One size does NOT fit all: How do we design surgical training programs to recognize that different residents achieve competency at different rates?

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Using Simulation for Sophisticated Analysis of Training: An Example:

**Average Case Arrival Rates** (15)
**Average Cases Needed (20)**
**Learning Transfer Rates (Maximum of 30%)**
**Learning Curves (Needed = 90% competent)**

**Distribution of Percent Competency Achieved by Residents**
**Percent of Residents that Achieved ≥ 90% Competency**
**Percent of Residents that Achieve Competency in Multiple Procedures**

Where do we go from here?

We want to:
- study how optimization can apply to the structure of surgical residency programs
- create a time-based model to assess the time required for all residents to achieve competency
- further refine the model structure and inputs based off our collaborators’ ongoing work

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