

SECTORAL EVOLUTION OF REGIONAL ECONOMIES IN TUNISIA

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Abstract

The competitive advantages that make and unmake the sectoral structure of Tunisian regional economies remain the same. Indeed, the sectoral structure of regional economies of Tunisia remain heavily dependent on competitive advantages that enabled their emergence, despite the upheavals and difficulties faced by some sectors in this area. Reliance on the cost of production factors remains important for the regions of the west and south, despite some areas that are beginning to emerge. This dependence has affected negatively the outbreak of entrepreneurial spirit in this environment with, for young people, a lack of known entrepreneurs on which they could take such models.

Keywords : Sectoral structures, regional dynamics, imbalance Classification JEL: R11, O18

Introduction

Tunisia is traditionally divided into twenty-four governorates are seven major regions economically and socially dependent. The composition of the different regions discussed in this work remains the same since independence and can not affect the validity of our analysis, since we are only interested in the case of Tunisian regions in their entirety and not to governorates that comprise (Table 1) Economically and socially, the different governorates and regions seem unbalanced. These territories are now faced with rampant globalization brings with it an obligation to open and unconditional liberalization of markets, posing with insistence the issue of competitive ability of local industry against foreign competitors. At this level we can see that Tunisia has always intended to maintain or improve its competitiveness to support its balance of payments, as foreign demand for domestic products is very elastic price (Ghazouani, 2011).

We seek to answer the following question:

- **The sectoral structure of Tunisian regions has evolved during the period covered by this work?**

Méthodology

It defines everything on board from a region j in national employment by sector i denoted P as equal to PAO^1 by sector i and region i / PAO sector at the national level. Similarly, the rate of increase between 1984 and 2016. $P = (\text{share of region } j \text{ in national employment by sector } i \text{ in 2016} - \text{from a region } j \text{ in national employment by sector } i \text{ in 1984}) / \text{part a region } j \text{ in national employment by sector } i \text{ in 1984}$, where i and j denotes the sector in the region and PAO , the employed population. According to the share of a region in national employment in 2016 and the rate of increase between 1984 and 2016, we can determine four categories of sectors (Zouari, 2006) :

- sectors whose share in the national and sectoral employment growth rates are significantly lower than the average for the region , are the sectors in which the region does not have a competitive advantage
- sectors whose share in the national and sectoral employment growth rates are significantly higher than the average in the region, are the areas where the region has traditional competitive advantage ;

¹ PAO : population active occupied

- sectors whose share in the national sectoral employment are significantly lower than the regional share of sectoral employment and growth rates are significantly higher than the regional average , are new areas of competitive advantage;
- sectors whose share in the national sectoral employment are significantly higher than the share of sectoral employment and growth rates are significantly lower than the regional average , are areas where traditional competitive advantage existed , but which due to specific difficulties are slowing. .

The analysis focused on an abbreviated nomenclature, it deserves to be rebuilt on a more detailed sectoral classification.

Sectoral Developments Tunisian regions

Our analysis with the Grand Tunis (figure 1) represents the largest economic center of Tunisia it begins. It is worth noting that the majority of manufacturing sectors have consolidated their position as they represent another potential competitiveness traditional for this region. Textiles, clothing and leather, mechanical and electrical and other manufacturing industries remain on track despite the one hand the opening of Tunisia to the world and , therefore, an increase in competition and on the other hand, a phenomenon that causes loosening local businesses to seek less concentrated and less polluted , especially in the Northeast territories. For its part, the sector of the food manufacturing industry is slowing even though it is a traditional competitive advantage for the Grand Tunis.

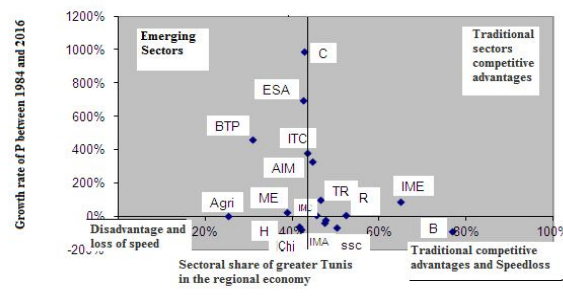


Figure 1: Advantages competitive sector of Greater Tunis

Agri: agriculture forestry and fishing, construction: construction and public works, ME: mine and energy, H: hotels, ITC: textile and leather, BMI industries of building materials, AIM: other manufacturing industries, TR: Transportation, R: Building and repair activities, B: banking and insurance, IME: mechanical and electrical industries, SSC: social and cultural services, IMA: food manufacturing, C: trade, Chi: chemical, ESA education, health administration. P: sectoral share in the regional economy The sectors of the real estate business and repair, transport and communications, trade and education, health and administration retain their dynamic and may represent a domain to encourage, because their scope is not only local, but national. The banking sectors and cultural and social services know, now, difficulties and a loss of pronounced competitiveness.

Sectors agriculture, forest and fisheries, the construction and mining and energy are experiencing a resurgence in form, having regard to the modernization of the means of production for the first, the demographic explosion for others (largely due to internal migration). Finally, hospitality and chemical industries are now areas of competitive disadvantages and require a general overhaul to relaunch their dynamics. The figure 2 shows the emerging nature of the North East. Indeed, various sectors of the local economy is experiencing a remarkable dynamics. Examples include food manufacturing, chemical ones , the transportation and communications as well as mining and energy. This vitality has recently been strengthened by the creation of a cluster in Bizerte in the field of food industries.

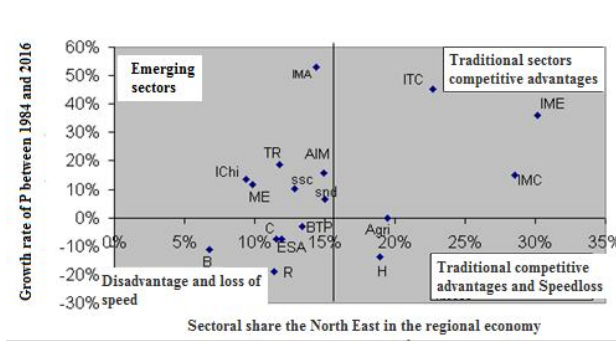


Figure 2: Advantages competitive sector of the North East

Agri: agriculture forestry and fishing, construction: construction and public works, ME: mine and energy, H: hotels, ITC: textile and leather, BMI industries of building materials, AIM: other manufacturing industries, TR: Transportation, R: Building and repair activities, B: banking and insurance, IME: mechanical and electrical industries, SSC: social and cultural services, IMA: food manufacturing, C: trade, Chi: chemical, ESA education, health administration. P: sectoral share in the regional economy In addition, this region has managed to preserve a competitive advantage in areas such as textiles and clothing , mechanical and electrical industries or industries of building materials. Finally, activities such as agriculture, hotels , banks and education , health and administration experience a slowdown or even a loss of speed that requires solutions. For its part, the agricultural sector in the North West of Tunisia is struggling to retain its traditional competitive advantage and converges increasingly to a loss of speed that can be fatal to a predominantly rural economy (figure 3).

This discomfort is mainly due to the non- modernization of the sector and the lack of government investment. Only the areas of construction and education, health and administration continue to maintain their traditional competitive advantage. In addition, several activities are beginning to emerge, such as trade, industry of building materials, transportation and manufacturing industries (ITC, and IMA IME).

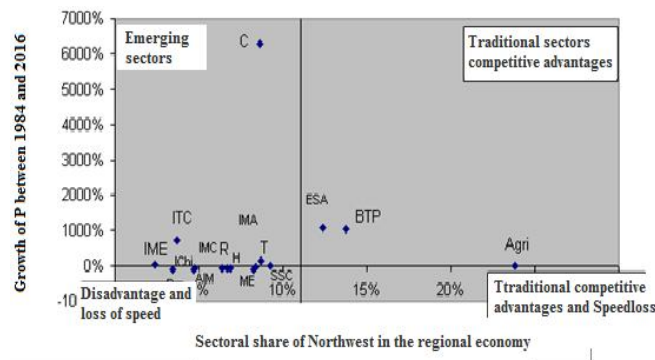
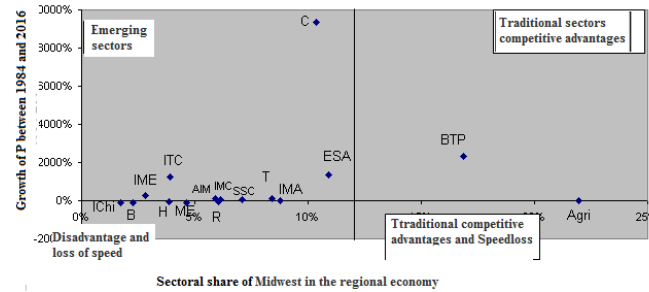


Figure 3: Benefits sectoral competitive Northwest

Agri: agriculture forestry and fishing, construction: construction and public works, ME: mine and energy, H: hotels, ITC: textile and leather, BMI industries of building materials, AIM: other manufacturing industries, TR: Transportation, R: Building and repair activities, B: banking and insurance, IME: mechanical and electrical industries, SSC: social and cultural services, IMA: food manufacturing, C: trade, Chi: chemical, ESA education, health administration. P: sectoral share in the regional economy Turning now to the study of the evolution of the Midwest (figure 4) knows that a significant change with the advent of new emerging sectors such as textiles and clothing , mechanical and electrical industries and building materials industries or economy other manufacturing industries.



Midwest

Figure 4: Benefits sectoral competitive

Agri: agriculture forestry and fishing, construction: construction and public works, ME: mine and energy, H: hotels, ITC: textile and leather, BMI industries of building materials, AIM: other manufacturing industries, TR: Transportation, R: Building and repair activities, B: banking and insurance, IME: mechanical and electrical industries, SSC: social and cultural services, IMA: food manufacturing, C: trade, Chi: chemical, ESA education, health administration. P: sectoral share in the regional economy For services, we are talking about areas of trade and education, health and administration. This is misleading if the competitive path analysis on agriculture, the main employer in the region sector, which is experiencing a decline rate mainly due to the substantial loss of labor which migrates annually opposed to other more to the east. The construction sector is characterized by a guarded competitiveness can be strengthened.

The mining and energy , hospitality , banking and chemical industries are the Achilles heel of the Midwest because they are slow to revive. This region has not taken advantage of its geographical proximity to the Central East region known more dynamic and competitive. The Central East region has managed to preserve a diverse economy with higher performance than other regions (figure 5). Development trends of the local economic structure show a competitive advantage in traditional manufacturing sectors and in particular the textile and mechanical and electrical industries apparel and those building materials. Services related to education , health and administration , construction as well as transportation to the emergence experiencing traditional competitive advantages of the sector , as they are regional centers that attract customers from the West central and southern Tunisia or Libya in the case of Sfax.

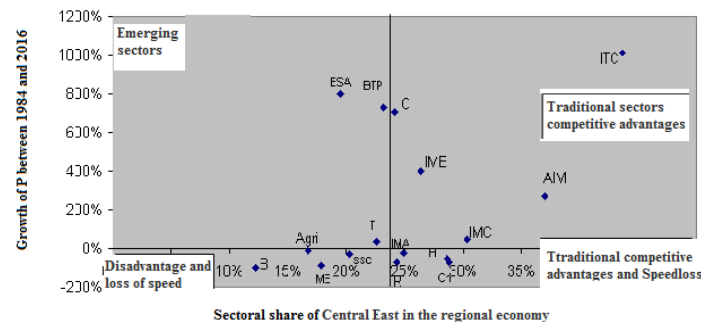


Figure 5: Benefits sectoral competitive Central East

Agri: agriculture forestry and fishing, construction: construction and public works, ME: mine and energy, H: hotels, ITC: textile and leather, BMI industries of building materials, AIM: other manufacturing industries, TR: Transportation, R: Building and repair activities, B: banking and insurance, IME: mechanical and electrical industries, SSC: social and cultural services, IMA: food manufacturing, C: trade, Chi: chemical, ESA education, health administration. P: sectoral share in the regional economy The hotel and catering which are of a seasonal nature in a slowdown due to the choking of the traditional tourist areas. Indeed, we are witnessing the outbreak of Mahdia as a Virgin for the future in this area. Real estate activities and repair are experiencing the same slowdown. The banking sector remains below the aspirations of the local economy as agriculture begins to emerge through a process of modernisation which is starting to give its fruits. Southern Tunisia remains an area of paradoxes with one hand , the first place in area level and, secondly , the last place a perspective economic weight. In fact , there is a predominance of mining and energy and chemical industries and hospitality despite a delay in recent years (figure 6).

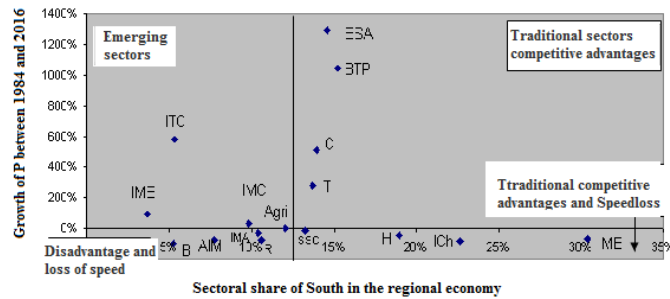


Figure 6: Benefits sectoral competitive South

Local services such as education, health and administration, construction, trade and transport are a traditional competitive advantage for the region. Textiles, clothing and leather, construction materials, mechanical and electrical industries and agriculture, forestry and fisheries have a growing interest source of emergence. Economic activity in this area is still very power (although non-tradable) while tradable industries are relatively inconspicuous.

Conclusion

The character static and unbalanced structural landscape in Tunisia remains predominant throughout the period covered by this work. Is cited in this case Elie Heckscher (1918), which explains the specialization of a region in the production of a good or of a service offer, by the intensive use of a factor which it is relatively most endowed. Indeed, the greater Tunis, East Central and North East regions dominate, since these territories heavily industrialized with over 80% of the National Business Park, were able to master the process of production which became efficient and which has allowed to pass this on to the quality of the product or service offered. These regions must organize themselves in the form of clusters involving local authorities, universities and companies in this evolutionary process in order to move to a level of proficiency that allows innovating.

However, we must invest in training in information technology and communication remark since the emergence in these areas of the service sector which accounts for much of the employment that is wide international a promising niche. This brings us to confirm the proposal announced. All this leads us to affirm that found that the same areas were mostly kept with a traditional competitive advantage, however, the emergence of tertiary sectors and a loss of momentum in other sectors such as manufacturing in the regions western Tunisia. Porter (1990) confirms the approach that spillovers increase primarily within the same industry and that specialization is beneficial for growth.

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Appendices

Table 1: Distribution of Tunisian regions

Régions	Greatest Tunis	North East	North West	Center East	Center West	South East	South West
Governorates	Tunis Ariana Ben Arous Manouba	Nabeul Zaghouan Bizerte	Beja Jendouba Le Kef Siliana	Sousse Monastir Mahdia Sfax	Kairouan Kasserine Sidi Bouzid	Gabes Medenine Tataouine	Gafsa Tozeur Kebili

National Institute of Statistics 2010

Table 2: Distribution of firms by governorate in 2016

Governorate	Total number of firms		Companies with 100 or more persons	
	Number	%	Number	%
Tunis	102356	18,70%	569	28,06%
Ariana	34440	6,30%	115	5,80%
Ben Arous	35589	6,50%	182	9,10%
La Manouba	19598	3,60%	56	2,80%
Nabeul	39453	7,20%	215	10,80%
Zaghouan	7561	1,40%	52	2,60%
Bizerte	26285	4,80%	107	5,40%
Béja	14282	2,60%	13	0,70%
Jendouba	15424	2,80%	7	0,40%
Kef	11490	2,10%	4	0,20%
Silana	7986	1,50%	4	0,20%
Sousse	34970	6,40%	161	8,10%
Mounastir	25323	4,60%	206	10,30%
Mahdia	18453	3,40%	32	1,60%
Sfax	49586	9,00%	155	7,80%
Kairouan	18712	3,40%	16	0,80%
Kasserine	13433	2,40%	3	0,20%
Sidi Bouzid	11342	2,10%	4	0,20%
Gabes	15494	2,80%	30	1,50%
Medenine	18245	3,30%	35	1,80%
Tataouine	5031	0,90%	2	0,10%
Gafsa	11015	2,00%	13	0,70%
Tozeur	5386	1,00%	4	0,20%
Kebili	7094	1,30%	6	0,30%
Total	548548	100,00%	1991	100,00%

National Business Network

Table 3: Distribution of employed population by sector in 2016 and governorates

	Agric, Forestry and Fishing	Industry manufact. alimentary	Industry of building materials	Mechanical and electrical industry	Chemical industry	Industry textile and leather	Other manufact industries	Mines and Energy
Tunis	3170	6630	2620	6320	1760	27230	8770	5280
Ariana	18630	3050	1170	2130	480	11690	3120	1980
Ben Arous	5720	2210	2470	3520	1510	6860	2970	1560
Nabeul	49450	1670	3600	1570	220	14780	3570	1130
Zaghouan	11540	190	1410	570	300	4250	230	530
Bizerte	31650	790	1790	4440	400	12830	1980	1680
Béja	28590	1140	640	330	30	6980	740	780
Jendouba	27280	930	990	210	10	9070	1150	1380
Le Kef	21040	570	700	180	40	5870	480	2170
Siliana	21420	220	540	190	80	4520	540	690
Kairouan	45250	1350	800	270	100	9270	1390	590
Kasserine	27840	330	580	120	30	6220	1600	460
Sidi Bouzid	37380	360	270	200	0	3010	720	310
Sousse	11940	1500	2090	3260	380	11580	3460	940
Monastir	9210	400	2260	1230	50	18410	2730	830
Mahdia	29430	860	630	340	280	10090	800	400
Sfax	39790	3110	1650	3190	2830	19580	7440	2300
Gafsa	8790	440	240	160	140	3820	460	12860
Tozeur	3830	160	130	50	10	2080	220	150
Kébili	7990	90	160	100	0	2090	230	200
Gabés	11000	1090	1510	850	2420	5640	1290	640
Médenine	17260	1020	1110	400	100	6170	880	850
Tataouine	7170	40	20	40	10	1850	80	320
Total	475370	28150	27380	29670	11180	203890	44850	38030

Table 4: Distribution of employed population by governorate and industry (together) 2016

Construction and public works	Trade	Transport and communications	Hospitality and catering	Banks and insurance	Real estate activities and other repair services	social and cultural services	Education, health and administration	Undeclared sector
19340	24420	19950	5870	6230	8090	11700	60670	15820
14930	6970	6230	1230	1480	2530	3990	18190	6170
6350	6780	5610	1070	1510	1580	2040	13440	5760
14620	8230	3740	6420	420	2580	2200	16400	5390
5200	1220	990	170	60	480	390	3830	910
12840	5320	3850	1200	520	1980	1430	14780	4170
10450	3620	2360	740	190	970	1180	10070	3890
12750	3300	1720	1260	130	1150	1500	9340	9150
7750	2480	1570	380	100	680	640	7540	5470
7970	1800	1530	250	80	660	510	6720	4410
21380	4980	3310	980	110	1090	630	11430	2630
13360	2900	1830	360	50	500	320	6000	3440
8480	2200	1860	330	60	610	180	6150	2090
13210	6070	4390	5280	410	2120	1260	15160	2580
10350	6080	3800	2380	340	1060	840	12800	2160

10130	4350	2000	840	120	810	400	7970	2250
15360	12150	10380	1420	690	4900	3110	20340	4350
5040	2240	2950	360	80	820	380	6450	1810
1750	660	510	460	20	170	90	2730	3200
2770	890	750	120	10	300	80	2590	1500
7820	3150	3270	750	190	1340	490	7830	4350
12310	5600	3100	3360	240	1210	930	8410	1910
3330	2930	1000	290	20	320	90	2540	1670
237490	118340	86700	35520	13060	35950	34380	271380	95080

Industr y textile and leather	Chemic al industry	Mechanic al and electrical industry	Industr y of building material s	Industry manufact · alimentar y	Agric, Forestr y and Fishing	
22537	2723	8528	2351	7703	2426	Tunis
22244	2196	7481	1723	6226	17650	Ariana1
11891	3088	10939	2817	6316	7396	Ben Arous
34080	1046	9025	6493	6096	52256	Nabeul
4555	437	4169	2173	520	9725	Zaghouan
23276	799	10260	1821	2180	27710	Bizerte
3270	401	674	414	2139	33846	Béja
2037	175	428	497	1547	44993	Jendouba
1669	495	406	1029	951	15099	Le Kef
3111	67	342	394	460	15923	Siliana
4866	115	1141	780	3341	38830	Kairouan
3925	68	495	1175	840	27569	Kasserine
1820	242	554	292	1168	34952	Sidi Bouzid
23875	1735	8435	2846	3628	9001	Sousse
52320	538	2809	4373	1614	9428	Monastir
13465	257	1056	967	1702	26439	Mahdia
29397	4491	8191	2966	8258	32380	Sfax
2751	992	470	143	1245	9079	Gafsa
880	12	140	185	468	5395	Tozeur
658	30	164	119	437	12376	Kébili
5275	4268	1232	1819	1927	13672	Gabés
3874	144	627	1011	1481	11297	Médenine
1141	85	207	332	775	3833	Tataouine
272917	24404	77773	36720	61022	461275	Total

National Institute of Statistics

National Institute of Statistics

Undeclared sector	Educational, health and administration	social and cultural services	Real estate activities and other repair services	Banks and insurance	Hospitality and catering	Transport and communications	Trade	Construction and public works	Mines and Energy	Other manufacturing industries
3430	80214	24606	22390	9719	13530	25703	50340	22444	4372	10265
3666	50372	16209	15160	5354	6480	16511	26633	31733	2901	7970
1911	36278	8779	9595	3564	3994	13327	20344	12753	2513	6138
2161	29364	9572	8106	1012	16095	9740	21129	25197	1440	8571
512	7982	1624	938	117	991	1963	3152	6121	323	868
1753	27323	5913	4039	684	2855	6990	11592	19535	1539	2757
541	16873	3103	2276	286	1698	3526	7925	12141	630	993
1184	19602	3854	2520	355	3406	4375	8831	18594	713	1782
536	16703	3092	1689	143	1186	3187	5596	9505	985	634
625	13992	2225	1189	137	984	2763	4443	12220	451	482
1119	21759	3653	3236	308	2095	5240	14680	27184	649	1914
455	19627	3481	1832	166	1206	4134	8697	20102	490	1722
891	17823	2293	1904	126	798	4018	8875	16992	426	1189
2118	28124	8662	7249	1128	16180	9738	18409	22437	1056	8025
2226	22670	4736	4969	513	5831	7782	14728	17012	989	5567
480	14624	2528	2840	243	3550	3722	12979	18284	670	1908
2530	40421	10994	12893	1371	4626	14663	28930	30555	3294	14745
434	19298	5148	2001	225	1068	4332	6609	10795	7072	738
151	6407	1754	923	87	1923	1708	2113	3365	244	481
166	8480	1942	990	66	1246	1716	2786	4868	253	336
838	16874	3621	3253	321	1545	4999	9010	15115	1155	2158
1193	19790	3854	4056	618	13690	7666	19487	18546	924	2299
522	8273	1303	962	88	538	1416	3241	5360	578	327
29442	542873	132946	115010	26631	105515	159219	310529	380858	33667	81869

Table 5: Distribution of employed population by sector in 1984 and governorates

	Agric, Forestry and Fishing	Industry manufact. alimentary	Industry of building materials	Mechanical and electrical industry	Chemical industry	Industry textile and leather	Other manufact industries	Mines and Energy	Construction and public works	Trade	Transport and communicatio ns	Hospitality and catering	Banks and insurance	Real estate activities and other repair services	social and cultural services	Education, health and administratio n	Undeclared sector
Tunis	3170	6630	2620	6320	1760	27230	8770	5280	19340	24420	19950	5870	6230	8090	11700	60670	15820
Ariana	18630	3050	1170	2130	480	11690	3120	1980	14930	6970	6230	1230	1480	2530	3990	18190	6170
Ben Arous	5720	2210	2470	3520	1510	6860	2970	1560	6350	6780	5610	1070	1510	1580	2040	13440	5760
Nabeul	49450	1670	3600	1570	220	14780	3570	1130	14620	8230	3740	6420	420	2580	2200	16400	5390
Zaghouan	11540	190	1410	570	300	4250	230	530	5200	1220	990	170	60	480	390	3830	910
Bizerte	31650	790	1790	4440	400	12830	1980	1680	12840	5320	3850	1200	520	1980	1430	14780	4170
Béja	28590	1140	640	330	30	6980	740	780	10450	3620	2360	740	190	970	1180	10070	3890
Jendouba	27280	930	990	210	10	9070	1150	1380	12750	3300	1720	1260	130	1150	1500	9340	9150
Le Kef	21040	570	700	180	40	5870	480	2170	7750	2480	1570	380	100	680	640	7540	5470
Siliana	21420	220	540	190	80	4520	540	690	7970	1800	1530	250	80	660	510	6720	4410
Kairouan	45250	1350	800	270	100	9270	1390	590	21380	4980	3310	980	110	1090	630	11430	2630
Kasserine	27840	330	580	120	30	6220	1600	460	13360	2900	1830	360	50	500	320	6000	3440
Sidi Bouzid	37380	360	270	200	0	3010	720	310	8480	2200	1860	330	60	610	180	6150	2090
Sousse	11940	1500	2090	3260	380	11580	3460	940	13210	6070	4390	5280	410	2120	1260	15160	2580
Monastir	9210	400	2260	1230	50	18410	2730	830	10350	6080	3800	2380	340	1060	840	12800	2160
Mahdia	29430	860	630	340	280	10090	800	400	10130	4350	2000	840	120	810	400	7970	2250
Sfax	39790	3110	1650	3190	2830	19580	7440	2300	15360	12150	10380	1420	690	4900	3110	20340	4350
Gafsa	8790	440	240	160	140	3820	460	12860	5040	2240	2950	360	80	820	380	6450	1810
Tozeur	3830	160	130	50	10	2080	220	150	1750	660	510	460	20	170	90	2730	3200
Kébili	7990	90	160	100	0	2090	230	200	2770	890	750	120	10	300	80	2590	1500
Gabés	11000	1090	1510	850	2420	5640	1290	640	7820	3150	3270	750	190	1340	490	7830	4350
Médenine	17260	1020	1110	400	100	6170	880	850	12310	5600	3100	3360	240	1210	930	8410	1910
Tataouine	7170	40	20	40	10	1850	80	320	3330	2930	1000	290	20	320	90	2540	1670
Ensemble	475370	28150	27380	29670	11180	203890	44850	38030	237490	118340	86700	35520	13060	35950	34380	271380	95080