Labor Math Formulas

People · https://kb.jeffreysummers.com/docs/labor-math-formulas/

Labor

Labor is the cost the operator controls most directly and measures worst. It gets budgeted as a percentage, scheduled as hours, and paid as a burdened number that is almost always higher than what went into the schedule. This is the reference. Every calculation that matters to what labor costs, what it produces, and what it earns, in one place.

Use it two ways. Run the weekly numbers — labor cost percentage, dollars per Guest, schedule variance — to know where you stand. Run the decision numbers — burdened labor, productivity per hour, break-even labor hours — before you hire, cut, or commit. Each block names the formula, the inputs, the unit, and when it earns its keep.

Labor Cost Percentage

Formula: Labor cost % = (Total labor cost ÷ Total sales) × 100

Inputs: Total labor cost (gross wages + payroll taxes + benefits), total sales

Unit: Percentage

When to use: Weekly, to track whether labor is running above or below target.

Labor Cost Per Revenue Dollar

Formula: Labor cost per revenue dollar = Total labor cost ÷ Total sales

Inputs: Total labor cost, total sales

Unit: Currency per dollar of sales

When to use: Weekly. Same information as labor cost %, expressed as dollars, useful for quick reads.

Direct vs Indirect Labor

Formula: Direct labor = labor that produces the product or serves the Guest. Indirect labor = support labor not tied to a unit (prep, dish, admin, management).

Inputs: Labor hours by role

Unit: Currency, split into two buckets

When to use: When deciding what labor scales with volume and what does not. Direct scales; indirect does not.

Front-of-House vs Back-of-House Split

Formula: FOH % = (FOH labor cost ÷ Total labor cost) × 100. BOH % = (BOH labor cost ÷ Total labor cost) × 100.

Inputs: FOH labor cost, BOH labor cost, total labor cost

Unit: Percentage

When to use: Weekly, to see where labor is concentrated and whether the split matches the operation's needs.

Gross Labor vs Burdened Labor

Formula: Gross labor = wages only. Burdened labor = wages + payroll taxes + benefits + workers' comp.

Inputs: Wages, payroll taxes, benefits, workers' comp

Unit: Currency

When to use: When costing labor for pricing, break-even, or budgeting. Gross labor understates the real cost; burdened labor is what the business actually pays.

Labor Dollars Per Guest

Formula: Labor dollars per Guest = Total labor cost ÷ Guest count

Inputs: Total labor cost, Guest count

Unit: Currency per Guest

When to use: Weekly, to see what it costs in labor to serve one Guest. Tracks with the visit, not the check.

Labor Per Hour

Formula: Labor per hour = Total labor cost ÷ Operating hours. Or labor hours ÷ Operating hours.

Inputs: Labor cost or hours, operating hours

Unit: Currency per hour, or hours per hour

When to use: When comparing labor cost across shifts or days, independent of sales volume.

Labor Per Cover

Formula: Labor per cover = Total labor cost ÷ Covers served

Inputs: Total labor cost, covers

Unit: Currency per cover

When to use: When comparing labor efficiency against traffic. Same as labor dollars per Guest; covers is the industry term for Guest count.

Labor Per Dish

Formula: Labor per dish = Total BOH labor cost ÷ Total dishes produced

Inputs: BOH labor cost, dish count

Unit: Currency per dish

When to use: When costing kitchen labor into menu pricing or contribution margin.

Productivity Metrics

Formula: Sales per labor hour = Total sales ÷ Total labor hours. Covers per labor hour = Covers ÷ Total labor hours. Dishes per labor hour = Dishes ÷ BOH labor hours.

Inputs: Sales, covers, dishes, labor hours

Unit: Varies by metric

When to use: Weekly, to measure output per hour of labor. Rising sales per labor hour with flat covers means higher check average, not better productivity.

Overtime Cost

Formula: Overtime pay = (Regular hourly rate × 1.5) × Overtime hours

Inputs: Regular hourly rate, overtime hours

Unit: Currency

When to use: When scheduling, when approving extra hours, and when costing the true price of running short-staffed.

Payroll Burden Calculations

Formula: Payroll burden = FICA + FUTA + SUTA + workers' comp + benefits. FICA = 7.65% of gross wages (Social Security 6.2% up to the wage base, Medicare 1.45% with no cap). FUTA = 6% on the first $7,000 of wages per employee, before state credits. SUTA = state-specific rate on the state wage base. Workers' comp = state-classified rate per $100 of payroll.

Inputs: Gross wages, applicable rates

Unit: Currency

When to use: When building burdened labor cost, budgeting payroll, or pricing labor into menu items. Federal rates shown; state rates vary and are not listed here.

Prime Cost

Formula: Prime cost = Total COGS + Total labor cost. Prime cost % = (Prime cost ÷ Total sales) × 100

Inputs: Total COGS, total labor cost, total sales

Unit: Currency, then percentage

When to use: Weekly or monthly, as the single number that shows whether the operation is controlling its two biggest costs together. Prime cost is the operating metric that matters most; food or labor alone can hide the other's failure.

Break-Even Labor Hours

Formula: Break-even labor hours = Fixed labor cost ÷ Contribution margin per labor hour

Inputs: Fixed labor cost, contribution margin per labor hour

Unit: Hours

When to use: When deciding how many hours of labor the operation can carry before it loses money on labor.

Schedule Variance

Formula: Variance = Actual labor cost − Scheduled labor cost

Inputs: Actual labor cost, scheduled labor cost

Unit: Currency

When to use: After each pay period, to see whether the schedule held or whether it was blown out by cuts, overtime, or call-ins.

Labor Cost Per Table Turn

Formula: Labor cost per table turn = Total labor cost ÷ Table turns

Inputs: Total labor cost, table turn count

Unit: Currency per turn

When to use: When comparing labor cost against capacity use. A busy room with low turns is a seating problem, not a labor problem.