

Macrosoft Employee Scheduling LP Problem

DSA/ISE 5113

Macrosoft has a 24-hour-a-day, 7-days-a-week toll free hotline that is being set up to answer questions regarding a new product.

The number of full-time equivalent employees (FTEs) that must be on duty in each time block:

Interval	Time	FTE's
1	0-4	15
2	4-8	10
3	8-12	40
4	12-16	70
5	16-20	40
6	20-0	35

Macrosoft may hire both full-time (FT) and part-time (PT) employees.

- FT: 8-hour shifts at \$15.20 / hour
- PT: 4-hour shifts at \$12.95 /hour

Other information:

- Employees may start work only at the beginning of 1 of the 6 intervals
- Operations note that PT employees can only answer 5 calls in the time a FT employee can answer 6 calls
- HR requires that at least two-thirds of the employees working at any one time must be full-time employees