

# Facts on Safety at Work for Turkey

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**Abstract—** The most important indicator showing the progress of the Occupational Health and Safety (OHS) in Turkey is the statistics announced each year regularly by Social Security Institution (SSI) on work-related accidents and diseases. Collection of these data with high accuracy and analysis has a vital importance in terms of revealing the lack on OHS, rehabilitations to be done and determining new strategies to be created. For this purpose, in this study, accidents at work and occupational diseases data deduced from SSI 2012 statistics were analyzed. In addition, the contradictions and deficiencies in this data are tried to be shown using several international criteria and notably the International Labour Organization (ILO) data. In evaluations, it is defined that the most realistic data is deaths resulting from occupational accidents figure. Besides this, it is seen that approximately 73% of cases of work-related accidents occurred was unable to be recorded. The number of occupational diseases and the deaths resulting from occupational diseases figures could not almost fully be recorded in the SSI statistics. Recommendations for more efficient operation of the OHS reporting and registration system were also introduced.

**Keywords—** Occupational accidents; Occupational diseases; Turkey; OHS, OHS Reporting and registration system.

## I. INTRODUCTION AND AIM

Working in a safe and healthy environment is a basic human right for all people to the highest attainable standard. In this respect, OHS issues, improvement of working conditions, prevention of work-related accidents and diseases are of vital importance for employees, employer, companies, nations and countries [1]. High priorities should be given to the protection and prevention strategies at the national level, with a focus on developing countries for people most in need, including the working population at high risk.

OHS has been gaining great importance day by day in parallel with the increase in the complexity of production systems and the development of technology [2]. OHS can be important for moral and financial reasons. According to the latest ILO data;

✓ 2.02 million workers die each year from work-related diseases,

- ✓ 321,000 workers die each year from occupational accidents,
- ✓ workers suffer from 160 million non-fatal work-related diseases per year,
- ✓ workers suffer from 317 million non-fatal occupational accidents per year.
- ✓ 4 per cent of World Domestic Product is lost due to work-related accidents and diseases [3].

These numbers show that every day 6,413 persons die because of insufficient measures in ensuring OHS. Deaths and severe injuries take a particularly heavy toll in developing countries, where a large part of the working population is engaged in dangerous activities, such as construction, mining and transportation [3].

This negative picture in the field of OHS affects not only workers, but also employers and countries in a negative way through fatalities, injuries, property damages, productivity, production losses, medical treatment expenditures and social security expenditures [4]. OHS problems may also affects family members, customers and many other who might be contacted to workplace environment.

**According to the ILO reports on Safety Culture, 98% of the occupational accidents and all of the occupational diseases are avoidable [5].** In fact, by taking necessary precautions at workplaces, work-related accidents and diseases can be prevented on a large extent.

Work-related problems are widely seen in all countries to varying degrees. Countries not effective to take precautions are affected from these incidents more. **Accidents at work and occupational diseases have two common characteristics as being primarily man-made and can be prevented to a great rate.** Turkey like most of the developing countries has negative OHS figures [6]. Thousands of workers lost their lives or became permanently disabled due to the work-related accidents and diseases in Turkey at the last decade. The statistics of SSI are the concrete indicators of the present situation of Turkey with respect to OHS. In accordance with SSI statistics of 2012, 74.871 occupational accidents and 395 occupational diseases were observed and 745 of them were resulted in fatality [7]. Unfortunately, majority of work-related accidents and diseases occurring in Turkey are not being recorded. For this reason, the real figures of the occupational accidents and diseases and work-related deaths are a lot higher than the above mentioned numbers.

Safety and health at work is a fundamental human right. In terms of decreasing work-related accidents

and occupational diseases in work places there are responsibilities particularly to the government and employers, OHS professionals and employees individually. Establishment of a healthy and safe working environment starts by analyzing the current situation correctly. Accurate data is needed for an accurate analysis. Without accurate data, it is impossible to see our future, to determine our priorities and to develop strategies based on them. For this reason, in this study, accidents at work and occupational diseases data deduced from SSI statistics were analyzed. In addition, the contradictions and deficiencies in this data are tried to be show using several international criteria and notably the ILO data.

## II. BASIC CONCEPTS

In this section, the definitions of some technical terms that are used in this study are given in order to ensure in terms of common understanding.

### A. Occupational Accident

For this concept, like the terms of "**work accident**", "**work-related accident**", "**accident at work**" can also be used.

A single definition for occupational accident concept is not enough. There are many definitions for occupational accident concept in literature. Some of them are as below:

✓ Occupational accidents can be defined as an unexpected and unplanned incident, commonly causing injuries, diseases or deaths or breaking down devices and working equipments or making production stop for a while.

✓ According to the definition of Labor and Social Security Ministry; occupational accident is "The workers' loss of his/her all or some work power because of working conditions or machines, tools and equipments [8].

✓ According to ILO; occupational accidents can be define as accidents that happen at work and accidents on the way to and from work [8,9].

✓ According to World Health Organization; "An unplanned event commonly leading to personal injury, damage to machinery and working equipment temporary halt of production." [8,9].

The definition that we interest in terms of law is mentioned in two places in the legislation. The first one is in the Social Insurance and Universal Health Insurance (SIUHI) law Act No 5510, the second one is in the Occupational Health and Safety (OHS) law Act No 6331. Both definitions are given below.

A broader definition takes place in the SIUHI law. According to this definition occupational accident is the incidence which occurs;

a) When the insured person is in the workplace,

b) Due to the work carried out by the employer or by the insurance holder if he/she is working on behalf of own name and account,

c) For an insurance holder working under an employer, at times when he/she is not carrying out his/her actual work due to the reason that he/she is sent on duty to another place out of the workplace,

d) During breastfeeding of a women employee,

e) During transportation of the employees on a vehicle provided by the employer [10].

According to Turkish laws of OHS numbered 6331, **occupational accident** is defined as; any occurrence taking place at the workplace or due to the performance of work which leads to death or physical or mental impairment to the physical integrity of the victim [11].

### B. Occupational Disease

Occupational disease is a case of temporarily or permanently sickness, disability or mental trouble suffered by an insured person due to continuing causal factor which is characteristic of the conditions required to perform such a work[10].

### C. Job Safety

Job safety is the study to ensure the safety and health of employees within a workplace to prevent work-related accidents and diseases thus minimize the moral and material losses and increase the productivity[10].

### D. Incapacity for Work

Inability of the victim, due to an occupational injury, to perform the normal duties of work in the job or post occupied at the time of the work-related accident [10].

### E. Permanent Incapacity

Permanent incapacity is the situation an insured person loses a part of or the complete earning capacity due to an employment injury or occupational disease, in spite of the medical treatment performed. The insured person who has lost at least 10 percent of his earning capacity in the profession shall be entitled to an amount of income against permanent incapacity for work[10].

### F. Temporary Incapacity

Because of work-related accidents or diseases the insured person is temporary incapable of working[10].

### G. Work-related deaths (Deaths Due to Accident at Work or Occupational Disease)

This includes deaths resulting from accident at work or occupational disease, death of an individual who lost 50% or more his/her earning power on the job and having treatment while getting their permanent pension[10].

### H. Comparison Criteria

Comparison by just looking at the figures in absolute values of work related accidents or diseases data cannot give always meaningful results. For example the population of Greece is around 11 million

but only the number of employees with SSI is more than 12 million in Turkey. That's why it is not a correct approach to compare accident data of Turkey and Greece only with absolute numbers. Similarly, when comparing Turkey itself for different two years it is not correct to compare with absolute values, because of the values such as number of employees, number of establishments to be different from each other.

There are some benchmarks which defined in 16th International Conference of Labour Statisticians organized by ILO in order to compare data of work related accidents and diseases. Some of these benchmarks which are used in this study have been described here.

ILO determined the incidence rate as accidents per 1000 workers. In the literature, incidence rate calculated per 1000, 10000 and 100000 workers. In this study three different incidence rate values calculated.

*H.1. General Incidence Rate of Occupational accidents (for Fatal + Non-Fatal Accidents)*

Incidence rate-I value calculated for the number of total accidents ( $IR_1$ )

$IR_1$  represents the number of accidents per 1000 workers in one calendar year.

$$IR_1 = \frac{N' \text{ of Accident} * 1000}{\text{Number of Workers}}$$

*H.2. Permanent incapacity Incidence Rate of Occupational accidents*

Incidence rate-II value calculated for the number of permanent incapacity resulting from occupational accidents ( $IR_2$ )

$IR_2$  represents number of permanent incapacity per 1000000 workers in one calendar year.

$$IR_2 = \frac{N' \text{ of Permanent Incapacity} * 1000000}{\text{Number of Workers}}$$

*H.3. Fatal Incidence Rate of Occupational accidents*

Incidence rate-III value calculated for the number of deaths resulting from occupational accidents ( $IR_3$ )

$IR_3$  represents number of deaths per 1000000 workers in one calendar year.

$$IR_3 = \frac{N' \text{ of Deaths} * 1000000}{\text{Number of Workers}}$$

*H. 4. Standardized Occupational Accident Rate*

Standardized occupational accident rate is a benchmark used in SSI work related accidents and diseases statistical yearbooks. It is used to compare

overall Turkey and Turkey's sub-sectors in terms of general incidence rate for the same year. Turkey general incidence rate is accepted as 100 for the year which the comparison held. Accident incidence rate of all the sectors are calculated according to this. For example, in 2012 SSI statistical Yearbook, standardized occupational accident rate is calculated as 2763,14 for "Coal and Lignite Removing" sector. This rate explains that the general incidence rate of this sector is about 27 times higher than the average in Turkey in 2012.

III. ANALYSIS OF OCCUPATIONAL ACCIDENT STATISTICS OF SSI FOR THE YEAR 2012: FACTS, PROBLEMS AND SOLUTIONS

*A. Analysis of Occupational Accident Data*

According to the regulation, it is a legal obligation to inform all the accident at work and occupational diseases to SSI. These information are compiled, classified and shared with interested parties by SSI according to International Labour Organization (ILO).

When the SSI 2012 statistics are analyzed in terms of accidents at work, it is able to reach the data seen in table 1. When Table 1 examining, it's seen that women's labor force participation rate is about one-third the rate of men. It shows that plenty of women who can contribute to country's economy are not working or working out of registration. In 2012, about 12 million 74 871 employees exposed to occupational accidents, men are seen as much more they are affected by work-related accidents. While 75% of all employees male employees; it is understood that the men exposed of 92% of work-related accidents, 99% of 744 deaths resulting from occupational accidents and %97 of 2036 work-related accidents resulting in became permanent incapable of working. This situation is a result of men workers are worked in hazardous and dangerous Works. In 2012, 1.647.127 work days have been lost due to the accidents at work. This value is an indicator which shows the loss property damage to the country.

**TABLE I: 2012 SSI Occupational Accident Data**

	Woman	Woman Rate	Man	Man Rate	Total
<b>N' of insured workers</b>	2.981.779	% 25	8.957.841	% 75	11.939.620
<b>N' of accident at work</b>	5.781	% 8	69.090	% 92	74.871
<b>N' of death</b>	9	% 1	735	% 99	744
<b>N' of permanent incapacity</b>	68	% 3	1.968	% 97	2.036
<b>N' of day of temporary incapacity</b>	94.720	% 6	1.552.407	% 94	1.647.127

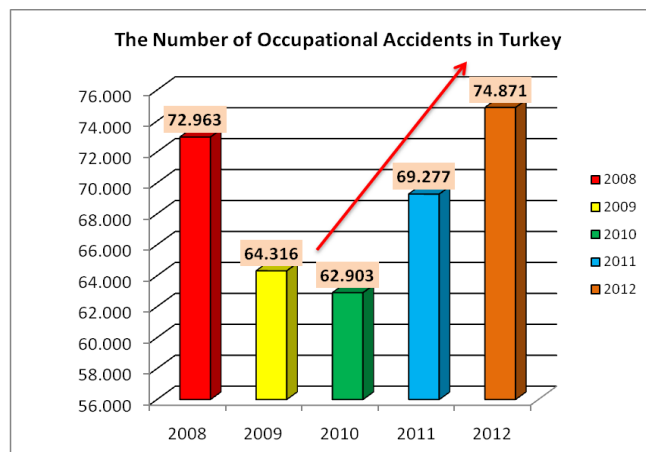
In Table-2, there are three comparison criteria calculated for women, men and all the employers. When interpreting these data, it's seen that, the frequency of women compared with men exposed to accident is 4 times, a man's death possibility due to

work-related accidents is 27 times of woman's possibility, a man's possibility of permanent incapacity due to work-related accidents is 10 times of woman's.

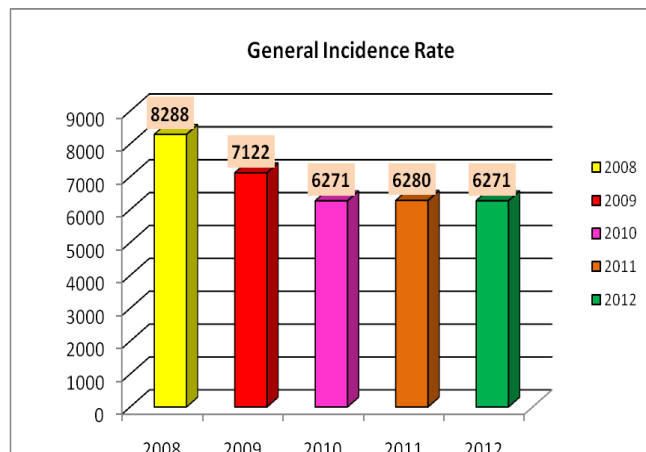
**TABLE II:** Comparison Criterions for the Year 2012

	Woman	Man	General (Woman + Man)
General Incidence Rate	19	77	63
Permanent Incapacity Incidence Rate	23	220	171
Fatal Incidence Rate	3	82	62

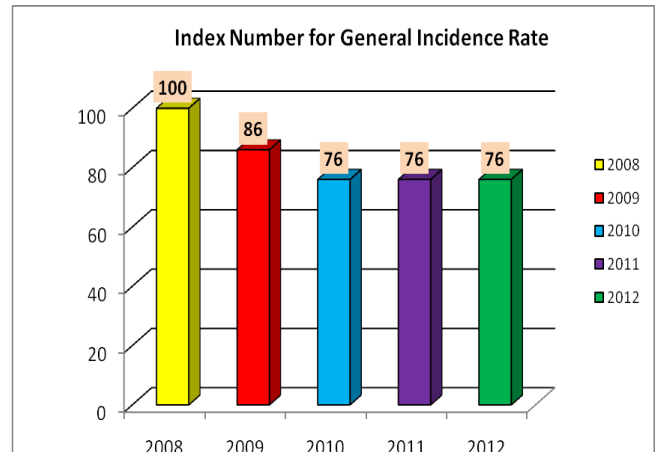
In Figure-1, it's shown the annual distribution of occupational accidents by years in Turkey [7, 12, 13, 14, 15]. As can be seen from this graph in recent years has been an increase in the number of accidents in Turkey. However, data on occupational accidents related to the figures look as comparing absolute values may not always produce meaningful results. Therefore, it has been developed a variety of comparing criteria. The general incidence rate values were calculated in Figure-2. In Figure-3, the index numbers were calculated for general incidence rate values by assuming general incidence rate value 100 for the year 2008.



**Figure-1:** The Annual Distribution of Occupational Accidents

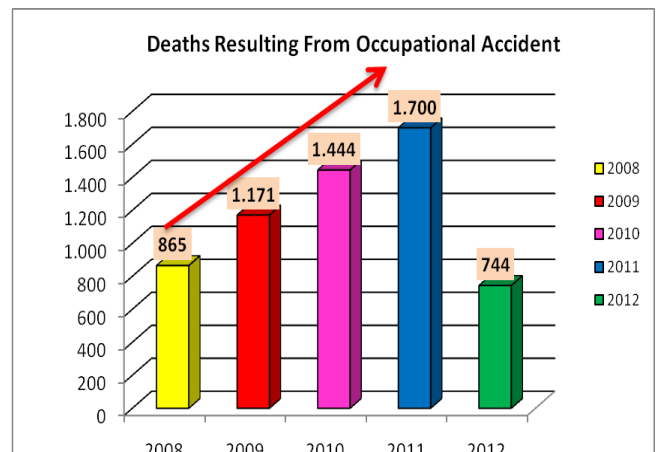


**Figure-2:** The Annual Distribution of General Incidence Rate



**Figure-3:** The Annual Distribution of Index Number for General Incidence Rate

When taken together Figure-2 and Figure-3, the general incidence rate value is decreased by 24 % compared to 2008. From 2010 until 2012, there has been no improvement in the general incidence rate in Turkey.



**Figure-4:** The Annual Distribution of Number of Death as a Result of Occupational Accident

In Figure-4, it is seen the number of death event as a result of occupational accidents occurring throughout Turkey by years [7, 12, 13, 14, 15]. In 2012, 744 people died because of work-related accidents. It means, two people in a day died due to accidents at work. From this figure compared to 2011 in 2012 has decreased by 56 % the number of fatalities. This sudden improvement in the number of fatalities is remarkable. This is a state issue to be considered.

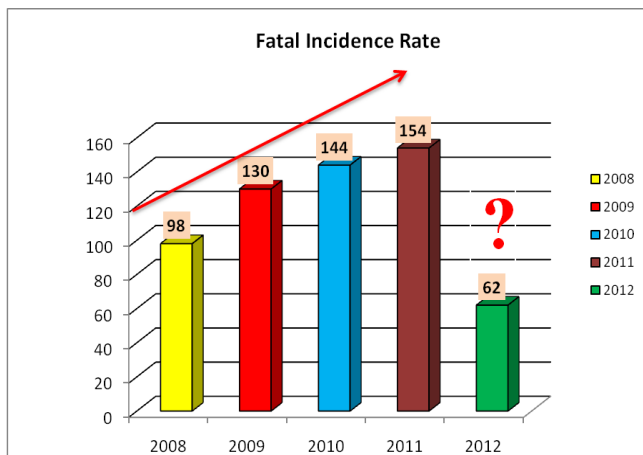
Istanbul Occupational Health and Safety Council is a non-governmental organization who thinks that SSI data related to occupational health and safety is not reflecting the reality. Istanbul OHS Council is an organization that aims to create an awareness of the collection of accurate data and information relating to OHS and society becomes visible in the work accidents and occupational diseases. For this purpose, it takes and integrates the accident news and SSI information basing local, regional and site. Especially, in Turkey they closely follow fatal occupational accidents occurring in general, a detailed

manner prepares monthly and annual reports and share with the community. This council is trying to retrieve recorded fatal occupational accidents in our country as possible. However; it can be possible there are accidents which cannot be recorded by this council. So; the real situation may be very different in Turkey.

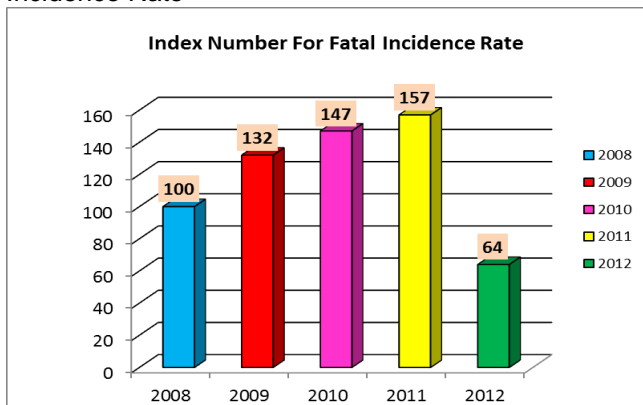
**Table III:** The Number of Monthly Deaths Data for the Year 2012 (Istanbul OHS Council Data)

Month	Number of Deaths
January	62
February	42
March	59
April	87
May	69
June	59
July	110
August	71
September	83
October	78
November	82
December	76
<b>Total</b>	<b>878</b>

In Table-3, there is data for the year 2012 published by Istanbul OHS Council [16]. When it is compared Istanbul OHS data of 2012 and SSI 2012 data, there is a big difference existing seen as 134. The source of this difference has to be clarified.

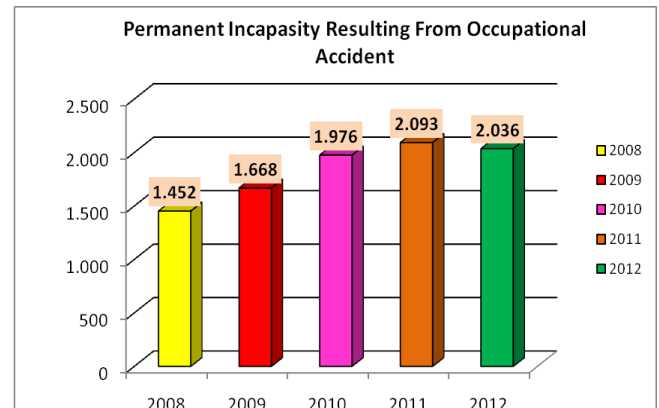


**Figure-6:** The Annual Distribution of Fatal Incidence Rate



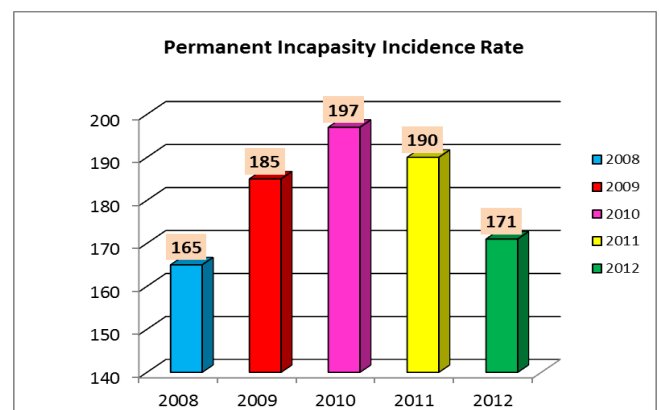
**Figure-7:** The Annual Distribution of Index Number for Fatal Incidence Rate

The fatal incidence rate values calculated for Turkey are given in Figure-6. In figure 7, assuming fatal incidence rate value for 2008 is 100, the fatal incidence rate index numbers was calculated. When Figure 6 and Figure 7 considered together, the incidence of fatal accidents in Turkey shows an upward trend from 2008. However; value of the frequency of fatal accidents in 2012 there has been a significant reduction according to previous years (!!!). This case shows that it is necessary to query the reliability of the data of 2012.

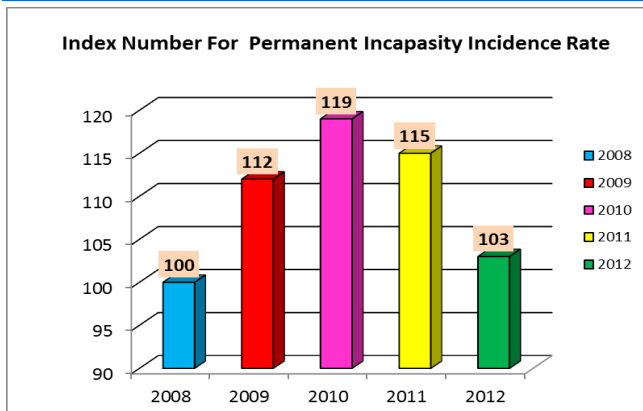


**Figure-8:** The Annual Distribution of N' of Permanent Incapacities as a Result of Occupational Accident

In Figure-8, it's seen the number of permanent incapacity events due to accident at work change over the years. [7, 12, 13, 14, 15]. In this figure, it's seen that in recent year, an average of 2000 employees has been permanently incapacity due to accidents at work. It means that an average of 6 employees is being permanent incapacity per day. It means that an average of around 6 employees is being remained crippled for life, per day in Turkey. This is one of the major costs of occupational accidents.



**Figure-9:** The Annual Distribution of Permanent Incapacity Incidence Rate



**Figure-10:** The Annual Distribution of Index Number for Permanent Incapacity Incidence Rate

In Figure-9, It's given permanent incapacity incidence rate calculated for Turkey. In Figure-10, assuming the value of the permanent incapacity incidence rate for 2008 is 100, permanent incapacity incidence rate index numbers are calculated. When Figure-9 and Figure-10 are considered together, a downward trend seen in permanent incapacity incidence rate since 2010.

Accidents at work and occupational diseases data cannot be recorded correctly is an important issue for many countries. The countries give important to OHS have solved this problem at a great rate. For example, In Germany that has an 82 million population 1 million work accident record in passing (1.061.365), this number is 75.000 in Turkey that has a 76 million population is an issue has to be considered. This situation can be explained in two ways. Either in terms of frequency of accident at work is in a better condition in Turkey more than in Germany or there is a significant problem about registration of accidents in Turkey.

Turkey Statistical Institute (TUIK) which is public institution working with large samples has realized two studies of **Work Accidents and Work Related Health Problems Research Results** in years of 2007 and 2013 [18]. According to the one realized in 2013 From these searches, % 2,3 of the employees participated to the survey declared that **had a work accident in the last 12 months**. So according to TUIK, in 2012 even if only to consider the number of employees in the official SSI data 11.939.620, it is supposed to be around 274.000 occupational accidents recorded. But the recorded number of accident at work is only 74.871. This situation shows that, only % 27 of the TUIK's estimation can be registered (Table-4).

**Table IV:** Comparison of TUIK and SSI data

	Number of Occupational Accidents
Value Estimated by TUIK	274.611
SSI Data	74.871
Recording Rate	% 27,26

Also, according to TUIK the rate of unregistered employees is around %34. This number is not included in the calculations above. [19].

### B. Risky Sectors

As like all around the World, there are risky sectors in Turkey, too [3, 20]. Construction and mining sectors are the sectors with the highest incidence of fatal accidents in Turkey. Metal industry is the sector with the highest number of accidents. Labour and Social Security Ministry has declared as priority sectors of Construction, Mining and Metals industry in terms of the fight against work accidents and occupational diseases [20]. Therefore, it is beneficial to consider the statistic of accidents at work in terms of these sectors.

In Table-5, Table-6 and Table-7, it's seen the dealing number of accident at work, death event resulted of accident at work and permanent incapacity event resulted of accident at work, according to these three sectors [7]. When Table-5 examined the highest number of accident occurred in metal sector in Turkey. % 49 of all the accident occurred in this sector. Construction and mining sectors are the two sectors with the highest frequency of fatal accidents. %35 of death events due to accident at work occurred in this sector by itself in Turkey. % 50 of all death events occurred only these three sectors. The highest frequency of incapacity is also construction sector, too. Each 1 accident of 4 accidents resulted incapacity in Turkey occurred in construction sector. % 40 of all the incapacity events occurred in these three sector. Therefore these three sectors are considered as the sectors which have more often accidents in 2012, too. In order to solve this problem, the accident occurred in these three sectors need to be examined, analyzed and the risks specific of each other need to be defined. Therefore, OHS has to give the entire database for using of scientist.

**Table V:** Distribution of Occupational Accidents According to the Sectors

	N' of Occupational Accidents	Ratio ( % )
Total Turkey	74.871	% 100
Metal Sector	17.498	% 23,4
Mining Sector	9.963	% 13,3
Construction Sector	9.209	% 12,3

**Table VI:** Distribution of Cases of Deaths Resulting From Occupational Accidents According to the Sectors

	N' of Deaths	Ratio ( % )
Total Turkey	744	% 100
Metal Sector	256	% 34,4
Mining Sector	60	% 8,1
Construction Sector	44	% 6,0

**Table VII:** Distribution of Cases of Permanently Incapacities Resulting From Occupational Accidents According to the Sectors

	N' of Permanently Incapacities	Ratio ( % )
<b>Total Turkey</b>	2.209	% 100
<b>Metal Sector</b>	563	% 25,5
<b>Mining Sector</b>	288	% 13,0
<b>Construction Sector</b>	115	% 5,2

**Table VIII:** Sectors with The Highest Standardized Occupational Accident Rate

Sectors	Standardized Occupational Accident Rate
<b>Mining Sector</b>	3.711,57
<b>Metal Sector</b>	1.248,76
<b>Electric Equipment Manufacturing</b>	302,69
<b>Non-Metallic Products Manufacturing</b>	294,26
<b>Construction Sector</b>	266,59

Standardized work accident rate is a comparison criteria used in the statistic annual of SSI. It is used to compare Turkey in general and sub-sectors in Turkey in terms of frequency of accident for the mean year. Turkey General of the General Accident Frequency rate is assumed as 100 for the comparison year. The accident rate of all the sectors are calculated depends of this. For example, in SSI 2012 statistic annual, standardized accident at work rate is calculated as 2763,14 for the sector of 'Coal and Lignite mining' sector. This value declare us that, the general accident frequency of this sector is 27 times bigger than the Turkey's average in 2012.

In table-8, it's given the 5 sectors which have the highest work at accident rate in 2012 [7]. According to this table, the possibility of exposure to occupational accident of a mining employee is 37 times higher than the general in Turkey. Likely the possibility of exposure to occupational accident of a metal sector employee is 12 times, in construction sector 3 times higher than the general in Turkey.

#### C. Comparison with EU Countries Analysis of Occupational Accident Data

In terms of work-related accidents, another way to evaluate the current status of Turkey can be taken as a reference to compare with various countries on OSH. In this stage, Turkey and EU countries will be compared in terms of frequency of fatal accidents at work. The most realistic data we have is the number of occupational accidents resulting in fatalities. In this respect, the frequency of fatal accidents was preferred as criteria. In addition, due to Euro stat (the EU official statistics office) data is more healthy and updated, comparisons were made with EU countries. In Table-9 the frequency of fatal accidents calculated values are

given for both Turkey and the EU countries [7, 12, 13, 14, 15, 21].

**Table IX:** Fatal Incidence Rate Values in Turkey and EU Countries

	2008	2009	2010	2011	2012
<b>European Union (15 countries)</b>	<b>2,63</b>	<b>2,29</b>	<b>2,35</b>	<b>2,33</b>	<b>2,35</b>
<b>Turkey</b>	<b>9,80</b>	<b>12,96</b>	<b>14,40</b>	<b>15,40</b>	<b>6,23</b>
<b>Luxembourg</b>	4,10	1,77	5,28	4,02	<b>6,31</b>
<b>Lithuania</b>	6,62	5,39	4,85	4,83	5,22
<b>Romania</b>	9,96	5,93	6,44	5,16	4,72
<b>Austria</b>	5,04	6,47	6,38	3,78	4,63
<b>Bulgaria</b>	5,97	3,38	3,55	3,76	3,90
<b>Ireland</b>	2,84	2,54	3,79	4,16	3,77
<b>Slovenia</b>	3,76	3,20	3,50	2,90	3,31
<b>Greek Part of Cyprus</b>	7,03	2,86	6,72	2,69	3,21
<b>Spain</b>	4,19	3,18	2,88	3,39	3,20
<b>France</b>	1,84	2,90	2,69	2,98	3,15
<b>Italy</b>	4,50	4,02	3,89	3,42	3,06
<b>Latvia</b>	6,19	3,98	3,45	4,61	2,97
<b>Czech Republic</b>	4,07	2,36	3,3	4,16	2,89
<b>Poland</b>	3,97	5,66	3,96	2,68	2,59
<b>Slovakia</b>	4,81	2,28	2,67	1,88	2,48
<b>Denmark</b>	2,27	1,88	2,54	2,62	2,47
<b>Germany</b>	2,67	1,39	1,59	1,64	2,27
<b>Hungary</b>	4,74	3,41	3,23	2,70	2,18
<b>Estonia</b>	3,02	3,09	3,82	3,52	2,01
<b>Switzerland</b>	4,77	2,30	2,64	1,72	2,02
<b>Belgium</b>	5,31	2,64	2,57	2,46	1,79
<b>Finland</b>	1,48	1,71	1,88	1,62	1,95
<b>Sweden</b>	2,36	1,92	2,11	2,32	1,45
<b>Netherlands</b>	3,04	2,1	1,58	0,74	0,63

When the data given in Table-9 is examined, it's seen that Turkey has the worst performance in EU countries in terms of fatal accident frequency. Only in 2012, Luxembourg's frequency of fatal accidents value is greater than Turkey. It was mentioned the number of fatal accident in 2012 and reliability problem of related information. Therefore, if this year will not be considered, approximately the frequency of fatal accidents in Turkey is about 6 times the average of the EU-15 countries. Also, improvement of Romania which is participated to EU recently is also noteworthy. The country in EU which shows the best performance in terms of frequency of fatal accident is Netherland. In this period, Netherland's frequency of fatal accident value is ranges from one-tenth to one-twentieth in Turkey.

#### IV. DISCUSSION OF RESULTS AND RECOMMENDATIONS

There are a lot of academic studies which examine Turkey's OHS performance [20, 22, 23, 24, 25, 26]. In 2012, Turkey showed a negative performance in terms of accidents at work and occupational diseases.

In 2012, 74.871 occupational accidents were occurred, 744 employees died, 2036 employees become permanently incapacity so consistently remained crippled for life. Only one of 4 accidents occurred in 2012 could be recorded. The most reliable data is the number of occupational accidents resulting in fatalities. Country with the highest incidence of fatal accidents among EU countries is Turkey.

As like all the other issues, there are also difficulties to collect healthy data, to reach data and our accident reporting and registration system is not working properly. OHS can publish the statistic of accidents at work and occupational diseases about two years later. However, When the statistic annuals are examined, it is seen a lot of contradictory situations. For example, in 2012, it's seen 83 deaths in "Unknown" work branch. So, in 2012, OHS doesn't know 83 of 100 deaths are working in which branch. Similarly many conflicting situations can be drawn from the annual statistics. As another example, when 2012 OHS accidents at work and occupational diseases are examined, beverage production which activity code is 11 has no occupational disease recorded but it's seen that for same activity group, 7 occupational incapacity events resulted from occupational diseases recorded. A similar situation is also range for the activity which activity code is 94. Here also, it's seen that the number of recorded occupational disease event is zero but the number of incapacity events resulted from occupational diseases is as 6. Although there is no occupational diseases detected, it is detected incapacity events resulted from occupational diseases shows the inconsistency of OHS data. Similar inconsistencies are existing also in some other activity groups. For this problem, as like the many EU countries doing, for the accidents at work resulting incapacity over 3 days caution of declaration to OHS, for the others obligation of registration can be put. With this method, because of the number of important accidents to be informed to OHS will be reduced, either OHS will do faster data analyze or find opportunity to reset or reduce the contradiction mentioned above. Also; in order to produce meaningful results from accident data, for important accident because of the result (fatal or serious injury accidents) there should be a different information mechanism produced. For this kind of accidents there should be created a new accident notification report, this report should be much more detailed information. Detailed questions about how the incident occurred should be added event place photographs and sketches should be requested. In addition, there should be a place in accident protocol in order to add freely data for special and important situations encountered in the accident. Independent parties should investigate significant accidents in terms of results within 48.

SSI accidents at work and occupational diseases database should be made available to all scientists. Even scientists should be encouraged to do research about industry with higher risk associated. By this

way, the specific risks of risky sectors can be detected and it can be possible to define more effective precautions about these risks.

Occupational accidents and occupational diseases are not an element of the production. A large part of them can be prevented. The cost of occupational accidents and occupational diseases in Turkey is about 60 billion TL in 2013. So to prevent is cheaper than paying the cost of occupational accidents and occupational diseases. It is more humanistic as much more important.

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