مجله‌ی پژوهش‌های آماری ایران
پژوهشکده‌ی آمار
دوره‌ی ۶، شماره‌ی ۲، پاییز و زمستان ۱۳۸۸، صص ۱۷۷–۱۹۲
J. Statist. Res. Iran **6** (2009): 177–192

Influence of Personal Features on the Change of Individual's Decision about Presence or Absence in the Labor Force (A Gender Analysis on the Basis of Panel Data of Iran)

Fatemeh Harandi,* Maryam Javadi and Shirin Golchi

Statistical Research and Training Centre

Abstract. One of the factors which influence individual's decision for presence or absence in the labor force is their personal features. In order to take appropriate policies to create employment and remove its obstacles in the countries labor market, we need to know the factors mentioned above and determine the amount and direction in which each factor influences the probability of individual's presence in the labor force. The objective of this study is to determine how personal features influence persons' decision on entering or leaving the labor market, during a one year period, for whole working age population, males and females. To achieve such objectives, using the panel data corresponding to spring 2005 and 2006 of the labor force survey conducted by the Statistical Centre of Iran, we distinguished the two subpopulation: active and inactive people in working age in 2005 and followed their economic activity status in 2006. To determine the effective factors on the change of individuals activity status during a one-year period, we used a logit model and took advantage of the odds ratios to interpret the results of the model. The results of the study shows that substantial differences exist between men and women in terms of the stability of presence or absence in the labor force in a one-year period, however the amount of stability is also influenced by the individual features in both groups. The important finding

* Corresponding author

of this paper is that not only the probability of inactive females entering the labor market is less than that for males, but also for women who are already in the labor market, the probability of leaving the market is more than that for men. However, the probability of returning to the labor market for women is also larger than that for men.

Keywords. Gender analysis; labor force; longitudinal study; panel data.

1 Introduction

One of the requirements of planning for improvement of labor market circumstances for different population subgroups is to know about the amount of stability of presence or absence of each of these subgroups in the labor force and studying the reasons. Searches show that such a study has not been done in Iran. One of the most important subgroups are the women and one of the most controversial problems about them, especially in the recent years, has been their employment.

At international level, female participation rate is much less than male's in most of the countries which is mostly because of cultural, social, and economic situation in these countries (Jaumotte, 2003). By the sight of supporters of 'equal rights of women and men', women's employment increases their strength and abilities and weakens the gender inequalities. By the economists' point of view, female employment has a direct relationship with human investment and can be effective on speeding the economic growth in the country (Dervis, 2005). Hence, in the recent years, female participation in the labor market has been of more attention by researchers in most countries, especially those which have encountered a decreasing trend in labor supply caused by population aging.

Generally, effective factors on one's decision about presence or absence in the labor market (and also continuing of such a decision) can be classified into four categories: individual features, economic circumstances of the country and its labor market, society's cultural features and its outcomes, and government policies in the field of social welfare, immigration, taxes, etc. All of the above can contribute to individuals' decision of entering the labor market but what is of interest in this research is to study how individual features influence participation in the labor force.

Based on a set of studies economists have done on individual factors determining labor supply in the country, it can be said that despite the pattern

variety and expanded number of variables, there exists an agreement in the way that the variables: age, sex, education level, work experience, economic status, and residence area (urban/rural) influence people's participation in the labor market among the individual features (Taee, 2006).

In labor supply studies the manner in which each of the individual features influences the individual's presence or absence in the labor force is usually studied by analyses based on cross sectional data using non-linear probability models such as probit and logit. In such analyses, by comparing personal features for the individuals present in the labor force and those of working age who are not present in the labor force, the magnitude and direction of the effect of each of the factors influencing the probability of individual's presence in the labor force is estimated.

Questions which these kinds of analyses are unable to answer are: how much is the stability of presence or absence in the labor market for people with different personal characteristics and to what extent is the stability influenced by these features? In this paper, for the first time in Iran, using the panel data collected by the Labor Force Survey (LFS) that conducted quarterly by the statistical center of Iran (SCI) for the common sample individuals of the same quarter of two consecutive years, the stability of presence or absence in the labor force of Iran in a one-year period has been considered and factors affecting the economic status change of active people to inactive and vice versa has been studied with focusing on the pattern of females economic status change and comparing it with males'.

Questions which are going to be answered in this survey are as follows:

- Whether gender is effective on stability of presence or absence in the labor force?
- Whether individual features such as age, educational level, marital status, residence area, the relationship of individuals with the head of household and etc. are effective on stability of presence or absence in the labor force?
- Whether employment features (current job features for employed and features of the job of interest for unemployed) such as employment status, industry sector and duration of work experience are effective on stability of presence in the labor force?
- Whether having a former job experience and the reasons for not seeking work are effective on stability of absence from the labor force?

By addressing these questions planners and policy makers will gain a better understanding of the manner of entrance to the labor market and staying in it for different subgroups of the population, which can be helpful in taking supporting and encouraging policies to improve the labor market circumstances.

The available data are described in the second section of this article, the models are described in the third section and lastly our conclusions are given in section four.

2 Description of the Data and Variables Used

We have performed our analysis on the data files of the LFS for the first quarter of 2005 and 2006 conducted by SCI. The LFS is a quarterly survey with sample size about 46000 household nation-wide every quarter. The survey major objective is to identify the current status structure of the labor force and its seasonal and annual changes. The target population is consisting of all individuals who, by definition, are members of the private settled households in urban and rural areas of the country (SCI, 2005).

The LFS's sampling method is stratified two-stage cluster sampling in which the sampling unit of the first stage is an area with 100-200 households and for the second stage is a random sub-group covering three households. The data collection unit is housing unit in which the sample household is living.

Considering the fact that the concern of LFS is to present both level and changes estimates, rotation sampling with a 2-2-2 pattern is used. That is every sample household is interviewed for 2 consecutive quarters and then dropped out for the next 2 quarters and is brought back in the following 2 quarters. Overall, a sample household is interviewed four times. The rotation scheme ensures that in any quarter $\frac{1}{4}$ households are interviewed for the first time, another $\frac{1}{4}$ for the second time, and so on. So, there will always be a 50 percent quarter to quarter overlap and 50 percent year to year overlap for the same quarters.

To obtain the related estimates, it is necessary to properly weight the data resulting from the survey for each member of the sample households. Weighting can be carried out in three stages: the base sampling weight (inverse of the selection probability), adjusting the weight for the unit non response, and calibration (Devill and sarndal, 1992) the weight based on population projections by sex, urban/rural and 3 age groups. The final

Table 1. Labor force participation rate, Iran Spring 2005 and 2006

Year	Total	Male	Female
2005	41.4	64.6	17.7
2006	41.3	64.0	18.1

weight which is obtained by above stages indicates that how many individuals are represented by any individual in the sample, in the related population sub group.

The concepts and definitions have been used in LFS is consistent with the latest international recommendations by International labor Organization (ILO, 1992, 2000).

The industry classification is based on ISIC, Rev. 3 (UN, 1990). The data used in this paper are the results of the LFS in the spring of two consecutive years, 2005 and 2006, containing the common sample households in these two seasons. Considering the definition of minimum age for measuring the economic activity in Iran, information corresponding to people aged 10 and over, common between two above seasons was selected as the panel data of working age population in the country (40979 people).

Table 1 illustrates labor force participation rate in total and by sex for spring 2005 and 2006 which shows its relative stability during this period.

Based on the results of LFS, unemployment rates for spring 2005 and 2006 were 11.94 and 11 percents respectively which show a slight decrease in unemployment rate for this period.

3 Method

Considering the constructed panel data, people aged 10 and over in the sample are divided into two categories: active people (16631) and inactive people (24348) with respect to their economic activity status in spring 2005. For each category a binary response variable is defined as follows:

$$y_{\text{active}} = \begin{cases} 0 & \text{active in both spring 2005 and 2006} \\ 1 & \text{active in spring 2005 and inactive in spring 2006} \end{cases}$$

$$y_{\text{inactive}} = \begin{cases} 0 & \text{inactive in both spring 2005 and 2006} \\ 1 & \text{inactive in spring 2005 and active in spring 2006} \end{cases}$$

Table 2. Transition matrix of work age population in 2005-2006 Period

Economic Activity Status in 2005	Economic Activity Status in 2006	
	Active	Inactive
Active	83.9	16.1
Inactive	10.9	89.1

Table 2 shows the transition matrix of population aged 10 and over in the period 2005-2006.

Table 2 shows, 16.1 percent of the active population in 2005 have left the labor force in spring 2006 and 10.9 percent of the inactive population in 2005 have entered the labor force in 2006. The data file shows that only 3 percent of the active population in 2005, have left the labor market because of retirement and only 1 percent of the inactive population in 2005 have entered the labor market for the first time. Hence, it seems that there exist important factors other than the natural factors that cause people to leave or to enter the labor market.

To answer the question of which individual and household factors have caused active people to become inactive and vice versa reverse in the one-year period, economic activity status change for active and inactive people during one year, and , are considered as response variables and the influence of some effective variables has been studied by means of logit models. Odds ratios have been used to interpret the results of fitting the models. The odds ratio is a measure of effect size, describing the strength of association or non independence between two binary data values. It is used as a descriptive statistics and plays an important role in logistic regression.

Considering the results of previous studies on individual features influencing the probability of presence or absence in the labor force based on cross sectional data (Taee, 2007), and the information available in the panel data we used in this study, the following table shows variables have been used as categorical explanatory variables in modeling the economic activity status change.

Note that in the case the explanatory variables have more than two levels, each level is known as a dummy variable and using one level as the comparison base (base line), the change in the probability of the response variable not being zero is estimated by any other level of the variable. To estimate the effect of explanatory variables on the logarithm of the odds ratios of changing economic activity status to its being fixed, the following logit models were used (Agresti, 2002). It should be mentioned that in order to

avoid overestimation in inferences precision, sampling design features were considered in the fitted model (Hansen, 1983).

$$\log\left\{\frac{\Pr(y_i=1|X)}{\Pr(y_i=0|X)}\right\}=X\beta \qquad i=1,2.$$

In the above models y_1 and y_2 are response variables corresponding to the status change of active and inactive people in spring 2005, X is the vector of explanatory variables, and β is the vector of logistic model coefficients which is estimated by maximum likelihood methods. The models have been fitted for men and women separately as well as the whole population.

4 Findings

The parameters estimated on the basis of two logit models using Stata is provided in Table 4. Results for each model are presented by sex and also for the whole population. These models are fitted with all relevant variables, which are introduced in Table 3, but as Table 4 shows, some parameters are not statistically significant at %5 level. In order to have a clear interpretation of the results, a backward selection approach is adopted in constructing the models which the results of this approach are presented in Table 5. This approach is a safer procedure to delete not significant terms from a complex model than forward approach (Agresti, 2002).

It should be mentioned that by using backward approach, some levels of explanatory variables with more than two levels, are omitted from the model as they are not significant. So for interpretation of the results of remained levels of these explanatory variables, the base line is consisted of all other levels that are not appear in the model. For determining the contribution of each variable in the total some of squares, an analysis of variance is used and the results of it, is provided in Table 6.

Interpretation of the models is based on the assumption that the labor market situation has been relatively stable during the one year period of interest. Considering the figures of Table 1 and the unemployment rate in 2005 and 2006, it seems the stability is a reasonable assumption. So, the manner of change in economic activity status is solely affected by individual features and is the result of change in these features.

Table 3. Explanatory variables used in the model

Explanatory Variable	Description	Percent of Sample: Model I (for active pop 10 year and over in Spring 2005)	Percent of Sample: Model II (for inactive pop 10 year and over in Spring 2005)
UR	Place of Residence: Urban = 0	57.6	65.6
	Rural = 1	42.4	34.4
RHH	Relationship to Head of Household: Head of Household = 0	56	10.2
	Other = 1	44	89.8
Gender	Male=0	76.4	30.7
	Female=1	23.6	69.3
Age	10-14 Years =1	1.2	19.3
	15-24 Years =2	20.6	33.6
	25-54 Years =3	66.7	31.9
	55 Years and over =4	11.5	15.2
MIS	Migration Status in Spring 2006: Non migrant = 0	96.6	96.6
	Migrant = 1	3.4	3.1
ATS	Attending Status in Spring 2006: Non attending = 0	95.2	62.1
	Attending = 1	4.8	37.9
EDL	Level of Education: Non university education = 0	86.2	94.8
	university education = 1	13.8	5.2
MAS	Marital Status in Spring 2006: never married = 0	26.4	51.5
	other = 1	73.6	48.5
IND[1]	industry sector: agriculture = 1	30.1	
	manufacturing = 2	26.2	
	services = 3	43.7	
EMPS[2]	employment status: self employed = 1	38	
	employee = 2	47.6	
	unpaid family worker = 3	14.4	
JD[3]	total duration of work experiences: less than 5 years = 1	24.2	
	5-9 years = 2	13.8	
	$10 - 14 = 3$	12.8	
	15 years and over = 4	49	

Continue of Table 3. Explanatory variables used in the model

Explanatory Variable	Description		Percent of Sample: Model I (for active pop 10 year and over in Spring 2005)	Percent of Sample: Model II (for inactive pop 10 year and over in Spring 2005)
LWE	last work experience status	without experience = 0		84.4
		with experience = 1		15.6
NSWR	reasons of not seeking work or not available for work	awaiting for outcome of necessary condition for starting work later[4] = 1		0.8
		discouraged worker = 2		1.0
		not aware how to seek work = 3		1.00
		sickness, pregnancy = 4		7.2
		education or training = 5		41.5
		personal/family responsibilities = 6		39.7
		no need to work = 7		3.7
		other = 8		5.1

1. For employed persons, is the main Industry in their work place, for unemployed persons is their preference industry,

2. For employed person is the Status of employment of their Job and for unemployed person is their preference employment Status,

3. In all Jobs,

4. This category consist of five groups as: already found work to start later, awaiting replies from employers, waiting for outcome of activities performed to start self employment, awaiting recall to former job and awaiting busy season.

The most important results gained of Table 5 are as follows:

- Gender is an effective factor on the stability of presence or absence in the labor force, such that with other factors fixed, the probability of leaving the labor force for active women was 6.4 times more than that for active men .Moreover, the probability of entrance to the labor force for inactive men was 8 times more than that for inactive women. Hence, not only fewer women entered the labor market in comparison with men, but also they stayed a shorter time in the labor market. This can be in conclusion of many different reasons among which are, after-marriage limitations, housekeeping and baby sitting responsibilities,

and to some extent the financial security caused by marriage. Results also agree that the probability of leaving the labor force for married active women was 1.4 time more than that for other active women; and the probability of entrance into labor market for married inactive women was less than that for other inactive women (by 0.63). One barrier for leaving the labor market for active women is higher education, such that the probability of leaving the labor force for higher educated active women was 5 times less than that for other active women, and the probability of entrance into labor force for higher educated inactive women was 6 times greater than the probability of entrance for other inactive women. In fact, one reason is that women with higher education have a different view about employment and labor market; they don't take it as only for time consuming or financial support, but a kind of social attitude. However, more and better employment opportunities that exist for higher educated women in comparison with other women should not be ignored. Results also show that women employed in agriculture sector had higher probability (more than twice) of leaving the labor force in comparison with those employed in other sectors (services and industry sectors). The probability of leaving the labor force for active women with less than 5 years work experience was 3 times more than that for active women having more spell of work experiences (5 years and over), while this variable (short work experience) had just a slight effect with the same direction on the probability of leaving the labor force for active men (1.5 times).

- Rural residence decreases the probability of becoming inactive for active women (by 0.71) and also increases the probability of becoming active for inactive people regardless of gender (more than twice). Hence, women in rural areas entered the labor market with higher probability and were more stable in the labor market in comparison with those in urban areas.

- Being migrant decreased the probability of becoming inactive by a factor of 0.59 for active people. Female active migrants had about half the probability of leaving the labor force of those who were not migrants; hence, female migrants were more stable in the labor force in comparison with other women. Moreover, female inactive migrants had more than half the probability of entrance into labor force of inactive females who were not migrants. In fact, generally migrants, and especially fe-

male migrants, have lower socio-economic position in comparison with natives, so changing economic activity is more difficult for them than the others.

- Generally being student highly increases the probability of leaving the labor force for active people (more than 11 times). However, the degree of increase was much for men than women. In fact women who were already present in the labor force were less likely to leave the labor force because of being student compared with men. Also being student highly reduced the probability of entrance into labor market for inactive people (25 times).

- Not having a former job experience was an important factor on the probability of entrance into the labor force for inactive people. However, the degree of importance was completely different for men and women. The probability of entrance into labor force for inactive women with former job experience was 5.5 times less than the probability for other inactive women, while this probability for inactive men with former job experience was 25 times less than it for other inactive men. Thus, most of the inactive men who enter the labor market after one year were the new workers, while this was not necessarily true for women. This result is to emphasize again that women's presence in the labor market is less stable and they enter and exit the labor market more frequently in comparison with men.

- Results obviously showed that for people who have marginal contiguity with the labor force, the probability of entrance into labor force was so much higher than that for other people; that is, for those who were waiting for sufficient requirements to prepare to start working, those discouraged of seeking work (discouraged workers) and those who were not aware of job searching methods, the probabilities of entrance into labor market were respectively 6, 2.6, and 3 times more than the probability for other inactive people (except those who were inactive because of family responsibilities). The degree of marginal contiguity for men was much higher than that for women. A surprising point was that the probability of entrance into labor force for inactive women discouraged of finding jobs, did not have any significant difference with other inactive women.

Table 4. Estimated parameters and odds ratios in logit models of status change in active or inactive population after one year

Variable	Model I						Model II					
	Total		Male		Female		Total		Male		Female	
	Parameter	Odds Ratio	Parameter	Odds Ratio	Parameter	Odds Ratio	Parameter	Odds Ratio	Parameter	Odds Ratio	Parameter	Odds Ratio
UR	**-0.20**	**0.82**	0.004	1.004	**-0.41**	**0.66**	**0.86**	**2.35**	**0.60**	**1.81**	**0.98**	**2.66**
RHH	**0.41**	**1.51**	-0.22	0.81	0.31	1.36	**-0.54**	**0.59**	**0.64**	**1.90**	0.30	1.35
Gender	**1.60**	**4.95**	—	—	—	—	**-1.97**	**0.14**	—	—	—	—
Age 1	**0.72**	**2.05**	**1.38**	**3.96**	0.24	1.27	**-1.09**	0.34	**-1.89**	**0.15**	**-0.60**	**0.55**
Age 2	**0.23**	**1.26**	**0.71**	**2.03**	0.07	1.07	-0.19	0.83	**-0.79**	**0.46**	-0.11	0.90
Age 4	**1.3**	**3.53**	**1.53**	**4.62**	**0.69**	**1.99**	**-0.67**	**0.51**	**-0.88**	**0.42**	**-0.59**	**0.55**
MIS	**-0.53**	**0.89**	-0.33	0.72	**-0.79**	**0.46**	-0.25	0.78	0.19	1.21	**-0.56**	**0.57**
ATS	**2.38**	**10.83**	**2.54**	**12.7**	**1.79**	**5.96**	**-3.15**	**0.04**	**-3.02**	**0.05**	**-2.92**	**0.05**
EDL	**-0.87**	**0.42**	-0.10	0.90	**-1.46**	**0.23**	**1.46**	**4.32**	**0.86**	**2.37**	**1.78**	**5.93**
MAS	**0.26**	**1.30**	**-0.71**	**0.49**	**0.39**	**1.48**	**-0.28**	**0.76**	**1.44**	**4.25**	**-0.46**	**0.63**
IND 1	**0.41**	**1.50**	0.14	1.15	**0.72**	**2.06**						
IND 2	0.10	1.11	0.07	1.08	0.002	1.00						
EMPS 1	**0.27**	**1.31**	0.14	1.16	**0.46**	**1.58**						
EMPS 3	**0.26**	**1.30**	0.08	1.08	0.22	1.25						
JD 1	**0.75**	**2.12**	-0.01	0.99	**1.11**	**3.04**						
JD 2	0.002	1.002	**-0.54**	**0.58**	0.25	1.28						
JD 3	-0.18	0.84	**-0.50**	**0.61**	0.07	1.07						
LWE							**-2.27**	**0.10**	**-3.25**	**0.04**	**-1.72**	**0.18**
NSWR 1							**1.91**	**6.73**	**1.97**	**7.14**	**1.50**	**4.47**
NSWR 2							**1.12**	**3.08**	**1.49**	**4.45**	0.58	1.79
NSER 3							**1.23**	**3.43**	**1.84**	**6.30**	**1**	**2.73**
NSWR 4							**-0.044**	**0.96**	**-0.62**	**0.54**	**0.60**	**1.83**
NSWR 5							0.26	1.30	0.04	1.04	**0.64**	**1.89**
NSWR 6							-0.08	0.92	**0.76**	**2.14**	0.36	1.44
NSWR 8							0.19	1.21	-0.28	0.75	**0.83**	**2.3**
–Cons	-3.34	—	-2.39	—	-1.37	—	0.54	—	0.15	—	-2.65	—
Pseudo R 2	0.22		0.19		0.12		0.25		0.41		0.14	

Note: Bold numbers are significant at 5% level.

Table 5. Estimated parameters and odds ratios in logit models of status change in active or inactive population after one year (using backward selection approach)

Variable	Model I						Model II					
	Total		Male		Female		Total		Male		Female	
	Parameter	Odds Ratio	Parameter	Odds Ratio	Parameter	Odds Ratio	Parameter	Odds Ratio	Parameter	Odds Ratio	Parameter	Odds Ratio
UR	—	—	—	—	-0.34	0.71	0.84	2.32	0.58	1.78	0.98	2.66
Gender	1.86	6.40					-2.10	0.12				
Age 1	0.74	2.10	1.49	4.45	—	—	-0.90	0.40	-1.68	0.19	-0.44	0.64
Age 2	0.23	1.26	0.62	1.85	—	—	—	—	-0.60	0.55	—	—
Age 4	1.23	3.43	1.69	5.42	0.58	1.78	-0.56	0.57	-0.96	0.38	-0.59	0.55
MIS	-0.53	0.59	—	—	-0.80	0.45	—	—	—	—	-0.57	0.56
ATS	2.43	11.39	2.46	11.80	1.84	6.30	-3.13	0.04	-2.96	0.05	-2.79	0.06
EDL	-0.95	0.38	—	—	-1.54	0.21	1.50	4.47	0.88	2.41	1.84	6.30
MAS	—	—	-0.36	0.70	0.31	1.36	—	—	1.04	2.84	-0.46	0.63
IND 1	0.36	1.44	—	—	0.78	2.18						
EMPS 1	0.14	1.15	0.25	1.25	0.33	1.39						
JD 1	0.78	2.18	0.37	1.45	1.01	2.76						
LWE							-2.20	0.11	-3.26	0.04	-1.70	0.18
NSWR 1							1.77	5.87	2.02	7.58	1.09	2.98
NSWR 2							0.97	2.64	1.58	4.86	—	—
NSWR 3							1.06	2.88	1.90	6.66	0.59	1.80
NSWR 4							—	—	-0.54	0.58	—	—
NSWR 5							—	—	–	—	—	—
NSWR 6							-0.28	0.76	0.79	2.21	—	—
NSWR 8							—	—	—	—	0.40	1.49
–Cons	-2.97		-2.91		-1.20		0.06		0.58		-2.0	
Pseudo R 2	0.22	0.22	0.17	0.17	0.12	0.12	0.25	0.25	0.41	0.41	0.14	0.14

Table 6. analysis of variance

Sorce	Partial SS					
	Model I			Model II		
	Total	Male	Female	Total	Male	Female
Model	**438.07**	**191.48**	**118.26**	**412.80**	**427.75**	**92.51**
UR	–	–	2.44	23.27	4.35	17.31
Gender	160.09			70.6		
Age 1	4.15	6.67	–	1.86	4.08	0.005
Age 2	0.84	2.27	–	–	1.54	–
Age 4	27.66	28.07	3.85	12.47	8.35	2.94
MIS	0.94	–	1.82	–	–	0.53
ATS	93.30	86.39	25.02	158.82	135.74	36.10
EDL	14.49	–	29.24	20.21	3.55	14.38
MAS	–	0.43	2.22	–	2.06	6.59
IND	4.80	–	10.94			
EMPS 1	0.18	0.85	2.34			
JD	11.78	0.82	24.35			
LWE				73.49	110.24	13.74
NSWR 1				21.85	11.42	0.92
NSWR 2				6.44	6.62	
NSWR 3				7.88	8.89	0.66
NSWR 4				–	2.15	–
NSWR 5				–	–	–
NSWR 6				25.11	1.27	–
NSWR 8				–	–	–
Residual	**1598.47**	**933.66**	**725.20**	**1947.66**	**637.39**	**1151.03**

5 Conclusion

Longitudinal studies, by use of panel data, enable us to understand the way in which personal features affect the change in individual's decision on entering or leaving the labor force. Since substantial differences exist between men's and women's behavior in the labor market, the mentioned studies should be done separately for men and women. The objective of this study is to determine how personal features influence inactive persons' decision on entering the labor market, and on decision of active people for staying in

this market, during a one year period, for whole working age population, males and females. The study findings show that the traditional pattern in which men provide main income of the household is still the prevailing pattern, and the amount and manner of female participation in country's labor market in urban areas has still many differences with males. In fact, stability of presence for the few women who enter the labor market in urban areas is much less than that for men. Since higher educated women are much more stable in the labor force, it seems that the instability of presence in the labor market for women without higher education is aggregated of demand-supply factors effect, such that labor market's demand for these women is usually limited to inadequate work without sufficient job security which causes the cost-effect of presence in the labor force different for this group from higher educated women; so that they enter the labor market and stay in it only if actually needed, and leave the labor market as soon as their requirements are met (time consumption, income) or a change occurs in their situation (marriage, childbirth). Other thing concluded from this study is that stability of individual's presence or absence in the labor force in a one-year period is totally influenced by their features, among which gender is the most important and most effective factor and most of the times has a determining role in the intensity and direction of other features.

References

Agresti, A. (2002). *Categorical Data Analysis*, Second Edition, Wiley, New York.

Deville, J.C. and Sarndal, C.E. (1992). Calibration estimators in survey sampling. *Journal of the American Statistical Association*, **87**, 376-382.

Dervis, K. (2005). Gender Equality. United Nations Development Programme.

Hansen, M.H.; Madow, W.G. and Tepping, B.J. (1983). An evaluation of model dependant and probability-sampling inferences in sample surveys. *Journal of the American Statistical Association*, **78**, 776-793.

ILO, (2000). Current International Recommendations on Labor Statistics, 2000 Edition. International Labor Organization, Geneva.

ILO, (1992). Surveys of Economically Active Population. Employment, Unemployment and Underemployment, An ILO Manual on Concept and Methods. International Labor Office, Geneva.

Jaumotte, F. (2003). Female Labor Force Participation: Past Trends and Main Determinants in *OECD Countries, OECD Economics Department Working Papers*, No. 376.

SCI, (2005). Results of the Labor Force Survey. Statistical Center of Iran, Tehran (in Persian).

Taee, H. (2006). An Analysis Based on Micro Data. *Quarterly Iranian Economic Research*, No. 29 (in Persian).

UN, (1990). International Standard Industry Classification of all Economic Activities, Rev, 3.

F. Harandi
Statistical Research
and Training Centre,
145, Sartip Fakoori St.,
Baba-Taher St.,
Dr. Fatemi Ave.,
Tehran, Iran.
email: *harandi@srtc.ac.ir*

M. Javadi
Statistical Research
and Training Centre,
145, Sartip Fakoori St.,
Baba-Taher St.,
Dr. Fatemi Ave.,
Tehran, Iran.
email: *m-javadi@srtc.ac.ir*

S. Golchi
Statistical Research and Training Centre,
145, Sartip Fakoori St.,
Baba-Taher St.,
Dr. Fatemi Ave.,
Tehran, Iran.
email: *golchishirin@yahoo.com*