Oversight and Training Capacity: A Reproducible Model Note

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This note makes the synthetic comparison in “Training Is Part of the Cost of Oversight” reproducible as a standalone public document. It is a conditional calculation, not an observation of professional training rates or a staffing recommendation.

What is being counted

A qualified reviewer-equivalent is usable review capacity meeting a fixed, task-specific independent qualification criterion. It is not automatically a person, job title, course completion or assisted performance score. Valid tools can contribute to qualification without requiring trust in the unverified answer being checked.

The example begins with 100 qualified equivalents. Each supplies 300 productive minutes per representative workday before any reservation for mentoring. Daily demand is 8,000 cases, requiring three minutes each under an unchanged review protocol. Opening-stock qualification losses or exits are assumed to be 2% over the month, or two equivalents. No already-qualified workers enter from outside.

Let z be the fraction of those qualified productive minutes reserved for forming successors. Assume an established pipeline produces 20z newly qualified equivalents per month: a 10% reservation produces two, and a 25% reservation produces five. This linear formation rule is invented. It assumes sufficient trainees already in progress and qualifications independently demonstrated at completion; it does not turn novices into experts in a month.

Recomputing the comparison

Current daily review-time capacity, in cases, is:

$$100 \times 300 \times (1 - z) \div 3 = 10{,}000 \times (1 - z).$$

Next month's opening qualified stock, in equivalents, is:

$$100 - 2 + 20z = 98 + 20z.$$

Losses are calculated from opening stock and retained additions are recorded at period end. The illustration compares representative current-day time with next-month stock; it does not model the within-month timing of departures or completions. Newly qualified people already inside the boundary are distinct from already-qualified inward arrivals, which are zero here.

One synthetic organization under three time reservations

Qualified time reserved	Current cases/day	New qualifications/month	Next-month stock	Both obligations covered?
0%	10,000	0	98	No: stock declines
10%	9,000	2	100	Yes, in the time accounting only
25%	7,500	5	103	No: current time is insufficient

“Covered” means the aggregate current time bound admits 8,000 cases and qualified stock does not fall. It does not certify timely, accurate review. Arrival bursts, routing, rework and unequal specialties can make that aggregate bound insufficient.

Limits that matter

Trainee time, maturation delays, mentor congestion and other costs are outside the calculation. Different formation methods or reliable AI-assisted learning can relax mentor dependence. Lower required review work or an independently reliable replacement for an old skill can improve coverage even as its human stock falls. None of those effects is estimated here.

The point is the joint obligation: sufficient present time and sufficient formation must be assessed together wherever the capability remains necessary. No professional formation, attrition or learning coefficient has been fitted to data. Ordinary human-capital accounting is not claimed as a new economic law.

Provenance

The Institute documented this conditional capacity calculation on 22 October 2026. This note restates only the synthetic assumptions and three comparison rows used in “Training Is Part of the Cost of Oversight.” Version 1 is dated 1 November 2026. It introduces no new empirical findings and claims no external scientific peer review.