PRACTITIONER GUIDE · 01

Supply & Demand Forecasting

A practical, five-step framework for seeing your workforce gap years before it opens, and acting while you still can.

WHY FORECAST

The gap is invisible until it isn't

Headcount reports tell you who you have today. They say nothing about who you'll have in 2030, or whether it matches the work coming. By the time a shortage shows up in a vacancy report, the lead time to train or hire the missing people has usually already passed.

Supply-and-demand forecasting closes that blind spot. It puts two trajectories side by side, the people you will have and the people you will need, and measures the distance between them, year by year, for each role that matters. The output isn't a prediction of the future; it's an early-warning system that turns a vague worry into a number you can plan against.

THE FRAMEWORK

Five steps

STEP 1

Define the planning unit and horizon

Pick the roles worth forecasting (rarely all of them) and the horizon that matches their lead time. A role that takes four years to credential needs a longer horizon than one you can hire in a month. Forecast by occupation, not by department.

STEP 2

Baseline the current workforce

Establish headcount, age structure, and tenure for each unit. The age structure is the single most predictive input you have, it tells you the retirement wave before anything else does.

STEP 3

Forecast supply

Project who remains: start from the baseline, subtract retirements (a survival curve on the age structure), subtract other attrition, then add the realistic inflow from hiring and training pipelines. Pipelines almost always lag, count what completes, not what enrols.

STEP 4

Forecast demand

Project the work. Tie demand to its real drivers, capital projects, volume growth, service expansion, regulation, and convert each driver into the labour it requires. Keep demand and supply on the same units and the same years.

STEP 5

Quantify the gap and act

Gap = demand − supply, per role, per year. A positive, widening gap is a shortfall forming. Rank the gaps, then match each to the lever with the right lead time: hire, train, redeploy, automate, or redesign the role.

WORKED ILLUSTRATION

One role, ten years

A simplified single-role example to show the mechanics. The numbers are illustrative, not a forecast for any organization.

The inputs

- Baseline workforce: 1,000
- Aged 55+ (retire within the horizon): 22%
- Other annual attrition: 3%
- Annual qualified inflow (pipeline): 45
- Demand growth from new projects: +2.5%/yr

The logic

Each year, supply loses retirements and attrition and gains pipeline completions. Demand compounds with the project pipeline. The gap is the running difference, small at first, then unmistakable.

YEAR	SUPPLY	DEMAND	GAP
Today	1,000	1,000	0
+3 yrs	965	1,077	112
+5 yrs	940	1,131	191
+7 yrs	918	1,189	271
+10 yrs	889	1,281	392

A 39% shortfall by year ten, none of it visible in today's headcount report. Caught early, it is a hiring-and-training plan. Caught late, it is a crisis.

THE TAKEAWAY

The gap compounds quietly. The value of forecasting isn't precision in year ten, it's buying back the lead time to do something about year five.

AVOID THESE

Five common pitfalls

- Forecasting by department, not occupation. Shortages live in roles, and roles cross departments.
- Counting enrolments as supply. Only completions deploy. Pipelines leak; model the leak.
- Ignoring the age structure. The retirement wave is the most predictable thing in the model, and the most often left out.
- Demand untethered from drivers. "Demand grows 3%" is a guess. Demand tied to a project schedule is a forecast.
- One number, no range. Publish a best/expected/worst band, not a single false-precision figure.

BEFORE YOU START

Quick-start checklist

- [ ] The roles worth forecasting are chosen, and the horizon matches their lead time.
- [ ] Baseline headcount, age structure, and tenure are in hand for each role.
- [ ] Retirements modelled from the age structure; attrition rate set from history.
- [ ] Pipeline inflow counted at completion, with a realistic leak rate.
- [ ] Demand tied to named drivers and converted to labour on the same units.
- [ ] Gap computed per role, per year, with a best/expected/worst band.
- [ ] Each material gap matched to a lever with the right lead time.

PUT IT TO WORK

This guide pairs with the Workforce Planning Workbook and the Critical Role Identifier from the toolkit, the workbook runs the numbers, the identifier tells you which roles to run them for.

Need this built on your own data? info@mithunpatel.ca · mithunpatel.ca