AIAI-EVD-008 | CHAPTER 08 | Research notes

A faster queue can still leave someone waiting longer.

Operational improvement is a collection of objectives: total waiting, individual delay, deadlines and legitimate priorities.

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Take away three things

1. An average does not describe every experience.

2. Choose priorities before choosing a policy.

3. Inspect the distribution of effects after a change.

Which outcome is being optimised?

A scheduler can minimise total waiting, reduce missed deadlines or respect a declared priority. Those objectives need not choose the same order.

The people deciding the policy must define what matters and which guarantees are required. A better aggregate is not a complete answer about service quality or fairness.

What the exploratory work examined

The reviewed scheduling draft compares deterministic policies on synthetic jobs with specified release times, durations, priorities and deadlines. It reports several outcomes together.

The comparison illustrates known trade-offs under its constructed workloads. It does not establish a universally best scheduler, fairness guarantee or real operational performance.

Explore a smaller example

The interactive illustration below uses three jobs arriving at the same time, with assumed durations. Changing the order changes who waits and how much, even though the total amount of processing stays the same.

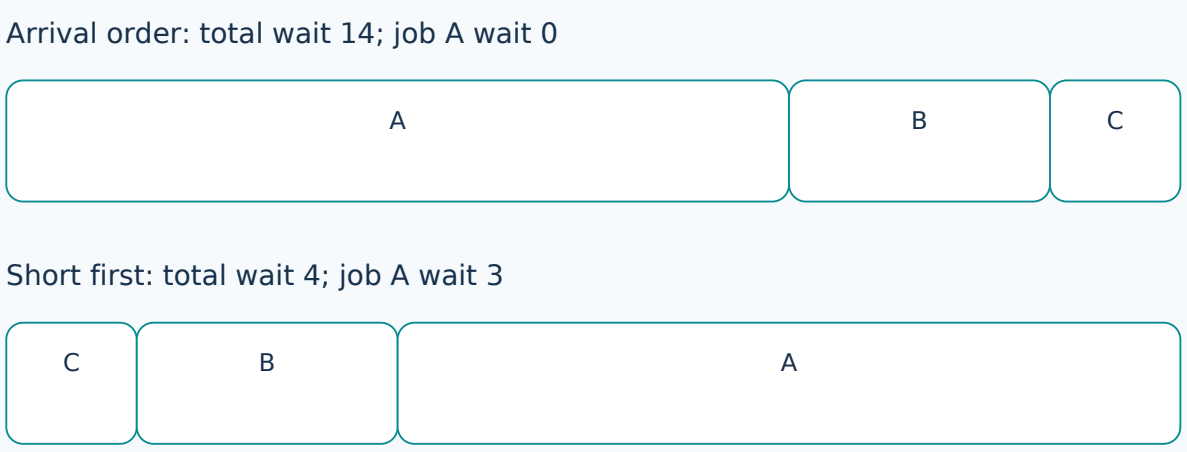
It is an educational calculation, separate from the research dataset. Use it to ask which objective is appropriate for an actual service.

Carry the question into transformation

When a local process improves, check whether effort or delay was moved to another person, team or later stage. Record the intended gain and the potential cost together.

Figure 08. The idea in one view

FIGURE 08 / A faster queue can still leave someone waiting longer



Concept illustration. Read the chapter for its scope and assumptions.

Conceptual explanation with illustrative inputs where shown. This figure is not an empirical result or a validation of a deployed system.

Basis and scope

Public explanatory note informed by exploratory UMT-Ω research drafts reviewed 27 October 2026. The underlying studies use synthetic constructions, are not peer reviewed or externally replicated, and do not evaluate the complete OMNI CORTEX architecture. No private draft or dataset is included here.

Read online and explore related work

Open this chapter online

The online edition includes interactive representations where useful. The chapter remains complete as a static explanation.