

EMIGRATION AND SKILLS ACQUISITION: An Evidence from the Two Surveys of Pakistani Migrants Returned from the Middle East

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Abstract. This study has examined the level and determinants of skills acquisition (or de-skilling) by utilizing two household surveys of Pakistani migrants returned from the Middle East employment. The results show that, despite the selectivity of migrants, their motivation to learn skills, the favourable employment context abroad and the financial incentives to acquire new skills, only a limited group of workers learned new skills or upgraded their skills level during their stay in the Middle East. In addition, a substantial degree of de-skilling occurred, although half of the emigrants gained experience in the use of their pre-migration skills while abroad. The economic needs of the emigrants' families seemed largely responsible for pushing migrants to accept low skilled jobs in the Middle East, while the retention of previously acquired skills during overseas employment was positively associated with the legal process of emigration. The long duration of stay in the Middle East enabled emigrants to upgrade their skills level while abroad.

I. INTRODUCTION

The return of migrants who have acquired new skills overseas is generally considered one of the potential benefits of labour migration from poor to wealthy countries. However, the issue of contract labour migration and skills acquisition is complex. It is not clear whether international contract migration serves as a positive or negative factor in the augmentation of skilled labour supplies (Stahl, 1986:93). There is a possibility of 'de-skilling', a process whereby overseas workers, because of their willingness to take lower skilled jobs for higher monetary return, actually lose previously held skills (Stahl, 1982:888). Even if migrants do experience skills acquisition while abroad, they may not apply these skills upon their return.

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The measurement of both skills acquisition among emigrant workers in the labour market of the host countries and the application of these skills upon their return has recently been the focus of a growing body of socio-economic research.¹ For example, Smart *et al.* (1986:120) showed that while Filipino overseas workers gain experience and confidence in the use of previously acquired skills, their overseas experience, at least in the Middle East, does not appear to expose them to new technology or modes of production that could be considered as skills acquisition. Evidence from the Philippines also showed that most migrants do not plan on working in their previous occupations upon return, much less apply new skills acquired overseas (Smart *et al.*, 1986:120).

Stahl (1986:930) raised the possibility that substantial net acquisition of skills may have occurred among Indonesian overseas workers, mainly because a large proportion of Indonesian emigrant workers leave home unskilled. However, King (1986:20) argued that a period of foreign employment does not efficiently convert a mass of unskilled rural labour into an industrial workforce for the industrial development of the home country. When away, a large proportion of the migrant workers are employed in unskilled jobs; consequently no skills are imparted to them (King, 1986:20).

Return migration on a large scale from the Middle East to the South Asian labour-exporting countries is a recent phenomenon (Arif, 1995). The issue of skills acquisition among the South Asian workers who have worked in the Middle East has been discussed only briefly (Azam, 1987; Athukorele, 1990). In investigating the question of whether the migrant workers learn new skills while abroad, Pakistan is an interesting case because, first, despite a decline in demand for Pakistani workers in the Middle East after 1983, it has been estimated that more than one million Pakistanis are currently employed in the region. Second, labour demand in the Middle East shifted after 1983 from production and construction workers to professional and technical, clerical, and service workers; however, the proportion of unskilled Pakistani workers, who are more likely to learn skills, has remained almost unchanged at about 40 percent of the total stock in the Middle East during the last two decades (Stahl and Azam, 1990:9; Arif, 1995).

¹See for example, Azam (1987), Gitmez (1988), Gmelch and Richling (1986), Monson (1975), Paine (1974), Smart *et al.* (1986), Stahl (1986), Thomas-Hope (1985), Wilson (1985).

Moreover, after 1977 the Pakistan economy faced shortages of suitably trained industrial workers (Gilani, 1986:163), due to the absence of appropriate training amongst unskilled and less skilled workers. The need to upgrade the quality of workers through in-service apprenticeship or formal training has, therefore, been emphasized (Gilani, 1986:164). Pakistan's development plans have also recognized this problem and have attacked skilled manpower deficiencies by emphasizing formal training programmes such as vocational education and on-the-job training (Government of Pakistan (GOP), 1988a:93). Since the cost of educating and training a modern workforce is substantial, advantages are seen in the possibility that migrant workers may obtain skills abroad, at the expense of another country. It has been expected that a majority of return migrants would return from abroad with a high level of accumulated skills which they would employ upon their return (GOP, 1988a:92).

This study examines the level and determinants of skills acquisition (or de-skilling) by Pakistani workers during their employment in the Middle East by using two surveys of return migrant households conducted in 1980 and 1986. The paper first presents an overview of labour migration from Pakistan to the Middle East, followed by a brief account of data sources and limitations, and methods of analysis. The labour force characteristics related to skills acquisition are then presented. Finally, the issue of skills acquisition during work in the Middle East is discussed.

II. LABOUR MIGRATION FROM PAKISTAN TO THE MIDDLE EAST

While Birks and Sinclair (1980:31) show that Asian, particularly Indian and Pakistani, migrants have been drawn to the Arab Peninsula in increasing numbers since the 1940s, migration from Pakistan accelerated only after the dramatic increase in the price of oil in 1973 (Amjad, 1989:8; Burki, 1988:190; Shah, 1983:411; Tsakok, 1982:319). The indigenous labour forces in the oil-exporting countries were relatively small and lacked the necessary technical skills to carry out the economic and social development plans of these countries (Birks and Sinclair, 1980:29). To fill this gap foreign workers originally were brought in from other Arab countries, particularly from Yemen, Jordan and Egypt. When the supply of qualified workers diminished, the oil-exporting countries began to diversify their sources of labour. Pakistan, because of its proximity to the Middle East, became one of the major labour suppliers. In the early 1980s more than a million Pakistanis were working in the region (Gilani, Khan and Iqbal, 1981a:10; Stahl and Azam, 1990:3).

The job market in the Middle East is highly volatile. During the last two and half decades, the annual placement of Pakistani workers in the Middle East fluctuated substantially, peaking in 1977 at 139,900 and again in 1981 at 151,500. In the subsequent five years it declined dramatically, from 137,300 in 1982 to only 57,800 in 1986. Then during the period 1987-98, placements increased steadily, after the Gulf War reaching a record level of 195,400 in 1992 (Kemal and Arif, 2000). Pakistan's share in the annual placement of South Asian workers in the Middle East declined considerably from 73 percent in 1977 to only 24 percent in 1986. After 1986 its share increased modestly, reaching 30 percent in 1989, but it fell again to 26 percent in 1991. Similarly, Pakistan share in the annual flow of Asian workers declined from 51 percent in 1977 to only 11 percent in 1988 (Arif, 1995). It appears that despite recent recovery in demand, Pakistan's share in the annual flow of workers in the Middle East remained well below its share in the late 1970s. In view of past experience, the post-Gulf War increase in the demand for Pakistani workers is not expected by Pakistani officials to last long (Shah, 1994:249).

What is the reason for this decline in the share of Pakistanis in the annual placement of Asian workers in the Middle East? Several interacting factors have been responsible, among which three are especially important. First, Arab governments are sensitive to a predominance of workers from a particular country or region (Agostinelli, 1991:19). They have therefore chosen to diversify their sources of labour. As a result, Pakistanis have faced increased competition from other labour-exporting countries, particularly from Filipinos and Bangladeshis (Agostinelli, 1991:19). Secondly, since the mid-1980s, economic activity has slowed in the major labour-receiving countries, and the number of contract workers has stabilized (Connell, 1992:45). Pakistani workers in the Middle East have been employed in construction in the Gulf region, so that completion of development projects has decreased the demand for their labour.

Thirdly, there has been a shift in labour demand from production and construction workers to professional and service workers. However, the occupational composition of Pakistani migrants over the last two decades has changed only slightly (Stahl and Azam, 1990:5). The shift in demand has been accompanied by an increasing feminization of the workforce, particularly with recruitment of housemaids. Pakistan initially banned the movement overseas as domestic servants of female workers under the age of 45. Although in 1989 the minimum age was reduced to 35 years, emigration of female workers is still numerically insignificant because 'cultural factors discourage it' (Shah, 1994b:239). Pakistani labour is

usually contracted to work in the Middle East for a fixed period of time, and at the expiry of the contract, workers are usually obliged to return home. Concern about the ultimate return of Pakistani workers was expressed as early as 1981 (Iqbal and Khan, 1981:8).

However, the volume of return migration greatly increased in the mid-1980s. For example, the Sixth Plan (1983-1988) estimated a net emigration of 0.6 million workers during the plan period, but by the middle of the plan period Pakistan was faced with net return migration (GOP, 1988:89). There are some recent signs that return migration has declined. However, if the situation stabilizes and out-migration and return migration are equal, or there is positive net migration, Middle East migration will no longer provide a safety valve for the pressures generated by an increasing domestic labour force (GOP, 1994:114). The future prospects of foreign workers in the Arab oil-producing countries may depend on both economic and political factors. Although it is argued that Middle East oil-producers will remain major receivers of foreign labour in the foreseeable future, political uncertainty in the region could undermine confidence in the labour market's stability (Appleyard, 1991:72; Feiler, 1991:150). With this uncertain situation in the Middle East, the return flow of migrants and their reintegration into the economy and society should be considered a significant part of the overall dynamics of labour migration from Pakistan to the Middle East.

III. DATA SOURCES AND LIMITATIONS

As noted earlier, two household surveys of Pakistani migrants returned from the Middle East, conducted in 1980 and 1986, were the main data sources for the present study. The sample design of these surveys and their limitations have been discussed below. With the collaboration of the World Bank, between February 1980 and April 1980, the Pakistan Institute of Development Economics, Islamabad, conducted three surveys: the Migrant Household Survey, the Non-Migrant Household Survey and the Return Migrant Household Survey (RMHS). The 1980 RMHS covered the three phases of international contract migration in Pakistan: the prior-to-migration phase, the migration phase and the return migration phase. The sample size was 277 households, each having at least one male return migrant from the Middle East (Gilani *et al.*, 1981a:15). The 1980 RMHS was conducted in the same randomly selected sample locations, in four provinces of Pakistan and Azad Kashmir, as those in which the Migrant Household Survey was conducted. Due to the lack of reliable statistics on

migrant families, the survey population was determined by a large sample, consisting of 12000 interviews conducted with departing passengers at Karachi, Lahore and, Islamabad international airports between September 20, 1979 and November 10, 1979. The data collected from these airports served as the frame for selecting the statistical sample for migrant and return migrant households (Gilani *et al.*, 1981a:15).

The sample design of the 1986 ILO survey was not very much different from the 1980 RMHS. The ILO survey was conducted in 1986 in three provinces, Punjab, Sind and the NWFP, and in AJK. It was restricted to districts (or tehsils) of concentration of migrants. The selection of the districts was based on information provided by both the 1981 Population Census and the 1986 Airport Survey conducted by the Overseas Pakistanis Foundation (OPF). As part of the 1981 Population Census a subsample (4.6 percent of rural households and 11.2 percent of urban households) was asked the following question: "Has any member of your household migrated abroad during the last ten years?" Similarly, during the 1986 airport survey, returning migrants were asked: 'What was your district of origin in Pakistan?' Districts of concentration identified by the 1981 Census and the 1986 airport survey were assumed to be high-return migration districts for the purpose of drawing the ILO sample. Each district was taken as an independent stratum, but in some districts the survey was restricted to those tehsils where a concentration of migrants was indicated by the census and the airport survey (for details, *see* Arif, 1995).

Two weaknesses in the data sets used for the present study must be acknowledged. First, it is possible that the surveys of return migrants under-rated training received abroad because only those who had returned to Pakistan were included in the sample. It is likely that the more skilled stay abroad longer particularly because it is in an employer's interests to renew the contracts of those whom they have trained. However, in a later survey of return migrants conducted by Gilani (1986) in 1983 in five high-migration districts, the average duration of stay, 3.9 years, for Pakistanis who had worked in Saudi Arabia and the United Arab Emirates was not very different from the average stay, 3.6 and 3.9 years, calculated from the 1980 RMHS and 1986 ILO survey respectively. Moreover, according to the ILO survey, the average duration of stay of Pakistanis migrants returned from Kuwait was 5.1 years. Al-Qudsi and Shah (1991) reported from the 1983 Kuwait Labour Force survey the average length of stay of Pakistanis to be 6.6 years. It appears that in terms of duration of stay, the data sets used for the present study represent well the Pakistanis in the Middle East. Second, due to the recent change in the occupational composition of

demand for expatriate workers in the Middle East, from unskilled to skilled workers, it is also likely that the occupational profile of recent return migrants is different from the profile of earlier return migrants. However, as discussed earlier, in the case of Pakistan, the shift from unskilled to skilled manpower has not been very significant (Kazi, 1989; Stahl and Azam, 1990). Despite these shortcomings, the 1980 RMHS and 1986 ILO survey are appropriate for this analysis. They provide detailed information on the occupational and vocational training histories of the return migrants in the form of retrospective responses to questions about occupational (and training) status before migration, during the stay abroad and after the return. In addition to these histories, the 1980 RMHS provides information about the migrants' work conditions in the host countries.

METHODS OF ANALYSIS

To develop a comprehensive understanding of skills acquisition during overseas employment, the analysis below was carried out at two levels. First, the acquisition is measured by a question which was asked during the survey directly to the return migrants: whether they had learned a skill while away, and if so, what. Although the measurement of skills acquisition by a direct question has been used by Gmelch and Richling (1986), Paine (1974) and Smart *et al.* (1986), it is clear that many respondents may define skill loosely. They might include any type of job training, from agricultural work to skilled work. Moreover, the direct question on skills acquisition does not provide information on those migrants who accepted a lower skill level during their overseas stay.

To overcome this shortcoming, skills acquisition is also determined by comparing the migrants' skill level before migration with their skill level abroad just before they returned home (Athukorele, 1990; King, 1986; Paine, 1974).² From this comparison, a learning index has been developed

²Return migrants from more than fifty occupations are represented in the 1980 RMHS and 1986 ILO samples. Based on both ILO and Bureau of Emigration and Overseas Employment occupational classifications, the various occupations are classified into four skill levels — high, middle, skilled and unskilled (Athukorele, 1990:328; Kazi, 1989:169). In this classification, consideration is given to both the educational endowment and wages characteristics of each occupation. The high level includes engineers, doctors, teachers/lecturers, accountants and managers and executives. The middle level covers typists/clerks, supervisors/surveyors, nurses, and persons engaged in trade and business. Production-related skilled occupations such as masons, electricians, drivers, machine operators, carpenters, mechanics and welders are classified in the skilled level. The unskilled level includes both agricultural workers and non-agricultural labourers. Unclassified occupations, such as household work, are also included in the unskilled level.

which consists of three categories: 'same-skill', 'new-skill' and 'de-skill'. The 'same-skill' category includes those migrants who retained their prior-to-migration occupations during the overseas employment. The 'new-skill' category refers to those migrants who moved from lower skill levels in Pakistan to higher levels during the migration period; for example, from unskilled to skilled or middle to high levels. The 'de-skill' category includes the migrants who moved from a higher skill level in Pakistan to a lower level during Middle East employment. This index is not even flawless. For example, if a teacher has worked as carpenter in the Middle East, he is included in the 'de-skill' category. It can be argued that the teacher has learned a new skill. However, he is deskilled as far as his overall human capital is concerned. If he goes back to teaching after return, there is a loss of human since his teaching experience was interrupted by his overseas job.

The measurement of other labour force characteristics related to skills formation during overseas employment is discussed below. Educational attainment is measured as years of schooling completed, and divided into three categories: no education, primary and lower secondary (less than 10 years of schooling) and secondary and above (10 years and more of schooling). The years of labour market experience before migration are measured indirectly by using the following equation (Al-Qudsi and Shah, 1991:150):

$$\text{Experience} = \text{Age (at the time of migration)} - \text{Years of schooling} - 5$$

However, in the case of migrants with 'no education', the years of labour market experience before migration are measured by subtracting 10 (the official minimum age for entry into the labour force in Pakistan) from the age of the migrants at the time of migration. Total duration of stay abroad is considered as the overseas (the Middle East) labour market experience. Since some return migrants had overseas work experience in more than one country, the duration of stay in the last country is included in the analysis mainly because all relevant information in the survey regarding the skills level, wages and work conditions is available for the last destination only.

Average annual earnings of the migrants before migration are measured by adding income from three sources reported in both the 1980 RMHS and 1986 ILO survey: daily wages, monthly salaries and income from both business and agriculture. For the RMHS, migrants' earnings during their overseas stay are available for two periods, at the start of employment and at the end of the stay. But in the 1986 ILO survey, it is available only for one period: at the end of the stay.

IV. LABOUR FORCE CHARACTERISTICS OF MIGRANTS, WORK CONDITIONS IN THE MIDDLE EAST

According to Brim (1966:25), three elements are necessary for learning to take place. First, the person must have the ability or capacity to learn the new behaviour. Second, the person must have the desire to learn. Finally, the person must be placed in a context that provides the opportunity to know and practice the new behaviour. The present study uses workers' skill levels before migration, age at the time of migration, education, and work experience prior to migration as indicators of the ability to learn new skills, although ability refers to an internal attribute that is difficult to measure (Smart *et al.*, 1986). Marital status at the time of migration, methods of finding jobs abroad, and intention to continue overseas employment are used as indicators of personal motivation. The learning context is examined by considering both the nationality of the company, the nature of work of the company where migrants have worked during their overseas employment, and the Middle East labour market experience.³ It is likely that the exposure of migrant workers to a foreign company may provide them a better opportunity to enhance their skill levels.

The indicators showing both ability to learn new skills and personal motivation to learn, and the variables associated with the learning context are presented in Table 1. Thirty eight percent of the migrants in the 1980 RMHS sample were middle-level workers before migration. The percentage shares of skilled and unskilled level workers in the skilled categories were 26 and 24 respectively. The share of high-level workers in the total outflow was about 5 percent. According to the 1986 ILO survey, 38 percent of migrants were unskilled-level workers before migration and the percentage shares of skilled and middle level workers were 30 and 29 percent respectively. Only 3 percent of the ILO sample was in the high-level skill category before migration.

The 1980 RMHS and the 1986 ILO surveys support the changes in occupational composition of Pakistani workers reported by Stahl and Azam, who shows that in 1973 some 72 percent of Pakistani workers in the Middle East were classified as production workers, approximately 15 percent were professional/technical or administrative workers, and fewer than 1 percent were service workers. With the commencement of infrastructural development in the Middle East in the mid-1970s, however, the composition of demand for Pakistani workers changed markedly. By 1981,

³The variables 'methods of finding jobs abroad', 'nationality of the company' and 'the nature of work of the company' are only available for the 1980 RMHS.

more than 77 percent of them were engaged in production (mainly construction), professional/technical or administrative workers accounted for only 4 percent of the annual flow of workers, and service workers accounted for 11 percent. Between 1981-87, despite a major shift in the demand for Asian labour generally, the occupational distribution of Pakistanis shifted only marginally.

TABLE 1
Return Migrants' Labour Force Characteristics Indicating
Ability and Motivation to Learn and Work Conditions
in the Middle East by Skill Levels

<i>Characteristics/ Work conditions</i>	<i>Skill Levels</i>				<i>All Levels</i>
	<i>High Level</i>	<i>Middle Level</i>	<i>Skilled Level</i>	<i>Unskilled Level</i>	
Ability to Learn					
Pre-migration skill levels (row %)					
RMHS (1980)	5.3	37.6	26.3	30.8	100
ILO (1986)	3.1	29.0	29.7	38.2	100
Skill levels abroad (row %)					
RMHS (1980)	9.5	22.1	40.3	28.1	100
ILO (1986)	5.5	21.5	33.7	39.3	100
Mean age at the time of migration					
RMHS (1980)	31.6	29.6	35.0	30.1	31.3
ILO (1986)	31.6	30.4	29.9	30.9	30.5
Mean years of schooling					
RMHS (1980)	12.2	8.5	4.2	4.0	6.2
ILO (1986)	11.3	6.2	5.4	3.7	5.2
Average years of experience before migration					
RMHS (1980)	13.3	15.2	22.5	17.1	17.6
ILO (1986)	15.3	19.2	19.5	22.3	20.3
Motivation to Learn					
% married at the time of migration					
RMHS (1980)	60.0	63.0	94.0	71.0	74.0
ILO (1986)	55.6	68.7	69.8	70.5	69.3

% finding jobs through agents or independently					
RMHS (1980)	71.4	65.3	66.7	72.5	68.2
ILO (1986)	—	—	—	—	—
% intending to re-emigrate					
RMHS (1980)	42.9	54.7	49.3	62.3	50.6
ILO (1986)	56.4	56.4	53.0	56.7	55.5
Work Conditions					
Mean duration of stay abroad (months)					
RMHS (1980)	45.8	50.8	45.9	30.6	42.7
ILO (1986)	61.5	47.4	47.9	41.2	45.6
% working with a non-Arab company					
RMHS (1980)	37.5	39.1	45.1	46.5	43.0
ILO (1986)	—	—	—	—	—
% working in a construction company					
RMHS (1980)	52.4	30.4	45.1	67.0	48.2
ILO (1986)	—	—	—	—	—

Source: The 1980 Return Migrant Household Survey (RMHS) and (1986) ILO Households Survey of Return Migrants (ILO).

The Pakistani migrants appear to have been in the prime of their working lives at the time of migration. The mean age of all migrants in both surveys was about 31 years at the time of migration; however, the mean age of the skilled-level workers was higher, 35 years in the 1980 RMHS. Since migrants had an average educational level of 6 years in the 1980 RMHS and 5 years in the 1986 ILO survey, their educational attainment strongly influenced their skill levels. The educational level varied substantially across various occupations. The high-level manpower had on average higher educational level compared to other skill categories of workers. It appears that the changing educational composition of Pakistani migrants over time suggests that the share of less-educated (pre-matriculation level) workers in the migratory stream increased substantially over time, probably because of changes in the nature of labour demand in the Middle East after 1978, when demand was mainly for production workers.

The average labour market experience of the migrants before migration was 18 and 20 years in the 1980 and 1986 surveys respectively. The labour force experience before migration was negatively correlated with skill levels. The lower level of work experience among high and middle level workers reflects both young ages and a high level of schooling which kept migrants out of the labour market. In brief, these labour force characteristics — age at the time of migration, educational and skill levels and work experience before migration — suggest that Pakistani migrants had in general the ability and capacity to learn new skills or behaviour during their stay in the Middle East.

In addition to ability, personal motivation is an essential prerequisite for learning new skills (Smart *et al.*, 1986:107). Although, for the vast majority of workers, the primary purpose for going abroad was financial improvement, their marital status, efforts to obtain work abroad and intention to continue to work in the Middle East indicate personal motivation. For example, it is likely that more married individuals than single workers emigrated to fulfil the consumption needs of their families and to improve their social status. These economic needs and social ambitions may also have pushed migrants to work at lower skill levels for higher financial returns in the Middle East.

Data from the 1980 RMHS show that about three-quarters of the migrants were married before going abroad (Table 1). Pre-migration marital status reported by the 1986 ILO sample was similar to those in the 1980 RMHS. In both surveys, the share of married migrants among skilled and unskilled level workers was high compared to the share married among both high- and middle-level workers. The proportion married among migrants was also much higher than in the total adult population (GOP, 1983: Table 5). More than two-thirds of all migrant workers found overseas employment by their own efforts or through recruiting agents. Less than one-third went abroad with the help of their friends or relatives. Similarly, more than half of the return migrants intended to continue their overseas employment if they could. Although these assessments are not necessarily linked to a desire to enhance occupational skills, Pakistani migrant workers appear to have considered overseas employment as an opportunity to improve both their economic and social status.

The impact of the labour market experience (duration of stay) within the host country on the occupational distribution of migrant workers may be sizable because it is likely that migrants were able to upgrade their occupational levels as their duration of stay in the Middle East was

extended. As noted earlier, the average duration of overseas employment for all migrant workers was 3.6 and 3.9 years for the 1980 RMHS and 1986 ILO survey respectively. Middle-level workers stayed abroad the longest (about four years), and the unskilled workers the shortest (two-and-a-half years), according to the 1980 RMHS. But the mean duration of stay of high-level workers was the longest in the 1986 ILO data set. As many skills are learned on the job, the background of the company may be an important consideration (Smart *et al.*, 1986:109). About half of the unskilled workers experienced work with a company of non-Arab origin. The nature of work of the company for half of the migrants was construction, and the remaining half worked with companies involved in transport, manufacturing and service sectors. In brief, the above discussion suggest that migrant's ability, motivation and work conditions in the Middle East would place them in the context that provides positive environment for the acquiring skills.

EARNING DIFFERENTIALS

In addition to labour force characteristics related to skills acquisition and work conditions in the Middle East, earnings differentials by skill level before migration, at the beginning of foreign employment and at the end of overseas employment are also considered in order to examine the incentives for migrants to learn a skill. Table 2 shows that in both surveys the average earnings of migrants before migration and at the beginning and end of the overseas employment. Average earnings at the end of the migration period were six times higher than the pre-migration earnings. On average, migrants' earnings increased by 30 percent during their stay in the Middle East (column 5, Table 2), and the earnings of high-level workers were also about 30 percent higher than the earnings of other workers. While the training period, particularly for skilled workers, was very short (Azam, 1987; Gilani, 1986; Gilani *et al.*, 1981) and the levels of education embodied in the unskilled and the middle-level workers were almost comparable to the educational levels of the skilled and the high-level workers respectively, the differentials in earnings suggest incentives for middle-level and unskilled workers to obtain new skills and move to high and skilled levels. The question arises as to whether such learning actually occurred. This is the subject matter of the next section.

SKILLS ACQUISITION DURING OVERSEAS EMPLOYMENT

As noted earlier, skills acquisition of Pakistani migrants is measured at two levels: by a question which was asked during the surveys directly to the return migrants and by comparing the migrants' skill level before migration

with their skill level while abroad. Despite opportunities for skills development in the Middle East, most Pakistani return migrants did not acquire new work skills during their stay in the region. Only 18 percent of the 1980 sample who responded to the direct question reported that they had learned a skill while living in the Middle East (Table 3). The most common skills in this category were mechanical/electrical, driving, masonry, typing and photography. A quarter of return migrants covered in the 1986 sample reported to have learned a skill during their stay abroad. The nature of skilled learned by the ILO sample was similar to those reported by the 1980 Sample.

TABLE 2
Average Earnings of Migrants Before Migration, at
the Start of Overseas Employment and at the End
of the Overseas Stay by Skill Levels

Manpower Level	Skill Levels				
	Before (1)	Start (2)	End (3)	(3) - (1) (4)	(3) - (2) (5)
High-Level					
RMHS (1980)	12.8	49.9	66.2	5.2	1.3
ILO (1986)	17.3	—	133.0	7.7	—
Mid-Level					
RMHS (1980)	7.7	45.2	48.7	6.3	1.1
ILO (1986)	11.2	—	64.1	5.7	—
Skilled					
RMHS (1980)	7.0	32.8	45.6	6.5	1.4
ILO (1986)	10.6	—	59.5	4.6	—
Unskilled					
RMHS (1980)	6.0	28.7	36.0	6.0	1.3
ILO (1986)	8.4	—	48.1	4.7	—
All					
RMHS (1980)	7.6	35.8	45.5	6.0	1.3
ILO (1986)	10.2	—	58.8	4.8	—
All (number)					
RMHS (1980)	256	256	256	256	256
ILO (1986)	1126	1126	1126	1126	1126

Source: RMHS (1980) and ILO (1986).

TABLE 3

Return Migrants by Skill Learning Outcome and Nature of Learned Skill During Employment in the Middle East (Percentages)

<i>Learning outcome/ Nature of skill</i>	<i>Percent</i>	<i>Number</i>
Did not learn any skill		
RMHS (1980)	81.5	220
ILO (1986)	75.4	845
Learned new skill		
RMHS (1980)	18.5	50
ILO (1986)	24.6	281
All		
RMHS (1980)	100	270
ILO (1986)	100	1126
Nature of new skill		
Mechanics/electricians		
RMHS (1980)	7.0	19
Drivers		
RMHS (1980)	4.8	13
Masons		
RMHS (1980)	2.2	6
Typist/sales		
RMHS (1980)	1.9	5
Photographers		
RMHS (1980)	0.8	2
Others		
RMHS (1980)	1.8	5
All		
RMHS (1980)	18.5	50

Source: RMHS (1980) and ILO (1986).

The level of skills acquisition, on the basis of the learning index, and the skill levels both prior-to-migration and during the migration period are shown in Tables 4 and 5 respectively. Table 4 shows that about half of the 1980 sample of return migrants were able to secure an occupation abroad equivalent to their pre-migration skills level. Sixty-two percent of the 1986 ILO sample retained their pre-migration skill level while in the Middle East. This suggests that these migrant workers gained experience and

confidence in the use of previously acquired skills. However, there is a possibility that they had exposure to new technologies or modes of production. More than one-quarter of the migrants in the 1980 sample and 17 percent in the ILO sample were able to improve manpower levels during their overseas employment (Table 4). This upward mobility was most significant for workers who belonged to the unskilled-level before migration (Table 5). Similarly, a sizable proportion of both skilled and middle-level workers moved to the middle and the high levels, respectively (Table 5).

TABLE 4
Learning Skills Outcome Based on the Learning Index
for Pakistani Emigrants in the Middle East

<i>Skill Learning</i>	<i>Percent</i>	<i>Number</i>
Same-skill		
RMHS (1980)	47.5	123
ILO (1986)	62.0	698
New-skill		
RMHS (1980)	26.6	69
ILO (1986)	17.1	235
De-skill		
RMHS (1980)	25.9	67
ILO (1986)	20.9	193
All		
RMHS (1980)	100.0	259
ILO (1986)	100.0	1126

Source: RMHS (1980) and ILO (1986).

In both surveys, the proportion of skills acquisition among the migrant workers, based on the learning index, was different from the proportion of new skills reported by the migrants in response to the direct question. Two possible explanations can be offered for this difference. First, while the learning index is based on occupational change, it is likely that some migrants might not have considered their occupational mobility to be due to learning a particular new skill abroad because they had already obtained some training, formal or informal, in these skills in Pakistan before migration. Second, as noted earlier, in the direct question many respondents may have defined skill loosely; any type of job experience can be considered as skill acquisition.

TABLE 5
 Percentage Distribution of Pakistani Return Migrants
 by Skill Levels Before Migration and While Abroad

<i>Skill Levels In Pakistan</i>	<i>Skill Level Abroad</i>				<i>All</i>	<i>All (Nos.)</i>
	<i>High</i>	<i>Middle</i>	<i>Skilled</i>	<i>Unskilled</i>		
High-level						
RMHS (1980)	21.4	42.9	28.6	7.1	100	16
ILO (1986)	66.7	5.6	19.4	8.3	100	36
Middle-level						
RMHS (1980)	14.6	33.3	26.0	26.1	100	96
ILO (1986)	2.8	44.5	24.5	28.2	100	326
Skilled						
RMHS (1980)	5.8	13.6	69.0	11.6	100	67
ILO (1986)	6.6	8.4	69.8	15.3	100	334
Unskilled						
RMHS (1980)	5.0	10.0	35.0	50.0	100	80
ILO (1986)	1.6	15.6	14.0	58.8	100	355
All						
RMHS (1980)	9.7	21.2	40.5	28.6	100	259
ILO (1986)	5.5	21.5	33.7	39.3	100	1126

Source: RMHS (1980) and ILO (1986).

The two data sets, 1980 RMHS and 1986 ILO surveys, reveal that more than one-fifth of the workers who occupied high, middle and skilled level jobs before migration accepted lower ranking jobs abroad (Table 4). This downward mobility is categorized here as de-skilling — a destruction rather a creation of human capital, according to Stahl (1982:889). This downward mobility was most significant for workers who belonged to either the high level (professionals) or the middle level before migration. The foregoing analysis shows that, although migrants' abilities, motivation and work conditions in the Middle East and financial incentives provided a positive environment for learning new skills, the outcome was rather mixed. A substantial proportion of Pakistani migrants worked in the Middle East in lower level jobs than those they had held prior to migration, which suggests a clear de-skilling. However, an almost similar proportion apparently learned new skills and moved to a higher skill level during their overseas stays. In view of this complexity, further analysis examines the

determinants of skills acquisition (or de-skilling) during Middle East employment.

DETERMINANTS OF SKILLS ACQUISITION (OR DE-SKILLING)

The determinants of skills acquisition (or de-skilling) are examined using multinomial logit model. For problems involving choice among three or more categories, the multinomial logit technique is appropriate (Hoffman and Duncan, 1988; Morgan and Teachman, 1988; Robins and Dickinson, 1985). It focuses on the individual as the unit of analysis. The learning index developed in the previous section is used as the dependent variable in the models. The same-skill category is coded "0", and appears in the model as the reference or omitted category. The categories, new-skill and de-skill are coded "1" and "2" respectively. Operational definitions of the variables used to predict the skills acquisition outcome, and the results are presented in Table 6. These results are based on the 1980 data set. The coefficients express effects relative to the omitted category, same-skill. The conceptual framework underlying this model hypothesizes that skills acquisition is a function of individual and family characteristics, factors associated with the process of migration, and the Middle East labour market experience (duration of stay). In the multivariate analysis, these are entered as dummy variables.

TABLE 6
Determinants of Learning Skills While Abroad:
Results of the Multinomial Logit Model

<i>Variables</i>	<i>New-skill/Same-skill</i>	<i>De-skill/Same-skill</i>
Age at the time of migration		
< 30 years	—	—
> 30 years	-0.859**	-0.532
Family size		
< 5 members	—	—
> 5 members	0.306	1.399**
Education		
No education	—	—
1 - 9 years	0.534	0.559
> 10 years	1.093**	1.276**
Employment status before migration		
Unemployed	—	—
Employed	-1.135**	0.201

Source of job in the Middle East		
Friends/Relatives	—	—
Agent	-0.913**	-0.102
Legal status of migrants		
By road or sea	—	—
By air	-1.042**	-0.333
Duration of stay abroad		
< 15 months	—	—
> 15 months	1.355*	0.881
Constant	-0.620	-2.555**
Chi-square		46

Source: RMHS (1980)

** significant at the 5 percent level.

* significant at the 10 percent level.

The results show that two individual-level variables — age at the time of migration and education — were important determinants of skills acquisition. Older migrants, aged more than 30 years at the time of migration, were less likely than migrants aged 30 years or less to move to a higher skill level during their stay in the Middle East than to maintain their pre-migration skill levels. It is expected that most of the migrants above 30 years of age were married at the time of migration, and were perhaps therefore more likely to accept lower level jobs due to the economic and social needs of their families. This is suggested by the effect of the family-level variable, family size, on the skills acquisition outcome. Migrants who had larger family sizes, more than 5, were more likely than migrants with smaller family sizes to work at lower level jobs than to retain their pre-migration occupations during Middle East employment.

The effect of education on skills acquisition is mixed. On one hand, migrants having secondary and higher levels of education were more likely than migrants with no education to move to a higher skill level than to retain their pre-migration occupations. On the other hand, those migrants with high levels of education were also more likely to accept low level jobs in the Middle East. Since the effects of education on skills acquisition are measured relative to those who did not change their skill level while abroad, the probability of skills acquisition or de-skilling for educated migrants was about same. Education had no impact on the migrants retaining the same skill level in the Middle East. In view of the vast difference between wages offered for Middle East job compared with those

in Pakistan (Table 2), it is likely that educated migrants accepted work at lower levels abroad than those they had held in Pakistan. In addition, the negative and significant coefficient of employment status at the time of migration suggests that migrants who were employed in Pakistan at the time of migration were more likely than those who were unemployed to retain their pre-migration skills level in the Middle East.

The role of both recruiting agents and friends or relatives in the process of international contract migration is generally important. Migrants who secured work in the Middle East through recruiting agents were less likely than migrants who went abroad with the help of their friends and relatives to move to higher level jobs than to retain their pre-migration occupations. Recruiting agents generally send workers abroad for a particular job with a specified period, and these migrants may not be permitted to change their occupations, at least for that particular contract.

Since it is difficult to measure the legal status of the migrants, in the present multivariate analysis mode of travel is used as an indicator of the legal status of the emigrants. Legal recruitment, according to the emigration rules, requires the foreign employer to provide a return air fare for Pakistani contract workers. Migrants who used a mode of travel other than air are likely to have initially travelled abroad to visit holy places or perform the Haj (pilgrimage) and then prolonged their stay illegally. (About one-quarter of the migrants in the RMHS 1980 went abroad by road or sea). The negative and significant coefficient of the variable indicating the legal status of the emigrants suggests that legal migrants were more likely than illegal migrants to retain their pre-migration occupations in the Middle East.

Finally, the duration of stay abroad had a positive impact on the learning skills in the Middle East. When migrant workers first arrive in the Middle East, most lack host country specific experience which may result in their employment in low skill occupations. As their stay is extended, they might become more skillful in their jobs and more experienced in the dynamics of the host country's labour market (Al-Qudsi and Shah, 1991:151). Migrants with more than 15 months' duration of stay in the Middle East were more likely than migrants with less than 15 months' duration of stay to upgrade their occupations than merely retain previously acquired skills.

Table 7 shows the results of the multinomial logit using the 1986 ILO survey. The learning index, discussed in the previous section, was used as the dependent variable. Five explanatory variables, age, education, family

size, employment status and duration of stay were included in the model. The other two variables, sources of finding job in the Middle East and legal status of migrants, which were used in the model shown in Table 6, were not available from the 1986 ILO survey of return migrants. The results obtained from the ILO sample were not different from the results based on the 1980 sample.

TABLE 7

Determinants of Learning Skills While Abroad:
Results of the Multinomial Logit Model

<i>Variables</i>	<i>New-skill/Same-skill</i>	<i>De-skill/Same-skill</i>
Age at the time of migration		
< 30 years	—	—
> 30 years	-0.189	-0.296*
Family size		
< 5 members	—	—
> 5 members	0.443*	0.221
Education		
No education	—	—
1 - 9 years	0.851**	-0.046
> 10 years	1.730**	-0.016
Employment status before migration		
Unemployed	—	—
Employed	-0.217**	0.872
Duration of stay abroad		
< 15 months	—	—
> 15 months	0.482*	0.061
Constant	-2.932**	-1.227**

Source: ILO (1986)

** significant at the 5 percent level.

* significant at the 10 percent level.

In short, Pakistani migrants having a secondary or higher level of education and staying in the Middle East for more than 15 months were likely to upgrade their skills level during employment abroad. By contrast, Pakistani migrants with a larger family and a high level of education were more likely to accept lower skill-level jobs in the Middle East than those they had held before migration. Migrants who went abroad through

recruiting agents, and had a legal status at the place of destination were more likely to retain their pre-migration skill level while abroad.

V. DISCUSSION

The occupational skills that workers can gain through foreign employment are often cited as a positive contribution of emigration to the development process in labour-exporting countries. This study has examined whether Pakistani workers in the Middle East learn new skills. The analysis utilized two household surveys of return migrants carried out in 1980 and 1986 to measure the levels and determinants of skills acquisition.

The results derived from Brim's framework show that, despite the selectivity of Pakistani migrants, their motivation to learn skills, the favourable employment context abroad and the financial incentives to acquire new skills, only a limited group of workers learned new skills or upgraded their skills level during their stay in the Middle East. In addition, a substantial degree of de-skilling occurred, although half of the emigrants gained experienced in the use of their pre-migration skills while abroad.

The multivariate analysis regarding the determinants of skills acquisition shows that, first, the economic needs of the emigrants' families seemed largely responsible for pushing migrants to accept low skilled jobs in the Middle East. Second, the retention of previously acquired skills during overseas employment was positively associated with the legal process of emigration. It seems that although the legal migrants may not be permitted to upgrade their skill levels for a specific contract, the degree of de-skilling could be reduced by strictly enforcing the legal recruitment rules. Third, the effect of education on skills acquisition and de-skilling was similar; however, longer duration of stay (the Middle East labour market experience) enabled emigrants to upgrade their skills level while abroad.

The underlying assumption of the proposition that emigration is advantageous because it leads to skills acquisition while abroad is that the return migrants will apply those skills upon their return. Although one-quarter of the migrants experienced de-skilling abroad, the majority either retained their pre-migration occupations or moved to higher skill levels during employment in the Middle East employment. In this context, the questions arise as to what are the employment choices of the return migrants and whether these choices are related to their skill levels both before migration and during employment in the Middle East. This issue has not been examined in the present study. However, it is evident from the other studies that a substantial proportion of migrants were unemployed

after their return from the Middle East for long period of time (Gilani, 1986; Kazi, 1989; Arif, 1995). The high level of unemployment among the return migrants was strongly associated with their intention to secure the Middle East employment again, their relatively comfortable financial situation and the longer duration of stay in the Middle East. Since the longer duration of stay abroad were positively associated with the acquisition of skills, it appears that migrants who learned new skills would prefer prolonged unemployment with an intention to re-emigrate rather than using these skills in the domestic labour market. Thus, the acquisition of skills may be much less advantageous than anticipated. In addition, the prolonged periods of unemployment found among return migrants could lead to a loss of human capital.

There is a little hope for unemployed return migrants to secure overseas employment again because of the increased competition in the Middle East labour market. These unemployed return migrants are unwilling, mainly because of low wages, to enter the domestic labour market. In this situation, their economic re-integration may create problems. To avoid the destruction of the human capital, specific policy measures will be needed to enable the unemployed return migrants to adapt productively in the domestic economy. In addition to the availability of suitable employment opportunities, unemployed return migrants may be attracted to join the organized small business ventures.

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