THOMAS EAPEN · SELECTED WORK

Make the interval calculation visible

A small synthetic reporting example: combine group records with explicit denominators, then pass the same results to the service dashboard.

Original tools: **Excel / VBA** · Example calculations: **Python**

Synthetic example · independently invented data · One-page A3 landscape

01 / WORKED INTERVAL

10:00–10:30

Two invented group records; handling time is measured in seconds.

Group	Offered	Answered	Handling seconds	Within 20s
Group A	28	26	5,850	22
Group B	24	22	5,610	17
Combined	**52**	**48**	**11,460**	**39**

Input rows for the selected interval

11,460 ÷ 48
238.75 seconds per answered call

39 ÷ 52
75.0% answered within the example target

The group means are 225 and 255 seconds. Their unequal answered-call counts make the combined mean 238.75 seconds, rather than the unweighted 240.00 seconds.

SELECTED DEMONSTRATION CODE / PYTHON

State the denominator for each measure

rows contains the group records for one interval. Within-target counts are direct inputs; they are not inferred from average handling time.

```
offered = sum(row['offered'] for row in rows)
answered = sum(row['answered'] for row in rows)
handled = sum(row['handledSeconds'] for row in rows)
within = sum(row['withinTarget'] for row in rows)
aht = handled / answered if answered else None
within_share = within / offered if offered else None
```

Selected code from the new calculation that produces this example's results.

02 / THE REPORTING OUTPUT

Apply the same calculation to every interval

Interval	Forecast calls	Actual calls	Change	Answered	AHT · s	Within 20s / offered	Available · h
09:00–09:30	38	40	+2	38	195.79	80.0%	3.33
09:30–10:00	46	44	−2	43	198.37	86.4%	3.17
10:00–10:30	50	52	+2	48	238.75	75.0%	3.25
10:30–11:00	42	40	−2	39	192.69	85.0%	3.33
Window total	**176**	**176**	**0**	**168**	**208.01**	**81.3%**	**13.08**

Shared synthetic reporting window · 09:00–11:00

Group records → interval calculations → one shared output **Open the service dashboard using these rows ↗**

Keep the measures distinct. AHT divides total handling seconds by answered calls. The response share divides the count answered within an illustrative 20-second target by offered calls. Zero denominators return no estimate. Available hours come from the separate schedule/shrinkage calculation; they are not a modelled staffing requirement.

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New illustrative material explaining the approach. Values, configurations and results shown here are not historical workplace records.