

## Summary :

### For Job Profile 1 (Sizes : 1 to 1024) :

Stats	Best Fit	Worst Fit	First Fit
Avg. fragmentation (fraction of total memory)	0.279573	0.287506	0.290646
Average Hole Size	276.848	286.721	291.584
Average Number of Holes Required to examine	2.598	2.553	2.523
Highest Fragmentation	0.96582	0.992188	0.975586
Lowest Fragmentation	0	0	0
Average Number of Jobs	1.6	1.509	1.545
Highest Number of Jobs	5	5	6
Lowest Number of Jobs	1	1	1
Average Size of a job	446.726	470.537	458.203
Average Number of Holes	1.117	1.095	1.084
Highest Number of Holes	3	3	3
Lowest Number of Holes	0	0	0
Largest Number of Partitions created in a row without evictions	4	4	4
Largest Number of Evictions	6	6	5

## Summary :

### For Job Profile 2 (Sizes : 1 to 100) :

Stats	Best Fit	Worst Fit	First Fit
Avg. fragmentation (fraction of total memory)	0.0181113	0.028085	0.0217969
Average Hole Size	22.2037	25.8729	22.3443
Average Number of Holes Required to examine	16.182	15.937	12.756
Highest Fragmentation	0.0986328	0.143555	0.134766
Lowest Fragmentation	0	0	0
Average Number of Jobs	16.389	16.124	17.595
Highest Number of Jobs	24	23	26
Lowest Number of Jobs	9	9	10
Average Size of a job	51.9149	51.1619	48.185
Average Number of Holes	7.799	7.694	7.885
Highest Number of Holes	12	12	12
Lowest Number of Holes	4	4	5
Largest Number of Partitions created in a row without evictions	12	7	12
Largest Number of Evictions	10	9	13

## Summary :

### For Job Profile 3 (Sizes : 500 to 1000) :

Stats	Best Fit	Worst Fit	First Fit
Avg. fragmentation (fraction of total memory)	0.265086	0.269928	0.264458
Average Hole Size	271.487	276.451	270.901
Average Number of Holes Required to examine	2.002	2	2
Highest Fragmentation	0.511719	0.511719	0.511719
Lowest Fragmentation	0.0136719	0.0253906	0.0234375
Average Number of Jobs	1.001	1	1
Highest Number of Jobs	2	1	1
Lowest Number of Jobs	1	1	1
Average Size of a job	751.761	747.383	753.099
Average Number of Holes	1	1	1
Highest Number of Holes	1	1	1
Lowest Number of Holes	1	1	1
Largest Number of Partitions created in a row without evictions	1	0	0
Largest Number of Evictions	2	1	1

The average job size does affect the results.

The first job profile can be seen as a perfect real world scenario where jobs of different sizes occupies the memory. For different replacement policies, not much deviation is seen.

However, it is not the case in Job profile 2 and 3.

Average hole size decreased in Job Profile 2. Average Fragmentation also decreased. However, the number of holes increased by a lot as compared to Job Profile 1 and 3. Here, a lot of jobs were accommodated.

In Job Profile 3, average fragmentation is comparable to Job Profile 1. However, number of evictions is far lesser than both the job profiles.

Thus, we can say that job profiles do affect the memory management.

This helps us to choose a best replacement policy where the incoming job sizes are known.