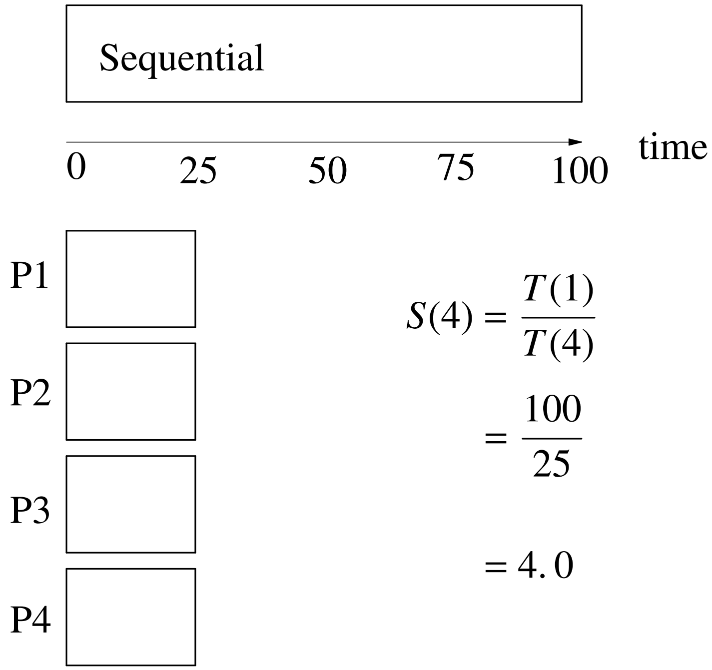
JOB CHARACTERISTIC: WORK

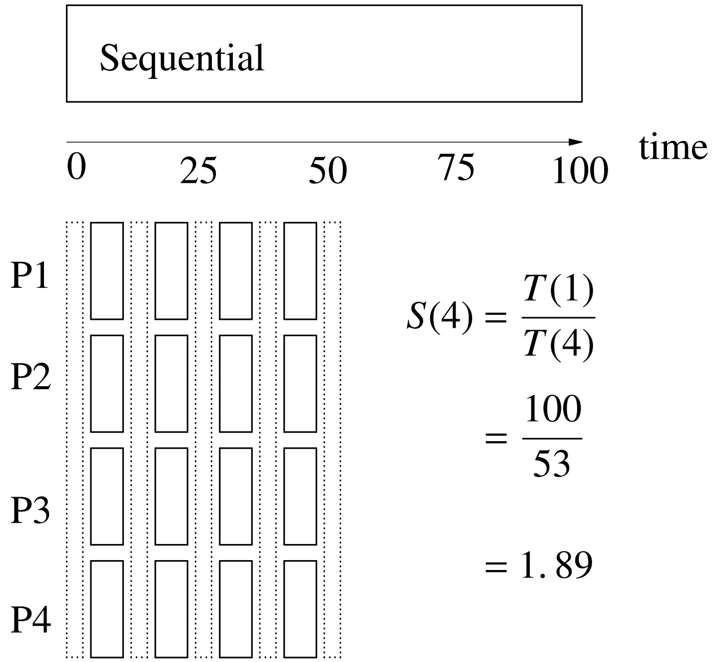
$$\text{Work} = W_i = T_i(1)$$



$$S(4) = \frac{T(1)}{T(4)} = \frac{100}{25} = 4.0$$

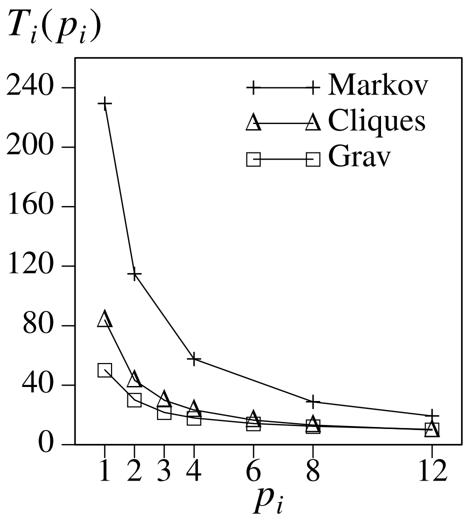
JOB CHARACTERISTIC: WORK

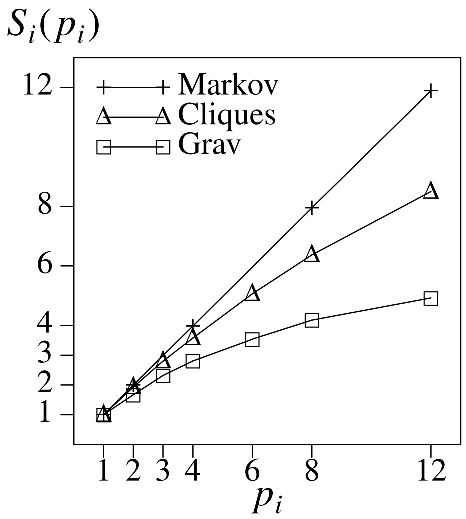
$$\text{Work} = W_i = T_i(1)$$



$$S(4) = \frac{T(1)}{T(4)} = \frac{100}{53} = 1.89$$

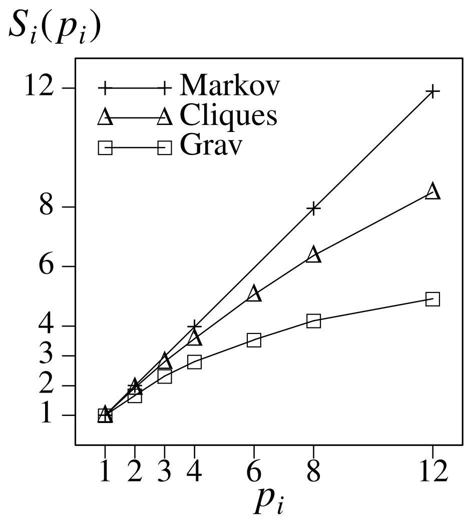
JOB CHARACTERISTIC: SPEEDUP

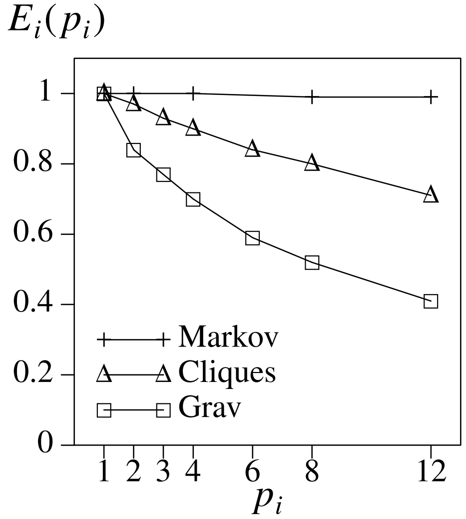




$$S_i(p_i) \quad = \quad \frac{T_i(1)}{T_i(p_i)}$$

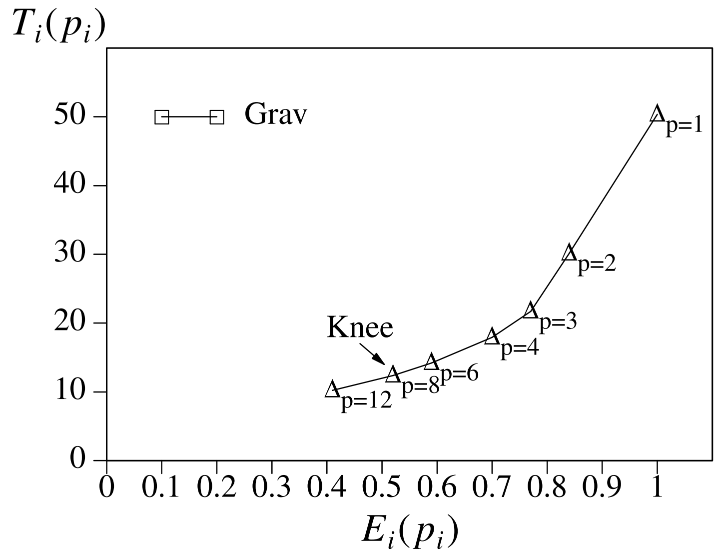
JOB CHARACTERISTIC: EFFICIENCY



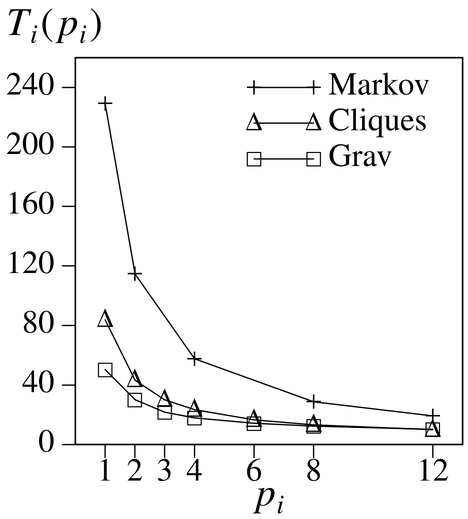


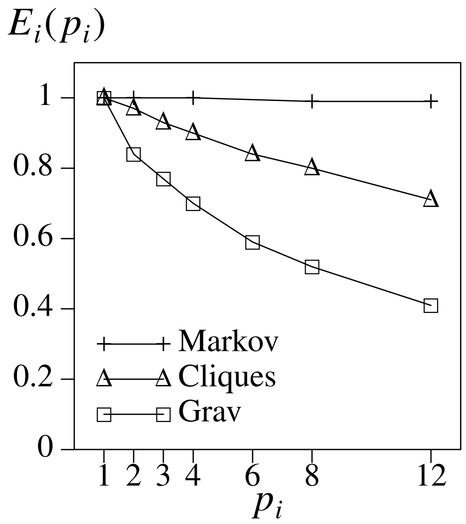
$$E_i(p_i) \quad = \quad \frac{S_i(p_i)}{p_i}$$

EXECUTION TIME - EFFICIENCY CURVE



COST / BENEFIT





- Maximize benefit per unit cost

  Benefit ☞ decrease in execution time (good)

  Cost ☞ decrease in efficiency (bad)

$$\frac{E_i(p_i) \uparrow}{T_i(p_i) \downarrow} \quad \text{is maximized at} \quad \beta_i$$