

Chemical Engineering 4310
Fall Semester, 2006
Homework Assignment #1
Chapters 1 and 2
(For return in marked box in hall of 2nd floor
Chemical Sciences by noon on Friday, September 15)

Work problems 1-1, 1-4, 1-8, 1-18, 1-20, 1-25, 2-2, 2-3 and 2-17 in the text

1. The following data was found on the CNN website on August 29, 2005. It does not reference a source! The data are for 2004.

Occupation	Total Deaths	Deaths/100,000 workers
Logging workers:	85	92.4
Aircraft pilots:	109	92.4
Fishers and fishing workers:	38	86.4
Structural iron and steel:	31	47.0
Refuse:	35	43.2
Farmers:	307	37.5
Roofers:	94	34.9
Electrical power line:	36	30.0
Truck and other drivers:	905	27.6
Taxi drivers:	67	24.2

Calculate an FAR for each type of worker and compare to any existing data. Also compute an OSHA incident rate based on fatalities. Assume that each worker works 40 hours per week for 50 weeks per year.