

DEA Example 1

Measuring hospital's units efficiency

Consider 9 departments in a hospital

- 1.Surgery
- 2.Medicine
3. Pediatrics
- 4.Pyschology
- ...

Input measures

1. Total salary for doctors
2. Total salary for nurses

Output measures

1. Number of in-patients and out-patients
2. Bed productivity
3. Average turnover rate

Table I
Hospital Data for the First Month

Dept.	Input		Output		
	Total salary for doctors (SR)	Total salary for nurses (SR)	No. of served patients	Bed productivity	Average turnover interval
Surgery department	709,342	750,995	3,120	3.06	2.07
Medicine department	709,065	907,044	6,720	5.53	0.47
Pediatrics department	607,656	678,202	3,604	7.14	-1.86
Psychology department	58,350	110,701	799	0.78	1.66
Obstetric and Gynecology department	313,410	562,400	4,354	4.71	3.54
Orthopedic department	129,192	140,160	1,004	3.29	1.33
Primary care department	68,922	122,045	11,907	0	0
Accident and Emergency department	368,030	400,680	11,554	0	0
Specialty department	49,060	27,776	758	0	0

- Write down department 1's LP model: