Project Mgmt: Assumption 1

A1. Activities are well defined & can be sequenced *before* the project begins.

*Criticisms*:
- Hard to develop a WBS before project starts
- Some activities may change over time
- Sequence may depend on outcome of earlier tasks

*Response*: Revise network as project goes on
Project Mgmt: Assumption 2

A2. Project control needs to focus *only* on the critical path.

*Criticisms:*

- Non-critical activities can get delayed so long that the project itself is delayed
- Crashing critical activities may cause non-critical activities to become critical

*Response:* Track nearly-critical activities too.
IN A PERFECT WORLD THE PROJECT WOULD TAKE EIGHT MONTHS.

BUT BASED ON PAST PROJECTS IN THIS COMPANY, I APPLIED A 1.5 INCOMPETENCE MULTIPLIER.

AND THEN I APPLIED AN L.W.F. OF 6.3.

1.5 x 8 = 12 MONTHS

L.W.F.? LYING WEASEL FACTOR.
Project Mgmt: Assumption 3

A3. Activity time estimates are accurate & reliable.

Criticisms:
• Activity times are highly subjective!
• People “pad” their estimates to be safe

Response:
• Revise activity times as project goes on
• Reduce the padding on each step …
Assumption 3 - more

See *Critical Chain* by Eliyahu Goldratt, 1997

- Reduce the padding on each task:
  - Cut activity time estimates *in half*
  - Persuade resources & contractors to cut times
  - Offer financial incentives, if needed

- Put $\frac{1}{2}$ saved time at end of the CP as a buffer:
  - If critical activity finishes $x$ days early (or late), then add (or subtract) $x$ days to (or from) the project buffer
Project Management Advantages

PERT/CPM is not perfect, but still:
1. Network diagram lets us see activity relationships & communicate clearly with others
2. Helps identify bottlenecks (*critical activities*)
3. Gives us *slack* information for managing project
4. Not mathematically difficult
5. Widely used in a number of industries