

# Activity 2. "How many staff do we need?"

Find a partner or two and do the math to fill-in wherever a 

?

 exists.

## Part A. PATRON PHONE CALLS

Step One. Answered Calls

( ↓ + ↓ ) × ↓ = A

Step Two. Unanswered Calls

↓ × ↓ = B

Total of Steps 1 & 2

A+B=X

| Time of Day   | Average Talk Time per Call (minutes) | Average Hold Time during Call (minutes) | Total Answered Calls | Patron Call Processing Time (minutes) | Average Call Processing Time (minutes) | Number of Abandoned Calls | Estimated Additional Call Processing Time Needed (minutes) | Total Patron Call Processing Time Needed (minutes) |
|---------------|--------------------------------------|---|----------------------|---------------------------------------|--|---------------------------|--|--|
| 8 to 10 am    | 1.26                                 | 0.11                                    | 154                  | 211                                   | 1.37                                   | 8                         | 11   | 222  |
| 10 to 12 noon | 1.38                                 | 0.20                                    | 92                   | 145                                   | 1.58                                   | 6                         | 9  | 155  |
| 12 to 2 pm    | 1.33                                 | 0.25                                    | 104                  | 164                                   | 1.57                                   | 7                         | 11   | 175  |
| 2 to 4 pm     | 1.43                                 | 0.28                                    | 136                  | ?                                     | 1.71                                   | 11                        | ?  | ?  |
| 4 pm to 6 pm  | 1.46                                 | 0.34                                    | 90                   | ?                                     | 1.80                                   | 3                         | ?  | ?  |

## Part B. OPERATOR RADIO TRAFFIC

( ↓ + ↓ ) × ↓ = Y

| Time of Day   | Average Talk Time (minutes) | Average Hold/Queue Time (minutes) | Number of Phone / Radio Calls | Total Operator Call Processing Time (minutes) |
|---------------|-----------------------------|-----------------------------------|-------------------------------|---|
| 8 to 10 am    | 1.00                        | 0.25                              | 100                           | 125   |
| 10 to 12 noon | 0.75                        | 0.25                              | 80                            | 80  |
| 12 to 2 pm    | 0.75                        | 0.25                              | 100                           | 100   |
| 2 to 4 pm     | ?                           | ?                                 | 140                           | ?   |
| 4 pm to 6 pm  | ?                           | ?                                 | 70                            | ?   |

For A, use your experience to make an assumption about how long it takes to respond to operator's requests - queue time.

We provided three examples for you.

For B, use your experience to make an assumption about how long each operator radio exchange lasts.

We provided three examples for you.

## Part C. TOTAL TO DETERMINE MINIMUM STAFFING

( X + Y ) ÷ Time = # Staff

| Time of Day   | Total Patron Call Process Time Needed (minutes) | Total Operator Call Processing Time (minutes) | Minutes in Time Period | Staff Needed Based on Call Processing Time (round up) |
|---------------|---|---|------------------------|---|
| 8 to 10 am    | 222   | 125   | 120                    | 2.89  |
| 10 to 12 noon | 155   | 80  | 120                    | 1.96  |
| 12 to 2 pm    | 175   | 100   | 120                    | 2.29  |
| 2 to 4 pm     | ?   | ?   | 120                    | ?   |
| 4 pm to 6 pm  | ?   | ?   | 120                    | ?   |

For C, use your work from parts A & B to complete the math and estimate staff level needed to handle call and radio traffic!

We provided three examples for you.

at least 3 staff needed

at least 2 staff needed

at least 3 staff needed

at least ? staff needed

at least ? staff needed

### Steps after the math:

- \* Compare agency staffing for each time period "Staffing Level Based on Call Processing Time"
- \* Take into account breaks, inefficiencies caused by shift changes, and other routine disruptions.
- \* Redistribute dispatch work shifts to match work load.
- \* Establish and use quality of service performance measures to monitor load and make adjustments.  
(Measures may include "Average Queue Time per Call (Minutes)" or "Number of Abandoned Calls.")