STAFFING ESTIMATION WORKSHEETS

A six step process for estimating the number of employees needed**:**

- **Step 1:** Identify the type of position you wish to analyze;
- **Step 2:** Determine employee availability (Worksheet A, NAWH)
- **Step 3:** Determine your turnover rate (Worksheet B)
- **Step 4:** Select the appropriate formula and analyze all positions (Worksheets C, D, E)
- **Step 5:** Compare the number of staff you have with the number you need (Worksheet F)
- **Step 6:** Do a reality check using quality indicators.

Worksheet A: Determining Employee Availability

Determine Net Available Work Hours (NAWH)		
Position:		
A	_2080__	Total hours for one full time employee
B	__120_	Average vacation and holiday leave (total hours)
C	__96____	Average sick leave (total hours)
D	___0___	Average personal leave (total hours)
E	___0____	Average training leave (total hours)
F	___200_	Average military, FMLA leave, etc. (total hours)
G	__0____	Average lunch and break (total hours)
H	__0____	Average other (meetings, light duty, special assignments, etc.)
I	__476____	Total unavailable time = Total B through H
J	__1604__	Net Available Work Hours (NAWH) = A – I
____1604__ = Net Available Work Hours per employee (NAWH from J above)		

Worksheet B: Calculating Average Turnover Rate

Calculate Average Turnover Rate		Year					Average
		2004	2005	2006	2007	2008	
A	Total number of employees at the highest staffing level for that year	28	30	30	32	35	31
B	Number of new hires that failed to complete the probationary period	8	10	8	3	7	7.2
C	Number of experienced employees who left for any reason*	7	4	5	3	2	4.2
D	Turnover Rate (Turnover = B + C ÷ A)	54%	47%	43%	20%	26%	37%
E	Retention Rate (Retention = 1 – Turnover) x 100	46%	53%	57%	80%	74%	63%

*Include all experienced employees who left for voluntary or involuntary reasons (e.g. turnover initiated by the employee, rotation, retirement, death, management action, etc.)

Worksheet C: Calculating Staffing for Coverage Positions

Estimate Staffing Needed for Coverage Positions
Note: Coverage positions must be covered regardless of call volume or level of activity.
Position: Radio
Hours needing coverage: 24 hours A. __3_ Total number of consoles that need to be covered for this position B. _24___ Number of hours per day that need to be covered C. __7__ Number of days per week that need to be covered D. __52__ Number of weeks per year that need to be covered E. __26208_ Total Hours needing coverage = A x B x C x D Employee Availability: F. _1604___ Net Available Work Hours - enter average NAWH from worksheet Staff Needed: G. __16__ Full Time Equivalent base estimate (FTE) = E ÷ F H. __.37_ Turnover Rate - from retention worksheet, convert to decimal I. __21 Full Time Equivalent required to accommodate turnover, prior to any adjustments based on quality indicators: FTE = G x (1+ H)
____**21**____ = Estimated Staffing Need (in FTEs from Step I above)
FTE = Hours needing coverage ÷ Employee Availability x Turnover Adjustment

Worksheet D: Calculating Hourly Processing Capability

Calculate Hourly Processing Capability	
A. _.03__ minutes	Average telephone busy time (call duration in minutes, using decimals), from phone records
B. __5___ minutes	Average call completion time (in minutes, this includes time for data entry, address verification, etc.)*
C. _5.03__ minutes	Average Processing Time (APT) = A + B
D. _12___ calls hourly	Average Hourly Processing Capability (HPC) = 60 ÷ APT)

** Your telephone software may be able to provide detailed information about telephone busy time, but you will have to use other means to determine average wrap-up time.*

Worksheet E: Calculating Staffing for Volume-influenced Positions

Estimate Staffing Needed for Volume-influenced Positions	
Note: The number of Volume-influenced positions is based on call volume or activity level.	
Position: DP12	
Workload:	
A. ___61,494___ calls	Total Call Volume for this position (TCV), from phone records
B. __5_ minutes per call	Average Processing Time for this position (APT), from phone records
C. ___12_ calls hourly	Hourly Processing Capability (HPC) = 60 ÷ B
D. ____5125_ call hours	Workload in hours (W) = A ÷ C
Employee Availability:	
E. _1604___	Net Available Work Hours - enter average NAWH from worksheet
F. __.67___	Agent Occupancy rate - enter AO, convert percent to decimal (1604/24 hours = 66.8% or .67)
G. __1075_	True Availability per person (TA) = E x F
Staff Needed:	
H. 4.8	Full Time Equivalent base estimate (FTE) = D ÷ G
I. _.37___	Turnover Rate from retention worksheet - convert to decimal
J. __7__	Full Time Equivalent required to accommodate turnover, prior to any adjustments based on quality indicators: FTE = H x (1 + I)
____**7**_____ = Estimated Staffing Need (in FTEs from Step J above)	
FTE = Workload ÷ Employee Availability x Turnover Adjustment	

Worksheet F: Comparison and Summary of Staffing Estimates

Compare Current Staffing with Estimated Staffing Needs			
WORK	Total Call Volume: 336,532 Total Emergency Calls: 104,389 Average Processing Time: 5 Hourly Processing Capability: 12	Current Staffing	Estimated Need
WORKERS	Coverage Positions:		
	3.5	25	25
	Volume-influenced Positions:		
	3.5	21	21
	Function Positions:		
	TOTALS	46	46