Solution to Exercise 3: Aggregating data and saving the summary data

Key point(s);

    a) Aggregate is a powerful tool to summarize the analogue to a tabular output in a REC file and to make calculations on the vertical for each stratum thus obtained.

Task:

o   *The B_EX03_WORKLOAD.REC has been edited to contain only three laboratories (out of the original 30) and only the year 2002. Nonsensical results (e.g., first examination not recorded, followed by a valid result) have been excluded. Create a program B_EX03.PGM to provide the mean number of smears examined per registration day in each of the three laboratories.*

The result:

			(SUM) smears					
laboratory	Obs.	Sum	Mean	Variance	Std Dev	(95% CI mean)		Std Err
BY_A	242	23044.0	95.22	1069.10	32.70	91.08	99.36	2.10
ME_L	135	1211.00	8.97	53.34	7.30	7.73	10.21	0.63
ML_L	241	6328.0	26.26	244.65	15.64	24.27	28.24	1.01

The program B_EX03.PGM is very simple in the end (but admittedly it took us a while to get to this level of efficiency):

```
cls
close
logclose

read "b_ex03_workload.rec"

* Determine the number of smears for each examinee
gen i smears=1
if result2<>9 then smears=2
if result3<>9 then smears=3

* Sum up the number of smears done on each
*   working day in each laboratory
aggregate regdate laboratory /sum=smears /close

* Calculate the average number of smears done
*   each working day in each laboratory
cls
means sumsmears /by=laboratory
```