Core Formulas

Perspective · https://kb.jeffreysummers.com/docs/core-formulas/

Every number an operator needs before committing to a lease, a location, a concept, or a capital spend runs through a formula, and most of those formulas get skipped because they arrive after the deal is already emotionally closed. This is the reference. Every calculation that matters to whether the operation should exist, where it should exist, and whether an investment pays, in one place.

Use it two ways. Run the capacity numbers — occupancy, sales per square foot, revenue per available seat hour — before you sign. Run the decision numbers — break-even for the operation, payback period, return on any spend — before you commit. Each block names the formula, the inputs, the unit, and when it earns its keep.

Occupancy Cost Percentage

Formula: Occupancy cost % = (Total occupancy cost ÷ Total sales) × 100

Inputs: Rent, property taxes, insurance on the building, common area maintenance, total sales

Unit: Percentage

When to use: Monthly, and before signing any lease. Most operators can't carry occupancy above roughly 10 percent of sales; the exact ceiling depends on the format.

Occupancy Cost Per Square Foot

Formula: Occupancy cost per square foot = Total occupancy cost ÷ Total square feet

Inputs: Total occupancy cost, total square feet

Unit: Currency per square foot

When to use: When comparing locations or spaces. This is the number that tells you what the building actually costs you, independent of what you think you can sell.

Sales Per Square Foot

Formula: Sales per square foot = Total sales ÷ Total square feet

Inputs: Total sales, total square feet

Unit: Currency per square foot

When to use: Monthly, to see how much revenue the space produces. Compare against the occupancy cost per square foot to see whether the space pays for itself.

Revenue Per Available Seat Hour

Formula: RevPASH = Total sales ÷ (Number of seats × Number of hours open)

Inputs: Total sales, seat count, operating hours

Unit: Currency per seat-hour

When to use: The single best capacity metric for a restaurant. Tells you how much revenue each seat produces per hour it is available, which is the number that shows whether the room is earning or just sitting.

Break-Even Sales For The Operation

Formula: Break-even sales = Total fixed costs ÷ Contribution margin ratio

Inputs: Total fixed costs (occupancy, insurance, debt service, salaried labor, base utilities), contribution margin ratio

Unit: Currency

When to use: Before signing a lease, before opening, and whenever fixed costs change. This is the sales level the operation has to hit to stop losing money.

Break-Even Covers Per Service Period

Formula: Break-even covers = Break-even sales ÷ Average check

Inputs: Break-even sales, average check

Unit: Covers per period

When to use: When translating break-even sales into something the room can actually see. Tells you how many Guests each service period has to carry to break even.

Capacity Utilization

Formula: Capacity utilization % = (Actual covers served ÷ Available seat-hours × Average party size) × 100

Inputs: Actual covers, available seat-hours, average party size

Unit: Percentage

When to use: Weekly, to see how much of the room's capacity is being sold. A room running at 40 percent utilization is paying for capacity it isn't selling.

Average Check By Daypart

Formula: Average check = Total sales ÷ Covers, run separately for each daypart

Inputs: Daypart sales, daypart covers

Unit: Currency per cover

When to use: Weekly, to see which dayparts carry the operation and which are buying labor with revenue they don't produce.

Table Turn Rate

Formula: Turn rate = Covers served ÷ Number of tables

Inputs: Covers, table count

Unit: Turns per service period

When to use: Weekly, to see how often the room cycles. Low turns with high covers per table means large parties; low turns with low covers means the room isn't drawing.

Table Turn Time

Formula: Turn time = Total service minutes ÷ Turns

Inputs: Service period length, turn count

Unit: Minutes per turn

When to use: Weekly, to see how long the room holds each table. Rising turn time with flat sales means the experience is slowing without earning more per cover.

Customer Acquisition Cost

Formula: CAC = Total marketing spend ÷ New Guests acquired

Inputs: Marketing spend, new Guest count

Unit: Currency per new Guest

When to use: Monthly, to see what it costs to bring a first-time Guest in. Compare against average check to see whether the acquisition pays on the first visit.

Marketing Cost Per New Guest

Formula: Cost per new Guest = Marketing spend ÷ New Guest count

Inputs: Marketing spend, new Guest count

Unit: Currency

When to use: Same number as CAC, stated plainly. Run it monthly and after any campaign.

Repeat Visit Rate

Formula: Repeat visit rate % = (Returning Guests ÷ Total Guests) × 100

Inputs: Returning Guest count, total Guest count

Unit: Percentage

When to use: Monthly, to see whether the operation is building a base or buying its volume one Guest at a time.

Lifetime Value Per Guest

Formula: LTV = Average check × Visits per year × Years retained × Gross margin %

Inputs: Average check, visit frequency, retention length, gross margin

Unit: Currency per Guest

When to use: When deciding how much to spend to acquire or retain a Guest. An operation that doesn't know its LTV is guessing at what a Guest is worth.

Return On Acquisition

Formula: ROAS for Guests = Lifetime value ÷ Acquisition cost

Inputs: Lifetime value, acquisition cost

Unit: Ratio

When to use: When setting a marketing budget. Tells you whether the spend returns more than it costs over the life of the Guest, not just on the first visit.

Cash Conversion Cycle

Formula: CCC = Days inventory outstanding + Days sales outstanding − Days payables outstanding

Inputs: Inventory days, receivable days, payable days

Unit: Days

When to use: Monthly, to see how long cash is tied up between paying suppliers and collecting from Guests. Restaurants usually collect fast and pay slower; a rising CCC means cash is being held hostage.

Working Capital Requirement

Formula: Working capital = Current assets − Current liabilities

Inputs: Cash, inventory, receivables; payables, short-term debt

Unit: Currency

When to use: Monthly, and before any growth step. Tells you whether the operation can cover its near-term obligations with what it has on hand.

Payback Period

Formula: Payback period = Cost of investment ÷ Monthly cash flow the investment produces

Inputs: Investment cost, incremental monthly cash flow

Unit: Months

When to use: Before any capital spend — equipment, buildout, a second location. Tells you how long until the investment returns its own cost.

Return On Investment

Formula: ROI = (Gain from investment − Cost of investment) ÷ Cost of investment × 100

Inputs: Gain, cost

Unit: Percentage

When to use: Before committing money to anything — a piece of equipment, a marketing campaign, a new location. The one number that tells you whether the spend pays.