



Components of Personnel Costs

- Salaries or hourly rates
- Unemployment tax
- Social security tax (FICA)
- · Worker's compensation
- Retirement
- Health insurance
- Benefit time (holiday, sick, vacation, educational leave, etc.)

EMC 445: Calculating Personnel Costs





Calculating Personnel Costs

· Step 1. Determine the work schedule.

This must be for a complete "work cycle". For example, a 24/48 schedule has a 3 week cycle, i.e., it takes 3 weeks to work all of the different days and return to the starting day.

Work Cycle for 24/48 shift:

	Sun	Mon	Tue	Wed	Thu	Fri	Sat	TOTAL
Week 1	24	0	0	24	0	0	24	72
Week 2	0	0	24	0	0	24	0	48
Week 3	0	24	0	0	24	0	0	48
TOTAL								168

Work Cycle for 24/72 shift:

	Sun	Mon	Tue	Wed	Thu	Fri	Sat	TOTAL
Week 1	24	0	0	0	24	0	0	48
Week 2	0	24	0	0	0	24	0	48
Week 3	0	0	24	0	0	0	24	48
Week 4	0	0	0	24	0	0	0	24
TOTAL								168

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Calculating Personnel Costs continued

 Step 2. Determine the number of full time equivalents (FTEs) needed:

A. Calculate FTEs for scheduled staffing:

- For a 24/48 shift:
 - 3 shifts * 6 ambulances * 2 paramedics per ambulance = 36
 FTEs
- For a 24/72 shift:
 - 4 shifts * 6 ambulances * 2 paramedics per ambulance = 48
 FTEs

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C.

Calculating Personnel Costs continued

Calculate FTEs for benefit time:

Sick time: 8 hours/month Vacation: 12 hours/month Holiday: 80 hours/year For 24/48 shift:

Sick time: 96 hours/year Vacation: 144 hours/year Holiday: 80 hours/year TOTAL: 320 hours/year

Each employee works 168 hours every 3 weeks or work cycle. There are 52/3 or 17.34 work cycles per year. Therefore, each employee works 168 hours * 17.34 work cycles = 2913 hours per year.

There are 36 FTEs required for routine staffing of 24/48 shift with 6 full time ambulances. Each FTE receives 320 hours of benefit time for a total of:

36 FTEs * 320 benefit hours per FTE = 11,520 benefit hours

These benefit hours must be included in personnel costs. If one FTE works 2,913 hours per year and there are 11,520 benefit hours to be covered, this yields 11,520/2913 = 3.95 FTEs. In other words, for an ambulance service with 6 ambulances staffed 24 hours per day and 7 days per week and the benefit time outlined above, an additional 4 employees are required. Of course, you would not expect every employee to use their full allotment of benefit time. However, you may be required to pay employees for any unused benefit time should they leave the company.

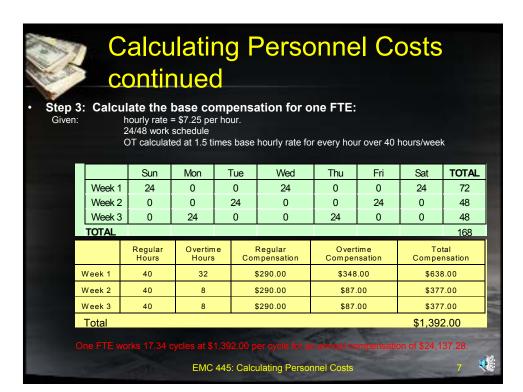
C. Calculate total required FTEs

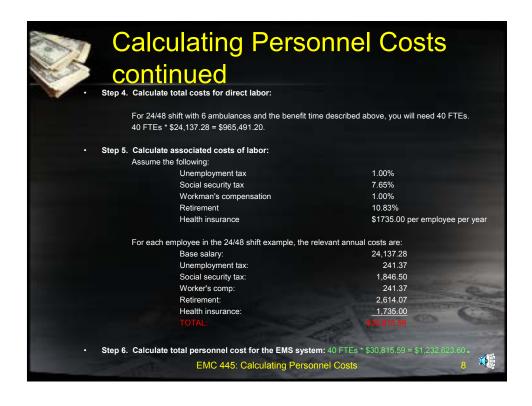
For 24/48 shift with 6 ambulances staffed around the clock and the benefit package described above:

36 FTEs for staffing + 4 FTEs for benefit time = 40 FTEs

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- The previous example was overly simplified. There are many other issues that would have to be incorporated into the actual budget for labor.
- The example assumed 6 ambulances, 24 hours per day, and 7 days per week. Actual staffing
 would probably incorporate peak load staffing or SSM, which would alter the actual number of
 FTEs required.
- The actual staffing schedule (24/48, 24/72, etc.) has a large impact on personnel costs.
- The method by which overtime compensation is calculated has a large impact on personnel costs.
- We assumed that all personnel received the same compensation package. This will rarely be true. Pay rates will vary according to certification levels and within each certification level there will be varying compensation packages.
- We did not incorporate factors such as merit pay, bonuses, annual raises etc. Not only must these
 be incorporated, but their timing is also important, i.e., when did the employee receive the salary
 increase?
- We dealt only with recurring costs; we didn't include training time, uniforms, overtime for late calls, etc.
- We assumed that all employees used all of their annual allotment of benefit time. We also
 assumed that we could cover that benefit at the same cost of the employee using benefit time. In
 actuality, it would cost us more per hour if we used regular full-time personnel as we would likely
 incur overtime costs. However, by using regular full-time personnel, we avoid the costs of hiring
 additional personnel to cover benefit time (health insurance, uniforms, hiring and training costs,
 etc.). Alternatively, we could use part-time personnel paid at a lower hourly rate, and may or may
 not incur benefit costs.

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EMS, FLSA, and Overtime Pay

In general, the "fluctuating work week" has been used to decrease personnel costs, and, so far, has not been overturned by the courts. The fluctuating workweek assigns each paramedic an annual salary. Based upon this salary and the hours worked in a given week, the actual hourly pay rate varies, or "fluctuates".

For the 24/48 shift with a stated salary of \$20,000 per year:

	Sun	Mon	Tue	Wed	Thu	Fri	Sat	TOTAL
Week 1	24	0	0	24	0	0	24	72
Week 2	0	0	24	0	0	24	0	48
Week 3	0	24	0	0	24	0	0	48
TOTAL								168

- weekly salary = \$20,000/52 weeks per year = \$384.62
- weekly hourly rate = \$384.62 / hours worked during that week

	Regular Hours	Overtime Hours	Total Hours	Hourly Rate	Regular Pay	Overtime Pay	Total Pay
Week 1	40	32	72	\$5.34	\$213.60	\$256.32	\$469.92
Week 2	40	8	48	\$8.01	\$320.40	\$96.12	\$416.52
Week 3	40	8	48	\$8.01	\$320.40	\$96.12	\$416.52
Total							\$1,302.96

annual base salary = 17.34 cycles * \$1,302.96 = \$22,593.3 EMC 445: Calculating Personnel Costs

