**Reporting on the Gender Pay Gap**



<http://www.bbc.co.uk/news/business-43470827> (21st March 2018)

A small company operates in a building with three floors. It employs people in three different roles; administrators, supervisors and managers and there are people in each category on each floor.

Administrators typically earn the least whilst managers typically earn the most.

£££ Administrators < £££ Supervisors < £££ Managers

You job is to report on the average salaries on men and women in this company.

**Task 1**

Can you put some numbers (salaries, in thousands) in each box so that, in each category, the mean-average of the men’s salaries is *higher* than the women’s BUT the overall mean-average of the men’s salaries is *lower* than that of the women’s. It seems counter-intuitive at first but is possible.

Use the first grid overleaf, mean-averages must be higher in each of the green boxes please.

**Task 2**

Using the same numbers as before. Can you arrange them so that, in each category, the mean-average of the men’s salaries is *lower* than the women’s AND the overall mean-average of the men’s salaries is also *lower* than the women’s. Is this still possible if we said that each floor must have at least one administrator, one supervisor and one manager?

Use the second grid below, mean-averages must be higher in each of the green boxes please.

**Stratified by job type**

|  |  |  |
| --- | --- | --- |
| Role | Men | Women |
| Administrators |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |
| Supervisors |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |
| Managers |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |
|  |  |  |
| Total |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

What strategies worked well here? Why is this possible?

**Stratified by place of work in building**

|  |  |  |
| --- | --- | --- |
| Role | Men | Women |
| Floor 1 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |
| Floor 2 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |
| Floor 3 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |
|  |  |  |
| Total |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

What strategies worked well here? Why is this possible?

**Task 3 and Task 4**

Notice that in the graphic on page one, the article refers to median-average instead of mean-average. This has the effect of smoothing out any exceptionally high salaries which would skew the mean-average. So, the task here is to repeat tasks 1 and 2 but using median-average figures instead.

As before, this task is possible… but can you do it?!

More grids overleaf.

**Stratified by job type – median-averages**

|  |  |  |
| --- | --- | --- |
| Role | Men | Women |
| Administrators |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |
| Supervisors |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |
| Managers |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |
|  |  |  |
| Total |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

What strategies worked well here? Why is this possible?

**Stratified by place of work in building – median-averages**

|  |  |  |
| --- | --- | --- |
| Role | Men | Women |
| Floor 1 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |
| Floor 2 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |
| Floor 3 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |
|  |  |  |
| Total |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

|  |  |
| --- | --- |
| Numbers: | Average: |

 |

What strategies worked well here? Why is this possible?