A Selection of Labor Force Survey Results
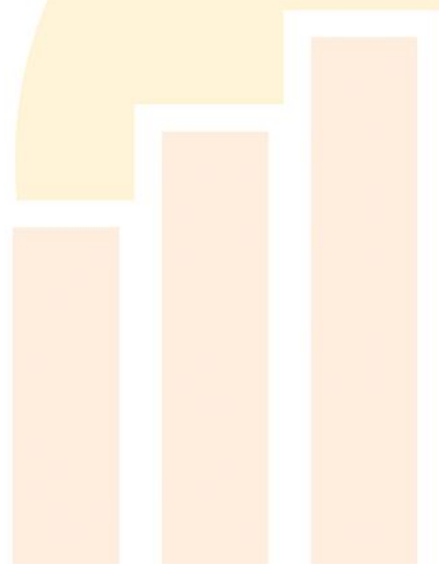
Winter 1398[1] (22 December 2019- 19 March 2020)

_____

[1].It is the Iranian year which usually begins on the day of 21 March of the Gregorian calendar. To find the corresponding year of the Gregorian calendar, add 621 or 622 (depending on the time of the year) to a solar Hijri year. For example, the corresponding year of the year 1398 in the Gregorian calendar is (21 March 2019-19 March 2020).

Iranian seasons and their equivalent in Gregorian calendar

Spring (21 March-21June)

Summer (22 June -22 September)

Autumn (23 September -21 December)

Winter (22 December -19 March)

Introduction

The pair concepts of employment and unemployment are so basic to national economies that any rise in employment rate - which means a drop in unemployment - is reckoned as an indicator for the national development. Moreover, the unemployment rate is an indicator for appraising the national economic conditions. The information on the nation's market would be collected through the Household Employment and Unemployment Characteristics Survey (HEUCS) as of the year 1376. However, in order to improve the HEUCS quality and its conformance with the international concepts, particularly, with those of the ILO, the survey plan was revised in order that the current plan namely "Labor Force Survey" could be implemented. The "Labor Force Survey" was first conducted in the year 1384 and since then has regularly been taken in the middle month of every season.

The "Labor Force Survey" is conducted in order to obtain information on the composition and current condition of labour force and its changes. This objective is accomplished by "estimation of seasonal and annual labour force indicators at the national and provincial levels", "estimation of the annual number of population in the labour force at national and provincial levels", "estimation of seasonal and annual changes in labour force indicators at the national level", and "estimation of annual changes in labour force indicators at provincial levels".

The population covered in this survey includes the people who, according to the definition, are members of private or collective settled households in rural or urban areas, so the members of private unsettled households and institutional households are not included in this survey. The method used for conducting this survey is a two-step classified clustering method. In this survey, in addition to the estimation of current levels, the estimate of changes is made; therefore, the rotation sampling is used. The rotation sampling can provide the estimate of current levels and changes in the best manner by fixing some sample units between two quarters of the survey and changing the remaining units. With respect to the aim of the survey, the selected rotation pattern for this survey is a "2-2-2" pattern which means that during the Master Sample period, each sample household is enumerated four times; accordingly, that sample household is in the sample for two successive quarters and then is excluded from the sample temporarily for two successive quarters and again is included in the sample for the two next successive quarters. This household is then excluded from the sample until the end of the years related to the master sample period. It should be noted that for the optimal conduct of rotation sampling, the master sample is needed. The master sample refers to the sample that can be used for selection of sub-samples to satisfy the needs of several surveys or several rounds of a survey. The sampling frame of the first step (from the spring of the year 1397) is the fourth master sample of the household surveys. The master sample includes the sampling units (clusters) of the first step. Each cluster includes one block/village, part of a large block/village or in some cases a combination of some small blocks/villages which were created from the 2016 National Population and Housing Census. With respect to the changes in population and housing units in urban areas and in order to prepare an appropriate and updated frame in urban areas, some households were listed within the master sample clusters in the winter of the year 1397, but due to minor changes in population and housing units in rural areas, no listing was made in rural areas (unless in exceptional cases).

It should be cited that since the spring of the year 1397, the confidence interval for the unemployment rate has been 95 percent in the release of the Survey results. In view of the statistical methodology, the confidence interval means that if several samples are selected from the target population by using the same sampling method, and based on each of the samples, a confidence interval is calculated for the real unemployment rate. It is expected that 95% of these confidence intervals include the real unemployment rate.

Furthermore, according to the studies made, due to social changes in working age entering into the labour market in recent years in different countries, the minimum age of 15 has been considered for the review of the labour market key indicator; accordingly, owing to similar changes in our country, and also the country's labor law (code) on the age of entry into the work, allowing people aged 15
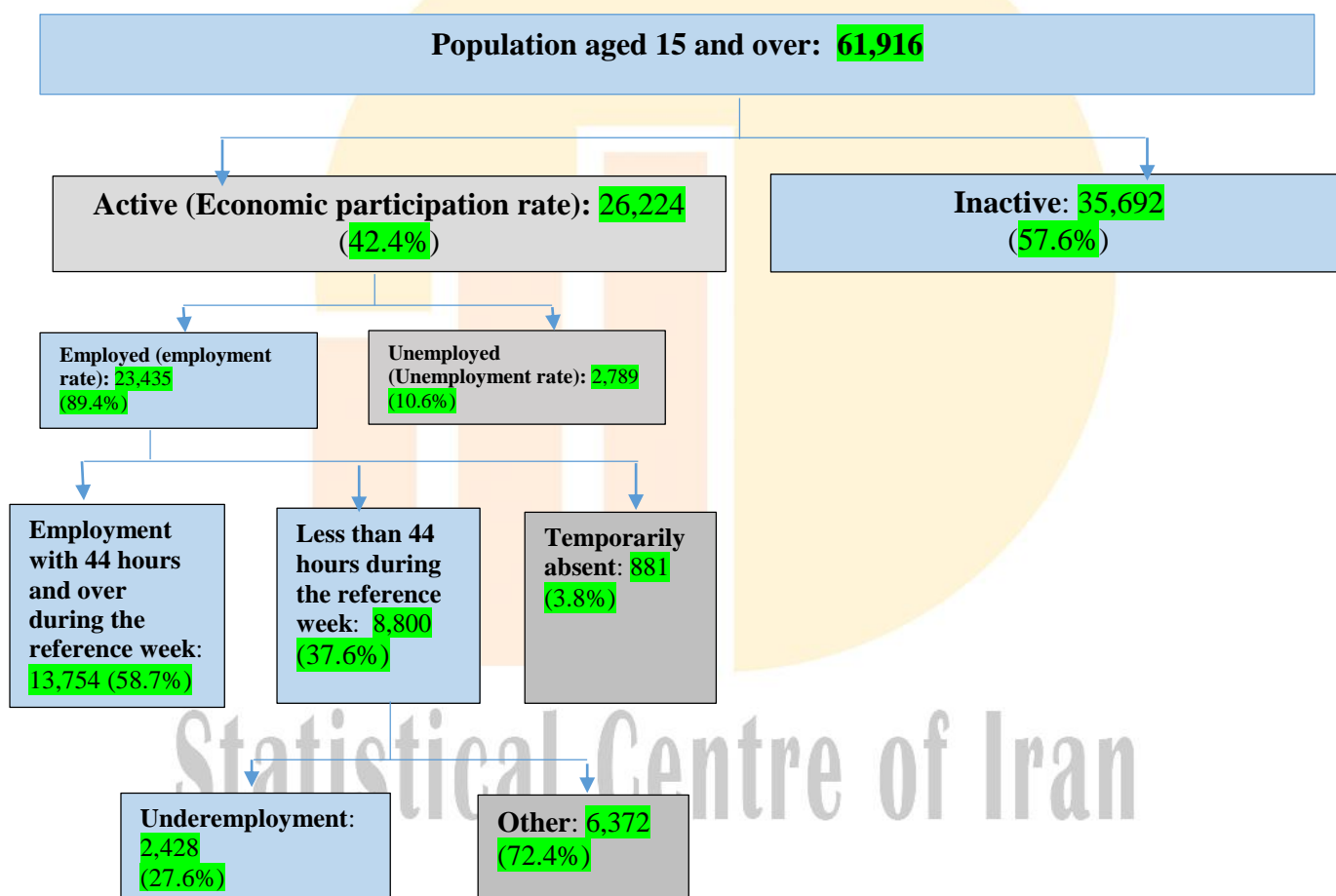
and over to carry out the work, the major indicators of the national labour market are calculated and presented based on the population aged 15 and over from now on.

Findings

Based on the results of this survey conducted for the winter of the year 1398, the most important (major) indicators of the labor market and its changes in this season compared to the winter of the year 1397, are presented in Table 1. Also, tables 2 and 1-2 show the major characteristics of the labor market by province. It is worth mentioning that in each season, according to the relevant standards and technical plan of labor force survey, information on the activity status of individuals in the second week of the full calendar and the following week in the middle month of each season is collected; therefore, the winter information of this Survey was related to the 12th to the 25th of the month of Bahman of the year 1398, which was not affected by the coronavirus outbreak in the country.

Figure 1 shows the major indicators of labour market in the winter of the year 1398 at a glance.

Major Indicators of Labour Market- Winter, the Year 1398
(Thousand people)

A review of the economic participation rate for the population aged 15 and over (activity rate) reveals that 42.4% of the population at working age (15 years and over) are economically active; i.e., they lie either in the employed or the unemployed group. In addition, the results indicate that the economic participation rate stands lower for women compared to men and urban areas in contrast to rural areas. The review of the trend of the changes in national economic participation rate shows that this indicator decreased by 1.1% as compared with the last corresponding season (winter, the year 1397). The review of the employment rate of the population aged 15 and over shows that 37.8 percent of the working-age population (15 years and over) were employed. This indicator stands higher for men and rural areas compared to women and urban areas.

TABLE 1. MAJOR LABOR FORCE INDICATORS BY SEX, URBAN AND RURAL AREAS; WINTER, THE YEAR 1398 COMPARED TO THE WINTER[1], THE YEAR 1397 (Number person-rate, share and ratio: percent)

Labor Force Indicators[2]		Total country			Male			Female		
		Winter, the year 1398	Winter, the year 1397	Changes	Winter, the year 1398	Winter, the year 1397	Changes	Winter, the year 1398	Winter, the year 1397	Changes
Population aged 15 and over	Number	61915913	61242648	673265	30960443	30640921	319522	30955471	30601726	353745
Economic participation rate of population aged 15 and over	Rate	42.4	43.5	-1.1	69.4	70.7	-1.3	15.3	16.3	-1.0
	Number	26223747	26654077	-430330	21490428	21663504	-173076	4733319	4990572	-257253
Employment rate of population aged 15 and over	Ratio	37.8	38.2	-0.4	63.0	63	0.0	12.7	13.3	-0.6
	Number	23435161	23382708	52453	19514744	19317157	197587	3920417	4065550	-145133
Unemployment of population aged 15 and over	Rate	10.6	12.3	-1.7	9.2	10.8	-1.6	17.2	18.5	-1.3
	Number	2788587	3271368	-482781	2341070	2346347	-5277	812902	925021	-112119
Unemployment of population aged 15-24	Rate	25.7	28.1	-2.4	23.0	25.3	-2.3	36.1	39.8	-3.7
	Number	653807	758046	-104239	544982	547245	-2263	186213	210800	-24587
Unemployment of population aged 18-35[3]	Rate	17.8	19.4	-1.6	14.9	16.6	-1.7	29.0	30.1	-1.1
	Number	1996706	2344887	-348181	1582737	1585142	-2405	561908	759744	-197836
Unemployment of higher education graduates	Rate	15.6	17.6	-2.0	11.2	12.8	-1.6	24.7	27.2	-2.5
	Number	1088287	1230305	-142018	526379	591730	-65351	561908	638572	-76664
Employment in agriculture sector	Share	15.6	16	-0.4	15.6	15.9	-0.3	15.8	16.2	-0.4
	Number	3655341	3735680	-80339	3079038	3079038	0	1033372	656641	376731
Employment in manufacturing sector	Share	31.7	32.3	-0.6	32.8	33.6	-0.8	26.4	26.3	0.1
	Number	7429268	7559420	-130152	6489364	6489364	0	2267125	1070056	1197069
Employment in services sector	Share	52.7	51.7	1.0	51.7	50.4	1.3	57.8	57.5	0.3
	Number	12347900	12082857	265043	9745288	9745287	1	2267125	2337569	-70444
Underemployment	Share	10.4	11.5	-1.1	11.5	12.6	-1.1	4.9	6.0	-1.1
	Number	2428346	2687119	-258773	2443212	2443212	0	192374	243906	-51532
The share of the unemployed higher education graduates out of the total unemployed population	Share	39/0	37.6	1.4	22.5	25.2	-2.7	76.2	69.0	7.2
The share of the employed higher education graduates out of the total employed population	Share	25	25	1	20.7	20.9	-0.2	43.7	42	1.7
Economic participation of the population aged 10 and over	Rate	38.3	39.5	-1.2	62.6	64	-1.4	13.9	14.9	-1.0
Employment of the population aged 10 and over	Ratio	34	35	0	56.9	57	-0.1	11.5	12.1	-0.6
Unemployment of the population aged 10 and over	Rate	10.6	12.3	-1.7	9.2	10.8	-1.6	17.1	18.5	-1.4

TABLE 1. MAJOR LABOR FORCE INDICATORS BY SEX, URBAN AND RURAL AREAS; WINTER, THE YEAR 1398 COMPARED TO THE WINTER[1], THE YEAR 1397 (continued) **(Number person, rate, share and ratio: percent)**

Labor Force Indicators[2]		Urban areas			Rural areas		
		Winter, the year 1398	Winter, the year 1397	Changes	Winter, the year 1398	Winter, the year 1397	Changes
Population aged 15 and over	Number	47255269	46510319	744950	14660644	14732329	-71685
Economic participation rate of population aged 15 and over	Rate	41.6	42.9	-1.3	44.6	45.4	-0.8
	Number	19680693	19959130	-278437	6543055	6694946	-151891
Employment rate of population aged 15 and over	Ratio	36.9	37.2	-0.3	40.8	41.4	-0.6
	Number	17446436	17281807	164629	5988725	6100901	-112176
Unemployment of population aged 15 and over	Rate	11.4	13.4	-2.0	8.5	8.9	-0.4
	Number	2234257	2677323	-443066	554330	594045	-39715
Unemployment of population aged 15-24	Rate	27.9	30.8	-2.9	20.5	21.8	-1.3
	Number	496189	581048	-84859	157618	176997	-19379
Unemployment of population aged 18-35[3]	Rate	19.0	20.9	-1.9	14.0	14.7	-0.7
	Number	1619420	1919149	-299729	377286	425737	-48451
Unemployment of higher education graduates	Rate	15.0	17.2	-2.2	21.6	21.7	-0.1
	Number	955474	1099418	-143944	132812	130884	1928
Employment in agriculture sector	Share	5.2	5.3	-0.1	45.9	46.2	-0.3
	Number	904420	917298	-12878	2750921	2818381	-67460
Employment in manufacturing sector	Share	33.1	34	-0.9	27.5	27.7	-0.2
	Number	5781536	5871447	-89911	1647733	1687973	-40240
Employment in services sector	Share	61.7	60.7	1.0	26.5	26.1	0.4
	Number	10758432	10488898	269534	1589468	1593958	-4490
Underemployment	Share	8.9	9.7	-0.8	14.7	16.6	-1.9
	Number	1549363	1674609	-125246	878982	1012510	-133528
The share of the unemployed higher education graduates out of the total unemployed population	Share	42.8	41.1	1.7	24.0	22	2.0
The share of the employed higher education graduates out of the total employed population	Share	31	30.5	0.5	8.1	7.8	0.3
Economic participation of the population aged 10 and over	Rate	37.9	39.1	-1.2	39.8	40.8	-1.0
Employment of the population aged 10 and over	Ratio	33.6	33.9	-0.3	36.4	37.2	-0.8
Unemployment of the population aged 10 and over	Rate	11.4	13.4	-2.0	8.4	8.8	-0.4

1. The figures for the year 1397 have been updated according to the projection of the population aged 15 and over.
2. Difference is due to rounding.
3. According to Para 4 of the act No. 249/100 / P / 98 dated 17 Ordibehesht of the year 1398 approved by the High Council of Youth, the age range of youth has changed from 15-29 to 18-35.

* The difference between the total grand of employees with the total employees in the three sectors is due to the unstated cases of major economic sectors.

A review of employment in major economic sectors indicates that the services sector holds the biggest share of employment with 52.7% of the total, followed by the manufacturing sector with 31.7% and the agriculture sector with 15.6%. The contribution of the employed people in the agriculture and manufacturing sectors in winter of the year 1398 had 0.4 and 0.6 percent decline, respectively in comparison with the last corresponding season (winter, the year 1397) but the contribution of the employed people to the service increased by 1.0 percent.

A review of the unemployment rate among the population aged 15 and over shows that 10.6 percent of the economically active population were unemployed. Moreover, based on the confidence interval of 95%, the total national unemployment rate was between 10.2 and 11.1 percent with a 10.6 percent point estimation. This means that with the confidence interval of 95 percent, this interval shows the national real unemployment rate. Based on the results, the unemployment rate was higher for women and urban areas than men and rural areas. A review of the trend of the changes that happened in the indicator at the national level shows that this indicator experienced a 1.7 percent decrease compared to the last corresponding season (winter, the year 1397).

The unemployment rate among the youths aged 15-24 indicates that 25.7% percent of the economically active population at this age group were unemployed. This indicator stands higher for women and urban areas than for men and rural areas. A review of the trend of the changes in the national unemployment rate among the youths aged 15-24 shows that the indicator decreased by 2.4% from the last corresponding season (winter, the year 1397).

The unemployment rate among the youths aged 18-35 indicates that 17.8% of the active population aged 18-35 were unemployed. This indicator stands higher for women and urban areas than men and rural areas. A review of the trend of the changes shows that this indicator fell by 1.6% compared to the last corresponding season (winter, the year 1397).

A review of the unemployment rate among the higher education graduates shows that 15.6 percent of the active population among higher education graduates were unemployed. This indicator stands higher for women and rural areas than men and urban areas. A review of the trend of the changes shows that this indicator dropped by 2.0% compared to the last corresponding season (winter, the year 1397).

The underemployment share tells that 10.4% of the total employed population were underemployed. The indicator stands higher for men and rural areas than for women and urban areas. This indicator in the winter experienced a 1.1 percent decrease compared to the last corresponding season (winter, the year 1397).
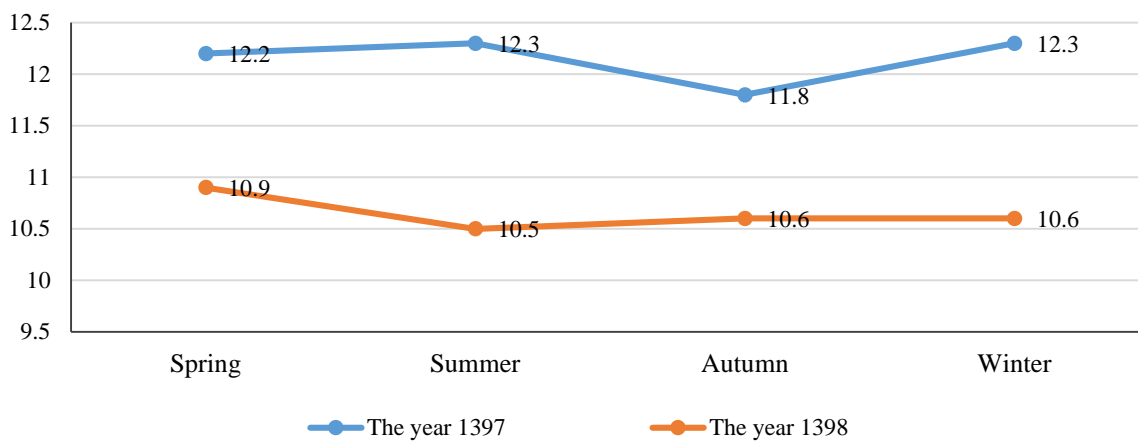
The study of the share of the employed population aged 15 and over with usual working hours of 49 hours or over shows that 35.3% of the employed people usually work 49 hours and over per week. This indicator, which is one of the indicators of decent work, shows that a large share of the employed people works more than standard hours. This indicator experienced a 0.2% decrease compared to the corresponding season in the previous year (winter, the year 1397).

In the winter of the year 1398, the share of the unemployed higher education graduates out of the total unemployed population was 39.0 percent. The indicator stands higher for women and urban areas than for men and rural areas. A review of the changes shows that this indicator experienced a 1.4 percent rise compared to the last corresponding season (winter, the year 1397).

The results indicate that in the winter of the year 1398, the share of the employed higher education graduates out of the total employed people was 25.1 percent. The indicator stands higher for women and urban areas than for men and rural areas. A review of the changes shows that this indicator increased by 0.5 percent over the last corresponding season (winter, the year 1397).

The study of the unemployment rate of the population aged 10 and over shows that 10.6% of the active population were unemployed. According to these results, the unemployment rate was higher for women and urban areas than for men and rural areas. This rate experienced a 1.7% decline in the winter of the year 1398 in comparison with the corresponding season in the previous year (winter, the year 1397).

Figure 2. Unemployment Rate of the Population Aged 10 and Over in Consecutive Seasons as of the Year 1397 to the Year 1398

A Selection of Labor Force Survey Results- Winter, the Year 1398 (22 December 2019 - 19 March 2020)

Table 2 shows some major labour force indicators in the winter, the year 1398, for the population aged 15 and over, in comparison with the winter, the year 1397 by province.

TABLE 2- SOME MAJOR LABOUR FORCE INDICATORS FOR THE POPULATION AGED 15 AND OVER IN THE WINTER, THE YEAR 1398 IN COMPARISON WITH THE WINTER, THE YEAR 1397 BY PROVINCE (percent)

| Province | Economic participation rate | | Employment ratio | | Unemployment rate | | |
| | | | | | Winter, the year 1398 | | Winter the year 1397 |
	Winter, the year 1398	Winter the year 1397	Winter the year 1398	Winter the year 1397	Point estimation	95 percent confidence interval	
Total country	42.4	43.5	37.8	38.2	10.6	(10.2-11.1)	12.3
East Azarbayejan	42.3	43.1	38.3	37.7	9.5	(7.9-11.1)	12.5
West Azarbayejan	41.6	45.9	35.6	38.7	14.5	(11.8-17.1)	15.7
Ardebil	46.2	47.7	40.9	41.3	11.5	(9.1-13.8)	13.4
Esfahan	42.8	46.1	38.4	40.3	10.3	(8.8-11.8)	12.4
Alborz	42.2	41.3	37.5	35.6	11.1	(9.4-12.9)	13.8
Ilam	37.0	37.9	34.4	33.9	7.0	(5.3-8.8)	10.4
Bushehr	40.7	42.4	36.5	38.4	10.3	(8.5-12.0)	9.4
Tehran	41.7	43.4	38.0	38.7	8.8	(7.2-10.3)	11.0
Chaharmahal & Bakhtiyari	44.8	43.6	38.2	36.7	14.5	(11.9-17.1)	15.8
South Khorasan	43.5	42.6	40.9	39.0	6.0	(4.5-7.4)	8.4
Khorasan-e-Razavi	43.9	44.5	40.0	38.8	8.9	(7.2-10.5)	12.8
North Khorasan	46.3	48.2	41.1	42.0	11.2	(9.5-12.9)	12.8
Khuzestan	43.0	44.4	37.6	36.8	12.4	(10.7-14.2)	17.2
Zanjan	47.6	44.5	43.1	39.5	9.3	(7.3-11.3)	11.4
Semnan	38.5	40.4	35.3	37.1	8.3	(6.7-9.8)	8.2
Sistan & Baluchestan	36.2	36.7	32.1	31.4	11.3	(9.1-13.5)	14.5
Fars	39.9	42.9	36.9	39.4	7.7	(6.1-9.2)	8.3
Qazvin	44.4	43.9	39.7	39.1	10.6	(8.5-12.7)	11.0
Qom	38.3	38.8	34.5	35.0	9.7	(8.0-11.5)	9.7
Kordestan	44.7	47.1	35.8	37.8	20.0	(17.7-22.3)	19.8
Kerman	40.8	44.3	36.4	39.1	10.6	(8.5-12.7)	11.8
Kermanshah	45.7	45.9	37.5	36.2	17.9	(14.6-21.2)	21.1
Kohgiluyeh & Boyerahmad	38.1	39.0	34.3	34.0	10.1	(7.8-12.4)	12.9
Golestan	40.8	40.8	35.9	36.4	12.0	(9.9-14.0)	10.8
Gilan	43.0	46.1	37.9	40.7	11.9	(9.7-14.1)	11.8
Lorestan	40.2	39.6	33.4	34.6	16.8	(14.6-19.1)	12.7
Mazandaran	45.4	43.8	41.1	41.0	9.3	(7.4-11.2)	6.4
Markazi	35.6	37.8	33.2	34.6	6.9	(5.3-8.6)	8.3
Hormozgan	49.9	44.0	44.0	39.1	11.9	(10.2-13.6)	11.0
Hamedan	43.7	43.3	39.7	38.2	9.3	(7.4-11.2)	11.7
Yazd	45.6	44.8	40.3	39.0	11.6	(9.6-13.7)	13.0

TABLE 2- SOME MAJOR LABOUR FORCE INDICATORS FOR THE POPULATION AGED 10 AND OVER IN THE WINTER, THE YEAR 1398 IN COMPARISON WITH THE WINTER, THE YEAR 1397 BY PROVINCE (percent)

Province	Economic participation rate		Employment ratio		Unemployment rate		
					Winter, the year 1398		Winter, the year 1397
	Winter, the year 1398	Winter, the year 1397	Winter, the year 1398	Winter, the year 1397	Point estimation	95 percent confidence interval	
Total country	38.3	39.5	34.3	34.7	10.6	(10.2-11.1)	12.3
East Azarbayejan	38.5	39.6	34.8	34.6	9.4	(7.8-11.1)	12.5
West Azarbayejan	37.7	41.5	32.3	35.0	14.4	(11.8-17.1)	15.6
Ardebil	42.1	43.4	37.3	37.6	11.4	(9.1-13.8)	13.4
Esfahan	39.1	42.1	35.1	36.9	10.3	(8.7-11.8)	12.4
Alborz	38.7	37.8	34.4	32.6	11.1	(9.4-12.9)	13.7
Ilam	33.2	34.4	30.9	30.8	7.0	(5.3-8.8)	10.4
Bushehr	36.1	37.7	32.4	34.1	10.2	(8.5-12.0)	9.4
Tehran	38.4	40.1	35.0	35.7	8.8	(7.2-10.3)	11.0
Chaharmahal & Bakhtiyari	40.3	39.4	34.4	33.2	14.5	(11.9-17.1)	15.8
South Khorasan	37.7	37.3	35.4	34.2	5.9	(4.5-7.4)	8.4
Khorasan-e-Razavi	39.4	39.8	35.9	34.8	8.9	(7.2-10.5)	12.8
North Khorasan	40.9	42.4	36.3	37.0	11.3	(9.5-13.0)	12.8
Khuzestan	38.3	39.4	33.6	32.6	12.5	(10.7-14.2)	17.2
Zanjan	43.4	40.8	39.4	36.1	9.3	(7.3-11.3)	11.3
Semnan	34.9	37.2	32.0	34.1	8.3	(6.7-9.8)	8.2
Sistan & Baluchestan	30.7	31.3	27.2	26.8	11.3	(9.2-13.5)	14.4
Fars	36.3	39.2	33.5	36.0	7.7	(6.1-9.2)	8.3
Qazvin	40.1	39.7	35.9	35.4	10.6	(8.5-12.6)	11.0
Qom	34.2	34.8	30.9	31.5	9.8	(8.0-11.6)	9.7
Kordestan	40.6	42.7	32.4	34.3	20.0	(17.7-22.4)	19.8
Kerman	36.4	39.9	32.5	35.2	10.5	(8.5-12.6)	11.8
Kermanshah	42.2	42.4	34.7	33.5	17.8	(14.5-21.1)	21.0
Kohgiluyeh & Boyerahmad	33.6	34.3	30.2	29.8	10.1	(7.8-12.4)	12.9
Golestan	36.0	36.5	31.7	32.5	11.9	(9.9-13.9)	10.8
Gilan	40.2	43.1	35.4	38.0	11.9	(9.7-14.0)	11.8
Lorestan	36.0	35.6	30.0	31.1	16.9	(14.6-19.2)	12.7
Mazandaran	42.1	40.6	38.2	38.0	9.3	(7.4-11.2)	6.4
Markazi	32.8	34.9	30.6	32.0	6.9	(5.3-8.6)	8.3
Hormozgan	43.6	38.4	38.4	34.2	11.9	(10.2-13.6)	11.0
Hamedan	39.7	39.7	36.0	35.1	9.3	(7.4-11.2)	11.7
Yazd	40.8	40.6	36.0	35.3	11.7	(9.6-13.7)	13.1

Definitions and concepts

The Statistical Centre of Iran employs new international definitions and concepts based on the ICLS 1983 for measuring the employment and unemployment in the Labour Force Survey. Work: This key term is used to determine the status of the economic activity of people. The term "work" refers to the group of economic activities (mentally or physically) which are done for earning income (cash or in-kind) and its objective is to produce goods or services. Generally, the people who work are divided into two groups: self-employed, who work for themselves, and wage and salary earners, who earn money for the work they do.

Statistical period (Reference week): Refers to the second or third calendar week (Saturday to Friday) of the middle month of each season.

Employed: All people aged 15 or over who according to the definition of work, have worked for at least one hour during the reference week or have temporarily left their job for one reason or another, are reckoned as employed. Persons who, without receiving any remuneration, work for a member of their household that is a relative (unpaid family workers); trainees who perform an activity in relation to the activity of the Institute for apprenticeships during the training period, namely, they directly contribute to the production of goods or services, their activity is considered "work"; students who have worked during the reference week, according to the definition of work; and all people who are serving as a permanent and temporary cadre in the armed forces (armed forces, cadre personnel, soldiers, commissioned officers, non-commissioned officers of the military forces and the police) are considered employed.

Unemployed: The unemployed are all people aged 15 or over who have the following three criteria together:
1. have no job during the reference week (not engaged in a wage salary job or self-employment),
2. have been seeking job during the reference week and the preceding three weeks (have taken specific steps to seek paid employment or self-employment),

3. are available to work during the reference week or the following week (available for a wage/salary employment or self-employment). All people who, because of expecting to start a job in the future or return to their former job, have not been seeking a job, but have had no job and have been available to work - are also considered unemployed.

Labour force (active population): is the sum of persons in employment plus persons in unemployment.

Underemployment: The underemployed people are all employed people who have been present in or temporarily absent from the workplace and have worked less than 44 hours during the reference week due to economic reasons such as work recession, not finding a job with more hours, or non-work season, but have been willing and ready to do more work in the reference week.

Indicators

Economic participation rate (Economic activity rate)

The ratio of the active population (employed & unemployed) 15 years of age and over (or 10 years of age and over) to the working age population 15 years of age and over (or 10 years of age and over) multiplied by 100.

$$\textbf{Economic participation rate} = \frac{\text{Economically active population aged 15 and over (or aged 10 and over)}}{\text{Population aged 15 and over (or aged 10 and over)}} \times 100$$

Employment ratio: The ratio of the employed population aged 15 and over (or aged 10 and over) to the total population at working age, 15 years old and over (or 10 years and over) multiplied by 100

$$\text{Employment ratio} = \frac{\text{Employed population aged 15 and over (or aged 10 and over)}}{\text{Population aged 15 and over (or aged 10 and over)}} \times 100$$

Unemployment rate

The ratio of the unemployed population to the active population (employed & unemployed) multiplied by 100.

$$\text{Unemployment rate} = \frac{\text{Unemployed population aged 15 and over (or aged 10 and over)}}{\text{Active population aged 15 and over (or aged 10 and over)}} \times 100$$

Employment rate

The ratio of the employed population to the active population (employed & unemployed) multiplied by 100.

$$\text{Employment rate} = \frac{\text{Employed population aged 15 and over (or aged 10 and over)}}{\text{Active population aged 15 and over (or aged 10 and over)}} \times 100 \text{ or } 100\text{-unemployment rate}$$

Unemployment rate of the population aged 15-24 (or 18-35 years old)

The ratio of the unemployed population aged 15-24 (18-35 years of age) to the economically active population aged 15-24 (18-35) multiplied by 100.

$$\text{Unemployment rate aged 15-24 (18-35)} = \frac{\text{Unemployed population aged 15-24 (or 18-35)}}{\text{Economically active population aged 15-24 (or 18-35)}} \times 100$$

Unemployment rate of higher education graduates

The ratio of unemployed higher education graduates to active higher education graduates multiplied by 100

$$\text{Unemployment rate of higher education graduates} = \frac{\text{Unemployed higher education graduates}}{\text{Active higher education graduates}} \times 100$$

Share of unemployed higher education graduates aged 15 and over

The ratio of unemployed higher education graduates to the total unemployed population aged 15 and over multiplied by 100

$$\text{Share of unemployed higher education graduates aged 15 and over} = \frac{\text{Unemployed higher education graduates aged 15 and over}}{\text{Unemployed population aged 15 and over}} \times 100$$

Share of employed higher education graduates aged 15 and over

The ratio of employed higher education graduates to the total employed population aged 15 and over multiplied by 100

$$\text{Share of employed higher education graduates aged 15 and over} = \frac{\text{Employed higher education graduates aged 15 and over}}{\text{Total employed population aged 15 and over}} \times 100$$

Underemployment share

The ratio of the underemployed population aged 15 and over to the employed population aged 15 and over multiplied by 100

$$\text{Underemployment rate} = \frac{\text{Underemployed population aged 15 and over}}{\text{Employed population aged 15 and over}} \times 100$$