrecording of the numbers of employed persons of both sexes.[7] Consequently, further quantitative analysis of open unemployment (based on the indicated definitions) will be developed from census figures only.

As Table 46 indicates, (census-derived) rates of urban open unemployment rose for both males and females between 1956 and 1966, but most steeply in the case of the latter, whose incidence of open unemployment was four times greater in 1966 than in 1956. Such higher rates for both sexes were due to a great expansion in open unemployment among youth aged 10-24 years, with relatively little change in rates for persons 25 years and over. (See Tables 47 and 48). Whereas unemployment of young persons had previously been more of a problem among males than females, by 1966 rates for young females had risen to reach a degree of intensity (relative to other age groups of females) similar to that of young males (relative to other age groups of males); in terms of the total number unemployed, four-fifths of unemployed females were under the age of 25 years in 1966.

However, despite increased rates in the female labour force, open unemployment continued to be mainly a problem for males, who in

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[7] See Statistical Appendix. The highly unlikely drop in the number of economically-active males reported between 1964 and 1965 (see Table 46) is an indication of the questionable accuracy of the Ministry of Labour totals.

TABLE 46

RATES OF OPEN UNEMPLOYMENT BY SEX IN THE URBAN (1956 BASIS) LABOUR FORCE, 1956-1966

Survey	Males			Females		
	Number Economically Active	Number of Unemployed	Rate of Unemployment (Pct.)	Number Economically Active	Number of Unemployed	Rate of Unemployment (Pct.)
Nov. 1956 Census	1,705,683	84,416	4.9	187,466	1,408	0.8
May 1964 MinLabour Sample Survey	1,896,838	173,955	9.2	174,970	16,948	9.7
May 1965 MinLabour Sample Survey	1,785,194	136,743	7.7	194,253	13,892	7.2
Nov. 1966 Census	2,316,478	128,606[a]	5.6	297,184	10,090[a]	3.4

[a] Excludes seasonally-unemployed in agricultural occupations.

Source: As compiled from data of November 1956 Census, Vol. II, Table 17, p.208; November 1966 Census, Vol. 168, Table 12, p. 35 (adjusted to make correspond to 1956-basis urban areas); Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Investigations of Manpower Problems /in Farsi/, Volume 3 (Tehran: 1344), Table 3-1, p. 2279 (for May 1964 survey); Ministry of Labour and Social Affairs, General Department of Statistics, Investigation of Manpower of the Urban Areas of Iran (in Farsi), Research Report No. 40 (Tehran: Shahrivar 1347), Table 2-1, p. 44 (for May 1965 survey).

TABLE 47

RATES OF OPEN UNEMPLOYMENT BY AGE GROUPS IN THE URBAN (1956 BASIS) LABOUR FORCE, 1956-1966

Males

Age Group (years)	November 1956			November 1966		
	Number Economically Active	Number of Unemployed	Rate of Unemployment (Pct.)	Number Economically Active	Number of Unemployed [a]	Rate of Unemployment (Pct.)
10-14	67,690	5,184	7.7	106,540	16,509	15.5
15-19	165,261	19,818	12.0	225,472	30,497	13.5
20-24	257,104	15,641	6.1	331,071	30,079	9.1
25-34	447,851	14,933	3.3	609,561	22,155	3.6
35-44	323,763	8,048	2.5	525,294	15,009	2.9
45-54	226,464	7,733	3.4	292,934	10,817	3.7
55-64	144,379	7,866	5.4	148,856	7,530	5.1
65 & over	72,345	5,162	7.1	76,750	4,002	5.2
Age Not Reported	826	31	---	---	---	---
All Ages	1,705,683	84,416	4.9	2,316,478	136,598	5.9

[a] Includes seasonally-unemployed in agricultural occupations (7,992)

Source: As compiled from data of November 1956 Census, Vol. II, Table 17, p. 208, and November 1966 Census, Vol. 168, Table 12, p.35 (adjusted to correspond to 1956-basis urban areas).

TABLE 48

RATES OF OPEN UNEMPLOYMENT BY AGE GROUPS IN THE URBAN (1956 BASIS) LABOUR FORCE, 1956-1966

Females

Age Group (Years)	November 1956			November 1966		
	Number Economically Active	Number of Unemployed	Rate of Unemployment (Pct.)	Number Economically Active	Number of Unemployed [a]	Rate of Unemployment (Pct.)
10-14	23,669	155	0.7	48,339	2,424	5.0
15-19	25,635	299	1.2	40,637	3,455	8.5
20-24	21,969	200	0.9	41,703	2,891	7.1
25-34	35,819	168	0.5	60,282	1,084	1.8
35-44	28,491	174	0.6	48,061	554	1.2
45-54	27,325	213	0.8	31,457	321	1.0
55-64	15,735	103	0.7	17,723	193	1.1
65 & over	8,571	94	1.1	8,982	78	0.9
Age Not Reported	252	2	0.8	---	---	---
All Ages	187,466	1,408	0.8	297,184	11,090	3.7

[a] Includes 1,000 seasonally-unemployed in agricultural occupations.

Source: Same as for Table 47.

1966 comprised 93 per cent of the total number of unemployed persons in Iran's towns and cities.[8] As between city-size groups of the urban areas, rates of male unemployment have not varied greatly,[9] in 1966 ranging from 4.8 per cent for Tehran city to 6.2 per cent for the medium-sized cities. The increased incidence of male unemployment recorded by censuses between 1956 and 1966 was almost entirely attributable to growth in unemployment in the medium-sized and small urban places; rates for Tehran and the largest cities were virtually unchanged. (See Table 49).

II. UNSUITABILITY OF WESTERN DEFINITIONS OF OPEN UNEMPLOYMENT FOR IRANIAN SITUATION.

The definition of open unemployment used in surveys in Iran and other developing countries is the one originated and applied in developed nations where labour market conditions are so different as to make its indiscriminate application to the situation in developing countries of limited value in assessing the real open unemployment situation.[10] Specifically, the twin requirements that an unemployed person be <u>actively</u> seeking work and during the short period of

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[8] Or 128,606 of 138,696 (excluding seasonally-unemployed in agricultural occupations). (See Table 46).

[9] Although they have varied greatly between individual urban places, deriving from their own peculiar employment situation. For instance, among the 39 large and medium-sized cities, rates of open unemployment (excluding seasonally-unemployed in agricultural occupations) in 1966, based on census figures, ranged from 22.9 per cent for Masjed-e Soleiman (oil industry city) to only 2.3 per cent for Yazd.

[10] Among critics of such use of Western definitions are Gunnar Myrdal (in his <u>Asian Drama</u> /London: Penguin Books, 1968/, pp. 1024-1025), Simon Rottenberg ("Labor Force Measurement in a Pre-Industrial Economy", <u>Southern Economic Journal</u>, October 1951, pp. 219-224), and Rupert J. Harewood ("Some Views on the Collection, Analysis, and Utilization of Current Employment Statistics in an Economically Less Developed Country", in United Nations, <u>World Population Conference, 1965</u>, Volume IV /New York: 1967/, p.357.

TABLE 49

RATES OF OPEN UNEMPLOYMENT BY CITY-SIZE GROUPS IN THE URBAN (1956 BASIS LABOUR FORCE, 1956 - 1966)

Males

City-Size Group	November 1956			November 1966		
	Number Economically Active	Number of Unemployed	Rate of Unemployment (Pct.)	Number Economically Active	Number of Unemployed [a]	Rate of Unemployment (Pct.)
Tehran	465,015	21,892	4.7	712,567	34,062	4.8
Large Cities [b]	488,728	29,426	6.0	634,531	37,867	6.0
Medium-Sized Cities [c]	328,677	16,434	5.0	412,935	25,705	6.2
Small Cities [d]	423,263	16,664	3.9	556,445	30,972	5.6
Total Urban	1,705,683	84,416	4.9	2,316,478	128,606	5.6

[a] Excludes seasonally-unemployed in agricultural occupations.

[b] 10 cities which in 1956 had populations of 97,000 to 300,000.

[c] 28 cities which in 1956 had populations of 25,000 to 97,000.

[d] 147 cities which in 1956 had populations of 5,000 to 25,000.

Source: As compiled from data of Tables 17 and 12 of individual district reports of November 1956 and November 1966 censuses, respectively.

reference preceding the enumerator's call are unrealistic and lead to an under-reporting of the real extent of open unemployment at a particular moment in time in these countries. Surveys with such short reference periods also do not allow an understanding of the unemployment situation over a whole year.

In developing countries, physically- (and mentally-) fit persons of working age who have no employment and who desire work may not actively seek employment for various reasons associated with the state of the labour market in these countries. Job-seekers are usually ignorant of the existence of work opportunities, even in their own local labour market, due to the highly-imperfect state of knowledge of market conditions, and consequently may not actively seek work because they do not know where to apply for a job.[11] The general scarcity of wage-paying work relative to the numbers seeking it typical of these countries is also a deterrent to active search for employment; many unemployed persons may simply assume that no opportunities for work exist,[12] while others who have previously been active in seeking employment by blindly applying to employers may become discouraged through their constant rejection and assume a passive attitude in their search instead, relying on informal lines of communication to provide information of new hiring measures by particular employers to stir them to active application again.[13] Finally, the low level of labour mobility generally characteristic of

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[11] Noted in the case of South Asia by Myrdal, op. cit., pp. 1024-1025.

[12] As observed for African and Asian countries by Yuki Miura, "A Comparative Analysis of Operational Definitions of the Economically Active Population in African and Asian Countries", in United Nations, op. cit., p. 374.

[13] As noted in the West Indies by Rottenberg, op. cit., p. 223.

these countries may diminish active search by the unemployed in areas outside their local markets[14] even should the existence of work opportunities in such regions become known to them.

Unemployed persons who are actively seeking work will nevertheless not qualify as unemployed in the surveys of developing countries if they were not active during the very short reference period -- usually a week -- stipulated in these surveys. Such short reference periods, however, are really only suitable in the Western countries of origin of such time stipulations, where the more perfect state of knowledge of labour market conditions stimulates (and the regulations of Government unemployment benefit schemes require) a continuous search for work on the part of unemployed persons. In developing countries, however, such conditions do not exist obtain, and many usually active job-seekers may be inactive during any particular week because of the lack of knowledge of any current work opportunities during that week.

These conditions deterring the active and continuous search for work on the part of the workless certainly prevail in the urban labour market of Iran. (See Chapter Four). As a consequence of these obstacles and because of rigid adherence by Iranian authorities to the definition of open unemployment as imported from the West, considerable numbers of homemakers, students, and other non-working persons of labour force age who are in reality unemployed but who have not been actively seeking work -- at least not during the reference period -- have been recorded in censuses and labour force surveys as "economically inactive" instead of "unemployed". Many youth have attended school only as a consequence of their inability to find employment and continue to seek work while studying, though

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[14] Myrdal, loc. cit.

not actively and/or not persistently.[15] Similarly, very large numbers of (female) homemakers have carried on with their domestic duties only in the absence of any opportunities for employment, which they would accept if offered.[16] Other working-age persons who were neither students, homemakers, nor employed -- particularly in the age group 10-14 years -- are believed in reality to have been unemployed rather than economically inactive, though not actively seeking work.[17]

In Table 50 an adjustment is made in 1966 census data for the urban labour force to include estimates of the numbers of persons who were unemployed but not actively seeking work, and ignoring any specific time reference period. Such a revision results in an increase in the rate of open unemployment in 1966 for males from 5.6 to 9.2 per cent and for females from 3.4 to a spectacular 48.3 per cent,[18] with a rate of 16.5 per cent for both sexes. It is believed

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15 In the May 1965 urban survey of the Ministry of Labour, 3.2 per cent of male and 1.7 per cent of female students (or 38,084 of 1,205,319 and 13,136 of 781,839, respectively) indicated that they wanted (full-time) work. (Ministry of Labour and Social Affairs, General Department of Statistics, op. cit., Tables 2-1 and 4-14, pp. 44 and 92, respectively). Part of the great expansion in the student population in the urban areas between 1956 and 1966 (see Chapter Two) may be explained in terms of the lack of alternative activities because of inadequacy of job opportunities.

16 In the May 1965 survey indicated in footnote 15, 12.1 per cent of the total number of urban homemakers (or 251,563 of 2,076,771) declared to enumerators that they were seeking work, though (apparently) not actively. (Same source as indicated in footnote 15).

17 The drafters of the Third Development Plan asserted that all inactive males of labour force age who were not infirm nor students should be considered as unemployed (Plan Organization, Division of Economic Affairs, Manpower Section, "Manpower Third Plan Frame" /Unpublished - Roneo/ /Tehran: August 1961/, p. 95), but this is undoubtedly an overstatement.

18 Or only slightly less than the rate of 51.2 per cent found by the present writer in a poor district of Tehran in August 1967. In this sample survey, all unemployed women, including homemakers, were counted as such whether they were actively or passively seeking employment. See William H. Bartsch and Hamideh Tavassoli, "Results of a Labour Force Sample Survey of Ku-ye 9 Aban in August 1967" (Unpublished-Typewritten) (London: December 1967), p.7.

TABLE 50

ADJUSTMENT OF CENSUS RATES OF OPEN UNEMPLOYMENT BY SEX IN THE URBAN (1956 BASIS) LABOUR FORCE

November 1966

Sex	Number Economically Active			Number Openly Unemployed			Rate of Unemployment (Pct).	
	Census	Estimated Additionally Unemployed	Adjusted Total	Census a/	Estimated Additional Unemployed	Adjusted Total	Census	Adjustment
Males	2,316,478	93,330 b/	2,409,808	128,606	93,330 b/	221,936	5.6	9.2
Females	297,184	258,647 c/	555,831	10,090	258,647 c/	268,737	3.4	48.3
Both Sexes	2,613,662	351,977	2,965,639	138,696	351,977	490,673	5.3	16.5

a/ Excludes seasonally-unemployed in agricultural occupations.

b/ Includes 25,330 students (3.16% of 801,571) and 68,000 "other" (excluding infirm) inactive (80% of 84,805 ; other 20% assumed to be beggars, prisoners and other truly inactive).

c/ Includes 250,021 homemakers (12.11% of 2,064,585) and 8,626 students (1.68% of 513,434).

Source: Table 46 (for census figures); Ministry of Labour and Social Affairs, General Department of Statistics, Investigation of Manpower of Urban Areas of Iran (in Farsi), Research Report No.40 (Tehran: Shahrivar 1347), Tables 2-1 and 4-14, pp. 44 and 92, respectively (for computation of pct. of homemakers and students in 1965 seeking work /inactively/ /and applied against 1966 data/); Appendix Tables 22 and 24 (for numbers of students, homemakers and "other" /excluding infirm/ inactive males aged 10 years and over in 1966 /1956 basis/ population reported by census and used as basis for determining additional unemployed).

by the writer that these figures more accurately reflect the true levels of open unemployment in the urban workforce in November 1966 than do census data.

The adjusted rates of open unemployment shown in Table 50 refer, of course, to the situation in the urban Iranian labour force at a particular moment in time, i.e. the week preceding the call of the census enumerator. However, the use of such a short reference period in a country characterized by very high levels of casual and intermittent employment [19] provides an inadequate measure of the real extent of open unemployment in its labour force. The great numbers of casually- and intermittently-employed workers are neither continuously employed nor continuously unemployed over the whole year, yet they appear under one or the other classifications (employed or unemployed) in surveys with such short reference periods. Use of a reference period of 12 months instead -- with persons classified on the basis of number of full weeks employed and unemployed -- [20] would have much more satisfactorily allowed a differentiation of the total labour time of such workers (and of all other economically active persons) over a year as between its employed and involuntarily idle components,

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19 Deriving from the great numbers of labourers hired on a day-to-day basis in such activities as agriculture and construction (see Chapter Three), but also representing considerable numbers of self-employed persons occupied for very short periods on specific tasks of a petty nature (see below, Section III). The writer's 1967 survey of a poor district of Tehran revealed that 45.3 per cent of all wage-employed males and 72 per cent of all wage-employed females regarded themselves as in irregular wage employment only. See Bartsch and Tavassoli, op. cit., pp.4-5.

20 Urged for all developing countries by Harewood, loc. cit. Even in highly-developed countries such as the United States, it has recently been proposed that the employment/unemployment experience of the marginally-employed component of their labour force be measured over the course of a whole year as a means of determining its real degree of worklessness. See "Improved Statistics on Unemployment: A First Step in Preventing Joblessness and Poverty", The OECD Observer, No. 37, December 1968, p. 9.

and thus have provided a much better profile of the unemployment/employment situation of the urban workforce.

III. THE LIMITED RELEVANCE OF THE CONCEPT OF OPEN UNEMPLOYMENT IN IRAN

Even if the Western-originated definition of open unemployment were relaxed for developing countries in order to include as unemployed all workless persons ready to accept employment if offered and regardless of any time reference period, the true amount of unemployment (in terms of numbers of idle persons)[21] would still not be fully reflected in the censuses and labour force surveys of such countries, because the concept of open unemployment, while appropriate for measuring involuntary worklessness in the West, is seriously deficient as a means of gauging the total level of such worklessness in developing countries.[22] This deficiency is apparent from the fact that despite the acute shortage of wage-paying opportunities relative to the number of persons seeking them in such countries, widespread open unemployment (at least as determined by use of Western definitions of such unemployment) is typically not found there.[23] The shortcomings of the concept in developing countries derive from the great differences in the conditions as between Western and developing

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[21] Or in terms of man-weeks of labour time, if a 12-month reference period should be used.

[22] Also maintained by Myrdal (op cit., p. 1020) for South Asia.

[23] As noted, inter alia, by International Labour Office, Employment and Economic Growth (Geneva: 1964), p. 124; Myrdal, op. cit., pp. 1120 and 1124 (for urban areas of South Asia); and Mogens Boserup, "Employment Aspects of Population Growth in India", in S. N. Agarwala, (ed.) India's Population: Some Problems in Perspective Planning (Bombay: Asia Publishing House, 1960), p. 134.

nations that allow the existence of open unemployment.

Unlike the situation in developed countries, the absence of a system of payment of financial benefits to the unemployed and the very low incomes of the great majority of families make recourse to open unemployment (except for short periods) an impossibility for most persons in developing countries unable to find a job or discharged from their previous employment.[24] Consequently, those who are openly unemployed are usually so for shorter periods than in the West;[25] persons in longer-term unemployment are generally from relatively high income families which can afford to support their idle offspring indefinitely.[26] While the average urban manual worker may be able to afford occasional periods of short-term unemployment if his total income during the year is sufficient to support him over the whole year,[27] if he has adequate savings, or if friends or his family can provide for his subsistence needs during such times, should the period

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[24] See, for instance, W. Arthur Lewis, "Employment Policy in an Underdeveloped Area", Social and Economic Studies, September 1958, p.43; Jan L. Sadie, "Labor Supply and Employment in Less Developed Countries", The Annals of the American Academy of Political and Social Science, January 1967, p. 127; International Labour Office, Employment and Economic Growth (Geneva: 1964), p. 124; Myrdal, op. cit., pp. 1020 and 1123-24.

[25] In India it has been noted that "The unemployment of the great majority of [the urban unemployed] is ... not as continuous ... as is usually the case in advanced industrial economies." (K. N. Raj, "Employment and Unemployment in the Indian Economy: Problems of Classification, Measurement and Policy", Economic Development and Cultural Change, April 1959, p. 268).

[26] In a study of Puerto Rican conditions, it was found that families with unemployed members had an income higher than the average. See Juan C. Elizaga, "The Demographic Aspects of Unemployment and Underemployment in Latin America", in United Nations, op. cit., p. 267.

[27] Such as appears to be the case for the great numbers of intermittently employed/unemployed manual workers in the urban areas of developing countries.

of unemployment become more protracted and exhaust his earlier earnings, savings, or the capacity of his friends and/or family members (themselves generally of bare subsistence incomes) to support him, he has little recourse[28] but to take up any form of self-employment that will provide some sort of income to sustain him. Consequently, and in view of the heavy weight of the poor in the total populations of developing countries, worklessness (other than short-term) manifests itself heavily in the form of reluctant self-employment of a petty nature rather than in open unemployment.[29]

Although data are lacking to show the degree of relevance of such conditions in the case of Iran, fragmentary information would appear to confirm that the anatomy of worklessness in the urban areas of Iran is little different from that in developing countries in general. Most urban Iranian open unemployment is of short duration only, with just one-fourth extending over a year or more.[30] Rates of open unemployment among the economically-active members of urban

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[28] Except in the case of rural immigrants "pulled" to the urban areas, who also have the option of returning to their previous occupation in their native villages. (See Naomichi Funahashi, "The Labour Market and Wages in Southeast Asia", The Developing Economies, January-June 1963, p. 79 /for the Southeast Asian immigrants/ and Myrdal, op. cit., p. 1117 /for South Asia/. Of course, if the immigrant was "pushed" out of his village to the urban areas (see Chapter Two), such a possibility of returning would be foreclosed to him.

[29] As noted by Lewis, loc. cit.; Funahashi, op. cit., p. 82; Sadie, op. cit., pp. 127-28; International Labour Office, Employment Objectives in Economic Development (Geneva: 1961), p. 16 and Employment and Economic Growth (Geneva: 1964), p. 124; and Myrdal, op. cit., pp. 1020 and 1120.

[30] The Ministry of Labour's 1965 sample survey of urban areas indicated that of the total number of open unemployed in May 1965, 25.3 per cent of males (or 33,832 of 133,625) and 33.3 per cent of females (or 4,537 of 13,608), or 26.1 per cent for both sexes, had been unemployed for a year or longer. (As derived from Table 3-1 /unpublished/ of the survey of that year).

families vary with the income level of the family, with the incidence of unemployment among such persons in the highest income group of families — 200,000 rials a year and over -- (equivalent to $2,667) over twice as great as that of the economically-active in families with incomes lower than that level.[31]

Of those relatively limited numbers of openly unemployed in the urban areas of Iran whose families can afford to support them over longer periods of idleness,[32] most are believed to be educated above the primary school level.[33] In fact, largely for this reason, the concept of open unemployment in Iran and other developing countries is really relevant to this more fortunate educated segment of the labour force only.[34] The importance of the educated unemployed in the total of the longer-term unemployed can be appreciated from the fact that even when the shorter-term unemployed are included (who may be assumed to be mostly illiterates or primary-school educated only) [35]

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[31] Or 8.5 per cent for the former compared to 3.8 per cent for the latter, as calculated by the writer from (unpublished) data for each sampled family of the Bank-e Markazi-ye Iran's urban household income and expenditure survey of the year 1344 (March 1965-March 1966). (See Chapter Two for further reference to this survey). The unemployed of this survey relate only to persons actively seeking work and thus exclude other working-age persons desiring work but who had taken no positive action to find it (who were recorded as economically inactive). It may be assumed that these "passive" unemployed are members of families which do not urgently require that they seek work to supplement family income. Most are housewives performing useful domestic work, or students, rather than outright idle persons.

[32] But excluding homemakers, students, and other economically-inactive only passively seeking work.

[33] As an indication, four-fifths of the unemployed actively seeking work in urban families with annual incomes of 200,000 rials or more in 1965 (noted in footnote 31 above) had at least some secondary school education and over half were graduates of secondary school.

[34] As maintained by Myrdal (op. cit., pp. 1019 and 1123-24) in the case of South Asian countries.

[35] Who are heavily comprised of intermittently-employed manual workers of low incomes and little capability of remaining unemployed over longer periods of time.

in the universe, almost one-fourth of the male and 43 per cent of the female openly unemployed (census-basis) in 1966 were educated at the secondary school level or higher. (See Table 51). Even more significantly, the rates of open unemployment in that year among the economically-active educated were considerably higher than for the lesser (or non-) educated urban labour force. (Tables 52 and 53). In particular, the incidence of open unemployment has been severe for the graduates of secondary school, most acutely so for those under 30 years of age.[36]

However, for the mass of the urban Iranian economically-active population who neither have the financial resources themselves nor can draw on those of their families for support for periods of protracted open unemployment, there has been little alternative course of action following repeated rejection for wage employment but to enter self-employment,[37] usually (in view of their weak financial position) in petty activities involving little capital outlay and often outside of

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[36] No figures on unemployment by highest level of education completed according to age are available, but in the case of males, if we assume that there was no unemployment in 1966 among those whose highest education completed was graduation from secondary school (hereafter referred to as "graduates") who were 30 years or older (in view of the fewer numbers of graduates at the time of their graduation and consequently their more favourable position in the labour market at that time), then we can estimate the rate of unemployment among economically-active graduates under the age of 30 years in 1966 at 26.4 per cent. (Derived by subtracting census figures of the number of male graduates under 30 years in urban areas attending university from the total of male graduates under the age of 30 in the urban population /equivalent to the number of economically-active under the age of 30/ and relating this number to the number of male graduates in the urban areas who are unemployed /or 18,298 — Table 52/).

[37] Rural immigrants, such as those in irregular wage employment in construction activities, have usually also been able to return to their villages during slack work seasons and when open unemployment over longer periods could not be afforded.

TABLE 51

DISTRIBUTION OF OPENLY UNEMPLOYED IN THE URBAN (1956 BASIS) LABOUR FORCE BY HIGHEST EDUCATIONAL LEVEL COMPLETED AND SEX, November 1966

Highest Educational Level Completed	Males		Females	
	Number Unemployed[a]	Pct. of Total	Number Unemployed[a]	Pct. of Total
Illiterate	58,273	42.7	4,112	37.1
Read only	2,071	1.5	74	0.7
Literate but no formal schooling	6,729	4.9	49	0.4
Literate but school level not reported	312	0.2	48	0.4
Primary school, 1-3 years	4,943	3.6	341	3.1
Primary school, 4-5 years	10,470	7.7	430	3.9
Primary school graduation	21,506	15.7	1,262	11.4
Secondary school, 1-3 years	9,582	7.0	652	5.9
Secondary school, 4-5 years	2,843	2.1	209	1.9
Secondary school, graduation	18,146	13.3	3,602	32.5
Attended university	1,620	1.2	289	2.6
Literacy not reported	103	0.1	22	0.2
Total, all levels	136,598	100.0	11,090	100.0[b]

[a] Includes seasonally-unemployed.

[b] Does not equal subtotals due to rounding.

Source: November 1966 Census, Vol. 168, Table 28, p. 170 (adjusted to make correspond to 1956-basis urban areas).

TABLE 52

RATES OF OPEN UNEMPLOYMENT IN THE URBAN (1966 BASIS) MALE LABOUR FORCE BY HIGHEST EDUCATIONAL LEVEL COMPLETED

November 1966

Highest Educational Level Completed	Number Economically Active	Number Unemployed[a/]	Rate of Unemployment (Pct.)
Illiterate	1,146,731	49,709	4.3
Read only	63,767	1,737	2.7
Literate, but no formal schooling	199,898	5,279	2.6
Literate, but school level not reported	10,995	291	2.6
Primary school, 1-3 years	90,788	4,743	5.2
Primary school, 4-5 years	166,210	10,107	6.1
Primary school graduation	400,070	21,068	5.3
Secondary school, 1-3 years	142,867	9,400	6.6
Secondary school, 4-5 years	35,044	2,807	8.0
Secondary school graduation	126,274	18,298	14.5
Attended university	64,265	1,582	2.5
Literacy not reported	2,389	90	3.8
Total, all levels	2,449,298	125,111	5.1

[a/] Excludes seasonally-unemployed.

Source: As compiled from data of November 1966 Census, Vol. 168, Table 17, p. 48 and Table 28, p. 170.

TABLE 53

RATES OF OPEN UNEMPLOYMENT IN THE URBAN (1966 BASIS) FEMALE LABOUR FORCE BY HIGHEST EDUCATIONAL LEVEL COMPLETED

November 1966

Highest Educational Level Completed	Number Economically Active	Number Unemployed[a/]	Rate of Unemployment (Pct.)
Illiterate	214,989	2,954	1.4
Read only	4,824	43	0.9
Literate, but no formal schooling	3,553	43	1.2
Literate, but school level not reported	1,254	43	3.4
Primary school, 1-3 years	6,486	319	4.9
Primary school, 4-5 years	6,338	409	6.5
Primary school graduation	17,861	1,247	7.0
Secondary school, 1-3 years	13,754	641	4.7
Secondary school, 4-5 years	4,899	209	4.3
Secondary school graduation	35,650	3,583	10.1
Attended university	8,782	286	3.3
Literacy not reported	673	19	2.8
Total, all levels	319,063	9,796	3.1

[a/] Excludes seasonally-unemployed.

Source: Same as for Table 52.

any establishment. Although data on the extent of "forced" self-employment among persons unable to afford unemployment are not available, an idea of its incidence among the poorer segment of the urban labour force least able to afford such unemployment may be gained from the results of the 1967 survey of a district of Tehran city inhabited by former slum-dwellers, which indicated that 80.6 per cent of male and 77.3 per cent of female non-wage employed had taken up self-employment only as a consequence of their inability to gain wage employment.[38] In view of the relative importance of non-wage employment in total employment in the urban areas of Iran (see Chapter Three), it is clear that even if only one-fifth of the manual workers in own account and unpaid family work[39] were rejects of wage employment who could not afford to remain openly unemployed, their numbers would not be inconsiderable relative to those of the openly unemployed (and actively seeking work).[40]

IV. A PROPOSED DEFINITION OF "DISGUISED UNEMPLOYMENT" FOR DEVELOPING COUNTRIES AND AN ESTIMATE OF ITS EXTENT IN IRAN'S URBAN AREAS

Within the framework of the labour market approach[41] used

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38 Bartsch and Tavassoli, op. cit., p. 6.

39 Excluding employers, some of whom, nevertheless, are engaged in petty activities outside of any establishment and cannot afford open unemployment either. (See footnote 50 for basis of this estimate).

40 Or, for 1966, 119,400 of the total 597,000 own account and unpaid family workers in manual (including sales and "occupation not reported") occupations in the urban areas, (See Appendix Table 36), as compared to 139,000 openly unemployed actively seeking work.

41 Rather than that of the marginal productivity of labour, the more common yardstick for defining disguised unemployment in developing countries. From this standpoint, the disguised unemployed are defined as having a marginal productivity of zero, i.e. who can be withdrawn from the workforce without any loss of output, assuming no change in production techniques or use of other resources. (See Gerald M. Meier, Leading Issues in Development Economics /New York: Oxford University Press, 1964/, pp. 74-85 for a summary of the aspects of this definition). However, the relevance of "disguised unemployment" based on this definition to the situation in developing countries has been challenged by many economists (See, for instance, Myrdal, op. cit., Appendix 6, "A Critical Appraisal of the Concept and Theory of Underemployment", pp. 2041-2061.)

throughout this dissertation, "disguised unemployment"[42] will refer to the status in the labour force of those persons in non-wage employment who have taken up such self-employment as the consequence of their failure to gain wage employment and who, either actively or passively, are still seeking wage-paying positions.[43] They comprise that part of the total surplus of labour to wage employment (at prevailing wage rates)[44] which cannot afford to remain openly unemployed. Their unemployment is "disguised" in the sense that their (reluctant) occupation in activities of a marginal economic nature hides their true workless position;[45] in developed countries (where benefits are paid the unemployed) their worklessness would manifest itself in the form of open unemployment instead.[46]

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[42] The term used by Sadie, op. cit., p. 127, and Rottenberg, op. cit., p. 222, but also referred to as "invisible" (Doctor, p. 350 and Jaffe and Qesada, p. 362, /see footnote 43/), "concealed" (International Labour Office, Manpower Problems, Regional Conference for the Near and Middle East, Teheran, April 1951 /Geneva: 1951/, p. 26), "buried" (Myrdal, op. cit., p. 1020), and "suppressed" (Rottenberg, op. cit., p. 222) unemployment or underemployment in describing the phenomenon defined as disguised unemployment here.

[43] In a less precise sense, this definition has been used in labour force surveys in the Philippines and in Panama to identify such persons. The Philippines survey treats as disguised unemployed all persons in self employment and unpaid family work "who would prefer regular wage employment" (as noted in Kailas C. Doctor, "Recent Progress in Underemployment Statistics and Analysis", in United Nations, op. cit., p. 350), while the 1963 Panamanian survey counted as "invisibly underemployed" all self-employed who "wished to change jobs", treating the "wishes of the worker and his attitude towards his job" as the "crucial elements" in such determination. See A. J. Jaffe and L. E. Qesada, "Assessment of Underemployment in Non-Agricultural Industries of the Less Developed Countries", in United Nations, op. cit., p. 362.
An observer of conditions in the West Indies has more specifically identified as the "disguised unemployed" those persons in own account employment "who would accept ("or may even be actively seeking") wage employment at prevailing rates, if it were offered". See Rottenberg, op. cit., pp. 222-23.

[44] As described more fully in Chapter Four, q.v.

[45] Rottenberg, op. cit., p. 222.

[46] As noted, among others, by Sadie, op. cit., p. 127.

In order to know the extent of "disguised unemployment" as defined here in Iran (or in any other developing country), it would be necessary that surveys of the labour force ask all non-wage employed persons if they were currently seeking wage employment.[47] Since no survey in Iran has ever posed this question,[48] the number of "disguised unemployed" in the urban areas of Iran is not known. Most likely, virtually all workers on their own account and in unpaid family work engaged in activities of very low productivity (by Iranian standards) and with little capital outfit who work outside any fixed place -- such as pedlars, street salesmen, porters, and odd-job persons engaged in a myriad of petty "services" -- qualify as "disguised unemployed"; however,* since such persons also often have no fixed residence, their numbers are usually understated in the figures of censuses and labour force surveys.[49] Nevertheless, if we estimate that one-fifth of all manual own account and unpaid family workers (both sexes) reported by the November 1966 census for the urban areas fall under this definition (or 119,000),[50] then the rate of disguised unemployment in Iran's towns

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47 Or at least "prefer" or "wish to change to" wage employment, as in the cases of surveys in the Philippines and in Panama, respectively, as noted in footnote 43.

48 Except that of the present writer for the Ku-ye 9 Aban district of Tehran in 1967, as previously mentioned.

*49 The likely under-counting of persons working outside of any establishment has been noted in Chapter Three, Section II, q.v. An ILO study points out the unreliability of census totals of "the floating mass of small street vendors" in Asia because of the difficulty in enumerating them. See "Employment Prospects of Children and Young People in Asia", International Labour Review, Vol. 88, No. 6, December 1963, (offprint), p. 7.

50 Equivalent to the estimate of forced self-employment in manual occupations of footnote 40. The Ministry of Labour sample urban labour force survey of May 1964 indicated that 13.2 per cent of the total of self-employed persons wished to change their work (presumably to wage-paying jobs, which they had implicitly earlier been unsuccessful in finding) (see Table 43); if we assume all were in manual occupations, then this percentage would be equivalent to 15.7 per cent of the total of self-employed persons in manual occupations in 1966. In view of the very high rates of forced self-employment among persons rejected for wage employment found by the writer in a poor district of Tehran in 1967 (see footnote 38), this Ministry of Labour rate probably is too low.

and cities at that date would be 4.6 per cent of the (census-reported) urban Iranian labour force (or 2,614,000).

It is likely that the 1966 rate of such disguised unemployment was higher than at 1956, in view of the much greater rate of increase in the number of urban non-wage (non-agricultural) manual workers (among whom such disguised unemployment is concentrated) than that for persons in the urban labour force as a whole between 1956 and 1966 (or 54 as against 38 per cent).[51] During this period, the rate of increase of such manual non-wage employed considerably outstripped that of the manual wage employed,[52] suggesting the growth of significant surpluses of manual worker applicants to wage employment forced into self-employment. (See Chapter Three, Section IV).

V. CONCLUSION

Although the absence of data for two of the categories of such unemployment (the passively and the disguised unemployed) precludes the making of any flat assertion to this effect, the incidence of total (i.e., of all types) worklessness in the urban labour force -- as suggested by rising rates of open "actively-seeking-work" unemployment and by the faster rate of growth of the non-wage than the wage employed among (non-agricultural) manual workers -- most likely increased during the 1956-1966 period, the consequence of an aggregate urban labour supply expanding at a more rapid pace than employment for it could be created. (Chapter Four). By the end of the review period, unemployment of all types is estimated to have affected over one-fifth of the urban labour force at that date. (See Table 54).

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[51] See Tables 40 and 11. Since census figures have somewhat understated the true rate of growth of the numbers of urban self-employed (See Chapter Three), the gap in the rates of increase between the urban non-wage (non-agricultural) manual workers and that of the urban labour force is even wider than indicated here.

[52] By 54 as against 37 per cent. (See Table 40). The rate of growth of the non-wage employed is higher, and that of the wage employed lower, than these census-derived figures indicate. (See Chapter Three).

TABLE 54

ESTIMATE OF RATES OF UNEMPLOYMENT BY TYPE, NOVEMBER 1966

URBAN AREAS (1956 BASIS)

(Both Sexes)

Type of Unemployed Person	Number	As Pct. of Economically Active [a]
Openly Unemployed and Actively Seeking Employment during Reference Week	148,000[b]	5.0
Openly Unemployed but Only Passively Seeking Employment, No Time Reference Period	352,000	11.9
Non-Wage Employed Previously Rejected for (and Still Seeking) Wage Employment. ("Disguised Unemployed")	119,000	4.0
All Types	619,000	20.9

[a] Or 2,966,000 (adjusted to include numbers of persons reported by census as economically inactive but estimated here as actually unemployed).

[b] Includes seasonally unemployed in agricultural occupations.

Source: As calculated from figures of Tables 47, 48 and 50 and footnote 50.

CHAPTER SIX *

GOVERNMENT POLICIES AFFECTING THE SUPPLY OF AND DEMAND FOR LABOUR

This chapter seeks to examine the effects — intended or otherwise — that Government policies have had on the supply of and demand for labour and its allocation through the market mechanism during the Second and Third Development Plan periods (September 1955 - March 1968) and to evaluate these policies. Although we are here specifically concerned with the labour supply-and-demand situation in the urban areas of the country, policies affecting the nation-wide situation will be discussed, since the effects of these policies on conditions in the rural areas had important implications for the labour supply situation in the urban areas during the two Plan periods.

I. THE RATIONALE AND EFFECTS OF GOVERNMENT POLICIES

During the Second and Third Plan periods, a wide range of Government policies had varying implicit and explicit effects on the supply of and demand for labour in Iran. To some extent, these policies were formulated within the framework of the two plans, but in other instances, they were developed outside of these plans by various ministries and other Government bodies. An examination of the aims of these policies and their implementation and effects on the labour situation is the subject of this section.

A. MANPOWER PLANNING WITHIN THE FRAMEWORK OF THE DEVELOPMENT PLANS

Manpower planning was first introduced within the framework of Iran's development planning shortly after the commencement of the Second Seven Year Development Plan (September 1955 - September 1962), when a Manpower Development Division was established in the Plan Organization, the planning body of the Iranian Government entrusted

with executing the development plans.* However, this Division was mainly occupied in collecting statistics required for manpower analysis, paying relatively little attention to formulation of training programs[1] and none to the important employment-creation aspect of the manpower problem. This fragmentary approach to manpower planning during the Second Plan period stemmed from the limited scope of the Second Plan itself, which was simply a program of Government expenditures on various development projects to be carried out by the Plan Organization.[2]

With the formulation of the Third Development Plan (September 1962 - March 1968), greater attention was paid to the position of manpower in development planning by Iranian planning officials. For the first time in Iran's planning experience (dating from 1948), a comprehensive approach to development was adopted; the private sector was included within the compass of the Plan, objectives spelled out, over-all (as well as sectoral) targets established, and all major policies co-ordinated in a strategy to attain these targets. A manpower balance was drawn up by the Manpower Section of the newly-established Economic Bureau[3] and incorporated into the framework of the Plan.

* Although the main objective of the Third Plan was to increase

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1 See George B. Baldwin, "Iran's Experience with Manpower Planning: Concepts, Techniques, and Lessons", in Frederick A. Harbison and Charles Myers (eds.), Manpower and Education: Country Studies in Economic Development (New York: McGraw-Hill, 1965), p. 143.

2 For a critical evaluation of the Second Development Plan, see George B. Baldwin, Planning and Development in Iran (Baltimore: John Hopkins Press, 1967) and P. Bjorn Olsen and P. Norregaard Rasmussen, "An Attempt at Planning in a Traditional State: Iran", in E. E. Hagen (ed.), Planning Economic Development (Chicago: Richard D. Irwin, 1963), pp. 224-233.

3 The Manpower Planning Division had been abolished in 1961.

national income by an average annual rate of at least 6 per cent a year, "creation of an optimum number of employment opportunities" was accorded a secondary priority.[4] Though undefined, this "optimum" number was not a "maximum" number,[5] however, which the planners apparently realized would have put it in a likely conflict with the main objective of income-maximization. Under such terms of reference, the main Plan document estimated that the number of jobs that would be created during the Plan period would be equal to or exceed the /net/ additions to the labour force during the 5½ year plan period[6] (or 1,777,000 persons, as forecast by the Manpower Frame).[7] This estimate, implying no increase in the numbers of openly-unemployed[8] during the Plan period, was apparently inserted in the Plan document on the basis of a high-level political decision, however, since an earlier exercise by lower-level planners and foreign advisors to identify the volume of additional employment implied by the plan resulted in a much more

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4 See Plan Organization, General Economics Group, Division of Economic Affairs, "Introduction to the Third Development Plan of Iran (1341-1346)" (Unpublished-Roneo) (Tehran: Mordad 1340) (Hereafter referred to as "Introduction to the Third Plan"), p. 35.

5 Thus the planners noted that "it cannot be claimed that the Plan will necessarily bring about maximum employment opportunities". (Ibid., p. 41).

6 Ibid; pp. 41-42, and Plan Organization, Planning Division, Outline of the Third Plan 1341-1346 (Tehran: Esfand 1344) (Hereafter referred to as Outline of the Third Plan), p. 51.

7 Plan Organization, Division of Economic Affairs, Manpower Section, "Third Plan Frame Manpower" (Unpublished-Roneo) (Tehran: August 1961) (Hereafter referred to as "Third Plan Frame Manpower"), p. 92.

8 If we assume that the planners were referring to net number of new jobs created. Otherwise, they (unrealistically) ignored the likelihood of some contraction in the number of jobs existing at the beginning of the Plan period (due to employment-destruction).

pessimistic conclusion.[9]

The declared strategy of the Third Plan to meet the employment estimate (or target) of the Plan was simply to ensure that the high level of public and private investment targeted by the Plan[10] — believed adequate to generate sufficient additional demand for labour — was fulfilled.[11] No preference for relatively labour-intensive projects over similar projects of greater capital-intensity was to be made unless the former should lead to creation of an output equal to, or greater /per unit of capital invested/ than could be achieved by choice of the more capital-intensive alternative.[12] No other policies were enunciated in the Plan document with explicit reference to employment-creation, although there were strong effects on the level of labour demand implicit in many policies to be followed in each industrial sector. (See subsection B below).

While the Third Plan considered the aggregate demand for labour over the Plan period in some detail (as indicated above), no particular attention was paid to the aggregate supply side of the manpower equation, other than making an estimate of its size. The planners appeared unaware, or were not concerned with, the possibilities afforded them to influence its size and shape (mainly by shifts

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[9] Personal letter from George B. Baldwin, July 14, 1966, which notes that additional employment would fall short of the increase in labour supply. The manpower planners of the drafting team estimated that the number of new jobs would range between 600,000 and 1,000,000 only (Third Plan Frame Manpower, p. 95). No estimate based on a thorough analysis of the likely changes in demand for labour over the Plan period was ever made. (See section II).

[10] Or 348 billion rials ($4,640 million), the amount of investment set under the Third Plan draft and on which Plan strategy was based.

[11] "Introduction to the Third Plan", pp. 41-42.

[12] Ibid., p. 41.

in the rates of labour force participation of the working age population) and urban/rural distribution (by shifts in migration patterns) through implementation of various policies. (See subsection C below).

At the level of individual occupations and skills of labour, moreover, the planners' approach to manpower planning continued incomplete. While the Manpower Frame drawn up by the Plan Organization's Manpower Section introduced "a comprehensive strategy for increasing the output of needed skills",[13] the other side of the manpower problem in Iran — overcoming labour surpluses — was not included as an objeotive of the Manpower Frame[14] and remained almost completely ignored,[15] despite the fact that the planners had recognized that the "overabundance of labour", as well as the shortage of skilled workers, were the major manpower problems of the Third Plan.[16]

B. GOVERNMENT POLICIES AFFECTING LABOUR DEMAND

During the Second and Third Development Plan periods, the Iranian Government pursued policies that had important effects on the level of, and growth in, demand for labour. This subsection will examine the most significant of these policies, with particular attention to those affecting labour demand in the urban areas of the country (as indicated by the nature of the industrial activity). In addition to

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[13] Baldwin, "Iran's Experience...", op. cit., p. 145.

[14] "Third Plan Frame Manpower", p. 5.

[15] The Plan did include provision for mounting special public works projects if unemployment should rise ("Third Plan Frame Manpower", p. 9), but this was an anti-cyclical measure to overcome temporary slumps in demand for unskilled workers rather than a means of stimulating new permanent demand for such workers. No policies were proposed to restrict the growth of the supply of workers with skills in oversupply. (See subsection C below).

[16] Outline of the Third Plan, p. 135.

those policies formulated within the planning framework, those drawn up outside of (and often contradictory to) strategy of the development plans will also be considered.

1. Policies Affecting Labour Demand in Individual Industrial Sectors

Labour demand in each of the industrial activities of the Iranian economy was influenced to varying degrees during the Second and Third Plan periods by the implementation of various Government policies with direct or indirect connotations for such demand. The nature and effect of these policies is examined below for broad industrial groups of labour demand.

a. Agriculture

No explicit strategy or policy regarding the desired level of demand for labour in agriculture was formulated during the Second Plan period, either within or outside of the Second Plan framework. To some extent the Government's policy providing increased credit assistance to farmers for purchase of agricultural machinery[17] reduced the outstanding level of agricultural employment (where such machinery was used on currently-worked lands and displaced labour) or restricted the scope for new employment (when used on previously unworked lands). The large amounts of Second Plan public funds disbursed in the agriculture and irrigation sector were heavily concentrated on construction

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[17] As a consequence of the receipt of Plan funds allowing increase of its capital from 50 million to 1,100 million rials, the Plan Organization's Agricultural Machinery Development Organization — the Government's main instrument for promoting mechanization of agriculture — was able to provide credits of 4,000 million rials to farmers during the Plan period for purchase of 6,047 tractors and 1,065 combines, or virtually all of total purchases of such machinery during the Plan period. (See Plan Organization, Report on the Execution of the Second Seven Year Development Plan /in Farsi/ /Tehran: 1343/, p. 24, and "Number of Tractors and Combines Sold in Iran", Bank Markazi Iran Bulletin, Vol. 2, No. 8, July-August 1963, p. 328).

of large dams, implying only very limited new employment opportunities through the resultant expansion of cultivated lands (though providing considerable levels of temporary work for labourers in the construction phase).[18]

The original draft of the Third Plan for the first time introduced comprehensive policies for the agricultural sector and co-ordinated them with the national objectives of the Plan. In keeping with the priority rank of the Plan, the primary objective of the Agriculture Third Plan Frame was to increase agricultural production sufficiently to generate the minimum 6 per cent a year target of national income growth, while one of the secondary objectives was to increase the level of employment where compatible with the primary objective.[19] Frame strategy "did not seek to reduce the absolute numbers engaged in agriculture", intending rather to increase levels of production and productivity "largely by devices other than labour-saving innovation."[20]

However, the decision of the Government and the Shah of Iran to introduce a full-scale land reform program in 1962, just before the start of the Third Plan, in effect altered the objectives and policies of the draft Third Plan agricultural program to such an extent that they were left with little meaning.[21] The main objective of short-run increases in agricultural output was replaced with one calling

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[18] A total of 15,855 million rials of the total outlay of 23,464 million rials under the Agriculture and Irrigation chapter of the Plan was expended on construction of three large and three small dams, with irrigation networks not built by the end of the Plan. (See Plan Organization source cited in footnote 17 above).

[19] Outline of the Third Plan, p. 74

[20] J. Price Gittinger, Planning for Agricultural Development: The Iranian Experience (Washington: National Planning Association, 1965), p. 93.

[21] Baldwin, Planning..., op. cit., p. 70.

for the removal of the traditional land tenure system and the creation of a socio-economic climate conducive to implementing a plan for social and economic progress of the new class of farmer-cultivators. Administrative and financial resources during the early years of the Plan were concentrated on achieving this overriding goal[22] and on providing the supporting facilities required by these beneficiaries of the land reform.

A casualty of the new ordering of priorities appears to have been the policy favouring maintenance of existing levels of agricultural employment. Whereas originally farm mechanization was to be limited and the use of hand tools and small farm implements encouraged instead,[23] at least towards the end of the Plan period this policy was reversed and widespread mechanization of agriculture announced as an important feature of the third stage of land reform commencing in 1966;[24] consolidation of the holdings of the new smallholders into large "farm corporations" and introduction of mechanized cultivation on these larger plots was chosen as the means to "speed the nation's agricultural growth".[25] The Plan Organization estimated that by the end of the Third Plan, farm machinery imported over the 5½ years of the Plan (to a large extent financed by loans from the Government)[26]

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[22] Ibid.

[23] Outline of the Third Plan, p. 77. The draft plan "restricted the use of credit for large-scale agricultural machinery". (Baldwin, Planning..., op. cit., p. 76).

[24] Kayhan International, January 10, 1966.

[25] As enunciated by the Minister of Agriculture in a speech reported in Kayhan International, July 17, 1967.

[26] Through its Agricultural Machinery Development Organization, which received additional funds from the Third Plan with which to make such loans.

would have made 340,000 agricultural workers redundant over the Plan period,[27] or almost 10 per cent of an estimated agricultural workforce of 3,500,000 at the beginning of the Plan (1962). Increased mechanization was given by the Deputy Director of the Plan Organization as the main reason for the decline in agricultural employment noted during the Plan period.[28]

The land reform itself — in its initial land distribution phase — may also have had a depressing effect on the level of employment of landless agricultural labourers, who did not normally receive land under the provisions of the land reform. These workers are believed to have experienced greater difficulties in finding daily-wage work under the new smallholder class than they did under the former tenure system from landowners. (See Chapter Two).[29]

As during the Second Plan period, the expenditure of a considerable share of total public funds allocated to agriculture and irrigation under the revised Third Plan on dam and irrigation network projects[30] had little impact on the generation of new permanent demand for labour

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27 Plan Organization, Office of Labour and Manpower, "The Effect of Mechanization on Employment in Agriculture" (in Farsi) (Unpublished-Roneo) (Tehran: Mehr 1345), p. 10. This estimate was based on the assumption of import of 11,842 tractors and 577 combines over the Plan period. (Ibid., p. 4).

28 Quoted in Kayhan International, October 2, 1967.

29 Smallholder preference for using family workers, of course, improved the employment situation of such workers by providing for the more intensive use of those already employed as well as for opportunities for work on the family plot on the part of the new farm family entries into the agricultural workforce.

30 Expenditures on dam and irrigation networks reached 21,700 million rials of the total amount of 47,300 million rials disbursed under the Agriculture and Irrigation chapter during the Third Plan. See Bank Markazi Iran, Annual Report and Balance Sheet as at March 20, 1968 (Tehran: no date), Table 32, p. 112.

during the Plan period.[31] Other (non-land reform) Plan disbursements in this sector were for programs — such as agricultural credit, rural development, and agricultural extension — implying little demand for additional workers, although contributing to a fuller use of the labour of the existing agricultural workforce.

b. Manufacturing Industry

The Second Plan formulated no explicit strategy or policies towards the question of labour demand in manufacturing, but its various policies towards the manufacturing sector indirectly affected manufacturing employment. More importantly, however, extra-Plan policies of the Government followed during the Plan period had significant explicit and implicit effects on such employment.

Policies affecting the volume of investment in (modern sector) industrial activities were the major stimulus provided by the Government towards expansion of manufacturing output and employment during the Second Plan period. The Plan's own level of direct investments was considerable; 6,831 million rials ($91.8 million) was disbursed by the Plan Organization on the expansion of existing and establishment of new Government factories in the textile, sugar, and cement industries.[32] In fulfilment of one of its implicit objectives,[33] the

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[31] Only 140,000 hectares of additional cultivable land were expected to be brought under cultivation through the irrigation projects of the Third Plan. See Outline of the Third Plan, p. 75.

[32] Plan Organization, Report on the Execution..., op. cit., Appendix 15. These investments had only a modest effect on generation of new employment, however, since those in cement and sugar factories were very capital-intensive, while those in textile factories were for modernisation programs designed to increase productivity and led to no new net employment. See Iran Factories Company, Ten-Year Report on the Textile Company (in Farsi) (Tehran: Mordad 1345).

[33] Baldwin, Planning..., op. cit., p. 105.

Second Plan Industry chapter also assisted private investment in manufacturing by providing long-term credits to large and medium-sized entrepreneurs at low rates of interest through the Plan Organization's Industrial Credits Bank (ICB).[34]

However, the greatest impact on private industrial investment during the Second Plan period derived from the extension of long-term credits from two sources outside of the Second Plan framework. The bigger of the two credit programs was mounted by the Ministry of Industries and Mines, involving extension of industrial credits at only 4-6 per cent interest through the Government-owned Bank Melli to large industrial units.[35] Between 1957 and early 1961, when this Revaluation Loan Fund (RLF) program was terminated, 4,693 million rials ($62.6 million) of credits had been extended,[36] equivalent to some 25-30 per cent of all private industrial investment during this period.[37] Following its establishment in October 1959, the Government-supported Industrial and Mining Development Bank (IMBDI) received considerable amounts of Government funds and began extending long-term credits at 10 per cent interest (including service charge) to large industrial investors; by the end of 1341 (March 20, 1963), it had granted $21.5 million in credits.[38] Although a privately-owned bank,

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[34] Over the course of the Second Plan, the ICB provided loans totaling 880 million rials at 6 per cent (later 7 - 7.5 per cent). See Richard Elliot Benedick, Industrial Finance in Iran (Cambridge: Harvard University Press, 1964), p. 89, and Plan Organization, Report on the Execution..., op. cit., p. 48.

[35] Benedick, op. cit., pp. 102-117.

[36] Ministry of Industries and Mines, Statistics of Industrial Activities of Iran in the Year 1341 (in Farsi) (Tehran: 1342), p. 294. In addition, a small loan program (500,000 rials or less) by March 1961 had provided credits totaling 105 million rials for 279 projects of small-scale industry. See Bank Markazi Iran, Balance Sheet as at March 20, 1961 (in Farsi) (Tehran: no date), p. 24.

[37] Baldwin, Planning..., op. cit., p. 115.

[38] Benedick, op. cit., pp. 120 and 153-54.

the IMBDI did not set its interest charges on a competitive basis, but rather by its management's judgment of a "just rate".[39] The provision of such large amounts of long-term credits to modern sector entrepreneurs,[40] and at below-market rates of interest,[41] was the major factor accounting for the great expansion of the private manufacturing sector, and in concomitant increased levels of employment,[42] during the Second Plan period.

⊙ Other incentives were formulated outside the Second Plan framework by the Government during the Second Plan period. Under the Income Tax Law of Farvardin 1335 (April 1956), all new factories receive a 50 per cent exemption from taxes on declared profits, while those which locate outside a radius of 60 kilometers from Tehran and those whose production is exported are given a complete tax holiday, for the first five years of operation. In addition, those companies set up as joint-stock companies receive a further 10 per cent tax exemption on their profits.[43] To stimulate foreign investment in industry, the Law for the Encouragement of Foreign Investment of 1335 (1956), in addition to providing the same incentives to foreign

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[39] Baldwin, Planning..., op. cit., p. 119.

[40] Other than from foreign suppliers of machinery, no source of long-term credits existed for industrial entrepreneurs prior to the establishment of these credit programs.

[41] Bazaar rates ranged from 18 to 36 per cent for short-term loans for the working capital needs of industry. See Benedick, op. cit., pp. 47-48.

[42] The impact that a proposed industrial project would have on employment-creation in a particular region was one of the criteria in deciding the regional distribution of RLF credits. See Benedick, op. cit., p. 109.

[43] Heshmat Ala'i, "Income Tax Law", Kayhan International, October 9, 1965, p. 4; Benedick, op. cit., p. 31; and J. Behrouz (ed.), Iran Almanac and Book of Facts 1967 (Tehran: Echo of Iran, 1967), pp. 680-81.

investors as accorded to Iranian entrepreneurs, allows the transfer of profits overseas and the repatriation of capital.[44] Customs duty policies also favour investments in industry; all imports of capital equipment are free of duty,[45] and home industries are protected from foreign competition by levy of high tariffs on imports of similar products,[46] as well as a ban on some items.

Although no explicit policy regarding choice of technique in manufacturing was ever enunciated by the Government during the Second Plan period, in its actions it tacitly encouraged the adoption of increasingly capital-intensive methods in Iranian industry. During these years, the Government allowed the import of labour-saving machinery and licensed new industrial units regardless of their implication for the employment situation as indicated by their choice of technique.[47] Many entrepreneurs also received large Government loans whose projects proposed to introduce increasingly automatic and labour-saving machinery into their plants.[48]

While the Government implicitly favoured modernisation schemes in industry which often resulted in reduced labour demand in the affected

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[44] Behrouz, op. cit., p. 666.

[45] Ibid., p. 681.

[46] Ibid., p. 682.

[47] As indicated by officials of the Ministry of Economy in conversations with the writer in March 1967. An exception to this permissiveness was made in 1962, when as a result of "a great storm of protests" following the import and going-into-operation of a carpet-weaving machine and in order to protect Iran's hand-woven carpet industry, the Ministry of Commerce banned all kinds of machinery which could be used for manufacture of carpets. Kayhan International, September 5, 1962.

[48] For instance, RLF credits were used to finance projects setting up for the first time in Iran mechanized shoe-making factories and automatic brick-making plants and for the installation of more automatic machinery in textile plants.

modern sector industrial units, the discharge of workers made redundant by such schemes was discouraged by another policy favouring retention of all currently-employed (including surplus) factory workers at their workplaces.[9] Thus, as a consequence of Government desire to "keep peace and quiet among /factory/ workers" (implying a fear of political actions by such urban workers), job security provisions of the 1959 Labour Law (see Chapter Three) were rigidly enforced in larger industrial units.[49] "to the extent that the management is virtually unable to fire any factory hand except in rare cases and for good reasons."[50] Similarly, in its own factories, the Government during the Second Plan period opposed dismissal of its surplus employees as urged by the Plan Organization.[51] In addition, the Government pursued a policy of extending large loans to the management of private factories threatening closure in order to prevent the lay-off of their entire workforces.

With the introduction of the Third Development Plan in September 1962, a relatively comprehensive and co-ordinated strategy for attaining the objectives of the Plan's industry sector was put into effect. In keeping with the priority ranking of the overall Plan, the main stated objective for the industry sector was "to develop and expand those industries which will provide the maximum increase in national income", while one of the three secondary objectives was "to increase

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49 But not in small, traditional sector units, where the Labour Law in practice was not applied. (See Chapter Four).

50 Sharif Adib-Soltani, "Money Wage Behavior in Iran from 1955-56 to 1957-58", Middle East Economic Papers 1960, p. 7. (An exception to this policy was made in the case of the consortium of foreign oil companies — see Chapter Three).

51 Plan Organization, Division of Economic Affairs, Economic Bureau, Review of the Second Seven Year Plan Program of Iran (Tehran: March 10, 1960), p. 73.

employment opportunities".[52] A target of 120,000 new jobs in industry was established, including 9,900 in the capital-intensive factory sector and 110,000 in the more labour-intensive small- and medium-scale industry.[53]

The main approach to fulfilling the employment-creation objective was seen as assuring a high level of investment, especially in small- and medium-sized manufacturing activities.[54] Total gross investment (including working capital) was targeted at 65,160 million rials ($868 million), of which 34,512 million rials ($460 million) was to be provided by the public sector through disbursement of Plan funds and 30,648 million rials ($409 million) by private investors. (See Appendix Table 41). Although the Plan Organization failed badly to meet even a reduced spending target,[55] the private sector is estimated to have exceeded its target by 50 per cent,[56] bringing total actual investment in industry up to 63 billion rials over the Third Plan, or nearly reaching the (original) target of 65 billion rials on which

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[52] Plan Organization, Division of Economic Affairs, Industry and Mining Section, "Industry and Mining Third Plan Frame" (hereafter referred to as "Industry and Mining Third Plan Frame") (Unpublished-Roneo) (Tehran: May 1961), p. 9.

[53] Ibid., pp. 65 and 100.

[54] Ibid., p. 9.

[55] Plan disbursements totaled only 17,092 million rials, or 60 per cent of the revised allocation for public spending of 28,620 million rials. This poor public sector performance was due almost entirely to a shortfall by 10,000 million rials in allocated investment in new public industries. (See Appendix Table 42).

[56] Based on an estimate of 46 billion rials of private industrial investment cited in Plan Organization, Fourth National Development Plan 1968-1972 (Tehran: 1968), p. 118. It is not known how this total figure was reached; it was apparently not derived from Ministry of Economy data, the usual source of Plan Organization industrial investment estimates.

Third Plan industry strategy was based.

The higher-than-targeted level of private investment in manufacturing industry achieved during the Third Plan period can largely be credited to the continuation of the Government's policies initiated during the Second Plan period of providing tax and tariff incentives and extending low-interest loans to private industrialists. Extension of long-term credits was seen as "the most powerful stimulant the Government can offer to private investors" by the drafters of the Third Plan,[57] who originally earmarked 10.3 billion rials of development funds to increase the lending capital of the IMBDI, the ICB, and the IGF (Industrial Guaranty Fund[58]) and to allow for equity participation by the Government in private units.[59] Although an amount of only 4.4 billion rials was actually provided out of Plan funds (of the downward-revised allocation of 5.1 billion rials for this purpose)(see Appendix Table 42),such funds greatly assisted these lending institutions in providing an aggregate 9.4 billion rials of credit at below-market (and progressively reduced)[60] interest rates

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57 Outline of the Third Plan, p. 98. In the view of the foreign advisor who participated in the drawing up of the Industry Frame, "The provision of government funds for private investment was the cornerstone of the Plan for Industry". See Baldwin, Planning..., op. cit., p. 128.

58 A quasi-Governmental institution formed in 1961 to provide financial assistance to small industrial units.

59 "Industry and Mining Third Plan Frame", p. 70.

60 IMBDI interest charges were reduced from 10 per cent to 9 per cent in 1963 and 8 per cent in 1964. (Baldwin, Planning..., op. cit., p. 119). IGF rates were originally set at 10 per cent, but were subsequently reduced to 8 per cent in May 1965 and 7 per cent in August 1965. (Benedick, op. cit., p. 178, and Kayhan International, May 23 and August 25, 1965). The ICB held its interest charges constant at 7.5 per cent over the Plan period. (Kayhan International, January 6, 1966). The reduction in rates was in accordance with the Central Bank's policy of lowering rates as an anti-depression measure". (Baldwin, Planning...,loc. cit.)

over the five years 1342-1346 (March 1963-March 1968), including 5.7 billion rials for large units by the IMBDI, 2.6 billion rials to medium-sized units by the ICB, and 1.1 million rials to small-scale industry by the IGF.[61] In addition to these incentives, the Third Plan further encouraged new private investment by covering 50 per cent of the cost of expenses incurred both for industrial feasibility studies and for employment of foreign and local technicians required by factories.[62]

The Industry Frame's strategy of encouraging a high level of investment in (relatively more labour-intensive) small- and medium-scale manufacturing industry to meet its employment target was apparently successfully carried out,[63] in view of the heavy increase in over-all employment in manufacturing recorded over the Plan period. (See section II). Few new employment opportunities were created from the Government's own investments in new and existing factories, which were of a very capital-intensive nature as foreseen by the planners.[64]

As during the Second Plan period, the Government in general

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61 IMBDI and ICB loan amounts from Bank Markazi Iran, Annual Report and Balance Sheet as at March 20, 1968 (Tehran: no date), Tables 42 and 43, pp. 128-29. IGF loan amounts from Ministry of Economy, Bureau of Statistics, Trends in Industrial and Commercial Statistics (Tehran: December 1968), Table 10, p. 20.

62 Ahmad Nouban, "The Role of Industry in the Fourth Development Plan of Iran" (in Farsi), Majalleh-e Otaq-e Sanaye' va Ma'adan ("The Journal of the Chamber of Industries and Mines"), New Series, No. 1, Tir 1347, p. 19.

63 No figures are available of total industrial investment over the Third Plan period by scale of operations.

64 The Plan Organization's disbursement of 11,631 million rials ($155 million) (see Appendix Table 42) on existing and new public industrial units was largely on petrochemical plants, a steel mill, machine tool plants, and sugar mills, all of a highly capital-intensive nature. For instance, the Mamasani and Yassuj sugar mills each absorbed 784 million rials of Plan funds, but provided work for only 113 permanent employees each. (Kayhan International, December 7, 1967).

favoured the use of increasingly capital-intensive techniques in manufacturing industry over the years of the Third Plan. While such a policy may have followed from the Industry Frame's admonition against "high production costs" in questions of choice of technique,[65] it would appear contradictory to the Frame's policy stated elsewhere against licensing of, or extension of credits to, projects "considered harmful or wasteful of the country's resources"[66] (assuming that excessive use of labour-saving machinery would come within the scope of this restriction).[67] More likely, however, this policy was formulated independently of the framework of the Third Plan by a Ministry of Economy increasingly powerful vis-a-vis the Plan Organization (see section II), and with direct control over licensing. Licenses were issued to new factories, and loans extended to new and existing units, proposing to replace hand- and semi-automatic methods of production with mechanized and automatic means of production, respectively.[68] The Ministry of Economy after 1966 expressly favoured the use of "advanced technology" in manufacturing units,[69] although in the words of the Minister of Economy it was "not committed to automation in all

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65 "Industry and Mining Third Plan Frame", p. 9.

66 Ibid., pp. 26-27.

67 As suggested by the fact that the Minister of Labour was to be one of five ministers to sit on a proposed National Licensing Board to decide such licensing questions. (Ibid., p. 59). However, such a Board was never set up, and the Ministry of Economy was left to make such decisions.

68 For instance, in 1967 a license was given to a shirt-making factory (Iran's first) with a proposed production three times greater than the total of shirts turned out by artisan shirtmakers. (Kayhan International, May 2, 1967.)

69 Kayhan International, June 3, 1968, and based on conversations with officials of the Ministry in 1967.

cases."[70] However, exceptions in this policy were made in individual instances and on an ad hoc basis where organized groups of artisanat producers complained to the Ministry of injury from competition with factories.[71]

Although the Third Plan document had proposed that steps be taken to relieve factories (including those of the Government) of the burden of surplus workers,[72] the Government's policy during the Third Plan period continued to favour maintaining all currently-employed workers and staff (including those surplus to needs) on the payrolls of factories. Job-security provisions of the Labour Law were rigidly enforced in such large industrial units, despite complaints of employers urging a revision of the Law. The workforce of Government factories was given an assurance early during the Third Plan period that no surplus employees would be laid off.[73] The Government also continued to oppose the closure of private factories and the resultant lay-off of their workforces,[74] but as a result of its bad experience

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[70] Kayhan International, July 18, 1968. (Judging from the newspaper article, the Minister really means "automatic machinery" rather than "automation").

[71] For instance, following a complaint from the Shoemakers Guild that mechanized shoe-making factories were putting artisanat shoemakers out of business, the Ministry refused to issue any new licenses for shoe factories and restricted the import of shoemaking machinery. Similar policies have been taken against proposed bread- and sweets-making factories following complaints from affected artisan producers. (According to March 14, 1967 interview with Ministry of Economy officials).

[72] "Third Plan Frame Manpower", pp. 4 and 8-9. A proposed Manpower Co-ordination Committee was "to determine the causes and extent of surplus labour in industry, propose needed legislation, and develop re-deployment programs". (Ibid., p. 84). (This course of action was never taken).

[73] Kayhan International, March 2, 1963.

[74] As enunciated by incoming Prime Minister Mansur in March 1964 as part of his Government's economic policy. See J. Behrouz (ed.), Iran Almanac and Book of Facts 1964/65 (Tehran: Echo of Iran, 1965), p. 135.

in providing credits to owners of "sick" plants (which required more than infusion of funds to operate successfully), it shifted to a new strategy involving take-over of such units by a new Industries Protection Board (established in 1964) coupled with equity participation by the Government through its ICB.[75]

c. Construction

The most important effect on the level of demand for labour in the construction industry during the Second and Third Plan periods derived from the implementation of Government policies stimulating the high level of construction activity. No explicit policy towards the level of over-all employment in construction had been formulated, however, although creation of some additional demand for labour in construction activities had been sought by the Government during the recession years of the Third Plan through the launching of a public works project aimed at relieving unemployment,[76] a type of measure proposed by the Third Plan document.[77]

The Government's own development spending policies during the Second and Third Plan periods involved heavy outlays on public sector

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75 Kayhan International, January 9, 1964, January 15, 1964, March 7, 1964, and January 4, 1968.

76 The Government in February 1963 had announced a scheme to build 10,000 houses for Government employees throughout the country over a period of one year involving an expenditure of 1,000 million rials ($13.3 million) in order to provide work for the unemployed, but this project was scrapped nine months later without having gone into operation. (Alfred Bakhash, "Get the Economy Moving", Kayhan International, February 28, 1963, p. 1; "Unemployed", Kayhan International, July 3, 1963; and "Housing", Kayhan International, November 21, 1963).

77 See footnote 15.

capital construction projects,[78] generating a high level of (temporary) demand for construction workers hired by the Plan Organization directly and by private contractors. Similarly, demand for labour in non-Governmental construction activity was greatly stimulated during the Plan periods by Government policy providing for the extension of long-term, low-interest credits through its lending institutions for purchase and construction of residential housing,[79] the most important component of aggregate private construction investment during these years.

While Plan Organization expenditures on construction projects over the two Plan periods had a significant expansionary effect on the level of labour demand in construction activities, the volume of employment generated was lower than it would have been if the Government had not condoned, and in some instances explicitly encouraged, the use of increasingly capital-intensive methods in carrying out these projects. This policy of the Government was particularly evident in the case of road construction projects, a major recipient of development funds, where the relatively labour-intensive techniques of the Second Plan were superseded during the Third Plan period by

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78 During the first 26 months of the Third Plan period, 57 per cent of total public development expenditure (or 24,109 million rials of 42,474 million rials) represented costs incurred in carrying out construction projects. (As derived from total expenditure figures of Plan Organization and construction cost data of Plan Organization, Social Affairs Division, Manpower Section, An Evaluation of the Employment Effects of the Third Development Plan (Sept. 1962 - Nov. 1964) [Tehran: January 1965], p. 15).

79 For the period 1341-1345 (March 1962 - March 1967) such loans totalled 13,928 million rials, an amount equivalent to 14 per cent of the total investment in all privately-owned construction (including commercial) in urban areas during these years (or 96,762 million rials). (Bank Markazi, Iran, Annual Report and Balance Sheet as at March 20, 1967 [Tehran: no date], Tables 106 and 111, pp.200 and 210, respectively).

methods employing much greater amounts of machinery to labour.[80]

d. Electricity-Gas-Water-Sanitary Services

The commitment of both the Second and Third Plans to expansion of urban electricity supply and provision of urban drinking water resulted in heavy expenditures of development funds for construction of power stations and piped water systems. Such expenditures had as an important by-product the generation of considerable new employment opportunities in operation of these facilities. (See Chapter Three).

e. Transport and Communications

The implicit effect on labour demand of the implementation of Government policy during the Second and Third Plan periods favouring rapid expansion of transportation and communications infrastructure was relatively limited, considering the heavy amounts of public funds expended on projects in this sector. (See Appendix Tables 43 and 44). Employment expansion in such activities was restricted by the very capital-intensive nature of these investments. (See subsection B.2).

f. Services

Implicit in the Government's policy seeking the general expansion of all types of public services — but particularly administrative, educational, and health services — was the hiring of the additional numbers of staff and workers required to carry out these activities. The significant growth of employment in such public services (see Chapter Three) in turn was made possible by the considerable expenditure of development funds by the Plan Oranization for constructing

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80 Firms awarded Government contracts were allowed to import and use heavy road building machinery at a time when abundant supplies of cheap labour were available to perform road-building work. In 1963, the Ministry of Roads specifically recommended "the replacement of human labour by machines to construct and maintain roads". (Kayhan International, March 28, 1963).

and equipping the administrative buildings, schools, and hospitals needed to support such additional employment, as well as the rapidly-growing administrative budgets of the Government providing the funds to pay the wages and salaries of these employees.

Government policy sought to restrict new hiring of public servants to the level indicated by actual requirements, mainly through enforcement of a ban over the years 1958-64 on any new employment of unessential staff and workers. Successful implementation of this policy was thwarted, however, by the ability of individual ministries and agencies to evade the prohibition of this central directive. (See Chapter Three). However, in June 1966, with the passage of the new State Employment Law, all hiring of civil servants[81] was finally brought under central control.

Towards the problem of existing levels of surplus employees in Government service (see Chapter Three), the Government failed to develop a workable policy. Although the Third Plan document had urged an "equitable solution", any policy advocating the lay-off of these excess civil servants "who were on the payroll but did not have any job assignment or performed only a fragment of the tasks of which they were capable"[82] was precluded because of the rigid job security provisions of the 1922 Civil Code. (See Chapter Three). The Government in 1963 did propose to reduce their numbers by using them to fill the new requirements of ministries and agencies through inter-organizational transfers,[83] but this request was apparently never adhered to

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81 Except those seeking positions with the Ministry of Court, State Security and Information Organization, municipalities, Parliament, and the armed forces, each of which has its own employment regulations. See Article 2 of State Organization for Administration and Employment Affairs, "The State Employment Law" (Unofficial English translation) (Unpublished-Roneo) (Tehran: Tir 1345).

82 "Third Plan Frame Manpower", p. 3.

83 See "Surplus Workers for Ministries", Kayhan International, July 28, 1963.

by the affected Government bodies.

In formulating policies regarding the hiring of new Government employees and maintenance of others (including redundant workers), the Government has had to take cognizance of political realities. Blocking the aspirations of educated persons for Civil Service positions, or seeking to cut down on the numbers already employed, in particular could have run serious political risks,[84] stemming generally from the relatively influential family background of most such persons, as well as their propensity for public demonstrations. The Government has also had to maintain a deferential attitude towards the great numbers of uneducated daily-rated employees in Government employ who would resist lay-off, in view of the risk of public disturbances or strike action by such employees.[85]

2. Summary Effects of Policies on Labour Demand at the Aggregate Level

The net effects of implementation[86] of Government policies in each industrial sector on the level of aggregate demand for labour may be viewed as deriving from their influence on four main variables, viz. (a) the volume, (b) direction, and (c) capital-intensity of new investment, and (d) changes in labour productivity. Policy influences on each of these determinants will be summarised briefly below.

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[84] Most obviously in the case of the "inflated" officer corps of the armed forces, where one reason given by Iranians for not reducing its ranks was "a fear of the political repercussions that might arise". (Letter from George B. Baldwin, July 14, 1966).

[85] The union of these employees on occasion threatened strike action if its various demands were not met. See Kayhan International, July 26, 1963.

[86] Only those policies actually put into force will be examined here. As indicated in the preceding subsection, many policies — particularly those of the plans — were not followed by the concerned ministries. (See subsection II.).

* Development plan strategy during the Plan periods implicitly (in the case of the Second Plan) and explicitly (in the case of the Third Plan) supported a high level of aggregate investment as the main means by which to effect rapid growth of the Iranian economy. Implementation of this strategy by the Government proved somewhat more successful as applied to the private than to the public sector, despite the greater degree of control over its own level of investments. Stimulated (particularly in manufacturing industry) by favourable Government policies (including those pursued outside the framework of the plans), entrepreneurs invested heavily during both plan periods, during the Third Plan exceeding the target set for private investment.[87] The Government's own level of development spending fell somewhat short of targets for the Second and Third Plans,[88] in the former instance largely due to the weaker commitment of the Government to use of the key oil revenues for development purposes[89] and in the latter case as

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87 As against the target of 132 billion rials fixed private investment (of total targeted private investment of 158 billion rials) (see "Introduction to the Third Plan", p. 46), total private fixed capital formation over the Plan period reached 247 billion rials (at 1338 prices). (Based on figures for years 1342-46 of Bank Markazi Iran, Annual Report and Balance Sheet as at March 20, 1968 /Tehran: no date/, Table 26, p. 89, and estimate for second half of 1341 of one-half total amount for 1341 year indicated in Table 50, p. 98 of Bank Markazi Iran, Economic Research Department, National Income of Iran 1338-1344 (1959-1965) /Tehran: 1968/).

88 Or by 9 per cent in the Second Plan (7,124 million rials of 82,357 million rials) and 11 per cent in the Third Plan (25.4 billion rials of 230 billion rials). See Appendix Tables 43 and 44.

89 Diversion of oil revenues originally earmarked to the development plan to the general budget was mainly responsible for this shortfall as well as the necessary downward revision of total allocations under the Second Plan. See William H. Bartsch, "The Impact of the Oil Industry on the Economy of Iran", in Raymond F. Mikesell (ed.), Foreign Investment in the Petroleum and Mineral Industries: Case Studies on Investor-Host Country Relations (Baltimore: Johns Hopkins University).

the result of difficulty in making up for the slow spending pace of early Third Plan years (particularly in direct investment in manufacturing industry) to reach the upward-revised spending target.[90] As a share of gross national product, total (public plus private) investment during the two Plan periods was relatively high.[91] Such considerable investment had a strong expansionary effect on the level of employment over the two plan periods.

The strategy of both development plans favoured the allocation of the bulk of public investment to sectors, and projects of sectors, of an infrastructure nature, such as transportation, communications, electricity, water supplies, health, education, dams, etc. Actual spending on infrastructure-type projects is estimated to have constituted three-fourths of total Second Plan development disbursements[92] and almost two-thirds of Third Plan public outlays.[93] Since

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90 Total development spending allocations were raised from the original target of 190 billion rials on which Plan strategy was based (and before the Plan was put into operation) to 230 billion rials in 1965.

91 Averaging 17.8 per cent of GNP over the nine years 1338-1346 (March 1959-March 1968), based on figures of Appendix Table 33. (No figures available for first 3½ years of the Second Plan period).

92 Of the total 75,233 million rials disbursed, 15,855 million rials went on construction of dams, 20,375 on roads, 5,463 on railroads, 2,615 for airports, 2,991 on ports, and 9,915 on urban electricity and water supply projects. (Based on an examination of the breakdown of development expenditures for each chapter of the Second Plan in Plan Organization, Report on the Execution..., op. cit.). (For sectoral allocations and disbursements, see Appendix Table 43).

93 Over the first 4.3/4ths years of the 5½-year Third Plan period (September 1962 - June 1967), 92,717 million rials was disbursed on infrastructure projects of total development expenditures of 148,737 million rials. Such infrastructure outlays included 28,715 million rials on roads, 16,857 on dams and irrigation networks, 9,783 on Government buildings, 8,578 on electric power generation, 5,729 on drinking water systems, and the balance on airports, ports, communication systems, railroads, hospitals and clinics, and school buildings. (As compiled from individual project figures in Plan Organization, Office of Information and Reports, Report on the Progress of Activities of the Third Development Plan to the End of the First Quarter of 1346 /in Farsi/ /Tehran: Shahrivar 1346/). (For sectoral allocations and disbursements, see Appendix Table 44).

in most instances such investments were very capital-intensive by nature,[94] the level of new employment generated directly by such projects (excluding the relatively high demand for workers during the construction phase) was relatively limited.

Generally speaking, the Government tacitly favoured the increasing capital-intensity of new investments, both in its own projects and those of private entrepreneurs.* The provision of large amounts of Government credits at below-competitive rates of interest to private industrialists of the modern sector and to farmers (mostly landowners) made it feasible for each to use more labour-saving machinery than the real scarcities of capital and labour would have indicated as rational in terms of Iran's resource endowment. In most instances, entrepreneurs (and Government organizations) were allowed to import (and to install) labour-saving machinery regardless of the employment implications of use of such machinery. As a consequence of such implicit Government policy, net new employment opportunities deriving from public and private investment projects over the plan periods were considerably fewer than would have been the case if capital-intensity of such projects had been more subjected to Government evaluation and control.

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94 For the period comprising the first 26 months of the Third Plan period, it required 16, 8 and 7 times the expenditure of development funds to create a single job in the Urban Development (mostly drinking water systems), Power and Fuel, and Transport and Communications chapters of the Plan than for the Manufacturing chapter. Disbursements on (the much smaller) Health and Education chapters, on the other hand, were more employment-creating per amount of funds expended, though this conclusion is largely misleading because much of such disbursements were not actually on physical assets but rather for administrative expenditures (mostly salaries of doctors and teachers). See Appendix Table 45 for the amounts of development disbursements required on the average to create a single job under each chapter of the Third Plan for this period.

During neither the Second nor the Third Plan periods did either the Plans or the Government expressly indicate a policy towards labour productivity, despite the important implications productivity had for the level of demand for labour. Implicitly, however, both the Plans and Government policy favoured the growth of labour productivity,[95] as evidenced in their tacit goal of "modernising" the economy through replacement of the traditional sector (of low productivity) by the modern sector (of high productivity).[96] To this end, policies focused on all manner of assistance — financial, taxation, duty exemptions and tariff support — to modern sector entrepreneurs (particularly those in manufacturing), while traditional sector producers received little or no Government assistance; on the contrary, favoritism of the big entrepreneur had the effect of weakening the competitive position of the small-scale producer. With the resultant expansion of the modern sector relative to the traditional sector (see Chapter Three) and further growth of the modern sector's already relatively high labour productivity (largely as the consequence of increasing capital-intensity noted above), average labour productivity throughout the non-agricultural economy (particularly in the urban areas) was raised, thus limiting the scope for employment of additional numbers of workers.

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95 For instance, manufacturing output during the Third Plan period was estimated as increasing at twice as fast a rate as employment by the drafters of the Third Plan Industry Frame. See Baldwin, Planning..., op. cit., p. 131.

96 Contrary to this policy, however, was the Government's position blocking the dismissal of surplus workers in manufacturing units of the modern sector, which had the effect of holding labour productivity in such units at a lower level than employers desired.

C. GOVERNMENT POLICIES AFFECTING LABOUR SUPPLY

Government policies -- or the absence of them -- had significant effects on the size and structure of the Iranian labour supply -- particularly that of its urban/rural components -- over the Second and Third Plan periods. This sub-section will examine policies affecting the more important determinants of this supply at its aggregate level and by modern/traditional sector and occupational/skill divisions.

1. Aggregate Supply of Labour

At no time did the Government express a view or formulate a policy regarding a desired size or rate of increase of the aggregate supply of labour in Iran. However, implementation of policies unintentionally affecting the size of the working-age population and its rate of labour force participation carried important implicit effects on the growth and composition of this labour supply and its urban/rural distribution.

While neither the planners nor the Government formulated a population policy,[97] their implicit policy seeking a reduction in mortality rates throughout the country had an important effect on the size and rate of growth of the population, including that of working age.[98] Specifically, relatively successful implementation of the

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[97] The Government (and others) regarded the country as underpopulated and assumed a growth rate of only 2.5 per cent a year. See Jamshid Behnam, "A Note About the Problem of Population and Population Policies in Iran" (in Farsi), Majalleh-e Otaq-e Sanaye' va Ma'adan ("The Journal of the Chamber of Industries and Mines"), No. 27, Aban 1346, p. 44.

[98] No policies were formulated regarding birth control; even if they had been and had been put into effect at the beginning of the Second Plan period, they would have had no effect on the size of the working age population over the two plan periods, since the first of the (reduced) numbers of children born then would only have begun entering the labour market at the end of the Third Plan period.

health policy of the Government's development plans aimed at wiping out communicable diseases through nation-wide spraying and innoculation schemes, provision of safe drinking water, and improved sanitation (see Chapter Two) were instrumental in reducing the mortality rate, especially that of children, whose rate of growth was accordingly the highest over the Plan periods.

More important from the standpoint of the urban population, however, was the absence of any explicit policy designed to control rural-to-urban migration,[99] which was left to reach very high levels. In fact, the net effects of implementation of various Government policies was to encourage migration. Thus Government-supported improvements in rural conditions, such as provision of land to former sharecroppers under the land reform, the formation of co-operatives, extension of greater amounts of agricultural credits, distribution of oil products, etc., were more than offset in their effect on the decision of peasants to migrate or not (and their ease in doing so) by the implementation of such policies as conscription of youth, mechanization of agriculture, spread of primary school education, non-accordance to agricultural labourers of the right to buy land under the land reform, and construction of secondary and feeder roads linking up with main highways. (See Chapter Two). Furthermore, development expenditures of both plans were heavily weighted in favour

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[99] Individual ministries followed their own conflicting policies towards migration in connection with various proposed schemes. For instance, the Ministry of Land Reform and the Ministry of Agriculture each sought to accommodate migration, the Ministry of Housing and Development to stimulate it (by building more roads linking villages with towns), and the Ministry of Interior (through a 1963 Food-for-Work scheme) to deter it. See Shapour Nemazee, "Valian Stresses Need for Output Controls", Kayhan International, July 5, 1967, p. 1; Kayhan International, July 1 and 17, 1967; and Shapour Nemazee, "Success in Rural Aid", Kayhan International, November 16, 1963, p.1.

of urban over rural development, resulting in the rapid urban growth of electrification, school facilities (particularly at the secondary level), safe water supplies, hospital services, etc., as well as in the expansion of the demand for labour in construction, industrial activities, and Government services deriving from such urban development.

Neither the Second nor the Third Plan took a position on the question of rate of participation of the working-age population in economic activities, despite the importance of the labour force participation rate in determining the size of the aggregate labour supply. In fact, the only explicit Government policy in force during the plan periods affecting such rates was the 1959 Labour Law's ban on employment of children under the age of 12 years.[100] However, various Government policies had implicit effects on the LFPR of particular age groups of the population, mainly in the key dependent group of children and youth, wives, and old people, but also for all females of working age.

Thus the great expansion in primary and secondary school facilities supported by Government policy[101] on the one hand increasingly helped implement its goal of compulsory education for all children aged 7-13 years (primary school age) and on the other hand provided the opportunity for youth to further their education, thus reducing the LFPR of children and youth of primary and secondary

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[100] Which, nevertheless, the Ministry of Labour proved largely ineffectual in enforcing.

[101] The Third Plan aimed at getting 60 per cent of children aged 7-13 years into primary school. See Plan Organization, Division of Economic Affairs, Social Affairs Section, "Education Third Plan Frame" (Unpublished-Roneo) (Tehran: August 1961), p. 25. The rapid expansion of secondary school enrollments occurring over the Plan period went against Third Plan policy, however. (See subsection C.3 below).

school age. However, the reduction in the LFPR of all dependents occurring over the plan periods (as noted in Chapter Two) was probably most made possible by implementation of the Government's basic development policy of increasing average (per capita) income of the population, which improved the earnings situation of families and thus to some extent obviated the need of family dependents to seek work to supplement main earner incomes.[102] N.B. On the other hand, the Government's policy favouring extension of educational opportunities for girls and the breakdown of traditional social barriers and prejudices against working women obviously contributed to increases in LFPR among females from middle- and upper-income urban families (accounting for the expansion in LFPR for the total of females of working age recorded during this period). (See Chapter Two).

2. Supply of Labour to Modern and Traditional Sectors

Policies were pursued by the Government that had important implicit effects on the size of the labour supply seeking modern as against traditional sector employment. Probably the major factor accounting for the great supply of labour seeking modern sector jobs during the Second and Third Plan periods was the wide earnings differential existing between the two sectors, for which Government wage policies towards its own employees were largely responsible. (See subsection D.1 below). Furthermore, by allowing (and even facilitating) the rapid expansion of secondary school education

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102 This favourable development occurred despite the continued failure of the Government (since 1946) to revise upwards the legal minimum wage to the level at which a worker could support his family (see subsection D.1), as required by the 1946 and 1961 minimum wage regulations, or to encourage the introduction of a retirement benefit system by private employers for persons beyond normal working age either forced to continue working or to depend on their offspring for subsistence. (The Government did have a retirement system for its own employees, however).

despite Third Plan policy seeking to limit such growth (see sub-section C.3 below), the Government aggravated the excess labour supply situation of the modern sector even further, since much greater numbers (and percentages) of youth leaving school were now secondary school-educated, whose aspirations deriving from their higher level of education in most instances were now centered only on modern sector (particularly Government) employment regardless of the supply-and-demand situation. (See Chapter Four).

3. Supply of Labour by Skill and Occupation

The expressed policy of the Government towards occupational and skill groups of labour was to increase the stock of labour with skills in short supply and thus implicitly to reduce that of unskilled and untrained manpower in excess supply. To this end the Third Plan in particular had developed a strategy for producing the needed skills,[103] concentrating on the expansion of pre-employment vocational and professional training as the vehicle by which to achieve this objective. However, on quantitative grounds alone, Plan strategy failed, as pre-employment institutions were unable to train enough teachers, technicians, skilled workers, and persons with other skills in short supply to meet either the Plan's own targets (except in the case of engineers)[104] or the rising demand for them during the Plan

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103 The Third Plan had estimated skill shortages of 90,000 persons over the life of the Third Plan, including 38,000 teachers, 4,000 engineering technicians, and 29,000 skilled industrial workers. See "Third Plan Frame Manpower", pp. 10, 15, 17, 20 and 24.

104 For instance, the Plan expected an annual average during the Third Plan period of 3,400 graduates from amuzeshgahs (skilled worker vocational training schools) and 2,000 graduates from honarestans (foreman and technician training schools), but the actual number of graduates of these schools in 1345 (March 1966 - March 1967), with only one year remaining in the Plan period, was only 1,223 and 917, respectively, a total even lower than achieved in 1342 (March 1963 - March 1964), the first full year of the Plan. ("Third Plan Frame Manpower", p. 49, and figures published by the Department of Planning and Studies of the Ministry of Education in annual editions of Educational Statistics in Iran).

period.[105] Although this failure was attributable to some extent to the inadequate expansion of training facilities, a more important factor was the low level of demand by youth for such training (and their reluctance to use it once gained) attributable to inadequate incentives, social as well as financial, which the Government had not recognized as necessary, or was unable to improve sufficiently, to overcome the traditional prejudices against the types of technical and manual occupations in rising demand by employers. (See Chapter Four).

Except as indirectly implied by its skill training programs, the Government had no policy aimed at reducing the categories of labour in over-supply to employers -- primarily unskilled manual workers and school leavers with no training for any occupation. On the contrary, implementation of (or failure to implement) many of its policies elsewhere often had the effect of increasing their numbers, particularly in the urban areas. Thus, rather than seeking to reduce the excess supply of unskilled urban manual workers through such schemes as provision of special training courses to equip them with skills in demand,[106] Government policies had the effect of expanding their numbers, since the growth of the largest component of urban unskilled labourers -- ex-peasants who had abandoned their rural occupations -- was largely attributable to the implementation of policies stimulating their migration from their villages. (See subsection C.1 above).

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105 At the end of the Third Plan period, the Plan Organization official charged with executing the skill training strategy of the Plan maintained that the existing programs for technical and vocational education were "totally inadequate for the needs of the country". (As quoted in Kayhan International, October 9, 1968).

106 Such as given to a limited number of already-employed semi-skilled workers in industry by the Ministry of Labour. (See Chapter Four).

Similarly, although the Third Plan had recognized the unsuitability for Iran's present stage of development of a secondary school system designed only as a preparation for university and had sought to control its growth,[107] the Ministry of Education not only failed to carry out the Plan's objective[108] but itself actually contributed to the rapid growth of facilities and enrollments that occurred during the Plan period.[109] This development resulted in a greatly-increased number of graduates (and drop-outs) from secondary school, at once unable to gain entrance to universities (whose expansion was limited by the Government during the Plan period), unequipped with any particular training to assist them in gaining employment, and unwilling to attend pre-employment vocational training schools to provide them with a skill in short supply (even if adequate number of places had been made available by the Government). (See Chapter Four).

D. GOVERNMENT POLICIES AFFECTING THE OPERATION OF THE LABOUR MARKET MECHANISM

Various Government policies have had effects on the operation of

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107 Plan Organization, Division of Economic Affairs, Social Affairs Section, "Education Third Plan Frame", op. cit., pp. 15-16, 18 and 50, and Outline of the Third Plan, p. 123.

108 As against a planned growth of 73,000 students only over the 5½ years of the Plan period (from 327,000 to 400,000), secondary school attendance increased by 347,000 (to 674,000) by the end of the Plan, or ~~more than nine~~ almost five times the target growth. See "Third Plan Frame Manpower", p. 94; Outline of the Third Plan, p. 123; and Ministry of Education, General Department of Studies and Programs, "Brief Summary of Education Throughout the Country in the School Year 1346-47" (in Farsi) (Unpublished-Roneo) (Tehran: Khordad 1347), Table 6, p. 7.

109 During the Third Plan period, the number of Government secondary schools increased from 1,001 to 1,379 and enrollment in these schools from 275,974 to 538,804. See Ministry of Education, General Department of Studies and Programs, Educational Statistics in Iran (in Farsi) (Tehran: Esfand 1342), p. 5, and "Brief Summary.....", op. cit., Tables 1 and 4, pp. 2 and 5.

the market mechanism for the allocation of labour. Policies affecting the determination of earnings rates for labour have been of importance (particularly in the modern sector of wage employment), while measures designed to facilitate the mobility of labour have also been of some consequence.

1. Policies Affecting the Price of Labour

Neither the Second nor the Third Plan included a statement of general policy to be followed regarding the price of labour. However, Government policy -- as occasionally indicated in statements by the Minister of Labour --[110] favoured a laissez faire attitude. Thus -- despite Article 22 of the 1959 Labour Law stipulating the payment of a minimum wage equal to the minimum requirements of an unskilled worker and his dependents -- the government refused to revise annually the legal minimum rates as required by the 1946 Labour Law and even ignored its own new regulations issued in 1961 calling for a biennial revision of such rates.[111] Those few labour unions allowed to exist were not permitted to bargain collectively (despite Article 27 of the 1959 Labour Law permitting them to do so) and thus were an inconsequential force in the determination of wage rates. The only explicit

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110 See Kayhan International, December 3, 1962 and October 12, 1967.

111 The Minister of Labour publicly declared in 1967 that his Ministry was not seeking to revise upwards the 1946 legal minima. (Kayhan International, October 12, 1967). Based on the 1961 regulations' definition of minimum requirements of a worker and his family (a wife and two 12-year old children), a Ministry of Labour official calculated that the minimum wage in 1964 would have to be increased by seven times the 1946 legal minimum (or 249 rials instead of 35 rials). See Akbar Bigdeli, "Investigation of the Wage and Salary Situation of the Economically-Active Population of Iran" (in Farsi), in Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Investigations of Manpower Problems (in Farsi), Volume Two (Tehran: 1344), p. 1409.

exception to this policy was the introduction of the Workers' Profit-Sharing Decree of 1962, which requires industrial employers to share increases in profits with their employees. (See Chapter Four).

However, an important implicit interference by the Government with the setting of earnings rates by competitive forces derived from its remuneration policy towards its own employees, which also carried important consequences for the pricing of labour in the private modern sector. The Government offered higher wages, salaries, and benefits for most occupations and skills of labour than supply-and-demand conditions indicated necessary, influenced by political rather than economic considerations. Implementation of this policy had a significant (though unintended) wage-leadership effect on the private modern sector, where employers were obliged to offer higher rates of pay in the case of those occupations and skills of labour for which the Government was the dominant or single largest employer than would have been necessary if market forces alone had operated. (See Chapter Four).

The persistence of surpluses and shortages of particular skill and occupational categories can largely be attributed to the irrational levels of earnings and the resultant distorted occupational and skill differentials structure (see Chapter Four). By perpetuating in its own remuneration policies (based on level of education) the earnings structure deriving from traditional social views, the Government hindered the market mechanism in re-adjusting the relative financial rewards as between various skills and occupations based on supply and demand conditions alone.

2. Policies Affecting the Mobility (and Placement) of Labour

The main instrument of the Government's declared policy of facilitating the rational movement of labour into positions for which

qualified[112] has been the Ministry of Labour's Employment Service, established at the beginning of the Second Plan period (in 1955)[113].

In addition, a Graduates' Guidance Organization was set up in 1960 within the Ministry of Labour to assist graduates of Iranian and foreign universities in finding employment (as well as to advise overseas students on suitable choice of curricula in light of employment opportunities in Iran).[114] By expanding the number of branches of the Employment Service,[115] the Government to some extent has been successful in putting employers and job-seekers in contact with one another. However, it has generally been inactive in seeking to improve the low level of labour market information available to employers and workers (including provision of vocational guidance services to secondary school students), and to overcome the general preference of employer and job-seeker alike for traditional inefficient placement methods based more on personal relations than rational criteria.[116]

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[112] "Third Plan Frame Manpower", p. 9.

[113] Ibid., p. 80, and U.S. Department of Labor, Bureau of Labor Statistics, Summary of the Labor Situation in Iran (Washington: International Cooperation Administration, October 1955), pp. 12-13.

[114] Daneshju ("Student") (Publication of the Ministry of Labour and Social Affairs), No. 1, Farvardin 1340, no page number indicated.

[115] By March 1966, the number of offices and branches of the Employment Service was 7 and 20, respectively, as compared to only 4 offices in 1960. ("Third Plan Frame Manpower", pp. 80-81, and figures of the Employment Service).

[116] Such as by setting a better example in its own hiring practices, which are heavily influenced by personal relations and "pull".

II. THE EFFECTIVENESS OF MANPOWER PLANNING AND IMPLEMENTATION OF PLAN POLICIES

In terms of comprehensiveness, the planning of human resources during the Second and Third Plan periods was limited. Whatever attention was paid to manpower planning was focused on one aspect only of such planning — the overcoming of shortages of various skills and occupations of labour. Although a broader approach had been attempted in drawing up the Third Plan -- when planning at the aggregate level of manpower was first introduced — no comprehensive strategy for employment-creation to meet the target of new labour demand was formulated, while the aggregate labour supply side of manpower planning was overlooked (except for making a forecast of its size). Very importantly, the planners did not distinguish between the urban and rural components of the manpower balance.

Furthermore, the forecasts of supply of and demand for labour -- which should serve as the quantitative framework of a manpower plan -- were particularly poor for the Third Plan period, when they were first made. The net growth in the labour supply was overestimated by 22 per cent, the result of highly erroneous assumptions about the rate of population growth and changes in labour force participation rates.[117] The forecast of the increase in demand for labour was apparently the product of sheer guesswork; it was certainly not built up from estimates of change in labour demand in each industrial sector that could be expected to occur (as influenced by Plan strategy and policies affecting such demand).[118]

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[117] Population growth was underestimated by 49 per cent, while the LFPR was seen as increasing, rather than decreasing. See Appendix Table 46 for a comparison of Plan estimates and actual (estimated) change in labour supply over the Plan period.

[118] Although in the earlier stages of formulation of the Plan such estimates had been made, the (pessimistic) results were never (except in the case of manufacturing industry) incorporated into the framework of the final Plan document. (See pp.203-04).

The absence of any data on the level of aggregate employment at either the beginning or the end of the Third Plan period makes it impossible to determine with accuracy if the general employment-creation target (or forecast) of the Third Plan, viz. (net) number of new jobs equal to (net) increase in labour supply, was met.[119] However, in view of the fact that aggregate labour demand at the beginning of the Third Plan period was in a severe cyclical downturn (due to the effects of the economic recession at that time), while the increase in the aggregate labour supply over the Plan period was considerably less than the planners had forecast, it is conceivable that net new employment generated (including re-employment of persons temporarily without work during the recession, particularly construction workers) by the end of the Plan (when boom conditions were prevailing) did equal the net expansion in the labour supply.[120]

Implementation of the relatively few policies drawn up within the framework of the Third Plan with express reference to the manpower situation, as well as of those of both the Second and Third Plans with strong implicit implications for labour supply and demand, in many instances never took place, as various ministries charged with carrying the policies out often either ignored or contradicted them in

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119 Ministry of Economy figures indicate that the sub-target of 120,000 new jobs for manufacturing industry was clearly exceeded, however. During the four-year period 1341-1345 only, net new employment in urban manufacturing units (excluding the oil industry and home workshops) amounted to 162,000, rising from 381,000 to 543,000. See Ministry of the Interior, Public Statistics, Summary of the Results of the Industrial Survey of Mordad 1342 (in Farsi) (Tehran: Tir 1344), Table 2/1, p. 1, and Ministry of Economy, Bureau of Statistics, Report on the Results of Annual Industrial Survey in 1966 (1345) (Tehran: no date), Table 1, p. 1.

120 The great increase in the numbers of openly-unemployed between 1956 and 1966 (see Appendix Table 40) would indicate that net new demand for labour did not match net increase in labour supply over the span of both plan periods, however.

pursuing their own policies.[121] Execution of particular Third Plan manpower schemes which involved coordination of different ministries frequently foundered because of the lack of cooperation between officials of the concerned ministries.[122] There was a lack of interest on the part of top ministerial officials in carrying out manpower policies of the Third Plan, deriving largely from their failure to appreciate the importance of manpower planning in Iran's economic development.[123]

The lack of commitment on the part of the Government to effective implementation of plan policies affecting the supply of and demand for labour reflected the broader lack of commitment by the Government to development planning in general, particularly after 1959 when the influence of the Plan Organization was greatly weakened.[124] A clear indication of this reduced interest in economic planning was the Government's diversion of considerable amounts of the Plan Organization's legal share of the key oil revenues during the latter years of the Second Plan period to the general administrative budget, forcing a downward revision of Second Plan disbursements.[125] Although

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121 As noted in Section I, various concerned Government bodies failed to carry out (and often contradicted) Third Plan policies seeking to limit secondary school education, to expand the vocational training school system, to discharge surplus workers in industry, to use labour-intensive methods (rather than mechanized means) in agriculture, to control excessive use of labour-saving machinery in manufacturing, and to carry out public works projects in times of rising unemployment.

122 As noted by an American advisor during the Third Plan period. See "End-of-Tour Report — Merrill E. Weir, Employment Service Advisor", U.S. Department of State Airgram A-1232, 24 April 1965 (Unpublished-Mimeographed).

123 Ibid.

124 As noted by an American advisor to the Plan Organization at the time (Baldwin, Planning..., op. cit., p.114) and Gustav F. Papanek ("The Economist as a Policy Adviser in the Less Developed World", International Development Review, Vol. XI, No. 1, March 1969, p.12).

125 See Bartsch, loc. cit.

the Third Plan received its legal share of oil revenues,[126] the Plan was treated "with a general lack of seriousness by the Government",[127] as the various ministries, whose power position vis-a-vis the Plan Organization had been strengthened, in many instances formulated and pursued policies independently of Third Plan strategy. In any event, the Shah's Bahman 6 "White Revolution" program of social reform,[128] introduced in January 1963, in effect took precedence over the Third Plan as the guiding policy of the Government for Iran's socio-economic development after 1963, resulting in considerable implicit re-ordering of objectives,[129] allocations of public funds (as noted in Appendix Table 44), and energies of the Government administrative machinery.

III. CONCLUSION

For a labour-surplus country which experienced a rising incidence of open unemployment over the Second and Third Plan periods (Appendix Table 40), it can be argued that the Iranian Government should have given a higher priority to employment-creation in the two plans. The Iranian record in generation of new work opportunities over the two plan periods clearly fell short of the yardstick urged for developing countries by a group of experts reporting to the International Labour Office (ILO) — "... at least the creation of enough new employment

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126 Ibid.

127 Baldwin, Planning..., op. cit., p. 175.

128 In addition to land reform initiated a year earlier, these reforms called for profit-sharing in industry, nationalisation of forests, eradication of illiteracy through a Literacy Corps, sale of state-owned industry, and electoral reform (female suffrage).

129 The main objective of the Third Plan — a minimum annual 6 per cent growth in output — was nevertheless achieved, as GNP expanded by an average annual compound rate of 9.1 per cent between 1341 and 1346. (As calculated from figures of Appendix Table 33).

opportunities to keep pace with the increase in the workforce...".[130]

⊙ The choice of a main objective in the development of a country with a considerable (and rising) excess labour supply is a difficult decision for its government. The Iranian planners have opted for income-maximization as the top priority in development planning since 1962, despite the fact that such a purely economic criterion may not have been the best in terms of overall socio-economic development. Some development economists favour a priority for employment-creation as high as that for income-maximization because of the serious socio-economic[131] and political[132] strains that can develop if enough attention is not paid to the need for an adequate number of jobs for a developing country's workforce.[133]

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130 See International Labour Office, Employment Objectives in Economic Development, Studies and Reports, New Series, No. 62 (Geneva: 1961), p. 2.

131 "Continued unemployment and underemployment result in loss of morale, lack of identification with national aims, and deterioration of skills". See "Economic Development and Human Resources", in United Nations, Economic Survey of Asia and the Far East 1965 (Bangkok: 1966), p. 26.

132 The political dangers of urban unemployment have been pointed out, inter alia, by Jan L. Sadie, "Labor Surplus and Employment in Less Developed Countries", The Annals of the American Academy of Political and Social Science, January 1967, p. 128; Bert F. Hoselitz, "Urbanization and Economic Growth in Asia", Economic Development and Cultural Change, Vol. 6, No. 1, October 1957, p. 46; and Alec Nove, "The Explosive Model", Journal of Development Studies, Vol. 3, No. 1, October 1966, pp. 2-3.

133 W. Arthur Lewis has argued that "Most developing countries have to give highest priority to providing employment now rather than to maximizing consumption or income or employment in ten years' time". See his "A Review of Economic Development", American Economic Review, Vol. 55, No. 2, May 1965, p. 14.

Similarly, it has been urged that "... the provision of productive employment for all" in Latin America should be considered "as one of the main economic development targets comparable in importance with import substitution or an increase in the growth rate of the gross product". See "Structural Changes in Employment within the Context of Latin America's Economic Development", Economic Bulletin for Latin America, Vol. 10, No. 2, October 1965, p. 176.

The secondary importance accorded to employment-creation in development planning during the two plan periods to some extent can be attributed to the failure of the Government to appreciate the seriousness of the unemployment problem in Iran,[134] largely because worklessness in Iran, as in other poor countries,[135] tends to manifest itself more in marginal employment (or "underemployment") than in open unemployment, which few can afford. However, even when its own surveys did indicate a relatively high rate of open unemployment, the results were often withheld from the public[136*] and the gravity of the situation denied by the highest authorities[137] instead of meaningful action being taken to frame a comprehensive attack on the problem.

* Although income-maximization was the major objective of development planning, it is doubtful if the choice of strategy and implementing policies by the planners and the executive bodies of the

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134 For instance, an American advisor participating in the drafting of the Third Plan has noted that only a few Government officials were aware of the threat to the employment situation posed by the impending heavy flow of teenagers into the labour market. See Baldwin, "Iran's Experience..., op. cit., p. 158.

135 Such as those of the ECAFE region, where "the social organization, by converting unemployment into underemployment, takes the edge away from the urgency for corrective measures", while "the difficulties of accurately measuring underemployment prevent it from acquiring the sharp lines which help in focusing attention". See "Economic Development and Human Resources", op. cit., p. 34.

* 136 A Ministry of Labour official admitted in 1961 that his Ministry withheld results of sample surveys indicating the level of unemployment because "they will not have any result but producing anxiety and fear among the public". (Quoted in Nasser od-Din Saheb ol-Zamani, "Suffering Youth-3" [in Farsi], Majalleh-e Masayel-e Iran ["The Journal of Problems of Iran"], No. 3, Dei 1341, p. 122).

137 For instance, Prime Minister A'lam asserted in the middle of the 1961-64 recession that "The rate of unemployment has been brought down to zero in the urban as well as rural areas of the country". Kayhan International, October 1, 1963.

Government actually was always in keeping with this goal. By leaving human resources idle in favouring a greater degree of capital-intensity of investment than the real scarcities of labour and capital would indicate as feasible, (at least short-run) aggregate output (as well as employment) achieved was less than would have been the case if somewhat lower capital-intensity (and labour productivity) had been encouraged instead.[138]

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138 As maintained in the case of developing countries by the group of experts reporting to the ILO (International Labour Office, op. cit., p. 1) and W. Arthur Lewis (Development Planning /London: George Allen and Unwin, 1966/, p. 224). Their view is opposed by some other development economists who favour a strategy aimed at maximizing profits through use of capital-intensive techniques (regardless of short-run implications for output and employment) in order to gain a larger re-investable surplus and longer-run rate of growth and employment. Lewis in particular has faulted this theoretical view as weak in practice (Ibid.) and unsuitable for a developing country even if it were correct (as indicated in footnote 133 above).

CHAPTER SEVEN

CONCLUSION

During the decade 1956-1966, the Iranian economy experienced rapid transformation and growth, with gross national product (at constant prices) increasing by an average annual compound rate of 6.7 per cent over the final seven years of this period. Financed mainly by the steadily-rising oil revenues accruing to the Government following settlement of the oil dispute in 1954, public development expenditures during the country's Second and Third Development Plan periods reached new heights, complemented by large investments of private entrepreneurs, particularly in manufacturing.[1] These high levels of output (and investment) were concentrated in the urban areas of Iran, as indicated by the fact that non-agricultural output of the country rose at an average annual compound rate (at constant prices) of 8.7 per cent between 1959 and 1966, compared with agricultural growth of only 2.8 per cent a year.

However, the great expansion in urban investment and production was not accompanied by commensurate increases in urban employment. Total urban employment during the 1956-1966 period grew by only an average compound rate of 3.2 per cent a year. The rate of increase of urban employment was thus significantly restricted by a considerable growth in average labour productivity, largely attributable to the increased capital intensity of non-agricultural investment, but also due to disembodied labour-saving technical change and improved quality (mainly as a result of training) of the workforce occurring independently of changes in the average amount of capital equipment at the disposal of each worker.

Furthermore, the greater part of the indicated modest increase in urban employment occurred in the low-earnings traditional sector of wage employees in small-scale activities and of the non-wage employed, rather than in the modern sector of high-wage employment. While the rate of employment-creation in the modern sector (estimated at a compound 4.4 per cent a year on the average) was impressive — the result of rising demand for its products and services, the concentration of the high levels of non-agricultural investment in this sector, and the rapidly-rising Government administrative budgets (allowing the employment of considerable additional numbers of civil servants) — the sector was able to provide work for only 39 of every 100 of the net new entries into the urban labour force, as 52 others entered the traditional sector of employment and almost 9 others became openly unemployed. (See Table 55 below). Though modern sector employment expanded relative to that of the traditional sector between 1956 and 1966, still by the latter date only 30 per cent of the urban labour force was occupied in its activities.

The urban employment situation was actually worse than indicated by Table 55, however, because these figures exclude considerable numbers of persons recorded as "economically-inactive" (mainly housewives) who were in reality unemployed, but only passively seeking employment because of unfavourable labour market conditions. Adjusting labour force figures for 1966 to take account of an estimate of the number of these persons for that year, the incidence of open unemployment in 1966 rises to 16.9 per cent and that of modern sector employment is reduced to 26.8 per cent.[1] When an additional estimate

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[1] Rates derived through addition of 352,000 such persons to the 1966 figures of labour supply and unemployed of Table 55. (See Chapter Five).

TABLE 55

DISTRIBUTION OF URBAN (1956 BASIS) LABOUR SUPPLY, 1956-1966

(SUMMARY-ESTIMATE)

Date	Aggregate Labour Supply		Employed in Modern Sector		Employed in Traditional Sector		Openly Unemployed and Actively Seeking Work	
	Number	Pct.	Number a/	Pct.	Number b/	Pct.	Number	Pct.
November 1956	1,893,000	100.0	513,000	27.1	1,294,000 c/	68.4	86,000	4.5
November 1966	2,614,000	100.0	795,000	30.4	1,671,000	63.9	148,000 d/	5.7
Net Change	+ 721,000	100.0	+ 282,000	39.1	+ 377,000	52.3	+ 62,000	8.6

a/ Based on assumption that private modern sector wage employment (Table 34) comprised 97% of total private modern sector employment in 1956 and 1966 (as indicated for 1964 by Ministry of Labour source cited below). of 68,000 and 15,000 "status not reported" employed in 1956 and 1966, respectively, 19,000 in 1956 and 5,000 in 1966 estimated as employed in modern sector (based on distribution pattern observed for employed persons whose status was reported by censuses).

b/ Residual figures of total number of employed persons and modern sector employed. Includes 49,000 and 10,000 persons, respectively, for 1956 and 1966 of totals of "status not reported" employed, estimated here as belonging to traditional sector.

c/ Assumes that all (estimated) 75,000 conscripts reported (erroneously) by census under previous occupation/ status belong to this sector; this number has accordingly been subtracted from traditional sector total and transferred to modern sector total.

d/ Includes seasonally-unemployed in agriculture.

Source: Tables 11, 31, 34, 47, and 48; Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Statistics of Establishments and Engaged Persons of the Country: Fall 1343 (in Farsi) (Tehran: no date), Table 3-3, p.60.

is included of the "disguised unemployed" persons in traditional sector self-employment who only took up (and remained) in such work as a consequence of their inability to afford open unemployment,[2] the real level of worklessness in the urban labour force in 1966 works out at 20.9 per cent.

Viewed from another standpoint, these openly and "disguised" unemployed were excess supplies of labour to wage-paying employers, from whom they were seeking to gain employment. Virtually all of these workless persons, as well as considerable numbers of the low-wage employed and other non-wage employed (i.e. not in "disguised" unemployment), were aspiring primarily to modern sector wage employment, drawn by the much relatively higher wages paid by modern sector employers. Despite the high rate of expansion of modern sector employment, the numbers clamouring for jobs in such work probably grew at an even faster rate, largely as the consequence of a likely widening of earnings differentials as between modern and traditional sectors of employment; it is estimated that by 1964 the supply to modern sector employment was over twice as large as the modern sector employers could (or would) employ. Such great surpluses of frustrated applicants may basically be attributed to the maintenance of prices for their skills out-of-line with market forces, as unskilled manual workers were receiving wages two to five times higher than those paid to agricultural workers in the rural areas and a newly-graduated secondary school student working as a general clerk could earn two to three times more than a skilled worker in the modern sector.

The much higher wages paid an unskilled labourer by modern sector

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[2] Or 119,000. (See Chapter Five).

employers than can be earned in agricultural work in the rural area, as well as the hope of gaining a job against such wages deriving from the common knowledge of the expansion of modern sector employer demand (especially in factories, where unskilled have been recruited to fill semi-skilled positions following brief on-the-job training), have stimulated the outflow of peasants from rural occupations into Iran's towns and cities. Other peasants have been "pushed" off the land by the loss of livelihood, inability to eke out a subsistence income as share-croppers, or as the consequence of natural disasters, turning to the urban areas in hope of finding any means to sustain life. The migration of such rural workers, whatever the reason, has resulted in the inflation of the supply of unskilled labour considerably beyond the requirements of employers for their services.

The high level of rural-to-urban migration was the main factor in the growth of the urban labour force between 1956 and 1966; an estimated seven out of ten of the net additions to the urban labour supply were immigrants from villages. The 1956-base urban workforce grew at a low rate, the consequence of declining labour force participation rates for the 1956-base urban population occasioned mainly by much higher school attendance rates for the youth of labour force age. Such lowered rates of economic activity for this population spared the Iranian urban labour market from a certain amount of pressure.

While rising school attendance rates had the fortuitous effect of keeping much higher percentages of youth out of the labour market than in earlier periods, those rapidly-rising numbers of students who had reached the end of their secondary school education but could not gain entry to universities, as well as those who had dropped out of secondary school, were faced with severe difficulties. With no special training, great numbers failed to gain the modern sector

general non-manual work they sought and became openly unemployed. The support of their families, distorted occupational wage differentials, and the low prestige and stigma of technical and manual work, respectively, combined to keep most of them from considering either middle-level technical manpower positions or skilled worker occupations, in which they could have helped overcome critical shortages.

- On balance, the effect of Government policies on supply of and demand for labour was to exacerbate the urban unemployment problem. In its development plans, the Government treated employment-creation in the economy only as a residual of economic development, directing its efforts towards what it (often erroneously) believed was income-maximization through concentration of its own not-insignificant investment in large capital-intensive infrastructure projects generating relatively little employment and encouragement of a high level of private investment in the modern sector of the economy through provision of cheap credit (and tax and tariff advantages) to entrepreneurs setting up new, or expanding existing, large-scale units. Since these entrepreneurs tended to introduce increasingly labour-saving techniques in their already relatively high productivity operations, the expansion of the modern sector vis-a-vis the traditional sector of much lower capital-intensity and productivity, as fostered by Government policy, restricted employment-creation in the urban areas to a lower level than if the Government had either given financial and other assistance on a more even-handed basis to entrepreneurs regardless of scale of operations or had allowed the cost of credit to rise to reflect its true scarcity in the country (and thus have encouraged the use of less capital-intensive techniques throughout the economy).

On the supply side of the urban manpower equation, the Government failed to formulate a policy designed to slow rural-to-urban.

migration; on the contrary, its actions favouring the mechanization of agriculture, as well as its pre-occupation with urban development, were important factors stimulating the exodus of labour from Iran's villages to the towns and cities. The Government could also be faulted for the rising levels of surplus educated youth, in that it did not curb the expansion of general secondary education nor restrain the remuneration it offered such untrained youth in general clerical work.

Looking to the future, it appears that Government policy during the new Fourth Development Plan period (1968-1973) will also tend to disregard the employment situation that is likely to develop, as Iranian Development strategy continues to stress maximum growth of output as the overriding goal of development planning.[3] The lack of urgency exhibited by Iranian authorities towards the worklessness problem as it may be expected to develop during the Fourth Plan most likely is due to a falsely-optimistic projection of labour supply and demand prepared by the drafters of the plan document and incorporated into the Plan's strategy.[4] Furthermore, no attempt has been made to forecast the employment situation in the urban areas of the country, where the problem of unemployment is concentrated.

Contrary to the implicit assumptions of Government planners, it appears likely that the employment situation in Iran's towns and

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[3] See Plan Organization, Fourth National Development Plan, 1968-1972 (Tehran: 1968), p.39.

[4] The planners have underestimated by 27 per cent the likely rate of increase of the labour supply due to too low a projection of population increase, which has the effect of more than counter-balancing the unlikely projection of a virtually stable (rather than declining) crude LFPR for the population over this period. See William H. Bartsch, "Problems of Accelerated Rates of Employment Creation in Iran" (Unpublished-Typewritten), Paper submitted to the Manpower Planning and Organisation Branch of the International Labour Office (London: July 1968), pp. 82 and 85*.

cities will deteriorate further in the near future in the absence of Government efforts to prevent such a development. Even with high and rising levels of public and private investment and expanding Government administrative budgets, net new labour demand generated will be more limited than before, since the productivity of the urban employed workforce will most likely rise at a faster rate than previously, due to an even greater average capital intensity of investment, improved quality of the workforce, and more disembodied labour-saving technical change that may be expected to occur as Iran enters the heavy industry phase of its industrialization[5] and both public and private management introduce rationalization schemes.[6] The "modernisation" of the economy aimed at by Government development policy will involve increasing destruction of the traditional sector as a result of its inability to compete with modern sector units under existing distorted cost structures and could throw more workers in this sector -- particularly the wage-employed -- out of employment than can be re-hired in the expanding modern sector, in view of the wide scope for introduction of labour-saving technology in most lines of urban economic activities.

On the other hand, the supply of labour in the urban areas promises to increase at a rate even greater than that registered during the review period, and largely in those very skills of manpower

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[5] Manufacturing investment during the Fourth Plan will be heavily concentrated in petrochemical complexes, an integrated steel mill, and two machine tools plants.

[6] The managers of factories visited by the present writer during 1966-67 emphasized their intentions to introduce modernisation and rationalization schemes in the immediate future. Similarly, the Government is planning to automate its cigarette factories and all mail sorting in the Post Office and to completely mechanize garbage collection and street sweeping operations. (Kayhan International, October 27, 1968, October 10, 1968, July 7, 1968, and May 1, 1967).

already in greatest surplus. The secondary school system will be turning out rapidly-rising numbers of youth (both drop-outs and graduates) who had begun secondary school studies during the 1956-66 period instead of entering the urban labour market, virtually all of whom will be unqualified for any but general non-manual work. Even more ominously, it appears likely that the tempo of rural-urban migration will be stepped up, the consequence of a combination of a probable absolute decline in productive work opportunities for agricultural workers (stemming from the all-out commitment of the Government to consolidate the holdings of peasant-cultivators and to introduce mechanized cultivation on these enlarged farm units)[7] and the fast-rising supply of new entries into the rural labour market (deriving from the higher rates of natural population increase in the rural areas during the 1950s than in earlier periods). In addition to these conditions tending to "push"labour out of the villages, the financial incentive represented by a likely widening of the real rural/urban income differential (as urban wages of all skills of workers in the modern sector continue to rise faster than rural incomes) will "pull" other peasants in less desperate situation to the cities in search of such earnings.

The widening gap between supply of and demand for labour that can be expected to develop in the urban areas as a result of these

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[7] As emphasized by the Shah in a speech of September 23, 1968 in which he called for the establishment of large agricultural units utilizing "higher techniques and modern machinery". (Kayhan International, September 24, 1968). The Minister of Land Reform, in charge of implementing this policy, maintains that mechanization of agriculture is a "must" for higher productivity and "as such, there is no point in encouraging people to remain in the villages where their labour is wasted". (Kayhan International, June 24, 1968). Under the Government's consolidation scheme, farmers give up their land titles in exchange for a shareholding in the farm "corporation".

conditions will not necessarily manifest itself in rapidly rising levels of protracted open unemployment, however. Those who do become openly unemployed over longer periods of time will be those who can afford this course of action, mainly the educated and others from families who can support their offspring in idleness. Most worklessness will be reflected rather in a rising incidence of intermittent open unemployment and "disguised" unemployment of persons forced to take up self-employment in marginal activities because of their weak financial position. As the modern sector employers reject increasing numbers of new job-seekers, the low-wage and non-wage employed, and those thrown out of work by a (likely) contracting traditional wage sector, levels of urban disguised unemployment in particular may be expected to rise, comprised of those rejects who have no other means of earning a livelihood (including return to native village if immigrants) than to take up (or remain in) self-employment in activities characterized by declining average per worker incomes in the absence of any (unlikely) commensurate increase in the demand for the goods and services of such self-employed persons by urban consumers.

BIBLIOGRAPHY

I.

GENERAL SOURCE MATERIALS

Baer, Werner, and Herve, Michel E. A. "Employment and Industrialization in Developing Countries", Quarterly Journal of Economics, February 1966, pp. 88-107.

Bauer, P. T., and Yamey, B. S. "Economic Progress and Occupational Distribution", The Economic Journal, December 1951, pp. 741-755.

Bean, Lee L. "Utilisation of Human Resources: the Case of Women in Pakistan, International Labour Review, Vol. 97, No. 4, April 1968, pp. 391-410.

Berry, R. Albert, and Soligo, Ronald. "Rural-Urban Migration, Agricultural Output, and the Supply Price of Labour in a Labour-Surplus Economy", Oxford Economic Papers, Vol. 20, No. 2, July 1968, pp. 230-249.

Boserup, Mogens. "Employment Aspects of Population Growth in India", in S. N. Agarwala (ed.), India's Population: Some Problems in Perspective Planning. Bombay: Asia Publishing House, 1960. Pp. 133-136.

Bottomley, Anthony. "The Fate of the Artisan in Developing Economies", Social and Economic Studies, June 1965, pp. 194-203.

_____, and Nudds, Donald. "Factor Pricing with Unlimited Supplies of Labour", The Manchester School, Vol. 35, No. 3, September 1967, pp. 277-284.

Chandra, Ramesh. "Effect of Low Incomes on the Size of the Labour Force and Unemployment in India", Indian Labour Journal, December 1961, pp. 1163-1172.

Doctor, Kailas C. "Recent Progress in Underemployment Statistics and Analysis, in United Nations, World Population Conference 1965, Vol. IV. New York: 1967. Pp. 248-254.

_____, and Gallis, Hans. "Modern Sector Employment in Asian Countries: Some Empirical Estimates", International Labour Review, Vol. 90, No. 6, December 1964, pp. 544-560.

Dovring, Folke. "Unemployment in Traditional Agriculture", Economic Development and Cultural Change, Vol. 15, No. 2, Part 1, January 1967, pp. 163-173.

"Economic Development and Human Resources", in United Nations, Economic Survey of Asia and the Far East 1965. Bangkok: 1966. Pp. 7-154.

Elizaga, Juan C. "The Demographic Aspects of Unemployment and Underemployment in Latin America", in United Nations, World Population Conference 1965. Vol. IV. New York: 1967. Pp. 264-267.

"Employment Prospects of Children and Young People in Asia", International Labour Review, Vol. 88, No. 6, December 1963, pp. 564-595.

"Employment Prospects of Children and Young People in the Near and Middle East", International Labour Review, Vol. 87, No. 1, January 1963, pp. 51-66.

Fei, John C. H., and Ranis, Gustav. Development of the Labour Surplus Economy : Theory and Policy. Homewood, Illinois: Richard D. Irwin, 1964.

Frank, C. R., Jr., "Urban Unemployment and Economic Growth in Africa", Oxford Economic Papers, Vol. 20, No. 2, July 1968, pp. 250-274.

Funahashi, Naomichi. "The Labour Market and Wages in South-east Asia", The Developing Economies, January-June 1963, pp. 79-90.

Günter, H. "Changes in Occupational Wage Differentials", International Labour Review, Vol. 89, No. 2, February 1964, pp. 136-155.

Harbison, Frederick H. Educational Planning and Human Resources Development. Paris: International Institute for Educational Planning, 1967.

_____. "Human Resources Development Planning in Modernising Economies", International Labour Review, Vol. 85, No. 5, May 1962, pp. 435-458.

Harewood, Rupert J. "Some Views on the Collection, Analysis, and Utilization of Current Employment Statistics in an Economically Less Developed Country", in United Nations, World Population Conference 1965, Vol. IV. New York: 1967. Pp. 355-358.

Hassan, M. F. "High Growth, Unemployment, and Planning in Venezuela", Economic Development and Cultural Change, Vol. 15, No. 4, July 1967, pp. 452-464.

Hock, Saw Swee. "The Structure of the Labour Force of Malaya", International Labour Review, Vol. 98, No. 1, July 1968, pp. 55-72.

Hosain, Khondkar Tafazzul. "Internal Migration and Economic Development", Pakistan Economic Journal, Vol. 14, No. , 1964, pp. 51-74.

Hoselitz, B. F. "Urbanisation and Economic Growth in Asia", Economic Development and Cultural Change, Vol. 6, No. 1, October 1957, pp. 42-54.

"Improved Statistics on Unemployment: A First Step in Preventing Joblessness and Poverty", The OECD Observer, No. 37, December 1968, pp. 8-10.

International Labour Office. Employment and Economic Growth. Studies and Reports, New Series, No. 67. Geneva: 1964.

_____. Employment Objectives in Economic Development. Studies and Report, New Series, No. 62. Geneva: 1961.

_____. Human Resources for Industrial Development. Studies and Reports, New Series, No. 71. Geneva: 1967.

_____. Manpower Problems. Regional Conference for the Near and Middle East, Teheran, April 1951. Geneva: 1951.

_____. Minimum Wage Fixing and Economic Development. Studies and Reports, New Series, No. 72. Geneva: 1968.

Jaffe, A. J., and Qesada, L.E. "Assessment of Underemployment in Non-Agricultural Industries of the Less Developed Countries, in United Nations, World Population Conference 1965. Vol. IV. New York: 1967. Pp. 359-362.

Kassalow, Everett M. "Wage Policy and Manpower Planning in Developing Nations", in Agency for International Development, Office of Labor Affairs, Manpower in Economic and Social Growth: Proceedings of the Sixth International Manpower Seminar, June 1 - August 13, 1966. Washington: no date. Pp. 87-92.

Kelley, S.C. "The Role of Incentives in Human Resources Planning", in Herbert S. Parnes (ed.), Planning Education for Economic and Social Development. Paris: OECD, 1963. Pp. 27-37.

Knight, J. B. "The Determination of Wages and Salaries in Uganda", Bulletin of the Oxford University Institute of Economics and Statistics, Vol. 29, No. 3, August 1967, pp. 233-264.

Leibenstein, Harvey. "Shortages and Surpluses in Education in Underdeveloped Countries: A Theoretical Foray", in C. A. Anderson and M. J. Bowman (eds.), Education and Economic Development. Chicago: Aldine Publishing Company, 1965. Pp. 51-62.

Lewis, W. Arthur. Development Planning. London: George Allen and Unwin, 1966.

_____. "Economic Development with Unlimited Supplies of Labour", The Manchester School, May 1954, reprinted in A. N. Agarwala and S. P. Singh (eds.), The Economics of Underdevelopment. New York: Oxford University Press, 1963. Pp. 400-449.

_____. "Employment Policy in an Underdeveloped Area", Social and Economic Studies, September 1958, pp. 42-54.

_____. "A Review of Economic Development", American Economic Review, Vol. 55, No. 2, May 1965, pp. 1-15.

_____. "Unemployment in Developing Countries", The World Today, January 1967, pp. 13-22.

McVoy, Edgar C. "Employment Theory and Implementation Applied to Developing Economies", in Agency for International Development, Office of Labor Affairs, Manpower in Economic and Social Growth: Proceedings of the Sixth International Manpower Seminar, June 1 - August 13, 1966. Washington: no date. Pp. 156-160.

Marsden, Keith. "Progressive Technologies for Developing Countries". (Unpublished-Roneo). Geneva: March 10, 1967.

Maunder, W. F. Employment in an Underdeveloped Area. New Haven: Yale University Press, 1960.

Mehta, Surinder K. "A Comparative Analysis of the Industrial Structure of the Urban Labor Force of Burma and the United States", Economic Development and Cultural Change, Vol. IX, No. 2, January 1961, pp. 164-179.

Meier, Gerald M. Leading Issues in Development Economics. New York: Oxford University Press, 1964.

Miura, Yuki. "A Comparative Analysis of Operational Definitions of the Economically Active Population in African and Asian Countries", in United Nations, World Population Conference 1965. Vol. IV. New York: 1967. Pp. 372-379.

Moes, John E., and Bottomley, Anthony. "Wage Rate Determination with Limited Supplies of Labour in Developing Countries", Journal of Development Studies, Vol. 4, No. 3, April 1968, pp. 380-385.

Mouly, Jean. "Human Resources Planning as a Part of Economic Development Planning", International Labour Review, Vol. 92, No. 3, September 1965, pp. 184-207.

_____. "Wage Determination: Institutional Aspects", International Labour Review, Vol. 96, No. 5, November 1967, pp. 497-526.

Myint, Hla. The Economics of the Developing Countries. London: Hutchinson and Company, 1964.

Myrdal, Gunnar. Asian Drama. Three Volumes. London: Penguin Books, 1968.

Namboodiri, N. Krishnan. "A Contribution to the Study of Factors Associated with Working Force Participation Rates", Asian Economic Review, Vol. 9, No. 1, November 1966, pp. 41-52B.

Nove, Alec. "The Explosive Model", Journal of Development Studies, Vol. 3, No. 1, October 1966, pp. 2-13.

O'Brien, P. K. "Industrial Development and the Employment Problem in Egypt, 1945-1965", Middle East Economic Papers 1962, pp. 90-118.

Parnes, Herbert S. "Labor Markets and Labor Mobility", in Agency for International Development, Office of Labor Affairs, Manpower in Economic and Social Growth: Proceedings of the Sixth International Manpower Seminar, June 1 - August 13, 1966. Washington: no date. Pp. 82-86.

Raj, K. N. "Employment and Unemployment in the Indian Economy: Problems of Classification, Measurement, and Policy", Economic Development and Cultural Change, Vol. VII, No. 3, Part 1, April 1959, pp. 258-278.

_____. Employment Aspects of Planning in Under-developed Economies. Cairo: National Bank of Egypt, 1957.

Reynolds, Lloyd G. "Wages and Employment in a Labor-Surplus Economy", American Economic Review, Vol. 55, No. 1, March 1965, pp. 19-39.

Rottenberg, Simon. "Labor Force Measurement in a Pre-Industrial Economy", Southern Economic Journal, October 1951, pp. 219-224.

_____. "The Meaning of 'Excess Supplies of Labour'", Scottish Journal of Political Economy, February 1961, pp. 65-70.

_____. "Note on 'Economic Progress and Occupational Distribution'", Review of Economics and Statistics, May 1953, pp. 168-170.

Sadie, Jan L. "Labor Supply and Employment in Less Developed Countries", The Annals of the American Academy of Political and Social Science, January 1967, pp. 121-130.

Sayigh, Yusif. "Management-Labour Relations in Selected Arab Countries: Major Aspects and Determinants", International Labour Review, Vol. 77, No. 6, June 1958, pp. 519-537.

Sen, A. K. Choice of Techniques. London: Basil Blackwell, 1968.

"Structural Changes in Employment within the Context of Latin America's Economic Development", Economic Bulletin for Latin America, Vol. 10, No. 2, October 1965, pp. 163-187.

Taira, Koji. "Wage Differentials in Developing Countries", International Labour Review, Vol. 93, No. 3, March 1966, pp. 281-301.

Todaro, Michael P. "An Analysis of Industrialization, Employment, and Unemployment in Less Developed Countries", Yale Economic Essays, Vol. 8, No. 2, Fall 1968, pp. 329-402.

_____. "A Model of Labor Migration and Urban Unemployment in Less Developed Countries", The American Economic Review, Vol. 59, No. 1, March 1969, pp. 138-148.

Turner, H. A. Wage Trends, Wage Policies, and Collective Bargaining: The Problems for Underdeveloped Countries. Cambridge: Cambridge University Press, 1966.

United Nations, Methods for Population Projection by Sex and Age, ST/SOA/Series A. Population Studies No.25. New York: 1956.

Vaizey, John. "The Labour Market and the Manpower Forecaster - Some Problems", International Labour Review, Vol.89, No.4, April 1964, pp. 353-370.

Wellisz, Stanislaw. "Dual Economies, Disguised Unemployment and the Unlimited Supply of Labour", Economica, Vol.35, No.137, February 1968, pp.22-51.

II.

SOURCES ON IRANIAN CONDITIONS

A.
IN FARSI

A'azam, A. Partou. "Problems Related to the Execution of the Labour Law in the Province of Esfahan". (Unpublished-Roneo) Tehran: Ministry of Labour, Ordibehesht 1341.

Ashraf, Ahmad. "Income Levels in Iran and Index of Incomes in Determining Social Classes". (Unpublished-Roneo) Tehran: University of Tehran, Institute of Social Studies and Research, Ordibehesht 1340.

Bakhtari, Hushang. "Preliminary Investigation of Problems Related to Skill and Specialization", in Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Investigations of Manpower Problems. Volume Two. Tehran: 1344. Pp 940-1007.

Bank Markazi Iran. Department of Economic Statistics. "Results of the Urban Household Budget Investigation in the Year 1344". (Unpublished-Roneo) Tehran: Ordibehesht 1346.

Beheshtipur, Mehdi. "Disguised Unemployment in the Bazaar", Tehran Economist, 27 Azar 1344, p.35

Behnam, Jamshid. "A Note About the Problems of Population and Population Policies in Iran", Majalleh-e Otaq-e Sanaya' va Ma'adan. ("The Journal of the Chamber of Industries and Mines"), No.27, Aban 1346, pp.38-48

_____, and Rassekh, Shahpour, Introduction to the Sociology of Iran. Tehran: Sazman-e Entesharat va Khadamat-3 Farhangi, Farvardin 1344.

Bigdeli, Akbar. "Investigation of the Wage and Salary Situation of the Economically-Active Population of Iran", in Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Investigations of Manpower Problems. Volume Two. Tehran: 1344. Pp. 1393-1431.

Daneshju. ("Student") (Publication of the Ministry of Labour and Social Affairs) No. 1. Farvardin 1340.

Ettemadi, R. "A Zero for the Ministry of Education and a Question for High School Graduates", Javanan ("Youth"), 23 Mordad 1346, p. 3.

Faqieh, Banu. "Poor Peoples' Settlements of South Tehran", in Investigations of the Social Problems of Tehran. Tehran: University of Tehran, Institute of Social Studies and Research, Ordibehesht 1341. Pp. 337-347.

"Investigation of Manpower Problems in the Urban Areas of Iran", in Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Investigations of Manpower Problems. Volume Three. Tehran: 1344. Pp. 2207 - 2341.

Iranian Factories Company. Ten-Year Report of the Textile Company. Tehran: Mordad 1345.

Khosravi, Khosrou. "Shoemaking", Kavesh, Mehr 1342, pp. 66-75.

"Law on Permission to Employ Staff for Ministries", in Compendium of Laws of the Year 1337. Tehran: no date. Pp. 191-192.

"The Migration of Villagers to Towns and the Means of Overcoming It", Nashrieh-e Shoura-ye Ali-ye Eqtesad ("The Publication of the High Economic Council"), No. 8, Khordad 1340, pp. 33-41.

Ministry of Development and Housing. "Statistics of the Investigation of 254 Slum Families of Salsabil Region". (Unpublished-Mimeographed). Tehran: no date.

_____. "Statistics of the Investigation of 703 Slum Families of Behjatabad Region". (Unpublished-Mimeographed). Tehran: no date.

Ministry of Education. Bureau of Statistics. Department of Planning and Studies. Educational Statistics in Iran. Tehran: Esfand 1346.

_____. General Department of Studies and Programs. "Brief Summary of Education Throughout the Country in the School Year 1346-47". (Unpublished-Roneo). Tehran: Khordad 1347.

_____.
Educational Statistics in Iran. Tehran: Esfand 1342.

_____.
Department of Research and Evaluation. Research on the Educational and Work Desires of Youth. Publication No. 18. Tehran: Khordad 1345.

Ministry of Industries and Mines. Bureau of Industrial Statistics. Statistics of Industrial Activities in Iran in the Year 1341. Tehran: 1342.

Ministry of Interior. Public Statistics. Preliminary Results of the Sample Social and Population Census of Azar Month 1342. Vol. I. Whole Country. Series N-3. Tehran: Esfand 1342.

_____. Publication of the Statistics of Government Employees in Tir Month 1335. Tehran: no date.

_____. Summary Results of the Industrial Survey of the Country of Mordad 1342. Tehran: Tir 1344.

Ministry of Labour and Social Affairs. Employment Service. Various monthly unpublished reports of the activities of the Employment Service, 1343-1345.

_____. General Department of Manpower Studies and Statistics. Investigation of the Activities of the General Department of Training. Tehran: no date.

_____. Statistics of Establishments and Engaged Persons of the Country: Third Quarter of 1342. Tehran: no date.

_____. Statistics of Establishments and Engaged Persons of the Country: Fourth Quarter of 1342. Tehran: no date.

_____. Statistics of Establishments and Engaged Persons of the Country: Fall 1343. Tehran: no date.

_____. General Department of Statistics. Investigation of Manpower in the Urban Areas of Iran. Research Report No. 40. Tehran: Shahrivar 1347.

Ministry of Labour and Social Services. General Department of Manpower Studies and Statistics. Annual Statistical Publication of Establishments and Engaged Persons: 1341 Year. Tehran: no date.

_____. Statistics of Establishments and Engaged Persons of Tehran City in Farvardin Month 1341. Publication No. 25. Tehran: no date.

Movafaqian, Nasser. "The Problem of Vocational Training in Iranian Industry", Majalleh-e Otaq-e Sanaye' va Ma'adan ("The Journal of the Chamber of Industries and Mines"), No. 2, Shahrivar 1342, pp. 32-36.

Naficy, Habib. "Brief Report of the Composing Committee of Vocational Training in Regard to the Present Status of State Vocational Training and a Proposal for the Establishment of a Central Organization for the Study, Training, and Development of Manpower". (Unpublished-Typewritten) Tehran: no date.

_____. "The Problems of Manpower and Work for the Youth of Iran", Majalleh-e Masayel-e Iran ("The Journal of Problems of Iran"), No. 6, Farvardin 1342, pp. 264-271.

National Iranian Oil Company. "Report on the Investigation of Salaries, Wages, and Benefits of the Principal Employers of Iran in 1339". (Unpublished-Roneo). Tehran: no date.

National Iranian Oil Company and Iranian Oil Operating Companies. "Report on the Investigation of Salaries, Wages and Benefits of the Principal Employers of Iran in Farvardin 1343". (Unpublished-Roneo). Tehran: no date.

"A Note About the Establishment of Mechanized Industries in Underdeveloped Countries", Nashrieh-e Shoura-ye Ali-ye Eqtesad ("The Publication of the High Economic Council"), No. 8, Khordad 1340, pp. 73-81

Nouban, Ahmad. "The Role of Industry in the Fourth Development Plan of Iran", Majalleh-e Otaq-e Sanaye' va Ma'adan ("The Journal of the Chamber of Industries and Mines"), New Series, No. 1, Tir 1347, pp. 17-21.

"Occupational Movements of Industrial Workers in Tehran", in University of Tehran, Institute of Social Studies and Research, "Transformation of the Economic Situation -- Behaviour of Economic Agents". (Unpublished-Roneo). Tehran: 15 Khordad 1343. Pp. 174-183.

Plan Organization. Report on the Execution of the Second Seven Year Plan. Tehran: 1343.

_____. "Report on the Leather Industry". (Unpublished-Roneo). Tehran: no date.

_____. "Report on the Soap, Detergent, and Candle Industry". (Unpublished-Roneo). Tehran: no date.

_____. Central Budget Office. Budget Bill of 1345 for the Country. Tehran: Bahman 1344.

_____. Central Planning Office. Office of Labour and Manpower. "The Effect of Mechanization on Employment in Agriculture". (Unpublished-Roneo). Tehran: Mehr 1345.

_____. Division of Economic Affairs. Agriculture Section. "Preliminary Report of the Third Plan Frame for Agriculture and Irrigation". (Unpublished-Roneo). Tehran: Mordad 1340.

_____. Iranian Statistical Centre. General Census of Aban 1345: Instructions to Census Officials. Tehran: no date.

Plan Organization. Iranian Statistical Centre. Preliminary Report of the Population of Iran of the National Census of Aban 1345. Tehran: Dei 1345.

_____. Results of the Census of Government Employees in Azar 1342. Tehran: 1346.

_____. Office of Information and Reports. Report on the Progress of Activities of the Third Development Plan to the End of the First Quarter of 1346. Tehran: Shahrivar 1346.

Saheb ol-Zamani, Nasser od-Din. "Suffering Youth - 2", Majalleh-e Masayel-e Iran ("The Journal of Problems of Iran"), No. 2, Azar 1341, pp. 49-63.

_____. "Suffering Youth - 3", Majalleh-e Masayel-e Iran ("The Journal of Problems of Iran"), No. 3, Dei 1341, pp. 121-128.

Sepehr, Ja'far. Unemployment. Tehran: Amir Kabir, Mordad 1345.

"A Study of Rural Economic Problems in Khorasan and the Central Province", Tahqiqat-e Eqtesadi, Nos. 15 & 16, Bahman 1346, pp. 163-281.

Tehran Economist. Various issues, 1343-1344.

University of Tehran. Institute of Social Studies and Research. "Investigation of the Results of Industrial and Mining Loans Extended from the Rial Revaluation Fund". (Unpublished-Roneo). Tehran: 1339.

_____.
Sociology Group. "Investigation of the Carpet Industry of Iran." Part One. Carpet-Weaving Region of Kashan. (Unpublished-Roneo). Tehran: Farvardin 1345.

B.

IN OTHER LANGUAGES

Adib-Soltani, Sharif. "Money Wage Behaviour in Iran from 1955-56 to 1957-58", Middle East Economic Papers 1960, pp. 1-12.

Afzal, Manuchehr. "Problems of Secondary Education in Iran", Comparative Education Review, October 1962, pp. 86-92.

"Again Tehran", Kayhan International, April 17, 1963.

"Aim for Self-Sufficiency in Sugar", Financial Times (London), May 24, 1968, p. 24.

Ala'i, Heshmat. "Artisans' Income", Kayhan International, June 9, 1965, p. 4.

_____. "The Basic Issues", Kayhan International, December 20, 1965, p. 4.

Ala'i, Heshmat. "Building Up an Elite Civil Service", Kayhan International, October 18, 1967, p. 4.

_____. "Capital Formation", Kayhan International, August 3, 1965, p. 4.

_____. "Civil Servants", Kayhan International, July 5, 1964, p. 4.

_____. "Development for Employment", Kayhan International, January 4, 1965, p. 4.

_____. "Domestics", Kayhan International, September 8, 1965, p. 4.

_____. "Economists' Failure", Kayhan International, November 22, 1964, p. 4.

_____. "Handicrafts", Kayhan International, August 8, 1965, p. 4.

_____. "Hard Facts", Kayhan International, October 14, 1965, p. 4.

_____. "How Not to Develop a Backward Country", Fortune, Vol. 38, No. 2, August 1948, pp. 76-77, 145-47.

_____. "Income Tax Law", Kayhan International, October 9, 1965, p. 4.

_____. "Industrial Investment", Kayhan International, August 10, 1964, p. 4.

_____. "Industrial Survey (3)", Kayhan International, August 23, 1965, p. 4.

_____. "Job Security", Kayhan International, August 17, 1965, p. 4.

_____. "Labour Contracts in the Oil Industry", Kayhan International, April 1, 1967, p. 4.

_____. "Manpower Planning", Kayhan International, May 28, 1966, p. 4.

_____. "Mechanization", Kayhan International, August 18, 1965, p. 4.

_____. "Purchasing Power", Kayhan International, January 3, 1965, p. 4.

_____. "Reforms and Stagnation", Kayhan International, March 8, 1965, p. 4.

_____. "Wasted Manpower", Kayhan International, September 28, 1965, p. 4.

_____. "What and How", Kayhan International, September 22, 1965, p. 4.

Amani, Mehdi. "Fecondité actuelle des femmes mariées dans quatre zones rurales d'Iran". (Unpublished-Roneo), Paper presented to the 1967 Congress of the International Union for the Scientific Study of Population, Sydney, Australia, 21-26 August 1967. Tehran: no date.

"Amended Budget Act of the Country for 1343", Bank Markazi Iran Bulletin, Vol. 3, No. 14, July-August 1964, pp. 191-233.

The American University. Special Operations Research Office. Foreign Areas Studies Division. U.S. Army Area Handbook for Iran. Washington: U.S. Government Printing Office, May 1963.

Amuzegar, Jahangir. "Administrative Barriers to Economic Development in Iran", Middle East Economic Papers 1958, pp. 1-21.

_____. "Iran's Economic Planning Once Again", Middle East Economic Papers 1957, pp. 1-11.

Ashraf, Ahmad. "An Evaluation of Land Reform", in University of Tehran, Institute of Social Studies and Research, "Seminar on Evaluation of Directed Social Change: December 1966". (Unpublished-Roneo). Tehran: no date. Pp. 143-169.

Bakhash, Alfred. "The Bureaucrats", Kayhan International, June 6, 1963, p. 4.

_____. "Get the Economy Moving", Kayhan International, February 28, 1963, p. 1.

_____. "New Looms for Old", Kayhan International, February 18, 1963, p. 4.

Baldwin, George B. "Iran's Experience with Manpower Planning: Concepts, Techniques, and Lessons", in Frederick Harbison and Charles Myers (eds.), Manpower and Education: Country Studies in Economic Development. New York: McGraw-Hill, 1965. Pp. 140-172.

_____. Planning and Development in Iran. Baltimore: John Hopkins Press, 1966.

Bank Markazi Iran. Annual Report and Balance Sheet as at 20 March 1965. Tehran: no date.

_____. Annual Report and Balance Sheet as at 20 March 1966. Tehran: no date.

_____. Annual Report and Balance Sheet as at 20 March 1967. Tehran: no date.

_____. Annual Report and Balance Sheet as at 20 March 1968. Tehran: no date.

_____. Balance Sheet as at 20 March 1961. Tehran: no date.

_____. Balance Sheet as at 20 March 1963. Tehran: no date.

Bank Markazi Iran. Economic Research Department. National Income of Iran 1338-1344 (1959-1965). Tehran: 1968.

Bartsch, William H. "The Impact of the Oil Industry on the Economy of Iran", in Raymond F. Mikesell (ed.), Foreign Investment in the Petroleum and Mineral Industries: Case Studies on Investor-Host Country Relations. Baltimore: Johns Hopkins University Press, forthcoming.

_____. "Problems of Accelerated Rates of Employment Creation in Iran" (Unpublished-typewritten), Paper submitted to the Manpower Planning and Organisation Branch of the International Labour Office. London: July 1968.

_____, and Tavassoli, Hamideh. "Results of a Labour Force Sample Survey of Ku-ye 9 Aban in August 1967". (Unpublished-Typewritten). London: December 1967.

Bavly, Izhak. "The Development of Engineering and Metal Industries in Iran". (Unpublished-Roneo). Tehran: United Nations Industrial Development Mission to Iran, April 1964.

Behrouz, J. (ed.). Iran Almanac and Book of Facts 1962. Tehran: Echo of Iran, 1962.

_____. Iran Almanac and Book of Facts 1964/65. Tehran: Echo of Iran, 1965.

_____. Iran Almanac and Book of Facts 1966. Tehran: Echo of Iran, 1966.

_____. Iran Almanac and Book of Facts 1967. Tehran: Echo of Iran, 1967.

Beichman, Arnold. "Iran: Time vs the Peoples' Struggle for Progress", American Federationist, November 1962, pp. 22-23.

Benedick, Richard Elliot. Industrial Finance in Iran. Boston: Harvard University, 1964.

Bharier, Julian. "Capital Formation in Iran, 1900-1966", Unpublished Ph.D. dissertation, University of London, 1969.

Binder, Leonard. Iran: Political Development in a Changing Society. Berkeley: University of California Press, 1962.

Blandy, Richard, and Nashat, Mahyar. "The Education Corps in Iran: A Survey of its Social and Economic Aspects", International Labour Review, Vol. 93, No. 5, May 1966, pp. 521-529.

Bruton, Henry J. "Notes on Development in Iran", Economic Development and Cultural Change, Vol. IX, No. 4, Part 1, July 1961, pp. 625-640.

"Budget Problem - 1", Kayhan International, June 5, 1962.

"Building Roads", Kayhan International, May 28, 1963.

"Butchers' and Bakers' Shops", Kayhan International, October 24, 1963.

"CBI Credits to Plan", Kayhan International, December 18, 1963.

Chasteland, J-C. "Essai d'evaluation du niveau de la natalite et de la fertilite en Iran". (Unpublished-Roneo). Paper presented to the Congress of the International Union for the Scientific Study of Population, Sydney, Australia, 21-26 August 1967. Tehran: no date.

_____. "Estimation du Niveau de la Mortalité Infantile en Iran 1966". (Unpublished-Typewritten). Tehran: 23 Octobre 1967.

_____. Etude sur la Secondite et Quelques Caracteristiques Demographiques de Femmes Mariees dans Quatre Zone Rurales de l'Iran. Tehran: Institut d'Etudes et de Recherches Sociales, 1968.

_____, Amani, M., and Puech, O. A. La Population de l'Iran: Perspectives d'Evolution, 1956-1986. Tehran: Universite de Tehran, Institut d'Etudes et de Recherches Sociales, 1966.

"Cost of Living Index", Bank Markazi Iran Bulletin, Vol. 7, No. 40, November-December 1968, pp. 568-569.

Cox, T. Hilliard. "High Level Manpower Development in Iran". (Unpublished-Roneo). Tehran: Governmental Affairs Institute, May 1960.

Darwent, David F. "Urban Growth in Relation to Socio-Economic Development and Westernisation: A Case Study of the City of Mashhad, Iran". Unpublished Ph.D. dissertation, Durham University, 1965.

Delaney, William F. Labor Law and Practice in Iran. BLS Report No. 276. Washington: U.S. Department of Labor, Bureau of Labor Statistics, May 1964.

"Education and Employment", Kayhan International, January 7, 1964.

Ellis, Cecil A. Business and Financial Administration and Accounting in Iran. United Nations Technical Assistance Programme. ST/TAA/K/Iran 2. New York: United Nations, July 1954.

"End-of-Tour Report - Merrill E. Weir, Employment Service Advisor". U.S. Department of State Airgram A-1232, 24 April 1965. (Unpublished-Mimeographed).

"Evolution of Labour Legislation and Administration in Iran", International Labour Review, Vol. 79, No. 3, March 1959, pp. 273-295.

"Farmers' Idleness - Comment", Kayhan International, March 16, 1965.

Gable, Richard W. "Culture and Administration in Iran", Middle East Journal, Vol. 13, No. 4, Autumn 1959, pp. 407-421.

_____. "The Public Service in Iran", Public Personnel Review, Vol. 22, No. 1, 1961, pp. 29-34.

"General Import-Export Regulations for 1343", Bank Markazi Iran Bulletin, Vol. 3, No. 13, May-June 1964, pp. 20-43.

George Fry and Associates. The Dezful Textile Mill: A Case Study of Business Administration in Iran. Case No. 26. Tehran: no date.

_____. Management Assistance Project for Plan Organization Companies. Volume One. Chicago: April 29, 1960.

Gittinger, J. Price. Planning for Agricultural Development: The Iranian Experience. Washington: National Planning Association, 1965.

"Handicrafts to Machines", Kayhan International, October 10, 1963.

Hanessian, John, Jr. Yosouf-Abad, an Iranian Village. Part II: Social Structure of the Village. Vol. XII, No. 2 of American Universities Field Service, Reports Service, Southwest Asia Series. New York: 1963.

"Housing", Kayhan International, November 21, 1963.

"Income and Reform", Kayhan International, September 24, 1963.

"Industrial Policy", Kayhan International, November 29, 1964.

"Industrializing Iran - 7", Kayhan International, December 5, 1963.

International Bank for Reconstruction and Development. The Economic Development Program of Iran: An Appraisal. Two Volumes. Washington: April 1963.

International Labour Office. Labour Conditions in the Oil Industry in Iran. Studies and Reports, New Series, No. 24. Geneva: 1950.

"Investment Needed to Create Jobs", Tehran Journal, July 1, 1965.

"Iran: Save the Road Sweepers", The Economist, July 2, 1966, p. 31.

Iranian Oil Exploration and Producing Company. "Fields Establishment - Manpower Review 1966."(Unpublished-Roneo). Tehran: no date.

Iranian Oil Operating Companies. Annual Review 1956. Tehran: no date.

_____. Annual Review,1965. Tehran: no date.

_____. Annual Review 1967. Tehran: no date.

Iranian Oil Refining Company. "Abadan Refinery Manpower Review: July 1966". (Unpublished-Roneo). Tehran: October 1966.

Islam, Nurul. "Methodology of Development Planning: A Case Study of Iran", Pakistan Economic Journal, Vol. 12, No. 4, December 1962, pp. 1-13.

Jacobs, J.L. and Company. Report on Survey of Salaries, Wages, and Employment Practices in Iran as of January 1956. Tehran: no date .

Jacobs, Norman. The Sociology of Development: Iran as an Asian Case Study. New York: Frederick A. Praeger, 1966.

Kayhan International /Tehran/, various issues, 1962-1968.

Keddie, Nikki. "The Iranian Village Before and After Land Reform", The Journal of Contemporary History, July 1968, pp. 69-91.

"Labour vs Machinery", Kayhan International, January 16, 1963.

Lima, Gregory. "The Artisan", Kayhan International, June 27, 1967, p. 4.

_____. "Bread and Love", Kayhan International, May 15 and May 20, 1967, p. 4.

_____. "The Grease Pit", Kayhan International Supplement, August 9, 1962, pp. 9 and 11.

_____. "Shirin and Her Sisters", Kayhan International, May 21, 1965, p. 4.

McLachlan, Keith. "Land Reform in Iran". (Unpublished). London: 1965.

Mahdavy, Hossein. "The Coming Crisis in Iran", Foreign Affairs, Vol. 44, No. 1, October 1965, pp. 134-146.

Marsland, J.O. "The Esfahan Textile Industry". (Unpublished-Roneo). Tehran: United Nations Technical Assistance Administration, 6 May 1957.

_____. "The Iranian Textile Industry". (Unpublished-Roneo). Tehran: United Nations Technical Assistance Organization, June 21, 1960.

Mashaekhi, M. B., Mead, P. A., and Hayes, G. S. "Some Demographic Aspects of a Rural Area in Iran", Milbank Memorial Fund Quarterly, Vol. 31, No. 2, April 1953, pp. 149-165.

Mehr Ayin, Hushang. "Iran's Industries Get Bigger Every Year", Kayhan International, June 9, 1968, p. 5.

_____. "Land, Building Outlays Curb Economic Growth", Kayhan International, January 11, 1969, p. 2.

_____. "Man vs Machine", Kayhan International, February 3, 1966, p. 4.

Ministry of Economy. Bureau of Statistics. Report on the Results of Annual Industrial Survey in 1964 (1343). Tehran: no date.

_____. Report on the Results of Annual Industrial Survey in 1965 (1344). Tehran: no date.

_____. Report on the Results of Annual Industrial Survey in 1966 (1345). Tehran: no date.

Ministry of Economy. Bureau of Statistics. Trends in Industrial and Commercial Statistics. Tehran: December 1968.

_____. General Department of Industrial and Mining Statistics. Report on the Results of Annual Industrial Survey of Iran: 1963 (1342). Tehran: January 1966.

Ministry of Industries and Mines. Bureau of Industrial Statistics. Industries and Mines Statistical Yearbook 1956-57 (1335). Tehran: no date.

Ministry of Interior. Department of Public Statistics. Office of Agricultural Statistics. First National Census of Agriculture : Mehr 1339 (October 1960). Vol. XV. National Summary Report. Tehran: no date.

Ministry of Interior. Public Statistics. National and Province Statistics of the First Census of Iran. Vol. II. Social and Economic Characteristics of the Inhabitants for Iran and the Census Provinces. Tehran: June 1962.

Ministry of Labour and Social Affairs. General Department of Manpower Studies and Statistics. A Study of Manpower of Iran. Tehran: April 1967.

Ministry of Labor and Plan Organization. National Manpower Resources and Requirements Survey: Iran 1958. Tehran: Governmental Affairs Institute, July 1959.

Montague, Joel G. "CARE and the Southern Ports and Isles Program", SAIS Review (School of Advanced International Studies, Johns Hopkins University, Washington, D.C.), August 1965.

Motamen, Hossein. "Development Planning in Iran", Middle East Economic Papers 1956, pp. 98-111.

Naraghi, Ehsan. "Problemes Sociaux de l'Industrialisation dans un Pays du Tiers Monde", Civilisations, Vol. XV, No. 4, 1965, pp. 504-518.

_____. "Social Problems Related to the Oil Industry in Iran (Abadan)". (Unpublished-Roneo). Tehran: April 1959.

Nemazee, Shapour. "Report on the South", Kayhan International, March 27, 1963, p. 4.

_____. "Success in Rural Aid", Kayhan International, November 16, 1963, p. 1.

_____. "Valian Stresses Need for Output Controls", Kayhan International, July 5, 1967, p. 1.

"Number of Tractors and Combines Sold in Iran", Bank Markazi Iran Bulletin, Vol. 2, No. 8, July-August 1963, p. 328.

Olsen, P. Bjorn, and Rasmussen, P. Norregaard. "An Attempt at Planning in a Traditional State: Iran", in E. E. Hagen (ed.), Planning Economic Development. Chicago: Richard D. Irwin, 1963. Pp. 223-251.

"Opportunities for Women", Kayhan International, April 6, 1964.

Pakdaman, Nasser. "Etude Critique du Recensement General de l'Iran (1956)", Tiers Monde, Vol. 6, janviers-mars 1965, pp. 231-246.

Papanek, Gustav F. "The Economist as Policy Adviser in the Less Developed World", International Development Review, Vol. XI, No. 1, March 1969, pp. 7-13.

Peace, G. L. "Report on the Development of Small-Scale Industries in Iran". (Unpublished-Roneo). Tehran: United Nations Bureau of Technical Assistance Operations, December 12, 1961.

Plan Organisation. "Employment Status and Educational Characteristics of Scientific, Professional, and Technical Personnel: Iran 1960". (Unpublished-Roneo). Tehran: no date.

_____. An Evaluation of the Employment Effects of the Third Development Plan (Sept. 1962 - Nov. 1964). Tehran: January 1965.

_____. Fourth National Development Plan, 1968-1972. Tehran: no date.

_____. Division of Economic Affairs. Economic Bureau. Review of the Second Seven Year Plan Program of Iran. Tehran: March 10, 1960.

_____. Industry and Mining Section. "Industry and Mining Third Plan Frame". (Unpublished-Roneo). Tehran: May 1961.

_____. Manpower Section. "Third Plan Frame Manpower". (Unpublished-Roneo). Tehran: August 1961.

_____. Social Affairs Section. "Education Third Plan Frame". (Unpublished-Roneo). Tehran: August 1961.

_____. Economic Bureau. "A Study of Cement Mills in Iran". (Unpublished-Roneo). Tehran: 1338.

_____. General Economic Group. Division of Economic Affairs. "Introduction to the Third Development Plan of Iran (1341-46)". (Unpublished-Roneo). Tehran: Mordad 1340.

_____. Iranian Statistical Centre. National Census of Population and Housing: November 1966. Vols. 1-146. Shahrestan Reports. Tehran: 1967-68.

_____. National Census of Population and Housing: November 1966. Vol. 168. Total Country - Settled Population. Tehran: March 1968.

_____. Planning Division. Outline of the Third Plan, 1341-1346. Tehran: Esfand 1344.

Plan Organization and Governmental Affairs Institute. Industrial Vocational Training in Iran. Tehran: November 1959.

Pourmand, Mansour. "Health Corps at Work", Tehran Journal, May 25, 1965.

"Press Review", Kayhan International, August 15, 1962.

"Press Review", Kayhan International, February 13, 1965.

"Private Investment", Kayhan International, April 22, 1964.

"Privately-Owned Construction Activity in Urban Areas of Iran: Fourth Quarter and Annual Report 1345", Bank Markazi Iran Bulletin, Vol. 6, No. 33, September - October 1967, pp. 352-375.

"Profit-Sharing Decree for Workers of Industrial and Manufacturing Establishments", Bank Markazi Iran Bulletin, Vol. 2, No. 8, July-August 1963, pp. 222-224.

"Public Service Gets the Best Brains", Kayhan International, January 11, 1966.

Rahbari, Shapour. "Dilemma of Planning", Kayhan International, October 22, 1963, p. 4.

_____. "Industrial Development is the Key", Kayhan International, January 24, 1968, p. 4.

_____. "Manpower Report", Kayhan International, May 15, 1965, p. 4.

_____. "Men to Man the Jobs", Kayhan International, October 20, 1965, p. 4.

_____. "New Faculties May Aggravate Problem", Kayhan International, January 20, 1968, p. 4.

_____. "A New Look at Iran's Population Policy", Kayhan International, February 5, 1967, p. 4.

_____. "1,000 Profit-Sharing Accords", Kayhan International, January 26, 1967, p. 6.

_____. "Serious Dearth of Middle-Level Skills", Kayhan International, December 27, 1967, p. 4.

_____. "Sustained Growth is the Only Answer", Kayhan International, January 15, 1968, p. 4.

_____. "Thirty Years of Planning", Kayhan International Coronation Supplement, October 26, 1967, p. 4.

_____. "The Wind of Change Sweeps Taxi Ranks", Kayhan International, April 29, 1967, p. 4.

"Rahnema's Headache", Kayhan International, December 19, 1967.

"Retail Trade", Kayhan International, February 29, 1964.

Shaheen, A.S. "Progress Report on the 1963 Census of Industrial Production", in Report on the Statistical Development Activities in Iran Submitted to the 20th Session of the Economic Commission for Asia and the Far East, held in Tehran March 1964", (Unpublished-Roneo). Tehran: March 1964. Pp.33-42.

Sherkat, Kazam. "A Nation-wide Survey on Cotton-Synthetic Textile Industry in Iran". (Unpublished-Roneo). Tehran: Industrial and Mining Development Bank of Iran, July 28, 1963.

Sheybani, Abdolhamid. "Annual Survey of Manufacturers", in Central Treaty Organization, Symposium on Industrial Statistics Held in Tehran, Iran: October 1964. Ankara: no date. Pp. 69-81.

Simonet, Pierre A. "Rapport sur les statistiques economiques et sociales de l'Iran". (Unpublished-Roneo). Tehran: United Nations, 27 September 1960.

State Organization for Administration and Employment Affairs. "The State Employment Law". (Unofficial English Translation) (Unpublished-Roneo). Tehran: Tir 1345.

"Slow Death of the Kermani Weaver", Kayham International, May 31, 1964.

Strom, Nils. "Khuzestan-Lorestan Employment". (Unpublished-Roneo). Tehran: March 1965.

_____. "Manpower Problems in Iran during the Third and Fourth Plan Periods, 1341-1351". (Unpublished-Roneo). Tehran: August 1964.

"A Study of the Rural Economic Problems of East and West Azarbaijan", Tahqiqat-E Eqtesadi, Vol. V, Nos. 13 & 14, January 1968, pp. 149-238.

"Surplus Workers for Ministries", Kayhan International, July 28, 1963.

"Survey of Consumer Expenditures and Income in 32 Urban Cities of Iran", Bank Markazi Iran Bulletin, Vol.1, No.3, September-October 1962, pp. 2-14.

"Taxis - Comment", Kayhan International, December 16, 1964.

"Tehran Again", Kayhan International, April 17, 1963.

Tehran Journal. Various issues, 1965-67.

"Unemployed", Kayhan International, July 3, 1963.

"Unemployment", Kayhan International, April 5, 1964.

U.S. Department of Labor. Bureau of Labor Statistics. Summary of the Labor Situation in Iran. Washington: International Cooperation Administration, October 1955.

Universite de Tehran. Institut d'Etudes et de Recherches Sociales. "Projet d'Etude sur les Preconditions Psycho-Sociologiques du" Travail Industriel". (Unpublished-Roneo). Tehran: fevrier 1963.

_____. Section d'Etudes Demo-economiques. "Note sur l'Estimation des Niveaux de la Fecondite et de la Mortalite d'Apres les Donnees du Recensement de 1956". (Unpublished-Roneo). Tehran: juillet 1965.

Upton, Joseph. The History of Modern Iran: An Interpretation. Cambridge: Harvard University Press, 1960.

Vieille, P. "Ahwaz — Ecologie et Socio-Economie". (Unpublished-Roneo). Tehran: Universite de Tehran, Institut d'Etudes et de Recherches Sociales, Groupe d'Etudes Sociologiques, juillet 1963.

_____. "Ahwaz: Note sur les Conditions de la Croissance Industrielle". (Unpublished-Roneo). Tehran: Universite de Tehran, Institut d'Etudes et de Recherches Sociales, Groupe d'Etudes Sociologiques, juillet 1964.

_____. "Developpement et Structure Sociale Traditionnelle en Iran". (Unpublished-Roneo). Tehran: Universite de Tehran, Institut d'Etudes et de Recherches Sociales, Groupe d'Etudes Sociologiques, juin 1964.

_____, and Hagcheno, M. "Problemes Sociaux de l'Industrialisation dans un Pays Sous-Developpe". (Unpublished-Roneo). Tehran: Universite de Tehran, Institut d'Etudes et de Recherches Sociales, Groupe d'Etudes Sociologiques, juin 1964.

Weir, Merrill. "Observations of Economic Conditions and Manpower Situation in East Azarbaijan, West Azarbaijan, and Gilan Provinces, June 22-24, 1964". (Unpublished-Typewritten). Tehran: no date.

_____. "Trip to Khuzestan Ostan, October 14-15, 1964". (Unpublished-Typewritten). Tehran: no date.

"Wide Gap in the Middle", Tehran Journal, November 27, 1966.

STATISTICAL APPENDIX

The volume of statistics on socio-economic conditions in Iran produced since 1956 has increased spectacularly. In 1956, only the national population census of that year (results of which were not released until 1961-62) and the Ministry of Industries and Mines annual surveys of manufacturing had any bearing on the population, labour force, employment, and unemployment situation in the country. Since then, a rapidly-growing number of statistical surveys has been conducted with relevance for the analysis presented in this dissertation, including those on population and on particular sectors of employment (such as agriculture) by the Public Statistics Department (later absorbed into the Iranian Statistical Centre), on the labour force by the Ministry of Labour, on manufacturing employment and output by the Ministry of Economy (which absorbed the Ministry of Industries and Mines in 1963), on school attendance by the Ministry of Education, and on family income and expenditure by the Central Bank, not to mention the Iranian Statistical Centre's national population census of 1966.

Unfortunately, however, the quality of the statistics produced has not matched the improvement in quantity. This has been particularly true in the case of the numerous sample surveys held during the 1956-66 period, whose accuracy has been so poor in some instances that the data produced are of little or no value in assessing the manpower situation.

Throughout the analysis presented in this dissertation, the writer has carefully weighed the accuracy of each of the various statistical surveys relating to the population, labour force, and employment and unemployment situation and has relied on those which are believed to be the least subject to substantial errors. In some instances, the data used has been revised by the writer to overcome omissions, mis-classifications, under-enumerations, and lack of comparability over a period of time, particularly in the case of the national population censuses of 1956 and 1966. In many instances, estimates have been made as built up by the writer from data from several sources.

The various major sources of data considered in the analysis of this dissertation are evaluated below.

1. The National Population Censuses of 1956 and 1966.

The most comprehensive sources of information regarding the size and socio-economic characteristics of the Iranian population are the national population censuses of November 1956 and November 1966.

The 1956 census has been thoroughly studied by demographers at the Institute of Social Studies and Research of the University of Tehran and has been subsequently deemed basically reliable from the demographic standpoint. After allowing for a certain degree of underenumeration[1] (particularly of infants), data of the 1956 census have been used by these demographers as the basis for their projections of population through 1986. Although checks on its data on the inactive,[2] active, and employed population[3] have not been possible either because of the absence of,or lack of comparability or inadequate detail of census figures with, other sources of data, the writer has no reason to suspect the basic accuracy of census figures.[4]

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1 Or 4.3 per cent, as estimated by the writer, based on a population of 19,774,000 (see Chapter One) as against the enumerated population of 18,955.000. The figure of 19,321,000 used by demographers at the Institute of Social Studies and Research does not allow for any population missed by enumerators due to failure to count whole villages in some instances. The writer's figure is based on a retroprojection of the enumerated 1966 population assuming an average compound increase of 2.79 per cent a year for the 1956-66 period, the rate used by these demographers. Of course, to the extent the 1966 population has been underenumerated, the true 1956 figure should be greater than as indicated by the writer here.

2 The numbers attending school are a very important component of such inactive population. However, since the 1956 census provides data on school attendance only for those aged 10 years and over, it is not possible to make a comparison of census figures with those of the Ministry of Education of number of students for the relevant 1956-57 school year.

3 One comparison with census figures of employment is possible, however. As against the National Iranian Oil Company's figure of 55,234 employed in crude petroleum and petroleum refining operations in 1956, the 1956 census indicated a total of 53,612 employed in such activities, or only 3 per cent less than NIOC figures. For the NIOC source, see L.Nahai and D.L.Kimbell, The Petroleum Industry of Iran (Washington: U.S.Department of Interior, Bureau of Mines, 1963), p.21.

4 The most serious error, from the writers standpoint, in the census figures was the reporting of conscripts under their previous occupation and industry rather than under the military services. This mis-classification has necessitated a re-arrangement of employment figures for 1956 by the writer.

In the cases of the 1966 census, data of which has only recently been released, evaluation by demographers on its population aspects has not yet been made. Although a certain degree of undernumeration can be assumed, the director of the Iranian Statistical Centre which conducted the census has held that the degree of such undernumeration is less than in the 1956 census, which he maintains left out a part of the rural population as a consequence of missing several hundred complete villages of Iran's total of over 50,000.

Checks against other sources of reliable, comparable data suggest that the employment figures of the 1966 census are basically accurate. A comparison of census figures with those of other sources in four three digit ISIC groups of employment is shown in Table A.

Similarly, the figures of school enrolment by sex of the 1966 census are very similar to those of the Ministry of Education for the comparable 1966-67 school year. (See Table B). The slightly higher totals of the Ministry of Education may be attributable to the fact that an unknown number of those primary school students in Literacy Corps classes were part-time students only and ~~those~~ thus have been excluded from census totals of full-time students.

Since these checks by demographers and the present writer on the data of the 1956 and 1966 censuses seem to indicate that the censuses are basically accurate from several important standpoints for which it has been possible to make evaluations, the census figures have been used as the statistical basis of this dissertation.

2. Department of Civil Registration Data

The Department of Civil Registration (Edare-ye-Sabt-e-Ahval) of the Ministry of Interior is charged with the recording of all births and deaths. However, its data are very incomplete. Every year, in addition to those never reported, from 150,000 to 200,000 births (or about 12-16 per cent of total births) are registered late by parents, usually at the

TABLE A

EMPLOYMENT BY SELECTED THREE-DIGIT ISIC CATEGORIES:

DATA OF NOVEMBER 1966 CENSUS VS OTHER SOURCES

(Both Sexes - All Iran)

Three-Digit ISIC Category	Figure of Nov.1966 Census	Date and Figure of Other Source
130 Crude Petroleum 321 Petroleum Refining	43,835	(November 1966) 41,912 a/
620 Banks and Other Financial Institutions	30,025	(March 1967) 30,365 b/
711 Railway Transport	29,910	(November 1966) 32,048 c/
821 Educational Services	141,754	(December 1966) 130,788 d/

a/ NIOC, Division of Economics and Statistics, Petroleum Statistics - November, 1966. (Tehran: no date), no page number indicated. Figures exclude employment in two small private refineries, estimated by writer at 1,000.

b/ Figure of Central Bank of Iran given writer.

c/ Figure of Railways Organization given writer. To some extent, this total may be inflated by inclusion of "ghost" workers on payroll but not actually existing (as has been the case in earlier years).

d/ As compiled from data in Ministry of Education, Bureau of Statistics, Department of Planning and Studies, Educational Statistics in Iran (Tehran: Esfand 1346), Tables 8 and 14, pp.31 and 37. Figures exclude private schools teaching language and non-academic subjects.

Source: November 1966 Census, Vol.168, Table 27, and as indicated by footnotes in Table A.

TABLE B

FULL-TIME SCHOOL ENROLLMENT BY SEX, 1966-67 YEAR:

DATA OF NOVEMBER 1966 CENSUS VS. MINISTRY OF EDUCATION

(Persons Aged 7 Years and Over - All Iran)

Source	Males	Females
NOVEMBER 1966 CENSUS	2,047,181	1,006,083
(Settled Population)	(2,031,061)	(1,003,243)
(Unsettled Population)a/	(16,120)b/	(3,560)b/
MINISTRY OF EDUCATION	2,199,041	1,069,952
(In Private and Public Schools)	(1,961,629)	(1,017,900)
(In Literacy Corps Schools)	(209,448)	(43,190)
(In Universities and Other Higher Institutions)	(27,964)	(8,862)

a/ Mainly tribal. Census figures have not been released.

b/ Ministry of Education figures for tribal schools of Fars Province. Other migrant tribes believed not to be served by schools at all.

Source: November 1966 Census, Vol.168, Table 8, p.22, and Ministry of Education, Bureau of Statistics, Department of Planning and Studies, Educational Statistics in Iran (Tehran: Esfand 1346), Tables 11, 13, and 14, pp. 34, 36-37 (English section) and Table 11, p.36 (Farsi section).

time their children first enter school and require an identity card.[5] Since in practice such late-recorded births are included under the totals of the year in which they were reported rather than under the actual year of birth, the Department figures for each year relate to numbers registered in that year rather than numbers born in that year. As regards deaths, figures are even more incomplete than for births for each year. As a consequence of this situation, vital statistics of this Department are entirely unreliable as the basis for analysing demographic change.

3. Sample Population Surveys of the Department of Public Statistics of the Ministry of Interior

During the intercensal period, several sample surveys of the population were made by the Department of Public Statistics of the Ministry of Interior (later made part of the Iranian Statistical Centre of the Plan Organization). These surveys yielded such patently inaccurate data on population[6] that their results were never officially released to the public and no further surveys held after 1963.

4. Sample Household Labour Force Surveys of the General Department of Manpower Studies and Statistics of the Ministry of Labour

In May of 1964 and of 1965 the newly-formed General Department of Manpower Studies and Statistics of the Ministry of Labour conducted very comprehensive sample household surveys of the labour force, seeking data on its characteristics of a nature never before collected. Unfortunately, in many broad respects the statistics of these surveys appear to be quite unreliable, and for this reason the writer has used this data judiciously and only where alternative figures were not available.

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5 As admitted to Mehdi Amani of the Institute of Social Studies and Research by the Department and reported to the present writer by him in a conversation of February 26, 1967.

6 For instance, the December 1963 sample reported a total population of 22,523,039 only, indicating an average annual compound rate of increase of only 1.9 per cent for the seven years 1956-1963 (based on revised figure of 19,774,000 for 1956), as compared to the 2.8 per cent for the 1956-66 period calculated by demographers.

Total population calculated for all Iran for May 1964 is too low to be credible,[7] the result of the very low total for the rural (1956 basis) areas.[8] Perhaps as a result of the difficulties experienced in gaining an accurate figure for the rural areas, the survey of the following year was limited to the urban areas (1956 basis) only.

The basic inaccuracy of the 1964 and 1965 surveys as regards the urban population, which make them of only limited use for the analysis in this dissertation, is the very low levels of economic activity reported for the working-age (10 years and over) population. As Table C below shows, the decline in the male labour force participation rate of the urban population aged 10 years and over is much steeper than as indicated by census figures, while as opposed to the slight increase in the female participation rate of census figures, the surveys reported a significant decline. It seems hardly likely that in the space of only 18 months the urban male labour force participation rate could have jumped from 60.3 per cent to 69.0 per cent and the female participation rate from 6.7 to 9.8 per cent, as suggested by the comparison of the data of the 1965 survey with those of the 1966 census.

The unrealistically low labour force participation rates of both the male and the female urban population recorded by the Ministry of Labour surveys derive from the under-stating of the number of employed persons (as is clear from Table C) since the number of unemployed persons[9] may be approximately correct.

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7 Or 22,971,000 only. Such a figure would imply an average annual compound rate of population increase of only 2.0 per cent for the 7½ year period.

8 The total for the urban (1956 basis) areas - 8,255,000 - may be approximately correct for that date. It would indicate an average annual compound rate of growth of urban population of 4.3 per cent for the 7½ year period, as compared to the rate of 4.5 per cent indicated by the two censuses for the 10-year period 1956-66.

9 Which is not to say that the rate of unemployment (i.e. unemployed persons as a percentage of total economically-active population) of these surveys is accurate, however. On the contrary, because of the under-recording of the numbers of economically-active persons indicated above, such rates are too high.

TABLE C

POPULATION, EMPLOYED, UNEMPLOYED, AND ECONOMICALLY-ACTIVE PERSONS AGED 10 YEARS AND OVER BY SEX, 1956-1966

DATA OF CENSUSES AND MINISTRY OF LABOUR SAMPLE SURVEYS

(Urban Areas - 1956 Basis)

Survey	Population Aged 10 Years and Over		Employed Persons				Unemployed Persons				Total of Economically-Active Persons			
			Males		Females		Males		Females		Males		Females	
	Males	Females	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
November 1956 Census	2,172,473	2,014,408	1,621,267	74.6	186,058	9.2	84,416	3.9	1,408	0.1	1,705,683	78.5	187,466	9.3
May 1964 Ministry of Labour Survey	2,787,586	2,728,704	1,722,883	61.8	158,022	5.8	173,955	6.2	16,948	0.6	1,896,838	68.0	174,970	6.4
May 1965 Ministry of Labour Survey	2,962,426	2,892,022	1,648,451	55.7	180,361	6.2	136,743	4.6	13,892	0.5	1,785,194	60.3	194,253	6.7
November 1966 Census	3,355,282	3,043,111	2,187,872	65.2	287,094	9.4	128,606 a/	3.8	10,090 a/	0.4	2,316,478	69.0	297,184	9.8

a/ Excludes seasonally-unemployed in agricultural occupations.

Source: November 1956 Census, Vol.II, Table 17, p.208;
November 1966 Census, Vol.168, Table 12, p.35 (as adjusted to make comparable to 1956 basis urban areas);
"Investigation of Manpower Problems in the Urban Areas of Iran" (in Farsi), in Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Investigations of Manpower Problems (in Farsi), Vol.III (Tehran: 1344), Table 3-1, p.2279.
Ministry of Labour and Social Affairs, General Department of Statistics, Investigation of Manpower in the Urban Areas of Iran (in Farsi), Research Report No.40 (Tehran: Shahrivar 1347), Tables 1-4 and 2-1, pp.20 and 44.

The shortfall in the number of persons in actuality employed during the 1964 and 1965 survey has appeared under the totals of the economically-inactive in these surveys, which are accordingly overstated. For instance, the numbers of males and females attending secondary school as reported by the May 1964 survey for the country as a whole were grossly overstated (and despite the undernumeration of the country's population noted above), based on a comparison of the survey's figures with those of the Ministry of Education for the 1963-64 school year; since such persons are of labour-force age (13-20 years), the excess number recorded by the Ministry of Labour may be assumed to a large extent (particularly in the case of males) to have been employed instead. The discrepancy of the 1964 sample survey figures of students in primary and secondary schools with the official totals of the Ministry of Education is shown in Table D below.

TABLE D

FULL-TIME STUDENTS IN PRIMARY AND SECONDARY SCHOOL BY SEX, 1963-64 YEAR: DATA OF MINISTRY OF EDUCATION VS MINISTRY OF LABOUR SURVEY

(All Iran)

School and Sex	Ministry of Labour May 1964 Survey	Ministry of Education December 1963 Survey
PRIMARY SCHOOL	2,183,938	1,947,196 a/
(Males only)	(1,419,447)	(1,326,406) b/
(Females only)	(764,491)	(620,790) c/
SECONDARY SCHOOL	521,581	383,309
(Males only)	(371,670)	(266,328)
(Females only)	(149,911)	(116,981)

a/ Includes 105,995 attending Literacy Corps classes, some of whom were only part-time students.

b/ Includes 87,600 attending Literacy Corps classes, some of whom were only part-time students.

c/ Includes 18,395 attending Literacy Corps classes, some of whom were only part-time students.

Source: Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, A Study of Manpower in Iran (Tehran: April 1967), Table 2-13, p.94, and Ministry of Education, Bureau of Statistics, Educational Statistics in Iran (Tehran: Esfand 1343(, Tables 7 and 14, pp.16 and 52.

5. Annual Manufacturing Industry Surveys of the Ministry of Industries and Mines

The data on characteristics - including employment - of mechanized units of manufacturing industry published annually by the Ministry of Industries and Mines over the nine-years 1333-1341 (1954/55 - 1962/63) suffer from two important weaknesses which make its coverage very incomplete: (a) only those units which were known to the Ministry were mailed questionnaires, and (b) only those returning filled-in questionnaires were included in the published figures.[10] Since many units employing 10 or more workers were unknown to the Ministry, and some others sent questionnaires refused to reply, the published statistics of manufacturing employment in such "modern sector" units for the 1956 year used in this dissertation to some (unknown) extent are understated.

6. Annual Manufacturing Industry Surveys of the Ministry of Economy

Undoubtedly in response to the methodological weaknesses of statistics collection of its predecessor, the Ministry of Economy since 1342 (1963/64) has carried out a complete enumeration each year of industrial units with 10 or more employees and a sampling of smaller units, the results of which have been published in annual reports. Instead of sending postal questionnaires, Ministry officials make visits to each large unit, whose director is encouraged to reply as a result of a new law precluding the

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10 See A. Sh. Shaheen, "Progress Report on the 1963 Census of Industrial Production", in "Report on the Statistical Development Activities in Iran Submitted to the 20th Session of the Economic Commission for Asia and the Far East, Held in Tehran March 1964" (Unpublished-Roneo) (Tehran: March 1964), p.34. A former director of the Industrial and Mining Statistics Bureau of the Ministry maintains that "probably the most serious problem was that information was published only for the establishments which were willing and able to answer a questionnaire". See Abdolhamid Sheybani, "Annual Survey of Manufactures", in Central Treaty Organization, Symposium on Industrial Statistics Held in Tehran Iran: October 1964 (Ankara: no date), p.70.

use of such data for any but statistical purposes. Because of the improvement in such statistics collection, the manufacturing employment and output figures of these surveys, particularly for the large "modern sector" units of 10 or more employees, are believed by the writer to be relatively reliable.

7. Sample Household Income and Expenditure Surveys of the Central Bank of Iran

In the years 1338 (1959/60) and 1344 (1965/66), the Department of Economic Statistics of the Central Bank of Iran (Bank-e Markazi-ye Iran) and its predecessor (in central bank operations), the National Bank of Iran (Bank-e Melli-ye Iran), conducted sample surveys of the households of the urban areas of the country with regard primarily to family income and expenditure patterns, but also the labour force patterns of family members. Benefiting from the advisory services of foreign statisticians, these surveys have been the basis of the highly-regarded (as by the IMF and the IBRD) national income statistics of the Central Bank which have been used in this dissertation. The labour force participation rates of the urban population aged 10 years and over (as represented by the Bank's sample from 32 urban places) derived by the writer from the raw data of the 1965 survey and used in Chapter Two of this dissertation bear a close correlation with those of the urban areas (1956 basis) population of the census held the following year: as compared to rates of 66.2 and 9.7 per cent calculated from the 1965 survey data for males and females, respectively, the 1966 census indicated rates of 69.0 and 9.8 per cent for males and females, respectively.

APPENDIX TABLE 1

URBAN PLACES OF IRAN, NOVEMBER 1956, AND THEIR POPULATIONS IN 1956 AND 1966

(Alphabetical Order)

Name of Place	Population in 1956	Population in 1966	Name of Place	Population in 1956	Population in 1966
Abadan	226,083	272,962	Bam	15,737	21,761
Abadeh	8,192	15,888	Bandar Abbas	17,710	34,627
Abarghoo	6,268	7,606	Bandar Ma'shur	15,694	16,594
Abhar	9,634	10,847	Bandar Pahlavi	31,349	41,785
Aghajari	24,195	24,699[a]	Bandar Shah	8,284	13,081
Ahwaz	120,098	206,375	Behbehan	29,886	39,874
Alavicheh	6,802	5,215	Behshahr	16,172	26,032
Aligudarz	9,592	13,623	Ben	5,054	5,712
Amol	22,251	40,076	Benab	14,396	19,030
Andimeshk	7,324	16,195	Borujen	11,746	15,454
Arak	58,998	71,925	Bidgol	7,185	[c]
Aran	9,460	23,265[b]	Birjand	13,934	25,854
Arasbaran	19,816	24,063	Bojnurd	19,253	31,248
Ardabil	65,742	83,596	Borujerd	49,186	71,486
Ardekan Shiraz	6,026	9,823	Bukan	5,307	9,357
Ardekan Yazd	8,490	14,333	Bushehr	18,412	23,547
Ardestan	5,868	6,645	Chaharmahal	15,476	23,757
Asadabad	5,190	6,714	Chalus	9,758	14,837
Astaneh	6,613	10,200	Damghan	8,909	13,197
Astara	8,425	10,537	Darab	9,106	13,419
Azarshahr	12,687	15,318	Dargaz	8,541	10,711
Babol	36,194	49,973	Dasht Gorgan	18,347	40,667
Babolsar	7,237	11,781	Dasht Mishan	6,025	6,552
Bahar	9,615	11,842	Dashti va Dashteshan [d]	10,233	20,357

continued .....

APPENDIX TABLE 1

(continued)

Name of Place	Population in 1956	Population in 1966	Name of Place	Population in 1956	Population in 1966
Dehagh	6,075	4,115	Ghom	96,499	134,292
Dehaghan	6,327	6,527	Ghoochan	21,250	29,133
Dezful	52,121	84,499	Golpayegan	12,400	20,515
Dorcheh Piaz	7,024	9,419	Gomishan	5,168	6,391
Dorud	7,088	14,060	Gonabad	7,555	8,152
Doulatabad	6,255	6,447	Gook	6,285	8,885
Eghlid	11,809	14,332	Gorgan	28,380	51,181
Esfahan	254,708	424,045	Haftgel	7,693	9,616
Estahbanat	16,308	18,187	Haftkhan	6,573	7,915
Evaz	6,064	7,744	Hamadan	99,909	124,167
Fassa	11,711	19,057	Haris	5,166	5,870
Ferdows	6,834	10,813	Harsin	6,934	10,657
Fereidunkenar	5,039	8,882	Ilam	8,346	15,493
Firuzabad	5,747	8,718	Jahrom	29,169	38,236
Firuzchah-e Sayyar	5,874	e/	Jaz	7,337	7,287
Foomenat	6,692	9,226	Jooneghan	5,698	7,216
Forooshan	9,790	f/	Kangavar	6,251	9,414
Garroos	9,090	11,780	Karaj	14,526	44,243
Gerash	6,062	7,880	Kashan	45,955	58,468
Ghaderijan	7,462	9,884	Kashmar	13,299	17,065
Ghahferkh	8,829	9,813	Kazerun	30,641	39,758
Ghasr Shirin	23,901	15,904	Kerman	62,157	85,404
Ghazvin	66,420	88,106	Kermanshah	125,439	187,930
Gholhak va Zargandeh	16,793	g/	Khalkhal	5,422	6,955

continued .....

APPENDIX TABLE 1

(continued)

Name of Place	Population in 1956	Population in 1966	Name of Place	Population in 1956	Population in 1966
Khash	7,439	4,639	Maragheh	36,551	54,106
Khomein	8,397	10,587	Marand	13,822	23,818
Khonsar	10,669	10,947	Marvdasht	8,987	25,498
Khoozan	10,759	f/	Mashhad	241,989	409,616
Khoraskan	7,393	11,894	Masjed Soleiman	44,651	64,488
Khorramabad	38,676	59,578	Meshginshahr	7,221	8,990
Khorramdarreh	6,455	7,959	Miandoab	14,796	18,767
Khorramshahr	43,850	88,536	Mianeh	21,100	28,447
Khosrou Shah	5,362	5,937	Mobarekeh	5,208	6,968
Khoy	34,491	47,648	Nadiv i/	5,345	2,700
Koodasht	5,151	6,887	Naft Sefid	6,183	2,248
Kooye Siman	6,633	h/	Nahavand	20,972	23,922
Kord Kooy	9,855	11,321	Najafabad	30,422	43,384
Lahijan	19,877	25,725	Neiriz	12,401	16,114
Lalajin	5,468	7,043	Nishabur	25,820	33,482
Langarud	14,580	20,668	Oskoo	7,630	10,454
Lar	14,188	21,576	Rafsenjan	9,212	21,425
Mahabad	20,332	28,610	Rahnan	9,005	11,797
Mahallat	10,575	12,324	Ramhormoz	7,258	8,782
Mahan	6,239	7,511	Rasht	109,491	143,557
Maku	5,306	7,000	Ravar	5,074	7,251
Malayer	21,105	28,434	Rezaieh	67,605	110,749
Malek Kandi	6,329	8,760	Riz	10,251	13,188
Mamaghan	6,156	7,290	Roodsar	7,460	11,568

continued .....

APPENDIX TABLE 1

(continued)

Name of Place	Population in 1956	Population in 1966	Name of Place	Population in 1956	Population in 1966
Rostamabad	6,712	g/	Shushtar	18,527	21,999
Sabzevar	30,545	42,415	Sirjan	12,160	19,568
Saghez	12,729	17,834	Sonqor	12,126	15,432
Sanandaj	40,641	54,578	Soumeh Sara	10,261	8,439
Sangsar	9,109	9,160	Tabas	7,413	9,876
Sarab	13,086	17,063	Tabriz	289,996	403,413
Sari	26,278	44,547	Taft	6,451	6,656
Saveh	14,537	17,565	Tajrish	26,525	157,486 j/
Semirom Olya	7,968	10,016	Takestan	10,534	13,485
Semnan	29,036	31,058	Tehran	1,512,082	2,719,730 k/
Serkan	5,367	5,115	Tiran	5,222	6,193
Shabestar	5,441	6,228	Tooyerserkan	11,323	11,954
Shahi	23,055	38,898	Torbat Heidarieh	19,830	30,106
Shahre Rey	22,327	102,825	Torbat Jam	6,756	13,958
Shahreza	29,311	34,220	Varamin	5,205	11,183
Shahrud	17,058	30,767	Varnoosfaderan	12,995	46,836 l/
Shahsavar	7,626	11,963	Yazd	63,502	93,241
Shal	5,546	6,454	Zabol	12,221	18,806
Shapur	13,161	21,703	Zahedan	17,495	39,732
Shiraz	170,659	269,865	Zanjan	47,159	58,714
Shirvan	6,906	10,510	Zarghan	6,368	7,120

continued .....

APPENDIX TABLE 1

(continued)

a/ Total for Omideyeh, Miyankuh, and Meydanja'far cities, into which Aghajari was divided between 1956 and 1966.

b/ Includes total for Bidgol also; separate figures not available.

c/ Total included under Aran.

d/ In 1966 called Borazjan.

e/ Place not indicated in 1966 census; may be small village.

f/ Total included under Varnoosfaderan.

g/ Total included under Tajrish.

h/ Total included under Tehran.

i/ In 1966 called Sayedieh.

j/ Includes totals for Gholhak and Zargandeh and Rostamabad.

k/ Includes total for Kooye Siman.

l/ Includes totals for Forooshan and Khoozan.

Source: Censuses of November 1956 and November 1966.

APPENDIX TABLE 2

NAMES AND 1966 POPULATIONS OF PLACES WHOSE 1966 CENSUS DATA HAS BEEN DEDUCTED FROM, OR ADDED TO, TOTALS FOR URBAN AREAS REPORTED BY NOVEMBER 1966 CENSUS IN ORDER TO MAKE CORRESPOND TO URBAN AREAS, 1956 BASIS

A. Places Whose 1966 Data Deducted from Totals for Urban Areas of 1966 Census

Name and 1966 Population		Name and 1966 Population	
1. Dogonbadan	13,430	21. Pishva	6,332
2. Juybar	12,063	22. Tafresh	6,323
3. Shahabad	11,806	23. Neka	6,318
4. Naqadeh	10,801	24. Takab	6,315
5. Aliabad	10,527	25. Ajabshir	6,298
6. Amirkola	10,215	26. Baft	6,291
7. Nowshahr	9,016	27. Saman	6,258
8. Baneh	8,617	28. Kharv-e Olya	6,237
9. Fariman	7,894	29. Delijan	6,114
10. Pol-e Zohab	7,890	30. Bandar Gaz	6,100
11. Galugah	7,356	31. Shahindezh	6,089
12. Sardrud	7,226	32. Farsan	6,078
13. Bandar Lengeh	7,218	33. Bandar Shahpur	6,013
14. Esfarayen	7,183	34. Sahneh	5,986
15. Jiroft	6,723	35. Tayyebat	5,938
16. Bandar Farahnaz	6,663	36. Na'in	5,925
17. Kabudarahang	6,494	37. Arsanjan	5,919
18. Qa'en	6,418	38. Hajiabad	5,884
19. Sarvestan	6,376	39. Hashtpar	5,867
20. Shahr-e Babak	6,372	40. Bastak	5,845

Continued .....

APPENDIX TABLE 2

(continued)

A. Places Whose 1966 Data Deducted from Totals for Urban Areas of 1966 Census

Name and 1966 Population			Name and 1966 Population		
41.	Sardasht	5,759	61.	Bandar Deylam	5,255
42.	Falavarjan	5,710	62.	Dastjerd	5,236
43.	Gavgan	5,707	63.	Fereidunshahr	5,211
44.	Shadegan	5,702	64.	Eshtehard	5,149
45.	Rostamkola	5,689	65.	Mariyanaj	5,148
46.	Kherameh	5,610	66.	Izeh	5,115
47.	Zahedan	5,538	67.	Boshruiyeh	5,080
48.	Varnamkhast	5,488	68.	Hidaj	5,078
49.	Khark	5,464	69.	Gatvand	5,056
50.	Soghad	5,429	70.	Gilan-e Gharb	5,048
51.	Saravan	5,397	71.	Baghdadabad	5,022
52.	Damavand	5,391	72.	Khaf	5,001
53.	Iranshahr	5,386	73.	Guged	4,921
54.	Amlash	5,350	74.	Khaneh	4,848
55.	Faradboneh	5,349	75.	Garmsar	4,723
56.	Minab	5,310	76.	Varzaneh	4,660
57.	Bafq	5,290	77.	Daran	4,609
58.	Zarand	5,285	78.	Kerend	4, 554
59.	Nurabad	5,271	79.	Natanz	4,370
60.	Qorveh	5,256	80.	Marivan	4,333

continued .....

APPENDIX TABLE 2

(continued)

Name and 1966 Population		Name and 1966 Population	
81. Habibabad	4,142	88. Chahbahar	2,828
82. Rudbar	4,109	89. Dehloran	2,592
83. Nur	4,083	90. Kuhpayeh	2,242
84. Paveh	3,918	91. Abhar	1,062
85. Talkhuncheh	3,755	92. Mehran	1,043
86. Gargar	3,747	93. Dehdasht	998
87. Hashtrud	3,142	94. Yasuj	931

B. Places whose 1966 Data Added to Totals for Urban Areas of 1966 Census a/

Name and 1966 Population		Name and 1966 Population	
1. Khash	4,639	3. Naft-e Sefid	2,248
2. Nadiv	2,700		

a/ Since data (other than population by sex) not available for these places, pro-rated estimates have been made, based on data for Shadegan, a small town similar in socio-economic characteristics to these places. Note also that Dehagh (1966 population = 4,115) has been excluded from this list, although it was also urban in 1956, since it has been already included (erroneously) by 1966 census under urban areas.

Source: November 1966 Census, Vol.168, no page number indicated, and individual census volumes for each shahrestan.

APPENDIX TABLE 3

ESTIMATIONS OF GENERAL FERTILITY RATES
(BIRTHS PER 1,000 WOMEN, 15-44 YEARS)
FOR IRAN BY REGIONS, 1956-1966

Region	November 1956				November 1966			
	Population (1,000)	Share of Population	General Fertility Rate	Weight in General Fertility Rate	Population (1,000)	Share of Population	General Fertility Rate	Weight in General Fertility Rate
URBAN AREAS	5,954	.314	234	73.3	9,714	.378	219	83.9
(Tehran/Tajrish)	(1,561)	(.082)	(220)	(18.0)	(2,877)	(.112)	(194)	(21.7)
(Other Cities of 100,000 or more population)	(1,735)	(.092)	(235)	(21.6)	(2,790)	(.108)	(228)	(24.6)
(Cities of 25,000-100,000 population)	(1,175)	(.062)	(240)	(14.8)	(2,149)	(.084)	(235)	(19.7)
(Cities of 5,000-25,000 population)	(1,483)	(.078)	(242)	(18.9)	(1,898)	(.074)	(242)	(17.9)
RURAL AREAS	13,001	.686	243	166.7	16,007	.622	243	151.1
TOTAL, ALL IRAN	18,955	1.000	240	240.0	25,721	1.000	235	235.0

continued .....

APPENDIX TABLE 3

(continued)

Source: As constructed based on rates indicated in various studies, including Mohammed B.Mashayekhi, Pauline A.Mead, and Guy S.Hayes, "Some Demographic Aspects of a Rural Area in Iran", Milbank Memorial Fund Quarterly, Vol.31, No.2, April 1953 p.163 (for rate of 243 for 173 villages near Tehran in 1950); Mehdi Amani, "Fecondite Actuelle des Femmes Mariees dans Quatre Zones Rurales en Iran", Unpublished-Roneo (Tehran: 1967), (for rate of 243 for four rural areas in 1964-65); J-C Chasteland, "Essai d'Evaluation du Niveau de la Natalite et de la Fecondite en Iran", Unpublished-Roneo (Tehran: 1967), p.2 (for rate of 240 for all Iran in 1956) and p.4 (for implied rate of 194 for Tehran in 1966, or 20 per cent lower than for rural areas). Present writer assumes no change between 1956 and 1966 in rate for smallest cities and slower rate of decline for large and medium-sized cities than for Tehran. Rate for urban areas in 1956 calculated as residual of rates for all country and rural areas; rate for all country in 1966 calculated as based on rates for urban and for rural areas.

APPENDIX TABLE 4

ESTIMATION OF BIRTH RATE IN 1966 FOR ALL IRAN[a/]

Category	Indicated Figure
Number of Females in 1966 Aged 15-44 Years	5,118,590
General Fertility Rate in 1966 (Births per 1,000 Females aged 15-44 Years)	235
Indicated Number of Births in 1966 for Females aged 15-44 Years	1,202,869
Total Number of Births in 1966 for Women of All Ages b/	1,227,417
Indicated Birth Rate (Per 1,000 Population) for (Settled) Population of 25,079,000 in 1966	48.94

a/ Excludes unsettled population.

b/ Assuming that 98 per cent of all births attributed to women aged 15-44 years.

Source: November 1966 Census, Vol.168, Table 1 (for number of females aged 15-44 years and total settled population) and Appendix Table 3 (for fertility rate in 1966).

APPENDIX TABLE 5

AVERAGE ANNUAL BIRTH RATES 1956-66

URBAN AND RURAL AREAS AND TOTAL COUNTRY

Area	Share of Total Population (Mid 1956-66)	Average Annual Birth Rate a/	Weighted Share of Country Birth Rate
Urban	0.3095 b/	46.7	14.45365
Rural	0.6905 c/	50.3 d/	34.74635 c/
All Iran	1.000	49.2	49.20000

a/ Births per 1,000 population.

b/ See footnote b, Appendix Table 7.

c/ Residual figure (Total country minus urban).

d/ Derived figure (.6905x = 34.74635).

Source: Average birth rate for all Iran derived from figure of 48.94 for November 1966 (Appendix Table 4) and figure of 49.4 for 1956 of J-C Chasteland, "Essai d'evaluation du niveau de la natalite et de la fertilite en Iran" (Unpublished-Roneo), Paper presented to the Congress of the International Union for the Scientific Study of Population, Sydney, Australia, 21-26 August 1967 (Tehran: no date), p.3. Average urban birth rate from Appendix Table 6.

APPENDIX TABLE 6

ESTIMATION OF AVERAGE ANNUAL BIRTH RATES OF URBAN (1956-BASE)[a] POPULATION 1956 - 1966

Component	November 1956	November 1961 [b]	November 1966
No.Females Aged 15-44 Yrs. (In Thousands)	1,234	1,402[c]	1,594
General Fertility Rate (Females Aged 15-44 Yrs)	234	229	219
Avg.No. of Births Per Year To Females Aged 15-44 Yrs. (In Thousands)	289	321	349
Estimated Total No. of Births to all Females [d] (In Thousands)	295	328	356
Total Urban (1956-Base) Population (In Thousands)	6,017	7,023[e]	8,197
Average Annual Birth Rate (Births per 1,000 Population)	49.03	46.70	43.43

a/ Population living in urban areas in 1956; excludes net migration during 1956-66 period.

b/ Regarded as average figures for 1956-66 period.

c/ Calculated on basis of observed annual compound rate of increase of 0.0259 for 1956-66 period.

d/ Assuming that 98 per cent of all births occur to females aged 15-44 years.

e/ Calculated on basis of observed annual compound rate of increase of 0.03140 for 1956-66 period.

Source: As compiled from data of Appendix Tables 9 and 10 (No. of females aged 15-44 years in 1956 and 1966; total urban (1956-base) population in 1956 and 1966) and Appendix Table 3 (general fertility rates at 1956 and 1966; 1961 is writer's estimate)

APPENDIX TABLE 7

AVERAGE ANNUAL COMPOUND RATES OF NATURAL POPULATION INCREASE OF URBAN/RURAL AREAS (1956 BASIS) AND TOTAL COUNTRY, 1956-1966 PERIOD

Component of Population	Avg. Share of Total Population	Avg. Annual Rate of Natural Increase (Pct.)	Weighted Share of Total Country Rate of Increase
Urban[a/]	.3095[b/]	3.140	0.97183
Rural[a/]	.6905[c/]	2.635[d/]	1.81947[c/]
Total:	1.0000	2.791	2.79130[e/]

a/ Relates to 1956-base population, i.e. excludes net migration between urban and rural areas, over 1956-66 period.

b/ Difference between 1956 figure of .3043 (6,017 of 19,774) and 1966 figure of .3147 (8,197 of 26,040).

c/ Residual figure (Total country minus urban areas).

d/ Derived figure (.6905x = 1.81947).

e/ Rate of increase carried to five decimal points.

Source: Derived from data of Appendix Tables 9 and 10 (for rate of urban population natural increase) and of J-C Chasteland, M.Amani, and O.A.Puech, La Population de l'Iran: Perspectives d'Evolution, 1956-1986 (Tehran: Universite de Tehran, Institut d'Etudes et de Recherches Sociales, 1966), p.249 (for rate of increase for total country).

APPENDIX TABLE 8

ESTIMATIONS OF EXPECTANCY OF LIFE AT BIRTH (^{o}Eo) FOR IRAN BY REGIONS, 1956-1966

Region	November 1956				November 1961				November 1966			
	Infant Mortality Rate	Share of Population Total	Weight in Infant Mortality Rate	Indicated ^{o}Eo (Years)	Infant Mortality Rate	Share of Population Total	Weight in Infant Mortality Rate	Indicated ^{o}Eo (Years)	Infant Mortality Rate	Share of Population Total	Weight in Infant Mortality Rate	Indicated ^{o}Eo (Years)
Urban Areas	130	.31	40.3	50.0	118	.35	41.3	52.5	103	.38	39.1	55.0
Rural Areas	180	.69	124.2	40.0	168	.65	109.2	42.5	160	.62	99.2	45.0
All Iran	165	1.00	164.5	45.0	151	1.00	150.5	47.5	138	1.00	138.3	50.0

Source: Expectancy of life at birth figures for all Iran for 1956, 1961, and 1966 from J-C Chasteland, M.Amani and O.A.Puech, La Population de l'Iran: Perspectives d'Evolution 1956-1986 (Teheran: Universite de Teheran, 1966), p.247; urban and rural ^{o}Eo figures in 1966 as based on infant mortality rates estimated by J-C Chasteland, "Estimation du Niveau de la Mortalite Infantile en Iran 1966", Unpublished-Typewritten (Tehran: 23 Octobre 1967), pp.1-2; rural ^{o}Eo in 1961 as indicated for 1960 for rural areas by Pierre A.Simonet, "Rapport sur les Statistiques Economiques et Sociales de l'Iran", Unpublished-Roneo (Tehran: United Nations TAA, 27 Septembre 1960), Annex I, p.8; urban ^{o}Eo in 1961 as indicated by infant mortality rate derived as residual of rates for whole country and rural areas; rural ^{o}Eo in 1956 as indicated by infant mortality rate of 188 in 1955 for rural areas of Sabzevar region in J-C Chasteland, Etude sur la Fecondite et Quelques Caracteristiques Demographiques des Femmes Mariees dans Quatre Zones Rurales de l'Iran (Teheran: Institut d'Etudes et de Recherches Sociales, 1968), p.154; urban ^{o}Eo in 1956 as indicated by infant mortality rate derived as residual of rates for whole country and rural areas. In converting infant mortality rates to expectancy of life at birth figures (and vice-versa), reference was made to model life tables of United Nations, Methods for Population Projections by Sex and Age, ST/SOA/Series A, Population Studies No.25 (New York: 1956), Table II, pp.74-75.

APPENDIX TABLE 9

AGE-SPECIFIC COMPONENTS OF URBAN (1956 BASIS) POPULATION CHANGE, 1956-1966

MALES

(In thousands of persons)

Age in November 1956 (Years)	Population in November 1956 (and births 1956-1966)	Age in November 1966 (Years)	Ten-Year Survival Ratios (^{o}Eo = 52.5 Yrs)	Expected Population thru Natural Increase, November, 1966	Actual Population in November 1966	Population Change thru Net Migration from Rural Areas, 1956-1966
Born 1961-66 a/	876	0-4	.8630 b/	756	797 c/	+ 41 d/
" 1956-61 a/	793	5-9	.8101 h/	642	722	+ 80 d/
0-4	506 e/	10-14	.9381	475	629	+154
5-9	426	15-19	.9706	413	468	+ 55
10-14	~~442~~ 332	20-24	.9623	319	387	+ 68
15-19	267	25-29	.9503	254	320	+ 66
20-24	289	30-34	.9445	273	318	+ 45
25-34	460	35-44	.9368	431	542	+111
35-44	329	45-54	.9059	298	320	+ 22
45-54	233	55-64	.8207	191	201	+ 10
55-64	158	65-74	.6731	106	170	+ 30
65-74	72	75-84	.4123	30		
75-79	14 f/	85-89	.1605	2		
80 and over	18 f/	90 and over	.0955	2		
Total	3,104 g/	Total	-	4,192	4,874	+682

APPENDIX TABLE 9

(continued)

a/ To women in urban population in 1956 only.

b/ Five-year ratio based on ^{o}Eo between 52.5 and 55.0 years.

c/ Adjusted upwards by 7%.

d/ Includes survivors of births to female immigrants following migration.

e/ Adjusted upwards by 7.4 per cent. (Chasteland, Amani, and Puech, op.cit., p.266).

f/ Estimated from total of persons aged 75 and over.

g/ Excludes "age not reported".

h/ Based on ^{o}Eo between 50.0 and 52.5 years.

Source: November 1956 Census, Vol.II, Table 3, p.5 and Appendix Table 15 (for 1956 and 1966 populations); Appendix Table 12 (for number of births, 1956-61 and 1961-66); Appendix Table 8 (for average expectancy of life for 1956-66 period); Appendix Table 11 (for 10-year survival rates for 10-year age groups of 1956 population aged 25-74 years); United Nations, Methods for Population Projections by Age and Sex (New York: 1956), Table V, pp.80-81 (for calculation of 10-year survival rates for 5-year age groups and group 80 years and over, and for five-year ratio for births 1961-66).

APPENDIX TABLE 10

AGE-SPECIFIC COMPONENTS OF URBAN (1956 BASIS) POPULATION CHANGE, 1956-1966

FEMALES

(In thousands of persons)

Age in November 1956 (Years)	Population in November 1956 (and births 1956-1966)	Age in November 1966 (Years)	Ten-Year Survival Ratios (^{o}Eo = 52.5 Yrs)	Expected Population thru Natural Increase, November 1966	Actual Population in November 1966	Population Change thru Net Migration from Rural Areas, 1956-1966
Born 1961-1966 a/	834	0-4	.8811 b/	735	762 c/	+ 27 d/
" 1956-1961 a/	757	5-9	.8296 h/	628	688	+ 60 d/
0-4	483 e/	10-14	.9396	454	572	+ 118
5-9	415	15-19	.9697	402	436	+ 34
10-14	297	20-24	.9624	286	350	+ 64
15-19	255	25-29	.9519	243	307	+ 64
20-24	267	30-34	.9460	253	286	+ 33
25-34	435	35-44	.9405	409	453	+ 44
35-44	276	45-54	.9201	254	286	+ 32
45-54	234	55-64	.8589	201	198	- 3
55-64	144	65-74	.7199	104	154	+ 14
65-74	69	75-84	.4485	31		
75-79	15 f/	85-89	.1830	3		
80 and over	20 f/	90 and over	.1098	2		
Total	2,910 g/	Total	-	4,005	4,492	+ 487

continued.....

APPENDIX TABLE 10

(continued)

a/ To women in urban population in 1956 only.

b/ Five-year ratio based on ^{o}Eo between 52.5 and 55.0 years.

c/ Adjusted upwards by 7%.

d/ Includes survivors of births to female immigrants following migration.

e/ Adjusted upwards by 6.4% (Chasteland, Amani and Puech, op.cit., p.266).

f/ Estimated from total of persons aged 75 years and over.

g/ Excludes "age not reported".

h/ Based on ^{o}Eo between 50.0 and 52.5 years.

Source: November 1956 Census, Vol.II, Table 3, p.5 and Appendix Table 15 (for 1956 and 1966 populations); Appendix Table 12 (for number of births, 1956-61 and 1961-66); Appendix Table 8 (for average expectancy of life for 1956-66 period); Appendix Table 11 (for 10-year survival rates for 10-year age groups of 1956 population aged 25-74 years); United Nations, Methods for Population Projections by Age and Sex (New York: 1956), Table V, pp.80-81 (for calculation of 10-year survival rates for 5-year age groups and group 80 years and over, and for five-year ratio for births 1961-66).

APPENDIX TABLE 11

ESTIMATION OF TEN-YEAR SURVIVAL RATIOS FOR TEN-YEAR AGE GROUPS OF 1956

URBAN POPULATION (= X) BY SEX

Average Expectancy of Life at Birth = 52,5 Years

Ten-Year Age Group (in 1956)	Five-Year Age Group (in 1956)	MALES				FEMALES			
		Number in November 1966 a/	Share of 10-Year Age Cohort	Ten-Year Survival Ratio	Weight in Rate for 10-Year Age Group	Number in November 1966 a/	Share of 10-Year Age Cohort	Ten-Year Survival Ratio	Weight in Rate for 10-Year Age Group
	25-29	277,845	.513	.9407	.48258	246,634	.544	.9426	.51277
25-34	30-34	264,156	.487	.9326	.45418	206,808	.456	.9379	.42768
	Total	542,001	1.000	X	. 9368=X	453,442	1.000	X	. 9405=X
	35-39	182,794	.571	.9169	.52355	139,158	.487	.9288	.45233
35-44	40-44	137,414	.429	.8913	.38237	146,621	.513	.9119	.46780
	Total	320,208	1.000	X	. 9059=X	285,779	1.000	X	. 9201=X
	45-49	78,399	.390	.8536	.33290	80,156	.405	.8846	.35826
45-54	50-54	122,798	.610	.7996	.48776	117,572	.595	.8414	.50063
	Total	201,197	1.000	X	. 8207=X	197,728	1.000	X	. 8589=X
	55-59	68,826	.529	.7228	.38236	54,676	.483	.7729	.37331
55-64	60-64	61,166	.471	.6172	.29070	58,535	.517	.6703	.34654
	Total	129,992	1.000	X	. 6731=X	113,211	1.000	X	. 7199=X
	65-69	19,358	.515	.4843	.24941	16,642	.463	.5329	.24673
65-74	70-74	18,254	.485	.3359	.16291	19,307	.537	.3758	.20180
	Total	37,612	1.000	X	. 4123=X	35,949	1.000	X	. 4485=X

continued....

APPENDIX TABLE 11

(continued)

a/ Number in 1966 ten years older than indicated for 1956. (Population by five-year age groups not available in 1956 census figures).

Source: Population in 1966 by five-year age groups as adjusted to make correspond to urban areas 1956 basis from figures of 1966-basis urban areas in November 1966 Census, Vol. 168, Table 1, p.2; ten-year survival rates for five-year age groups as calculated from five-year survival ratios of model life table for ^{6}Eo - 52.5 years of United Nations, Methods for Population Projections by Age and Sex (New York:1956) Table V, pp.80-81.

APPENDIX TABLE 12

ESTIMATION OF NUMBER OF BIRTHS BY SEX OF 1956 URBAN FEMALE POPULATION, 1956-1966

(Numbers of Females and Births in Thousands)

Year	Number of Females Aged 15-44 Years a/	General Fertility Rate (Women Aged 15-44 Years)	Estimated No. of Births to Women Aged 15-44 Years	Estimated Total No. of Births b/	Estimated No. of Male Births c/	Estimated No. of Female Births c/
At November 1956	1,234	234	-	-	-	-
November 1956 - November 1957	1,250	233	291	297	152	145
November 1957 - November 1958	1,282	232	297	303	155	148
November 1958 - November 1959	1,316	231	304	310	159	151
November 1959 - November 1960	1,350	230	311	317	162	155
November 1960 - November 1961	1,385	229	317	323	165	158
November 1961 - November 1962	1,421	228	324	331	170	161
November 1962 - November 1963	1,457	226	329	336	172	164
November 1963 - November 1964	1,495	224	335	342	175	167
November 1964 - November 1965	1,534	222	341	348	178	170
November 1965 - November 1966	1,574	220	346	353	181	172
At November 1966	1,594	219	-	-	-	-
Total	-	-	3,195	3,260	1,669	1,591

a/ Number is mid-point average, except where otherwise indicated.
b/ Assuming that 98 per cent of births attributed to women aged 15-44 years.
c/ Assuming 105 male births to 100 female births (or .5122 of total births are males).

Source: November 1956 Census, Vol.II, Table 3, p.5 and Appendix Table 13 (for number of females aged 15-44 years at November 1956 and November 1966, respectively; figures for mid-points of intervening yearly periods based on indicated average annual compound rate of increase of 2.59 per cent over 1956-1966 period); Appendix Table 3 (for general fertility rates in November 1956 and November 1966): author's estimate of 229 general fertility rate at November 1961.

APPENDIX TABLE 13

ESTIMATION OF TEN-YEAR SURVIVORS OF URBAN 1956 POPULATION: FEMALES AGED 5-34 YEARS AT NOVEMBER 1956[a/]

(Thousands of persons)

Age in November 1956 (Years)	Age in November (1966) (Years)	Population at November 1956	Ten-Year Survival Ratio (^{o}Eo = 52.5 Years)	Number of Survivors at November 1966
5 - 9	(15 - 19)	415	.9697	402
10 - 14	(20 - 24)	297	.9624	286
15 - 19	(25 - 29)	256	.9519	244
20 - 24	(30 - 34)	267	.9460	253
25 - 34	(35 - 44)	435	.9405	409
Total		1,670	-	1,594

a/ Assuming no emigration to rural areas.

Source: November 1956 Census, Vol.II, Table 3, p.5 (for population at November 1956); United Nations, Methods for Population Projections by Age and Sex (New York: 1956), Table V, pp.80-81 (for five-year survival ratios of five-year age groups of model life table for ^{o}Eo = 52.5 years, used to determine ten-year survival ratios); Appendix Table 11 (for 10-year survival ratio for ten-year age group 25-34 years).

APPENDIX TABLE 14

URBAN/RURAL COMPONENTS OF IRANIAN POPULATION, 1956-1966

(In Thousands of Persons)

Region	November 1956 a/		November 1966 b/		Net Change, 1956-1966		
	Population	Pct. of Total	Population	Pct. of Total	Population	Cumulative Rate of Change (Pct)	Avg.Annual Rate of Change (Pct)
Urban areas c/	6,017	30.43	9,366	35.97	+ 3,349	+ 55.66	+ 4.524
Rural areas	13,757 d/	69.57	16,674 d/	64.03	+ 2,917	+ 21.20	+ 1.942
Total Country	19,774	100.0	26,040	100.0	+ 6,266	+ 31.69	+ 2.791

a/ Adjusted for underenumeration.

b/ Age group 0-4 only adjusted for underenumeration (by 7% upwards).

c/ Comprised of 186 urban places of 1956 census.

d/ Residual figure. Includes unsettled population.

Source: As compiled from census figures of 1956 and 1966 (adjusted) and assuming natural rate of increase of total population as postulated in J-C Chasteland, M.Amani, and O.A.Puech, La Population de l'Iran: Perspectives d'Evolution, 1956-1986 (Tehran: Universite de Tehran, Institut d'Etudes et de Recherches Sociales, 1966), p.249.

APPENDIX TABLE 15

DISTRIBUTION OF URBAN (1956 BASIS) POPULATION BY SEX AND AGE, 1956-1966

(Unadjusted Census Totals)

Age Group (Years)	November 1956			November 1966		
	Males	Females	No. of Males to 100 Females	Males	Females	No. of Males to 100 Females
0 - 4	471,310	454,287	103.7	744,417	712,429	104.5
5 - 9	426,366	414,719	102.8	721,565	688,221	104.8
10 - 14	331,540	297,156	111.6	629,164	572,272	109.9
15 - 19	267,085	255,489	104.5	468,001	435,888	107.4
20 - 24	288,667	267,160	108.1	387,208	349,902	110.7
25 - 34	459,933	434,626	105.8	637,887	593,640	107.5
35 - 44	328,790	276,268	119.0	542,001	453,442	119.5
45 - 54	233,210	233,958	99.7	320,208	285,779	112.0
55 - 64	158,119	143,652	110.1	201,197	197,728	101.8
65 and over	103,897	104,427	99.5	169,616	154,460	109.8
Age not reported	1,232	1,672	73.7	-	-	-
Total	3,070,149	2,883,414	106.5	4,821,264	4,443,761	108.5

Source: As calculated from November 1956 Census, Vol.II, Table 3, p.5, and from November 1966 Census, Vol.168, Table 1, p.2 (as adjusted to correspond to 1956-basis urban areas).

APPENDIX TABLE 16

INCREASES IN URBAN (1956 BASIS) POPULATION BY SEX AND AGE GROUPS, 1956-1966

(Unadjusted Census Totals)

Age Group (Years)	MALES				FEMALES			
	November 1956	November 1966	Change		November 1956	November 1966	Change	
			Number	Pct. Change			Number	Pct. Change
0 - 4	471,310	744,417	+ 273,107	+ 57.9	454,287	712,429	+ 258,142	+ 56.8
5 - 9	426,366	721,565	+ 295,199	+ 69.2	414,719	688,221	+ 273,502	+ 65.9
10 - 14	331,540	629,164	+ 297,624	+ 89.8	297,156	572,272	+ 275,116	+ 92.6
15 - 19	267,085	468,001	+ 200,916	+ 75.2	255,489	435,888	+ 180,399	+ 70.6
20 - 24	288,667	387,208	+ 98,541	+ 34.1	267,160	349,902	+ 82,742	+ 31.0
25 - 34	459,933	637,887	+ 177,954	+ 38.7	434,626	593,640	+ 159,014	+ 36.6
35 - 44	328,790	542,001	+ 213,211	+ 64.8	276,268	453,442	+ 177,174	+ 64.1
45 - 54	233,210	320,208	+ 86,998	+ 37.3	233,958	285,779	+ 51,821	+ 22.1
55 - 64	158,119	201,197	+ 43,078	+ 27.2	143,652	197,728	+ 54,076	+ 37.6
65 and Over	103,897	169,616	+ 65,719	+ 63.3	104,427	154,460	+ 50,033	+ 47.9
Age Not Reported	1,232	-	- 1,232	-	1,672	-	- 1,672	-
Total	3,070,149	4,821,264	+1,751,115	+ 57.0	2,883,414	4,443,761	+ 1,560,347	+ 54.1

Source: As calculated from Nov.1956 Census, Vol.II, Table 3, p.5, and from November 1966 Census, Vol.168 Table 1, p.2 (as adjusted to correspond to 1956-basis urban areas).

APPENDIX TABLE 17

POPULATION, ACTIVE PERSONS, AND RATE OF ECONOMIC ACTIVITY BY AGE AND SEX,

URBAN AREAS

NOVEMBER 1956

Age Group (Years)	MALES			FEMALES			BOTH SEXES		
	Population	Economically Active	Rate of Economic Activity	Population	Economically Active	Rate of Economic Activity	Population	Economically Active	Rate of Economic Activity
10 - 14	331,540	67,690	20.4	297,156	23,669	8.0	628,696	91,359	14.5
15 - 19	267,085	165,261	61.9	255,489	25,635	10.0	522,574	190,896	36.5
20 - 24	288,667	257,104	89.1	267,160	21,969	8.2	555,827	279,073	50.2
25 - 34	459,933	447,851	97.4	434,626	35,819	8.2	894,559	483,670	54.1
35 - 44	328,790	323,763	98.5	276,268	28,491	10.3	605,058	352,254	58.2
45 - 54	233,210	226,464	97.1	233,958	27,325	11.7	467,168	253,789	54.3
55 - 64	158,119	144,379	91.3	143,652	15,735	11.0	301,771	160,114	53.1
65 and over	103,897	72,345	69.6	104,427	8,571	8.2	208,324	80,916	38.8
Age Not Reported	1,232	826	67.0	1,672	252	15.1	2,904	1,078	37.1
Total, 10 Years and Over	2,172,473	1,705,683	78.5	2,014,408	187,466	9.3	4,186,881	1,893,149	45.2
Total, All Ages	3,070,149	1,705,683[a]	55.6	2,883,414	187,466[a]	6.5	5,953,563	1,893,149[a]	31.8

a/ Excludes children under 10 years of age who may actually have been economically active.

Source: November 1956 Census, Vol.II, Tables 3 and 17, pp.5 and 208.

APPENDIX TABLE 18

POPULATION, ACTIVE PERSONS, AND RATE OF ECONOMIC ACTIVITY BY AGE AND SEX, URBAN AREAS (1956 BASIS)

NOVEMBER 1966

Age Group (Years)	MALES			FEMALES			BOTH SEXES		
	Population	Economically Active	Rate of Economic Activity	Population	Economically Active	Rate of Economic Activity	Population	Economically Active	Rate of Economic Activity
10 - 14	629,164	106,540	16.9	572,272	48,339	8.4	1,201,436	154,879	12.9
15 - 19	468,001	225,472	48.2	435,888	40,637	9.3	903,889	266,109	29.4
20 - 24	387,208	331,071	85.5	349,902	41,703	11.9	737,110	372,774	50.6
25 - 34	637,887	609,561	95.6	593,640	60,282	10.2	1,231,527	669,843	54.4
35 - 44	542,001	525,294	96,9	453,442	48,061	10.6	995,443	573,355	57.6
45 - 54	320,208	292,934	91.5	285,779	31,457	11.0	605,987	324,391	53.5
55 - 64	201,197	148,856	74.0	197,728	17,723	9.0	398,925	166,579	41.8
65 and Over	169,616	76,750	45.2	154,460	8,982	5.8	324,076	85,732	26.5
Total, 10 Years and Over	3,355,282	2,316,478	69.0	3,043,111	297,184	9.8	6,398,393	2,613,662	40.8
Total, All Ages	4,821,264	2,316,478[a]	48.0	4,443,761	297,184[a]	6.7	9,625,025	2,613,662[a]	28.2

a/ Excludes children under 10 years of age who may actually have been economically-active.

Source: November 1966 Census, Vol.168, Table 12, p.35, as adjusted to make correspond to urban areas, 1956 basis.

APPENDIX TABLE 19

AGE - SPECIFIC RATES OF ECONOMIC INACTIVITY OF URBAN (1956 BASIS) POPULATION 10 YEARS OF AGE AND OVER BY TYPE OF INACTIVITY, 1956 - 1966 (MALES)

AGE GROUP	STUDENTS		"OTHER"		(OF WHICH UNABLE TO WORK)		ALL FORMS OF INACTIVITY	
	1956	1966	1956	1966	(1956)	(1966)	1956	1966
10 - 14	65.1	80.5	14.5	2.6	(NA)	(0.3)	79.6	83.1
15 - 19	37.2	49.8	0.9	2.0	(NA)	(0.3)	38.1	51.8
20 - 24	9.8	12.3	1.1	2.2	(NA)	(0.3)	10.9	14.5
25 - 34	1.3	2.0	1.4	2.4	(NA)	(0.4)	2.6[a]	4.4
35 - 44	0.1	0.3	1.4	2.8	(NA)	(0.8)	1.5	3.1
45 - 54	-	-	2.9	8.5	(NA)	(5.2)	2.9	8.5
55 - 64	-	-	8.7	26.0	(NA)	(20.7)	8.7	26.0
65 & Over	-	-	30.3	54.8	(NA)	(48.8)	30.4[a]	54.8
Total	16.1[b]	23.9	5.4[b]	7.1	(NA)	(4.5)	21.5[b]	31.0

[a] Doesn't equal components due to rounding.

[b] Includes "age not reported" population.

Source: As compiled from figures from November 1956 and November 1966 censuses as cited in Appendix Tables 21 and 22.

APPENDIX TABLE 20

AGE - SPECIFIC RATES OF ECONOMIC INACTIVITY OF URBAN (1956 BASIS) POPULATION 10 YEARS OF AGE AND OVER BY TYPE OF INACTIVITY, 1956 - 1966 (FEMALES)

AGE GROUP	HOMEMAKERS		STUDENTS		"OTHER"		(OF WHICH UNABLE TO WORK)		ALL FORMS OF INACTIVITY	
	1956	1966	1956	1966	1956	1966	(1956)	(1966)	1956	1966
10 - 14	36.3	25.4	43.6	64.9	12.1	1.3	(NA)	(0.1)	92.0	91.6
15 - 19	76.0	61.8	13.5	28.2	0.4	0.7	(NA)	(0.1)	90.0[a]	90.7
20 - 24	89.9	82.8	1.4	4.6	0.4	0.7	(NA)	(0.2)	91.8[a]	88.1
25 - 34	91.1	88.7	0.1	0.4	0.6	0.7	(NA)	(0.2)	91.8	89.8
35 - 44	88.8	88.2	-	0.1	0.9	1.1	(NA)	(0.6)	89.7	89.4
45 - 54	84.7	83.4	-	-	3.6	5.6	(NA)	(4.8)	88.3	89.0
55 - 64	76.2	68.0	-	-	12.8	23.0	(NA)	(21.8)	89.0	91.0
65 & Over	56.1	39.2	0.1	-	35.6	55.0	(NA)	(52.8)	91.8	94.2
Total	77.0[b]	67.8	8.4[b]	16.9	5.3[b]	5.5	(NA)	(4.7)	90.7[b]	90.2

[a] Does not equal components due to rounding.

[b] Includes "age not reported" population.

Source: As compiled from figures from November 1956 and November 1966 censuses as cited in Appendix Tables 23 and 24.

APPENDIX TABLE 21

RATES OF ECONOMIC INACTIVITY OF MALES OF URBAN POPULATION BY AGE GROUP, NOVEMBER 1956.

Age Group (Years)	Total Population	Students		"Other" Inactive		Total Inactive	
		No.	Rate	No.	Rate	No.	Rate
10 - 14	331,540	215,728	65.1	48,122	14.5	263,850	79.6
15 - 19	267,085	99,353	37.2	2,471	0.9	101,824	38.1
20 - 24	288,667	28,305	9.8	3,258	1.1	31,563	10.9
25 - 34	459,933	5,829	1.3	6,253	1.4	12,082	2.6
35 - 44	328,790	490	0.1	4,537	1.4	5,027	1.5
45- 54	233,210	61	0.0	6,685	2.9	6,746	2.9
55 - 64	158,119	30	0.0	13,710	8.7	13,740	8.7
65 and Over	103,897	51	0.0	31,501	30.3	31,552	30.4
Age Not Reported	1,232	48	3.9	358	29.1	406	33.0
Total, 10 Years & Over	2,172,473	349,895	16.1	116,895	5.4	466,790	21.5

Source: November 1956 Census, Vol.II, Table 17, p.208.

APPENDIX TABLE 22

RATES OF ECONOMIC INACTIVITY OF MALES OF URBAN (1956 BASIS)

POPULATION BY AGE GROUP,

NOVEMBER, 1966.

Age Group (Years)	Total Population	Students		"Other" Inactive		(Of which "unable to work")		Total Inactive	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate
10 - 14	629,164	506,294	80.5	16,330	2.6	(1,643)	(0.3)	522,624	83.1
15 - 19	468,001	233,144	49.8	9,385	2.0	(1,505)	(0.3)	242,529	51.8
20 - 24	387,208	47,788	12.3	8,349	2.2	(1,289)	(0.3)	56,137	14.5
25 - 34	637,887	12,820	2.0	15,506	2.4	(2,351)	(0.4)	28,326	4.4
35 - 44	542,001	1,378	0.3	15,329	2.8	(4,257)	(0.8)	16,707	3.1
45 - 54	320,208	147	0.0	27,127	8.5	(16,798)	(5.2)	27,274	8.5
55 - 64	201,197	-	-	52,341	26.0	(41,729)	(20.7)	52,341	26.0
65 and Over	169,616	-	-	92,866	54.8	(82,856)	(48.8)	92,866	54.8
Total, 10 Years & Over	3,355,282	801,571	23.9	237,233	7.1	(152,428)	(4.5)	1,038,804	31.0

Source: November 1966 Census, Vol.168, Table 12, p.35, as adjusted to make correspond to urban areas, 1956 basis.

APPENDIX TABLE 23

RATES OF ECONOMIC INACTIVITY OF FEMALES OF URBAN POPULATION BY AGE GROUP, NOVEMBER 1956.

Age Group (Years)	Total Population	Homemakers		Students		"Other" Inactive		Total Inactive	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate
10 - 14	297,156	107,802	36.3	129,681	43.6	36,004	12.1	273,487	92.0
15 - 19	255,489	194,248	76.0	34,602	13.5	1,004	0.4	229,854	90.0
20 - 24	267,160	240,267	89.9	3,860	1.4	1,064	0.4	245,191	91.8
25 - 34	434,626	395,909	91.1	506	0.1	2,392	0.6	398,807	91.8
35 - 44	276,268	245,259	88.8	37	0.0	2,481	0.9	247,777	89.7
45 - 54	233,958	198,187	84.7	7	0.0	8,439	3.6	206,633	88.3
55 - 64	143,652	109,452	76.2	6	0.0	18,459	12.8	127,917	89.0
65 and Over	104,427	58,605	56.1	118	0.1	37,133	35.6	95,856	91.8
Age Not Reported	1,672	895	53.5	28	1.7	497	29.7	1,420	84.9
Total, 10 Years & Over	2,014,408	1,550,624	77.0	168,845	8.4	107,473	5.3	1,826,942	90.7

Source: November 1956 Census, Vol.II, Table 17, p.208

APPENDIX TABLE 24

RATES OF ECONOMIC INACTIVITY OF FEMALES OF URBAN (1956 BASIS)

POPULATION BY AGE GROUP,

NOVEMBER 1966.

Age Group (Years)	Total Population	Homemakers		Students		"Other Inactive"		(Of which unable to work)		Total Inactive	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
10 - 14	572,272	145,361	25.4	371,259	64.9	7,313	1.3	(726)	(0.1)	523,933	91.6
15 - 19	435,888	269,433	61.8	122,902	28.2	2,916	0.7	(611)	(0.1)	395,251	90.7
20 - 24	349,902	289,750	82.8	16,150	4.6	2,299	0.7	(538)	(0.2)	308,199	88.1
25 - 34	593,640	526,808	88.7	2,629	0.4	3,921	0.7	(1,174)	(0.2)	533,358	89.8
35 - 44	453,442	400,096	88.2	392	0.1	4,893	1.1	(2,496)	(0.6)	405,381	89.4
45 - 54	285,779	238,209	83.4	102	0.0	16,011	5.6	(13,685)	(4.8)	254,322	89.0
55 - 64	197,728	134,447	68.0	-	-	45,558	23.0	(43,070)	(21.8)	180,005	91.0
65 and Over	154,460	60,481	39.2	-	-	84,997	55.0	(81,567)	(52.8)	145,478	94.2
Total, 10 Years & Over	3,043,111	2,064,585	67.8	513,434	16.9	167,908	5.5	(143,867)	(4.7)	2,745,927	90.2

Source: November 1966 Census, Vol.168, Table 12, p.35, as adjusted to make correspond to urban areas, 1956 basis.

APPENDIX TABLE 24a

AGE - SPECIFIC LABOUR FORCE PARTICIPATION RATES OF FAMILY DEPENDANTS[a] BY INCOME OF FAMILY HEAD

Sampled Families of 32 Urban Places, 1965
(Males)

Average Annual Money Income of Head of Family (in Rials)	LABOUR FORCE PARTICIPATION RATES OF DEPENDANTS BY AGE						
	7-9 Years	10-14 Years	15-19 Years	20-24 Years	25-64 Years	65 Years and Over[b]	Total 7 Years and over
Less than 20,000	11.5	39.7	81.6	92.3	90.9	0.0	53.7
20,000 to 50,000	0.6	17.6	52.5	91.8	92.3	50.0	39.5
50,000 to 100,000	0.0	4.5	40.4	76.9	82.8	9.1	23.0
100,000 to 200,000	0.0	1.0	10.0	65.2	82.4	0.0	14.1
200,000 and Over	0.0	0.0	13.0	28.0	82.4	0.0	20.7
Total, All Heads	1.1	11.3	39.7	74.5	86.0	14.8	29.1

[a] Includes all members of families aged 7 years and over other than heads of families. Excludes all individual men without their family members sharing quarters with other such men (who are all considered as independent earners).

[b] Rates for each income group derive from too small a universe to be significant.

Source: As derived from adjusted raw data for 1,193 urban families sampled in the year 1344 (1965) on the basis of family income and expenditure by the Department of Economic Statistics of the Bank-e Markazi-ye Iran (Central Bank of Iran). (See Appendix Table 26 for absolute figures for each income/age group).

APPENDIX TABLE 24b

AGE - SPECIFIC LABOUR FORCE PARTICIPATION RATES OF FAMILY DEPENDANTS[a] BY INCOME OF FAMILY HEAD

Sampled Families of 32 Urban Places, 1965

(Females)

Average Annual Money Income of Head of Family (in Rials)	LABOUR FORCE PARTICIPATION RATES OF DEPENDANTS BY AGE						
	7-9 Years	10-14 Years	15-19 Years	20-24 Years	25-64 Years	65 Years and Over	Total 7 Years and Over
Less than 20,000	14.3	26.9	25.8	29.4	28.1	11.8	24.8
20,000 to 50,000	1.2	7.3	7.8	11.8	10.4	0.0	8.2
50,000 to 100,000	0.0	0.0	3.1	10.6	4.1	5.3	3.5
100,000 to 200,000	0.0	0.0	1.7	20.5	3.7	0.0	3.4
200,000 and Over	0.0	0.0	0.0	0.0	7.9	0.0	3.4
Total, All Heads	2.1	5.1	6.2	13.3	9.0	3.3	7.2

[a] Includes all members of families aged 7 years and over other than heads of families.

Source: As derived from adjusted raw data for 1,193 urban families sampled in the year 1344 (1965) on the basis of family income and expenditure by the Department of Economic Statistics of the Bank-e Markazi-ye Iran (Central Bank of Iran). (See Appendix Table 27 for absolute figures for each income/age group).

APPENDIX TABLE 25

NUMBERS OF DEPENDANTS[a] AND ECONOMICALLY-ACTIVE DEPENDANTS OF BOTH SEXES AGED 7 YEARS AND OVER BY AGE GROUP OF DEPENDANT AND INCOME OF FAMILY HEAD, 1965

Sampled Households of 32 Urban Places

Average Annual Money Income of Head of Family (Rials)	7-9 Years		10-14 Years		15-19 Years		20-24 Years		25-64 Years		65 Years and Over		Total, 7 Years & Over	
	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active
Less than 20,000	61	8	110	37	69	39	30	17	125	42	18	2	413	145
20,000 - 50,000	157	1	255	32	196	51	129	64	352	58	34	3	1,123	209
50,000 - 100,000	196	0	305	7	187	39	124	39	347	37	49	3	1,208	125
100,000 - 200,000	104	0	195	1	130	8	62	23	206	21	32	0	729	53
200,000 and Over	30	0	60	0	56	3	41	7	93	20	14	0	294	30
Total, All Family Heads	548	9	925	77	638	140	386	150	1,123	178	147	8	3,767	562

[a] Includes all members of families aged 7 years and over other than heads of families. In the case of single men sharing, without members of family, all are treated as heads of families.

Source: As derived from data for 1,193 urban families sampled in the year 1344 (1965) on the basis of household income and expenditure by the Department of Economic Statistics of the Central Bank of Iran. In 301 families in which dependant members contributed to family income, an estimate was made of dependants' income and deducted from total family income to ascertain income group of family head.

APPENDIX TABLE 26

NUMBERS OF MALE DEPENDANTS[a] AND ECONOMICALLY-ACTIVE DEPENDANTS AGED 7 YEARS AND OVER BY AGE GROUP OF DEPENDANT AND INCOME OF FAMILY HEAD, 1965

Sampled Households of 32 Urban Places

Average Annual Money Income of Head of Family (Rials)	7-9 Years		10-14 Years		15-19 Years		20-24 Years		25-64 Years		65 Years and Over		Total, 7 Years and Over	
	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active
Less than 20,000	26	3	58	23	38	31	13	12	11	10	1	0	147	79
20,000 - 50,000	71	0	131	23	80	42	61	56	26	24	6	3	375	148
50,000 - 100,000	102	0	157	7	89	36	39	30	29	24	11	1	427	98
100,000 - 200,000	50	0	97	1	70	7	23	15	17	14	6	0	263	37
200,000 and Over	13	0	35	0	23	3	25	7	17	14	3	0	116	24
Total, All Family Heads	262	3	478	54	300	119	161	120	100	86	27	4	1,328	386

[a] Includes all male members of families aged 7 years and over other than male heads of families. In the case of single men sharing, without members of family, all are treated as heads of families.

Source: As indicated for Appendix Table 25.

APPENDIX TABLE 27

NUMBERS OF FEMALE DEPENDANTS[a] AND ECONOMICALLY-ACTIVE DEPENDANTS AGED 7 YEARS AND OVER BY AGE GROUP OF DEPENDANT AND INCOME OF FAMILY HEAD,

1965

Sampled Households of 32 Urban places

Average Annual Money Income of Head of Family (Rials)	7-9 Years		10-14 Years		15-19 Years		20-24 Years		25-64 Years		65 Years and Over		Total, 7 Years and Over	
	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active
Less than 20,000	35	5	52	14	31	8	17	5	114	32	17	2	266	66
20,000 - 50,000	86	1	124	9	116	9	68	8	326	34	28	0	748	61
50,000 - 100,000	94	0	148	0	98	3	85	9	318	13	38	2	781	27
100,000 - 200,000	54	0	98	0	60	1	39	8	189	7	26	0	466	16
200,000 and Over	17	0	25	0	33	0	16	0	76	6	11	0	178	6
Total, All Family Heads	286	6	447	23	338	21	225	30	1,023	92	120	4	2,439	176

[a] Includes all female members of families aged 7 years and over other than female heads of families.

Source: As indicated by Appendix Table 25.

APPENDIX TABLE 28

NUMBERS OF FAMILY MEMBERS AND ECONOMICALLY-ACTIVE FAMILY MEMBERS OF BOTH SEXES AGED 7 YEARS AND OVER BY AGE GROUP OF FAMILY MEMBER AND INCOME OF FAMILY HEAD, 1965.

Sampled Households of 32 Urban Places.

Average Annual Money Income of Head of Family (Rials)	7-9 Years		10-14 Years		15-19 Years		20-24 Years		25-64 Years		65 Years and Over		Total, 7 years & over		Total, 10 years & over	
	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active
Less than 20,000	61	8	110	37	74	43	34	21	263	156	54	26	596	291	535	283
20,000 - 50,000	157	1	255	32	198	53	160	95	673	365	71	32	1,514	578	1,357	577
50,000 - 100,000	196	0	305	7	187	39	138	52	672	352	68	16	1,566	466	1,370	466
100,000 - 200,000	104	0	195	1	130	8	66	27	386	198	39	5	920	239	816	239
200,000 and Over	30	0	60	0	56	3	41	7	162	87	18	1	367	98	337	98
Total,All Family Heads	548	9	925	77	645	146	439	202	2,156	1,158	250	80	4,963	1,672	4,415	1,663

Source: As indicated for Appendix Table 25.

APPENDIX TABLE 29

NUMBERS OF MALE FAMILY MEMBERS AND ECONOMICALLY-ACTIVE FAMILY MEMBERS AGED 7 YEARS AND OVER BY AGE GROUP OF FAMILY MEMBER AND INCOME OF FAMILY HEAD, 1965.

Sampled Households of 32 Urban Places

Average Annual Money Income of Head of Family (Rials)	7-9 Years		10-14 Years		15-19 Years		20-24 Years		25-64 Years		65 Years and Over		Total, 7 years & over		Total, 10 years & over	
	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active
Less than 20,000	26	3	58	23	41	34	17	16	108	99	30	21	280	196	254	193
20,000 - 50,000	71	0	131	23	82	44	91	86	338	325	41	32	754	510	683	510
50,000 - 100,000	102	0	157	7	89	36	52	43	347	334	30	14	777	434	675	434
100,000 - 200,000	50	0	97	1	70	7	27	19	193	188	12	5	449	220	399	220
200,000 and Over	13	0	35	0	23	3	25	7	84	79	7	1	187	90	174	90
Total, All Family Heads	262	3	474	54	305	124	212	171	1,070	1,025	120	73	2,447	1,450	2,185	1,447

Source: As indicated for Appendix Table 25.

APPENDIX TABLE 30

NUMBERS OF FEMALE FAMILY MEMBERS AND ECONOMICALLY-ACTIVE FAMILY MEMBERS AGED 7 YEARS AND OVER BY AGE GROUP OF FAMILY MEMBER AND INCOME OF FAMILY HEAD, 1965.

Sampled Households of 32 Urban Places

Average Annual Money Income of Head of Family (Rials)	7-9 Years		10-14 Years		15-19 Years		20-24 Years		25-64 Years		65 Years and Over		Total, 7 years & over		Total, 10 years & over	
	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active	Number	Active
Less than 20,000	35	5	52	14	33	9	17	5	155	57	24	5	316	95	281	90
20,000 - 50,000	86	1	124	9	116	9	69	9	335	40	30	0	760	68	674	67
50,000 - 100,000	94	0	148	0	98	3	86	9	325	18	38	2	789	32	695	32
100,000 - 200,000	54	0	98	0	60	1	39	8	193	10	27	0	471	19	417	19
200,000 and Over	17	0	25	0	33	0	16	0	78	8	11	0	180	8	163	8
Total, All Family Heads	286	6	447	23	340	22	227	31	1,086	133	130	7	2,516	222	2,230	2 16

Source: As indicated for Appendix Table 25.

APPENDIX TABLE 31

RATES OF ECONOMIC ACTIVITY OF FEMALES OUTSIDE OF SCHOOL AGED TEN YEARS AND OVER BY EDUCATIONAL LEVEL COMPLETED, 1966

Urban Areas of Iran (1966 Basis)

Highest Educational Level Completed	Number Outside of School[a]	Number Economically Active	Rate of Economic Activity.
Illiterate or read only	2,040,883	219,813	10.8
Literate, but no formal schooling	58,399	3,553	6.1
Attended primary school	388,360	30,685	7.9
Secondary school, 1-3 years	87,560	13,754	15.7
Secondary school, 4-5 years	18,060	4,899	27.1
Secondary school completed	62,200	35,650	57.3
Attended university	10,530	8,782	83.4
Level not reported	5,212	1,254	24.1
Literacy not reported	11,558	673	5.8
Total, all levels	2,682,762	319,063	11.9

[a] Numbers outside of school for particular school levels derived as residual of population of females of each level of education completed and estimates of totals of females attending school full-and part-time for each level, adjusted as based on figure for total of all females reported attending school full-time.

Source: As calculated from figures of Tables 6-9, 22, and 28, pp. 17,20,23,26,63, and 170, of Volume 168 of November 1966 Census.

APPENDIX TABLE 32

STRUCTURE AND CHANGE IN THE IRANIAN LABOUR SUPPLY

BY URBAN/RURAL DIVISIONS AND SEX, 1956-1966

Region[a]	November 1956			November 1966			Increase, 1956-1966					
							Males		Females		Total	
	Males	Females	Total	Males	Females	Total	No.	Rate (Pct)	No.	Rate (Pct)	No.	Rate (Pct).
Urban	1,705,683	187,466	1,893,149	2,316,478	297,184	2,613,662	610,795	35.8	109,718	58.5	720,513	38.1
Rural	3,785,329	388,165	4,173,494	4,444,124[b]	730,682[b]	5,174,806[b]	658,795	17.4	342,517	88.2	1,001,312	24.0
All Country	5,491,012	575,631	6,066,643	6,760,602	1,027,866	7,788,468	1,269,590	23.1	452,235	78.6	1,721,825	28.4

[a] Urban - rural divisions of population on 1956 basis of 186 urban places.

[b] Includes estimate for unsettled population based on participation rate of settled rural population.

Source: As based on unadjusted (for underenumeration) totals of 1956 and 1966 censuses, as cited in November 1956 Census, Vol.2, Table 17, pp.207-209, November 1966 Census, Vol.168, Table 12, pp.34-36, and in Appendix Tables 17 and 18. Data for 1966 adjusted to make correspond to 1956 basis of urban/rural divisions.

APPENDIX TABLE 33

GROSS NATIONAL PRODUCT AND GROSS DOMESTIC FIXED CAPITAL FORMATION, 1338 - 1346

(In Billions of Rials at 1338 Prices)

Gross National Product			Gross Domestic Fixed Capital Formation			
Year	Amount	Increase over Previous Year (Pct.)	(Construction)	(Machinery & Equipment)	Total Amount	As Pct. of GNP
1338	280.3	---	(26.3)	(21.8)	48.1	17.2
1339	293.0	4.5	(33.0)	(21.5)	54.4	18.6
1340	311.3	6.2	(37.5)	(18.2)	55.8	17.9
1341	317.4	2.0	(34.8)	(10.9)	45.8	14.4
1342	340.0	7.1	(38.4)	(11.9)	50.3	14.8
1343	362.7	6.7	(41.5)	(18.4)	59.9	16.5
1344	408.1	12.5	(52.7)	(23.9)	76.6	18.8
1345	440.2	7.9	(56.4)	(28.2)	84.6	19.2
1346	490.7	11.5	(70.7)	(31.8)	102.5	20.9

Source: Bank Markazi Iran, Economic Research Department, National Income of Iran, 1338-1344 (Tehran: 1968), Tables 38 and 50, pp.88 and 98, respectively (for 1338-1341 figures) and Bank Markazi Iran, Annual Report and Balance Sheet as at March 20th, 1968. (Tehran: no date), Table 26, p.89 (for 1342-1346 figures). (Percentages calculated by writer).

APPENDIX TABLE 34

OIL REVENUES RECEIVED BY IRANIAN GOVERNMENT

FROM CONSORTIUM AND OTHER FOREIGN OIL COMPANIES,

1333 - 1346 (1954/55 - 1967/68)

(In Millions of Dollars)

YEAR		REVENUES FROM		
Iranian	Gregorian	Consortium	Other Companies	Total Revenues
1333	1954/55	18.5	--	18.5
1334	1955/56	79.8	--	79.8
1335	1956/57	140.2	--	140.2
1336	1957/58	207.8	--	207.8
1337	1958/59	244.9	--	244.9
1338	1959/60	258.7	--	258.7
1339	1960/61	285.2	--	285.2
1340	1961/62	291.1	--	291.1
1341	1962/63	342.2	--	342.2
1342	1963/64	388.0	--	388.0
1343	1964/65	466.5	--	466.5
1344	1965/66	512.1	2.0	514.1
1345	1966/67	591.5	16.6	608.1
1346	1967/68	715.3	26.8	742.1

Source: Bank Markazi Iran, Annual Report and Balance Sheet as at March 20th,1968 (Tehran: no date), Table 126, pp.350-51; Annual Report and Balance Sheet as at March 20th, 1965 (Tehran: no date), Table 57, p.118; Balance Sheet as at March 20th,1963 (Tehran: no date), Table 33, p.40; Plan Organization, Division of Economic Affairs, Economic Bureau, Review of the Second Seven Year Plan Program of Iran (Tehran; March 10th,1960), Annex VI.

APPENDIX TABLE 35

URBAN (1956 BASIS) EMPLOYMENT BY WORKER STATUS AND OCCUPATIONAL GROUP

NOVEMBER, 1956.

Worker Status	Professional and Technical	Administrative and Managerial	Clerical	Sales	Service	Agri-cultural	Crafts and Production[b]	Military and Not Reported	Total
Employer	506	1,888	86	8,884	2,552	6,440	14,848	177	35,381
Own Acct. Worker	13,738	2,490	3,499	185,842	22,989	110,447	134,003	689	473,697
Govt. Employee[e]	44,571	8,775	109,469	1,662	42,982	5,105	71,247	44,636[c]	328,447[c]
Private Employee[a]	8,474	833	6,835[d]	53,608	180,876	82,610	510,266	14,868	858,370
Unpaid Family Worker	42	18	149	4,640	985	25,177	8,134	3,645	42,790
Status Not Reported	255	19	158	1,131	842	6,777	6,807	52,651	68,640
Total	67,586	14,023	120,196	255,767	251,226	236,556	745,305	116,666	1,807,325

[a] Believed to include unpaid apprentices also.

[b] Includes transportation and communications occupations.

[c] Excludes estimated 75,000 conscripts (reported under previous civilian status).

[d] Erroneously low due to mistake in Vol.II of census.

[e] Erroneously includes (private) employees of Consortium of foreign oil companies.

Source: 1956 Census, Vol.II, Table 22, pp.314-16.

APPENDIX TABLE 36

URBAN (1956 BASIS) EMPLOYMENT BY WORKER STATUS AND OCCUPATIONAL GROUP

NOVEMBER, 1966.

Worker Status	Professional and Technical	Administrative and Managerial	Clerical	Sales	Service	Agricultural[a]	Crafts and Production[b]	Military and Not Reported	Total
Employer	3,246	2,798	3,168	30,999	9,460	6,587	36,300	1,374	93,932
Own Acct. Worker	13,811	1,113	3,834	235,884	36,211	71,545	208,882	4,544	575,824
Govt. Employee[c]	111,436	5,189	127,687	3,780	78,021	5,343	76,896	144,256	552,608
Private Wage Earner	27,591	1,839	45,479	78,530	196,781	67,644	737,176	18,554	1,173,594
Unpaid Apprentice	332	2	98	165	1,335	180	7,063	5,235	14,410
Unpaid Family Worker	213	11	417	6,885	4,049	8,456	19,056	1,301	40,388
Status Not Reported	518	26	250	449	734	470	2,026	10,745	15,218
Total	157,147	10,978	180,933	356,692	326,591	160,225	1,087,399	186,009	2,465,974

a/ Excludes 8,992 seasonally-unemployed.

b/ Includes transportation and communications occupations.

c/ Erroneously includes (private) employees of Consortium of foreign oil companies.

Source: 1966 Census, Vol.168, Table 19, p.54 (as adjusted to make correspond to 186 urban places of 1956).

APPENDIX TABLE 37

URBAN (1956 BASIS) WAGE EMPLOYMENT BY INDUSTRIAL ACTIVITY AND NATURE OF WORKING PLACE, NOVEMBER 1964.

(Estimate)

Industrial Activity	Modern Sector			Traditional Sector				TOTAL[c]
	Government units[a]	Large Private units[a]	Total	Small units[b]	Home	No Fixed Working Place	Total	
Agriculture	(1,000)	(5,000)[e]	6,000	(3,000)[e]	(-)	(69,000)[f]	72,000	78,000
Mining	(5,000)	(3,000)[g]	8,000	(-)	(-)	(-)	-	8,000
Manufacturing	(36,000)	(158,000)[h]	194,000	(181,000)[i]	(23,000)[i]	(-)[k]	204,000	398,000
Construction	(2,000)	(5,000)[e]	7,000	(3,000)[e]	(-)	(195,000)[l]	198,000	205,000
Electricity-Gas-etc.	(25,000)	(6,000)[g]	31,000	(2,000)[g]	(-)	(-)	2,000	33,000
Trade	(9,000)	(3,000)[e]	12,000	(93,000)[e]	(-)	(6,000)[m]	99,000	111,000
Banking-Insurance-Rl Estate	(14,000)	(7,000)[e]	21,000	(4,000)[e]	(-)	(-)	4,000	25,000
Transport-Storage-Comm.	(41,000)	(3,000)[e]	44,000	(7,000)[e]	(-)	(70,000)[n]	77,000	121,000
Services	(371,000)	(15,000)[e]	386,000	(53,000)[e]	(90,000)[o]	(-)	(143,000)	529,000
Total, Reported Activities	(504,000)	(205,000)	709,000	(346,000)	(113,000)	(340,000)	799,000	1,508,000

[a] Establishments employing 10 or more workers of dissertation.

[b] Establishments employing less than 10 workers.

[c] Sum of components.

[d] Employment figures same as those of Table 26.

[e] Ministry of Labour 1964 Establishment Survey figure.

Continued.....

APPENDIX TABLE 37

(Continued)

f/ Based on application of pct. of private wage employees of total agricultural employment (=43%) in 1966 urban areas to Table 26 figure for 1964 agricultural employment, minus 9,000 employees in private units (noted in table).

g/ Assuming 90% or more of total employed of Table 26 in wage employment (indicated in source of footnote e/).

h/ Equivalent to 95.8% (pct. of Ministry of Economy 1343 source) of 153,000(of total 164,000) of Table 26 plus 11,000 of Consortium of foreign oil companies.

i/ Ministry of Economy 1343 figure.

j/ Assuming 29% of number of Table 26 are wage employees (as indicated for 1962 in 1342 Ministry of Interior Survey).

k/ Assuming none of Table 26 are wage employees.

l/ Same method of calculation as indicated in footnote f/ (87% x 233,000 minus 8,000).

m/ Assuming 9.1% of number of Table 26 are wage employees (as in November 1956 census, Vol.II,Table 22,p.315).

n/ Same method of calculation as indicated in footnote f/ (50% x 160,000 minus 10,000).

o/ Domestic servants of Table 26, all of whom assumed to be in wage employment.

Source: As compiled (as indicated above) from data of Table 26; 1956 and 1966 censuses; Ministry of Economy, Bureau of Statistics, Report on the Results of Annual Industrial Survey in 1964 (1343) (Tehran: no date) Table 3, p.3; Ministry of Interior, Public Statistics, Summary Results of the Industrial Survey of the Country of Mordad 1342 (in Farsi) (Tehran: Tir 1344), Table 4-1, p.44; Ministry of Labour and Social Affairs, General Department of Manpower Studies and Statistics, Statistics of Establishments and Engaged Persons of the Country: Fall 1343 (in Farsi) (Tehran: no date), Tables 2-3 and 3-3, pp.50 and 60.

APPENDIX TABLE 38

ESTIMATION OF PRIVATE MODERN SECTOR[a] WAGE EMPLOYMENT IN MANUFACTURING INDUSTRY OF URBAN AREAS (1956 BASIS)

1956 - 1966

Category of Employment		Number Employed in: 1956	1966
Total Manufacturing Employment (incl. electricity but not oil refining).		73,000	214,000
Wage Employment of Above	(est.)	70,000	208,000
Minus Est. 22,000 Employees in Unmechanized Units in 1966		70,000	186,000
Minus Employees in Electricity: 3,000 in 1956 and 7,000 in 1966		67,000	179,000
Plus Employment in Oil Refining: 39,000 in 1956 and 34,000 in 1966		106,000	213,000
Minus (Census-reported) Government Manufacturing Employment: 58,000 in 1956 and 45,000 in 1966 (each including Consortium employment) = Total Private Mechanized Unit Manufacturing Employment, Except in Oil Refining		48,000	168,000
Plus Est. Consortium Refinery Employment: 32,000 in 1956 and 10,000 in 1966 = Total Private Mechanized Unit Manufacturing Employment		80,000	178,000

[a] Units of 10 or more employees.

Source: Ministry of Industries and Mines, Bureau of Industrial Statistics, Industries and Mines Statistical Yearbook 1956-57 (1335) (Tehran:no date); Ministry of Economy, Bureau of Statistics, Report on the Results of Annual Industrial Survey in 1966 (1345) (Tehran; no date); November 1956 and November 1966 censuses (for oil refining employment); Table 37 (for government employment); and data from Consortium (Iranian Oil Operating Companies).

APPENDIX TABLE 39

ESTIMATION OF PRIVATE MODERN SECTOR[a] WAGE EMPLOYMENT

BY INDUSTRIAL ACTIVITY, URBAN AREAS (1956 BASIS)

1956-1966

Industrial Activity	November 1956			November 1966		
	Total Private Wage Employment	Est.Part of which Modern Sector	Equals Modern Sector Employment	Total Private Wage Employment[b]	Est.Part of Which Modern Sector	Equals Modern Sector Employment
Agriculture	86,000	6.0%	5,000	70,000	6.5%	5,000
Mining [c]	1,000	100.0%	1,000	3,000	100.0%	3,000
Manufacturing[d]	313,000	(25.6%)	80,000[e]	462,000	(38.5%)	178,000[e]
Construction	153,000	2.0%	3,000	223,000	2.5%	6,000
Electricity-Gas-Etc.	5,000	75.0%	4,000	11,000	75.0%	8,000
Trade	51,000	3.0%	2,000	92,000[f]	3.0%	3,000
Banks-Insurance-Rl Estate	2,000	64.0%	1,000	10,000[f]	64.0%	6,000
Transport-Storage-Comm.	78,000	3.5%	3,000	82,000	3.8%	3,000
Services	178,000	9.5%	17,000	207,000	9.5%	20,000
(Sub Total	(867,000)	(13.9%)	(116,000)	(1,160,000)	(20.0%)	(232,000)
Not Adeq.Described	23,000	13.9%[g]	3,000	38,000	20.0%	8,000
Total	890,000	13.9%	119,000	1,198,000	20.0%	240,000

Continued.....

APPENDIX TABLE 39

(Continued)

a/ Units of 10 or more employees.

b/ Except for agriculture (reduced by 17.1%, or rate observe private wage employees), each activity employment reduced to make correspond to 1956-basis urban areas.

c/ Excludes Consortium employment.

d/ Includes est. of Consortium employment.

e/ Figure of Appendix Table 38. (Mechanized units only).

f/ Total of 102,000 for Commerce distributed between Trade a Rl Est. according to pattern of 1964 of Appendix Table 37

g/ Observed rate for all identified activities.

SOURCE: As calculated from data of November 1956 and November 196 Table 37 (for pct. of modern sector in total private wage used as basis for 1956 and 1966 pct. above); Appendix Tab total of private wage employment [except for Consortium r est. 32,000 in 1956 and 10,000 in 1966 7).

APPENDIX TABLE 40

CENSUS RATES OF OPEN UNEMPLOYMENT BY URBAN/RURAL REGIONS

1956 - 1966

(Both Sexes)

Region (1956 Basis)	November 1956			November 1966		
	Number Economically Active	Number Unemployed	Rate of Unemployment (%)	Number Economically Active	Number Unemployed[a]	Rate of Unemployment (%)
Urban	1,893,149	85,824	4.5	2,613,662	138,696	5.3
Rural	4,173,494	73,153	1.8	5,174,806[b]	217,342[c]	4.2[d]
Total	6,066,643	158,977	2.6	7,788,468[e]	356,038[e]	4.6

a/ Excludes seasonally unemployed in agricultural occupations.

b/ Includes estimate of economically active of unsettled population.

c/ Implicit from rate of unemployment.

d/ Rate for settled population only, derived as residual from figures of 1956-basis urban population and of total settled population.

e/ Sum of urban/rural components.

Source: As calculated from figures of November 1956 Census, Vol.II, Table 17, pp.207-209; Table 50 (for urban unemployed in 1966 on 1956 basis); Appendix Table 32 (for economically active in 1966 by urban/rural regions on 1956 basis); November 1966 Census, Vol. 168, Tables 12 and 29, pp.34 and 171, respectively (for number of economically active and unemployed for total country settled population in 1966 [used in determining rate of footnote d/ above]).

APPENDIX TABLE 41

DISTRIBUTION OF TARGETED PUBLIC AND PRIVATE INDUSTRY INVESTMENT

DURING THIRD PLAN PERIOD

(In Millions of Rials)

Nature of Investment	Public[a]	Private	Total
Expansion of 11 major existing industries	2,420.21	7,203.83	9,624.04
Establishment of major new industries	15,649.95	1,090.80	16,740.75
Medium-and small scale private industry	3,401.18	14,941.68	18,342.86
Expansion of Government industries	1,204.43	---	1,204.43
Mining	2,931.53	666.60	3,598.13
Replacement	6,987.94	6,556.16	13,544.10
Surveys	946.88	189.37	1,136.25
Support of foreign technicians	530.25	---	530.25
Increase in Ministry budget	439.35	---	439.35
Total	34,511.72	30,648.44	65,160.16

[a] Includes credits to, and equity participation in, private industry.

Source: As compiled from Plan Organization, Division of Economic Affairs, Industry and Mining Section, "Industry and Mining Third Plan Frame" (Unpublished -Roneo) (Tehran: May 1961), pp.27-28 and 56-57.

APPENDIX TABLE 42

REVISED THIRD PLAN PUBLIC ALLOCATIONS AND DISBURSEMENTS

INDUSTRY AND MINING CHAPTER

(In Millions of Rials)

Purpose	Revised Allocation	Actual Disbursement	Disbursement as Pct. of Allocation
Technical Assistance to Private Industrial Investors	600	463	77.2
Investment in Existing Public Industrial and Commercial Enterprises	2,300	1,985	86.3
Technical Assistance to Private Investors in Mining	300	270	90.0
Investment in New Public Mines	500	287	57.4
Long-term Credit to Private Investors and Equity Share Participation	5,100	4,441	87.1
Investment in New Public Industries	19,820	9,646	48.7
Total	28,620	17,092	59.7

Source: Bank Markazi Iran, Annual Report and Balance Sheet as at March 20th,1968 (Tehran: no date), Table 41, p.127

APPENDIX TABLE 43

SECOND PLAN PUBLIC ALLOCATIONS AND DISBURSEMENTS

(In Millions of Rials)

Chapter	Allocations		Disbursements	
	Original	Final	Amount	Pct. of Total
Agriculture & Irrigation	18,218	24,807	23,464	31.1
Industry & Mines	10,560	9,191	8,823	11.8
Communications & Tele-communications	22,821	32,973	29,940	39.8
Social Affairs	18,401	15,386	13,006	17.3
(Education)	(NA)	(1,820)	(1,722)	(2.3)
(Health)	(NA)	(3,254)	(2,944)	(3.9)
(Electricity)	(NA)	(3,795)	(3,616)	(4.7)
(Urban Development)	(NA)	(6,120)	(4,485)	(6.0)
(Statistics)	(NA)	(312)	(160)	(0.2)
(Assistance to Cooperatives)	(NA)	(79)	(75)	(0.1)
(Assistance to Worker Organisations)	(NA)	(6)	(4)	(0.0)
Total	70,000	82,357	75,233	100.0

Source: Plan Organization, Report on the Execution of the Second Seven Year Development Plan (in Farsi) (Tehran:1343), Appendix Tables 2,5, and 16.

APPENDIX TABLE 44

THIRD PLAN PUBLIC ALLOCATIONS AND DISBURSEMENTS

(In Millions of Rials)

Chapter	Allocations		Disbursements	
	Original	Final	Amount	Pct. of Total
Agriculture & Irrigation	41,800	49,000	47,300	23.1
Industry & Mines	34,500	28,600	17,100	8.4
Electricity & Fuel	24,200	36,500	32,000	15.6
Communications & Tele-communications	43,200	59,500	53,800	26.3
Education	15,700	18,100	17,500	8.6
Health	12,300	13,500	13,200	6.4
Manpower	5,300	3,200	2,800	1.4
Urban Development	6,000	7,500	7,200	3.5
Statistics & Planning Bureaus	1,600	1,700	1,500	0.7
Housing & Construction	---	12,400	12,200	6.0
Other	5,600[a]	---	---	---
Total	190,200	230,000	204,600	100.0

[a] Unallocated funds

Source: Plan Organization, General Economics Group, Division of Economic Affairs, "Introduction to the Third Development Plan of Iran (1341-46)" (Unpublished-Roneo) (Tehran: Mordad 1340), Table 5.1, pp.60-62 (for original allocations), and Bank Markazi Iran, Annual Report and Balance Sheet as at March 20th, 1968 (Tehran: no date), Table 82, pp.228-29 (for final allocations and disbursements).

APPENDIX TABLE 45

ESTIMATION OF AVERAGE AMOUNT OF PUBLIC DEVELOPMENT EXPENDITURE REQUIRED TO GENERATE ONE JOB.

FIRST 26 MONTHS OF THIRD PLAN PERIOD[a]

Third Plan Chapter	Public Development Disbursement (Mil.Rials)[b]	Number of Jobs Created[c]	Average Expenditure Required to Create One Job (Rials)
Agriculture and Irrigation	15,020	19,996	751,000
Industry and Mining	1,400	645[d]	2,171,000
Power and Fuel	1,751	106	16,519,000
Transport and Communications	11,456	748	15,316,000
Education	1,926	23,036	84,000
Health	2,316	8,894	260,000
Manpower	522	1,738	300,000
Urban Development	1,735	50	34,700,000
Statistics	108	11,106	10,000
Construction and Planning Bureaus	2,042	361	5,657,000
Total	38,276	66,680	5,740,000

[a] September 23rd, 1962 to November 21st, 1964.

[b] During two-year period September 23rd 1962 - September 22nd, 1964 only.

[c] Following gestation of project -- excludes temporary employment created during construction phase.

[d] Excludes new jobs created through loans to private investors.

Source: As calculated from data of Plan Organization, An Evaluation of the Employment Effects of the Third Development Plan (Sept. 1962 - November 1964) (Tehran: January 1965), Table 1, p.6; Bank Markazi Iran, Annual Report and Balance Sheet as at March 20th, 1967 (Tehran: no date), Table 21, p.62; Bank Markazi Iran Bulletin, Vol.3, No.17, January-February 1965, Table 7, p.721.

APPENDIX TABLE 46

POPULATION, LFPR[a], AND LABOUR SUPPLY

DURING THIRD PLAN PERIOD (SEPTEMBER 1962 - MARCH 1968)

(In Thousands of Persons)

Category	Plan Org. Forecast			Estimate of Writer		
	Sept. 1962	March 1968	Net Change	Sept. 1962	March 1968	Net Change
Population	21,411	24,030	+2,619	22,925	26,824	+3,899
LFPR (Pct.)	28.7[b]	30.5[b]	+ 1.8	30.9	30.0	- 0.9
Labour Supply	6,153	7,330	+1,177	7,084	8,047	+ 963

[a] Labour Force Participation Rate.

[b] Implied Rate

Source: Plan Organization forecast from "Third Plan Frame Manpower", pp.87-94. Estimate of writer calculated on basis of (i) annual rates of population growth as indicated in J.C. Chasteland, M. Amani, and O.A. Fuech, La Population de l'Iran: Perspectives d'Evolution 1956 - 1986 (Tehran: Universite de Tehran, Institut d'Etudes et de Recherches Sociales, 1966),p.249, and applied to adjusted 1956 population figure of census, and (ii) observed trend in labour force participation rate during the period 1956-1966 as indicated by census figures for those years.