

In **disaster management**, calculating **salary, basic wage, overtime, and gross wage** is important when budgeting for **emergency workers, volunteers, first responders, and temporary staff**. Accurate wage calculations help ensure fair payment for extended hours during relief efforts.

Below are practical uses with **clear examples**:

◆ 1. Basic Wage

◆ **Use:** The regular pay for standard working hours (usually per hour, day, or week).

✓ **Example:**

A relief worker earns **\$10 per hour** and works **40 hours** a week.

$$\text{Basic wage} = 10 \times 40 = \$400$$

▢ The **basic wage** is **\$400** per week.

◆ 2. Overtime Pay

◆ Use: Extra pay for hours worked beyond regular hours—often during emergencies or crises.

- Overtime rate is typically 1.5 times the basic rate.

✓ Example:

A disaster response officer worked 10 extra hours this week.

Basic rate = \$10/hour

Overtime rate = $10 \times 1.5 = \$15/\text{hour}$

$$\text{Overtime pay} = 10 \times 15 = \$150$$

▢ The overtime pay is \$150.

◆ 3. Gross Wage

◆ Use: The total earnings before deductions.

$$\text{Gross wage} = \text{Basic wage} + \text{Overtime pay}$$

✓ Example:

- Basic wage = \$400
- Overtime = \$150

$$\text{Gross wage} = 400 + 150 = \$550$$

▢ The gross wage for the week is \$550.

◆ 4. Monthly Salary with Overtime

✔ Example:

A temporary nurse is paid **\$2,000/month** and worked **12 hours of overtime** at **\$20/hour**.

$$\text{Overtime pay} = 12 \times 20 = \$240 \quad \text{Gross salary} = 2000 + 240 = \$2,240$$

➡ **\$2,240** is the nurse's total pay for the month.

✔ Summary Table:

| Item | Formula | Example | Answer |
|---------------|----------------------|-------------------------------|--------|
| Basic Wage | Rate × Hours | $\$10 \times 40$ | \$400 |
| Overtime Pay | Hours × (Rate × 1.5) | $10 \times (\$10 \times 1.5)$ | \$150 |
| Gross Wage | Basic + Overtime | $400 + 150$ | \$550 |
| Monthly Gross | Salary + Overtime | $2000 + 240$ | \$2240 |

Why This Is Important in Disaster Management:

-  Ensures **fair compensation** for extra hours
-  Helps in **budgeting** for emergency response teams
-  Aids in managing **relief fund allocations**
-  Maintains **staff morale** through transparent pay