

Presidency of the I. R. Iran  
Plan and Budget Organization  
**Statistical Centre of Iran**

## **Selected Results of Modern Cattle Farm Survey, the Year 1398<sup>1</sup>**



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<sup>1</sup> . It's the Iranian year which usually begins within a day of March 21 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 ( 20 March 2019-19March 2020).

*In the Name of Allah, the compassionate, the merciful*

*Verily, He has counted all creatures and He knows their exact number.*

*Holy Quran*

*Sura Maryam, verse 94*

**Symbols:**

- Not collected
- 000 Not available
- × Not applicable
- ×× Not calculable
- // Negligible
- \* Provisional
- \*\* Estimated figure
- ⊙ Not for publication (confidential figure)

Where figures are rounded, discrepancies may occur between sums of the components and the total. All ratios and indices were calculated before rounding.

**Iranian months**

Farvardin  
Ordibehesht  
Khordad  
Tir  
Mordad  
Shahrivar  
Mehr  
Aban  
Azar  
Dey  
Bahman  
Esfand

**Christian months**

21 March-20 April  
21 April-21 May  
22 May-21 June  
22 June-22 July  
23 July-22 August  
23 August-22 September  
23 September-22 October  
23 October-21 November  
22 November-21 December  
22 December-20 January  
21 January-19 February  
20 February-20 March

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## Preface

The Fifth Development Plan for the I.R. Iran covers “preserving the production capacity and achieving self-sufficiency in the production of agricultural and livestock products, reforming the consumption pattern according to the nutrition standards, expanding the modern and knowledge-based agriculture, developing the food security infrastructures, and improving the value added of agriculture sector based on sustainable development’ considerations. Moreover, emphasis has been also placed on "supporting the increase in animal protein production from livestock, poultry and aquatic animals " as one of the government's responsibilities to ensure food security. It is possible when resources and facilities are used in an optimal and principled way by employing new methods. Since a significant share of the nation's milk and meat is produced in modern farms; therefore, in order to understand how this industry operates and produces returns and planning to increase production, enhance productivity and improve the quality of products in this sector, the availability of statistics and information is inevitable. Regarding the importance of the statistics related to this activity, the Statistical Centre of Iran (SCI) enumerated the modern cattle farms at the national level in the years 1369, 1373, 1381, 1389, and 1392 and published their results. Moreover, the SCI conducted the sample surveys of the modern cattle farms in the years 1375, 1379, 1386, and 1395 and published their results.

Moreover, the plan for updating the list of modern cattle farms was developed in the year 1381 and the Ministry of Jihad-e-Agriculture conducted this survey. The Ministry of Jihad-e-Agriculture also conducted the sample survey of modern cattle farms in the year 1383 and released its results.

The modern cattle farm survey, conducted in the months of Mehr and Aban of the year 1398, was a complete enumeration aimed at collecting information and statistics on modern cattle farms at the national level. The results of this survey are presented through this publication.

The SCI expresses its appreciation to all colleagues in the Deputies of Statistics and Information in Management and Planning Organizations of the Provinces nationwide for their sincere cooperation in implementing this survey.

We hope the provided information may prove useful to the decision-makers, planners, and, researchers and we can take the most effective steps by employing their comments in producing and providing needed statistical information.

All the information presented in this publication is available at [www.amar.org.ir](http://www.amar.org.ir).

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## Main specifications of the survey

### History of the Survey:

Regarding the importance of statistics in planning, the Statistical Centre of Iran (SCI) enumerated the modern cattle farms at the national level in the years 1369 and 1373 and released the results. Moreover, the SCI conducted the sample survey of the modern cattle farms in the years 1375 and 1379 and disseminated their results. Since the survey frame for the modern cattle farms was old, the SCI developed a plan for updating the list of modern cattle farms in the year 1381 and the Ministry of Jihad-e-Agriculture implemented this plan. The Ministry of Jihad-e-Agriculture used this new survey frame and conducted the sample survey of modern cattle farms in the year 1383 and released its results. The SCI conducted the modern cattle farm survey in the year 1386 by using the sampling method. In the year 1389, the frame for modern cattle farms was updated and released along with some basic information. With respect to the new changes made in this activity after conducting the Iranian targeted subsidy plan and also the need of planners for having accurate data on the activity, the census of the modern cattle farms was conducted in the year 1392. Using the frame of the modern cattle farms survey in the year 1392, the modern cattle farm survey was taken in the year 1395 as the sampling. The modern cattle farms survey was conducted as a census mixed with sampling in the year 1398 and its results were disseminated.

### The Necessity for Conducting the Survey

The Development Plan for the I. R. Iran emphasizes preserving the production capacity and achieving self-sufficiency in the production of livestock products and supporting the increase in the production of animal protein. It is possible when resources and facilities are used in an optimal and principled way by employing new methods. Since a significant share of the nation's milk and meat is produced in modern farms, therefore, in order to understand how this industry operates and produces returns and planning to increase production, enhance productivity and improve the quality of products in this sector, the availability of statistics and information is inevitable. The portion and role of the modern cattle farms products for providing primary materials of dairy industries of the country in one hand and recent fluctuations in the amount of supplying, price and consumption of the dairy and protein products at the national level, on the other hand, has increased the needs for having accurate statistics on this activity. The Survey was conducted to meet the following requirements:

1. Providing timely statistics and information on the situation of the modern cattle farms and their production
2. Collecting statistical items needed for compilation of national and regional accounts
3. Meeting the statistical requirements of the concerned government agencies
4. Meeting the statistical requirements of the concerned research organizations
5. Comparing the trend of the activity and products of the modern cattle farms in various time ( providing time series of activities)

### Main Objectives:

#### A. Overall objectives of this survey:

The overall objective for conducting this Survey was to collect the essential statistics and information needed for the activity of modern cattle farms at national level for planning and adopting the proper policies in this sector.

## **B. Detailed objectives:**

- The legal status of the nation's modern cattle farms
- The capacity of the nation's modern cattle farms
- The status and type of activity in the nation's modern cattle farms in the years 1397 and 1398
- The number of cattle and calves in the nation's modern cattle farms in the enumeration day by breed
- The number of cattle and calves in the nation's modern cattle farms in the year 1397
- The amount and value of the milk produced in the nation's modern cattle farms in the year 1397 and the first half of the year 1398
- The number and value of the beef cattle in the nation's modern cattle farms in the year 1397 and the first half of the year 1398
- The amount and value of the cattle feed consumed in the nation's modern cattle farms in the year 1397
- The value of payments and receipts of the modern cattle farms in the year 1397
- The value of investments made in the modern cattle farms in the year 1397
- The number of people working in the nation's modern cattle farms in the year 1397

### **Survey method**

This survey was conducted as a census mixed with sampling.

### **Statistical population**

The statistical population of this survey includes all the nation's modern cattle farms in the year 1398.

### **Statistical unit**

The statistical unit for this survey was a modern cattle farm in the year 1398 .

### **Statistical frame**

The statistical frame of this survey was the list of the nation's modern cattle farms obtained from the census of these cattle farms in the year 1392.

### **Statistical date**

The statistical date of this survey, depending on the case of the enumeration day, was the year 1397 and the first half of the year 1398.

### **Survey date**

This survey was conducted from 15 of the month of Mehr to 11 of the month of Aban (from October 7 to 2 November 2019).

### **Level of information dissemination**

The collected information is released at the provincial level.



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## Concepts and Definitions

### **Modern cattle farm<sup>1</sup>**

It refers to an agricultural holding where cattle are raised by using common and advanced methods of animal husbandry (in terms of keeping feeding method and principles of animal health) and has a capacity of at least twenty heads.

### **The unit for raising dairy cattle by using the modern method**

It is a modern cattle farm in which the cattle is raised and fattened to produce milk. In these cattle farms, the male calves are also kept and fattened.

### **Fattening**

It refers to the unit of which main activity is livestock farming.

### **The unit for calves fattening**

It refers to the unit in which bull calves are raised for weight increase and meat production in a particular period.

### **The actual capacity of the cattle farm**

It is the number of cows and calves in the cattle farm that are preserved and raised based on the infrastructures and facilities of the modern cattle farm. This capacity isn't necessarily equal to the capacity cited in the license of the cattle farm and the number of livestock there.

### **Breed**

It refers to the herd of cattle with common and specific physical and inherited characteristics that transfers these traits to their offsprings genetically. In this survey, the titles of the cattle breed are terms used for this purpose such as Holstein, Brown Swiss, and Jersey cows.

### **Exotic breed of cattle**

It is a pure foreign breed of cow that has specific and common characteristics and has been bred (genetically improved) for specific objectives; such as Holstein, Jersey, and Brown Swiss breeds.

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<sup>1</sup> The term “cattle farm” in this publication refers to the modern cattle farm.



### **Hybrid cattle**

It is a cow born by mating a pure breed (father) with indigenous or hybrid cows (mother) and by mating two pure breeds. These matings are in line with the gradual breeding of indigenous cattle and producing new and more productive breeds.

### **Indigenous cattle**

It refers to an Iranian cow that is adapted to the environmental conditions during continuous years and is resistant to illnesses and environmental pollutants.

### **Productive herd (breeding herd)**

It refers to the female cattle which has calved at least once. The productive female cattle include dairy cattle and dry-off cattle.

### **Dairy cattle (dairy productive female)**

It is a cow that has calved and is lactating its calf.

### **Dry-off cattle (dry-off female)**

It refers to a cow that has calved and finished its lactation period and also includes those cows whose lactation has stopped for every other reason.

### **Heifer**

It is a twelve-month-old calf that has not calved yet.

### **Breeding bull**

It is a bull that is selected by the herdsman due to having proper physical and genetic characteristics and is used in natural mating with cows and heifers.

### **Born livestock**

It refers to livestock that was born alive although it has died after birth.

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## Selected findings

### Number and capacity of the nation's modern cattle farms

According to the results of the modern cattle farms survey conducted in the year 1389, the total number of modern cattle farms was 27000 units with the capacity of 3.7 million heads of cattle. Out of this number, 17,000 modern cattle farms with the capacity of 2.4 million heads were involved in raising dairy cattle and a number of 10,000 modern cattle farms with the capacity of 1.3 million heads were engaged in fattening of cattle.

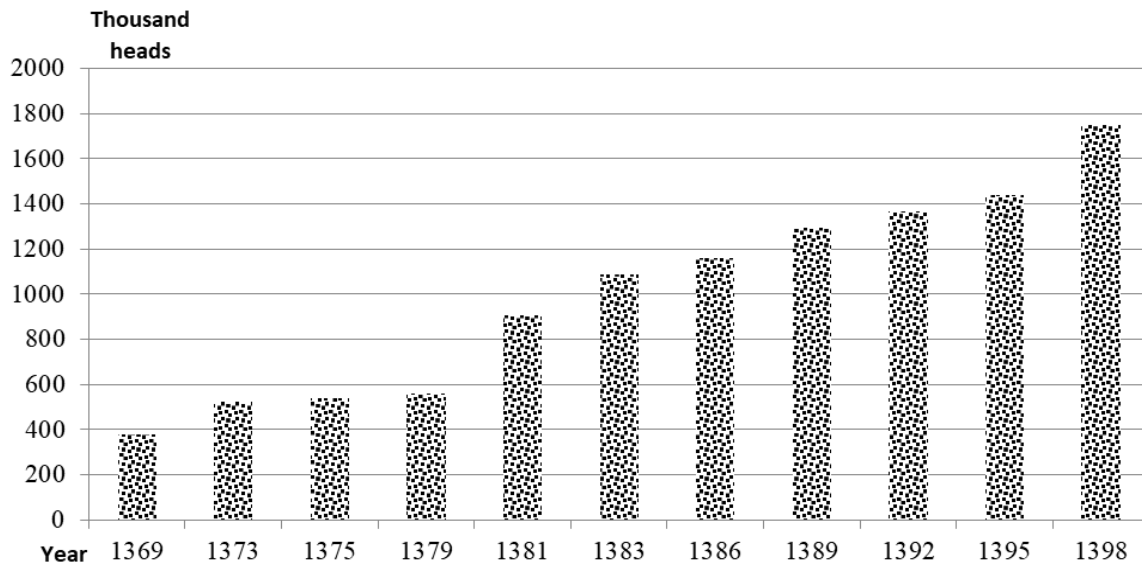
### The Capacity of the Modern Cattle Farms During The years 1369-1398



### Number of cattle of the modern cattle farms

The number of cattle in the modern cattle farms in the autumn of the year 1398 was 1.7 million heads out of which 70.3% were exotic cattle, 23.2% were hybrid cattle and the rest was indigenous cattle.

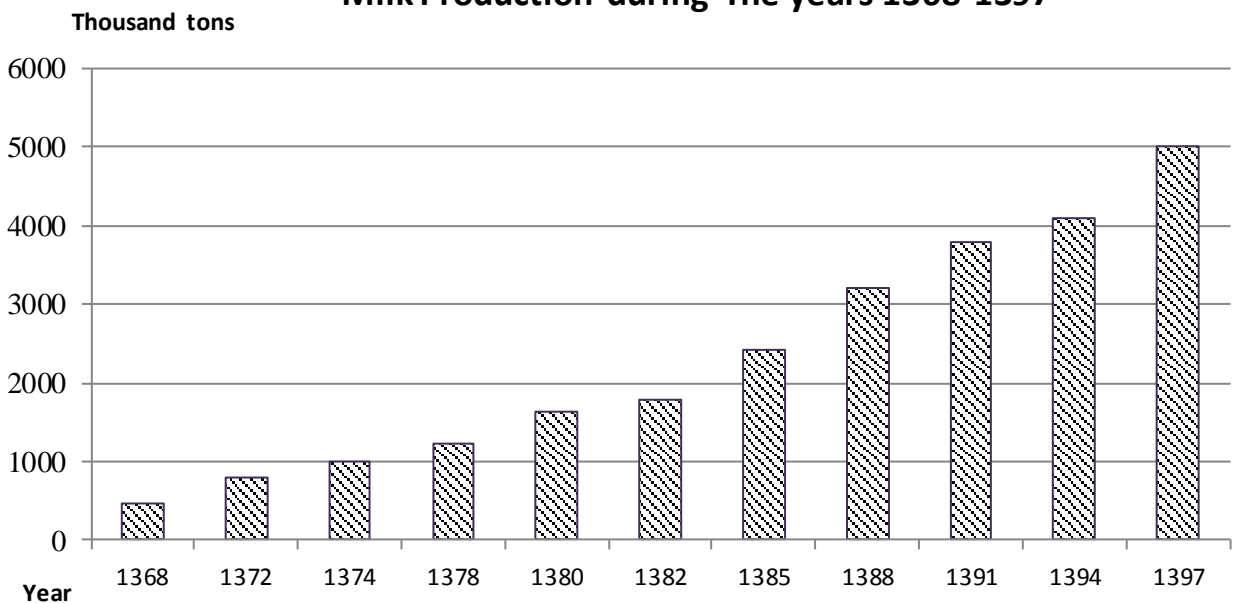
**Number of Cattle in Modern Cattle Farms on the Survey Day during the years 1373-1398**



**The milk production and number of beef cattle in the modern cattle farms**

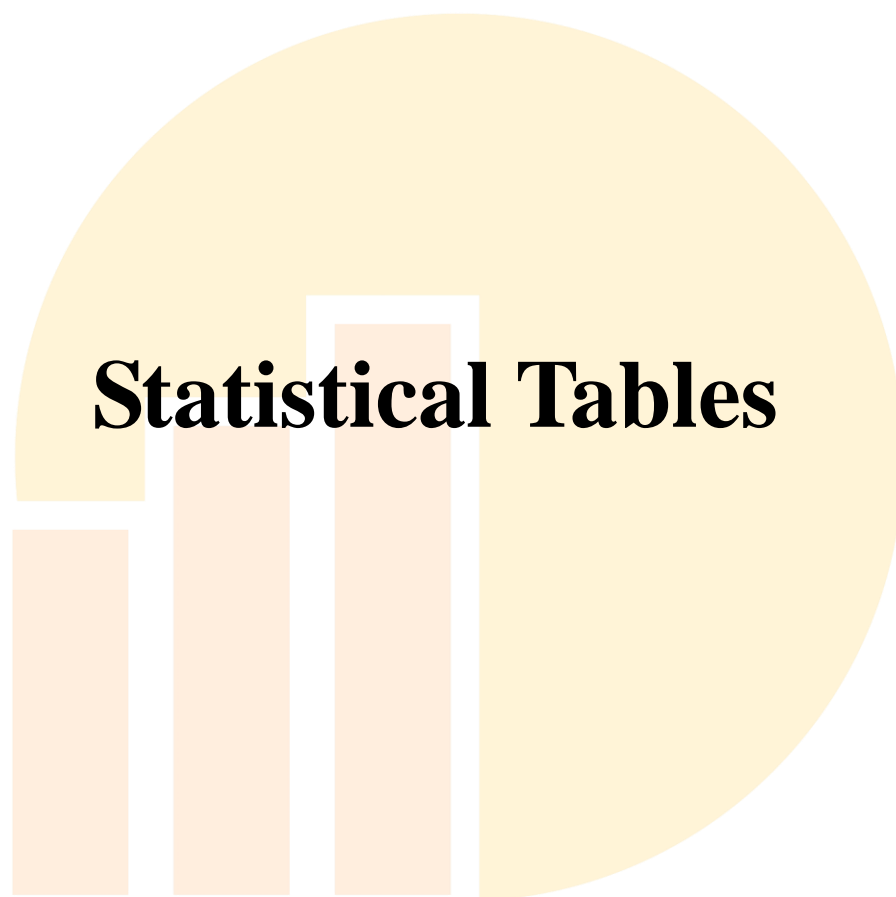
The quantity of the produced milk in the modern cattle farms in the year 1397 was five million tons and the number of beef cattle was 654 thousand heads. Moreover, the quantity of the produced milk and the number of beef cattle for the first half of the year 1398 was 2.6 million tons and 347 thousand heads, respectively.

**Milk Production during The years 1368-1397**





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## 1. Number and capacity of modern cattle farms by activity status and province, the year 1398

(head)

Province	Total		Active		Inactive	
	Number	Capacity	Number	Capacity	Number	Capacity
<b>Total country .....</b>	<b>26983</b>	<b>3670796</b>	<b>21709</b>	<b>3118303</b>	<b>5274</b>	<b>552493</b>
East Azarbayejan .....	1011	113383	840	94577	171	18806
West Azarbayejan .....	517	49780	374	35055	143	14725
Ardebil .....	426	69 571	219	42 156	207	27 415
Esfahan.....	2772	400329	2287	354616	485	45713
Alborz. ....	504	125841	415	115251	89	10590
Ilam .....	115	12359	74	7634	41	4725
Bushehr .....	348	42000	242	30125	106	11875
Tehran .....	4205	957401	3513	846848	692	110553
Chaharmahal & Bakhtiari .....	564	42519	469	37739	95	4780
South Khorasan.....	504	30969	437	26959	67	4010
Khorasan-e-Razavi.....	2696	242955	2421	225081	275	17874
North Khorasan.....	151	10833	141	10543	10	290
Khuzestan.....	652	92309	526	77729	126	14580
Zanjan .....	257	43835	166	31760	91	12075
Semnan.....	1240	115539	949	97274	291	18265
Sistan & Baluchestan .....	137	32303	91	22853	46	9450
Fars.....	2153	264875	1716	224055	437	40820
Qazvin.....	634	173172	531	156872	103	16300
Qom. ....	1008	132129	795	102723	213	29406
Kordestan.....	206	30396	159	27788	47	2608
Kerman .....	811	103945	645	83182	166	20763
Kermanshah .....	195	42060	130	33191	65	8869
Kohgiluyeh & Boyerahmad .....	135	12835	66	7922	69	4913
Golestan .....	470	54339	307	36311	163	18028
Gilan.....	180	13371	114	9233	66	4138
Lorestan .....	345	30537	316	28607	29	1930
Mazandaran.....	421	42116	307	32581	114	9535
Markazi .....	2438	208360	1885	165319	553	43041
Hormozgan.....	169	10315	135	8705	34	1610
Hamedan .....	424	69701	352	57596	72	12105
Yazd.....	1295	100719	1087	88018	208	12701

## 2. Number and capacity of modern cattle farms by type of activity and province, the year 1398 (head)

Province	Raising dairy cattle		Fattening	
	Number	Capacity	Number	Capacity
<b>Total country .....</b>	<b>16836</b>	<b>2380187</b>	<b>10147</b>	<b>1290609</b>
East Azarbayejan .....	798	89663	213	23720
West Azarbayejan .....	382	34188	135	15592
Ardebil.....	179	36203	247	33368
Esfahan.....	2350	364045	422	36284
Alborz.....	353	110934	151	14907
Ilam .....	59	5225	56	7134
Bushehr .....	58	5340	290	36660
Tehran .....	1260	440734	2945	516667
Chaharmahal & Bakhtiyari .....	521	39989	43	2530
South Khorasan.....	447	27032	57	3937
Khorasan-e-Razavi.....	2513	226738	183	16217
North Khorasan.....	105	8470	46	2363
Khuzestan.....	247	42938	405	49371
Zanjan.....	154	28950	103	14885
Semnan.....	784	75470	456	40069
Sistan & Baluchestan .....	28	6447	109	25856
Fars.....	1563	197694	590	67181
Qazvin.....	324	130951	310	42221
Qom.....	403	48322	605	83807
Kordestan.....	117	15775	89	14621
Kerman .....	644	83533	167	20412
Kermanshah.....	122	26959	73	15101
Kohgiluyeh & Boyerahmad .....	71	7278	64	5557
Golestan.....	422	48784	48	5555
Gilan.....	130	8605	50	4766
Lorestan.....	262	20628	83	9909
Mazandaran.....	351	35466	70	6650
Markazi .....	636	65591	1802	142769
Hormozgan.....	62	3970	107	6345
Hamedan .....	305	49900	119	19801
Yazd.....	1186	94365	109	6354

### 3. Number of cattle in the modern cattle farms I on the survey day by breed and province, the year 1398 (head)

Province	Total	Exotic	Hybrid	Indigenous
<b>Total country.....</b>	<b>1748554</b>	<b>1229358</b>	<b>405750</b>	<b>113446</b>
East Azarbayejan .....	46929	33625	12241	1063
West Azarbayejan .....	15740	13702	1786	252
Ardebil.....	27 771	21 635	6011	125
Esfahan.....	232099	179531	52342	226
Alborz.....	76016	74498	1252	266
Ilam .....	3627	3088	514	25
Bushehr .....	10977	701	9461	815
Tehran .....	489476	304924	93333	91219
Chaharmahal & Bakhtiyari .....	24908	22894	2004	10
South Khorasan.....	15021	13386	1507	128
Khorasan-e-Razavi.....	121193	108448	12657	88
North Khorasan .....	7599	5794	1805	0
Khuzestan.....	30206	6478	21982	1746
Zanjan.....	17149	13983	3090	76
Semnan.....	44223	30239	12600	1384
Sistan & Baluchestan .....	8481	1795	6023	663
Fars.....	127764	109114	16828	1822
Qazvin .....	99930	75924	23880	126
Qom.....	58606	24887	26887	6832
Kordestan.....	13398	12258	619	521
Kerman .....	31304	29123	2009	172
Kermanshah.....	21583	20910	561	112
Kohgiluyeh & Boyerahmad .....	5176	4175	895	106
Golestan.....	20615	16904	3572	139
Gilan.....	3226	1506	849	871
Lorestan.....	14806	10990	2604	1212
Mazandaran.....	20409	16235	2701	1473
Markazi .....	80533	38973	39830	1730
Hormozgan.....	3144	924	2023	197
Hamedan .....	28675	26741	1893	41
Yazd.....	47970	5973	41991	6



**4. The milk production and number of beef cattle in the modern cattle farms by province, the year 1397**

Province	The year 1397	
	Milk production (100 tons)	Beef cattle (head)
<b>Total country .....</b>	<b>50041</b>	<b>654463</b>
East Azarbayejan .....	1192	19372
West Azarbayejan .....	260	6012
Ardebil.....	654	10 114
Esfahan.....	9731	38558
Alborz.....	2449	13428
Ilam .....	49	2126
Bushehr .....	30	10570
Tehran .....	11057	261101
Chaharmahal & Bakhtiyari .....	764	7569
South Khorasan.....	482	2765
Khorasan-e-Razavi.....	4088	22324
North Khorasan.....	170	1432
Khuzestan.....	417	20930
Zanjan.....	549	4321
Semnan.....	1133	17484
Sistan & Baluchestan .....	45	4718
Fars.....	4510	35515
Qazvin.....	4414	17680
Qom.....	994	40113
Kordestan.....	185	5294
Kerman .....	722	5936
Kermanshah.....	762	4141
Kohgiluyeh & Boyerahmad .....	182	1757
Golestan.....	470	5863
Gilan.....	43	1422
Lorestan.....	276	6592
Mazandaran.....	684	3536
Markazi.....	1067	62210
Hormozgan.....	28	2209
Hamedan .....	940	6076
Yazd.....	1695	13295