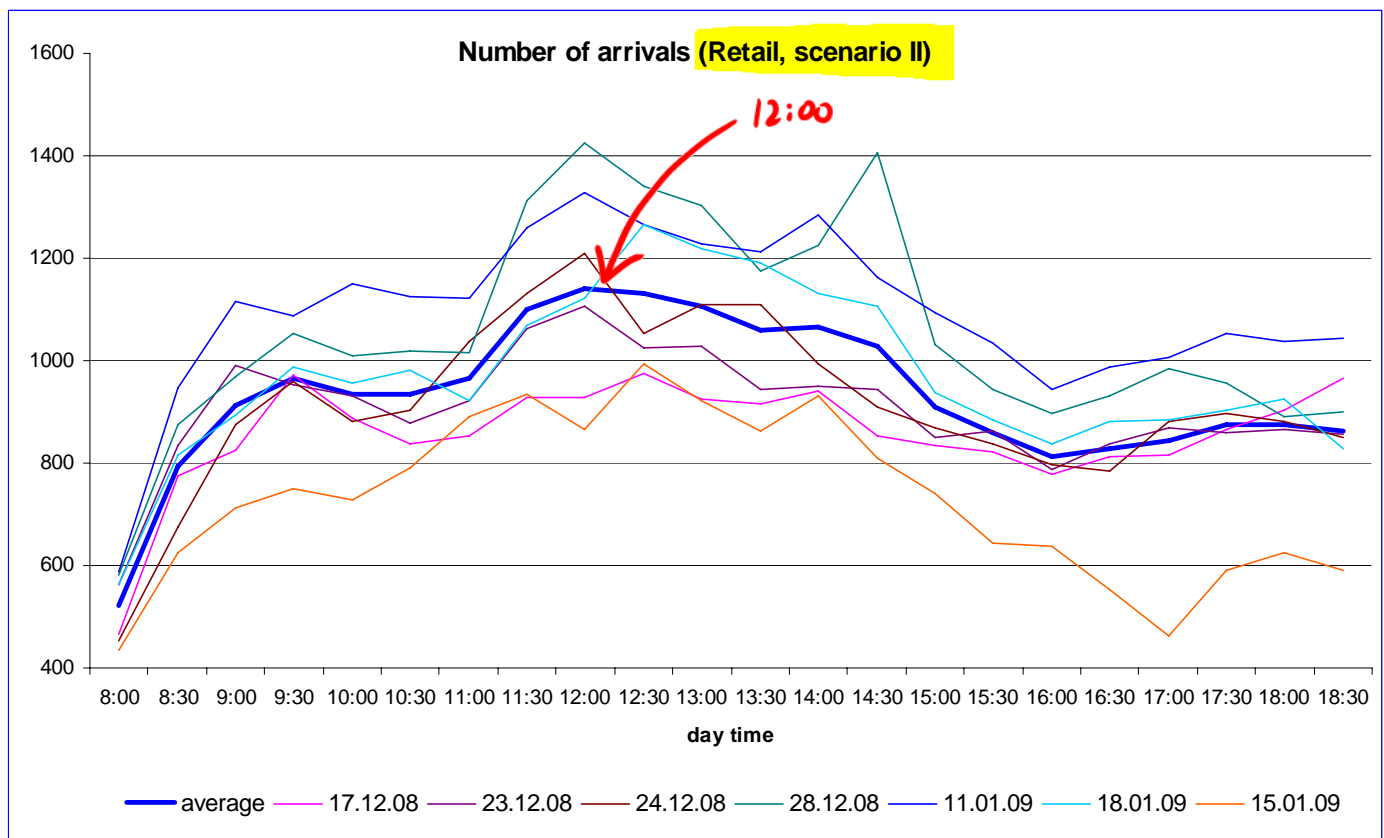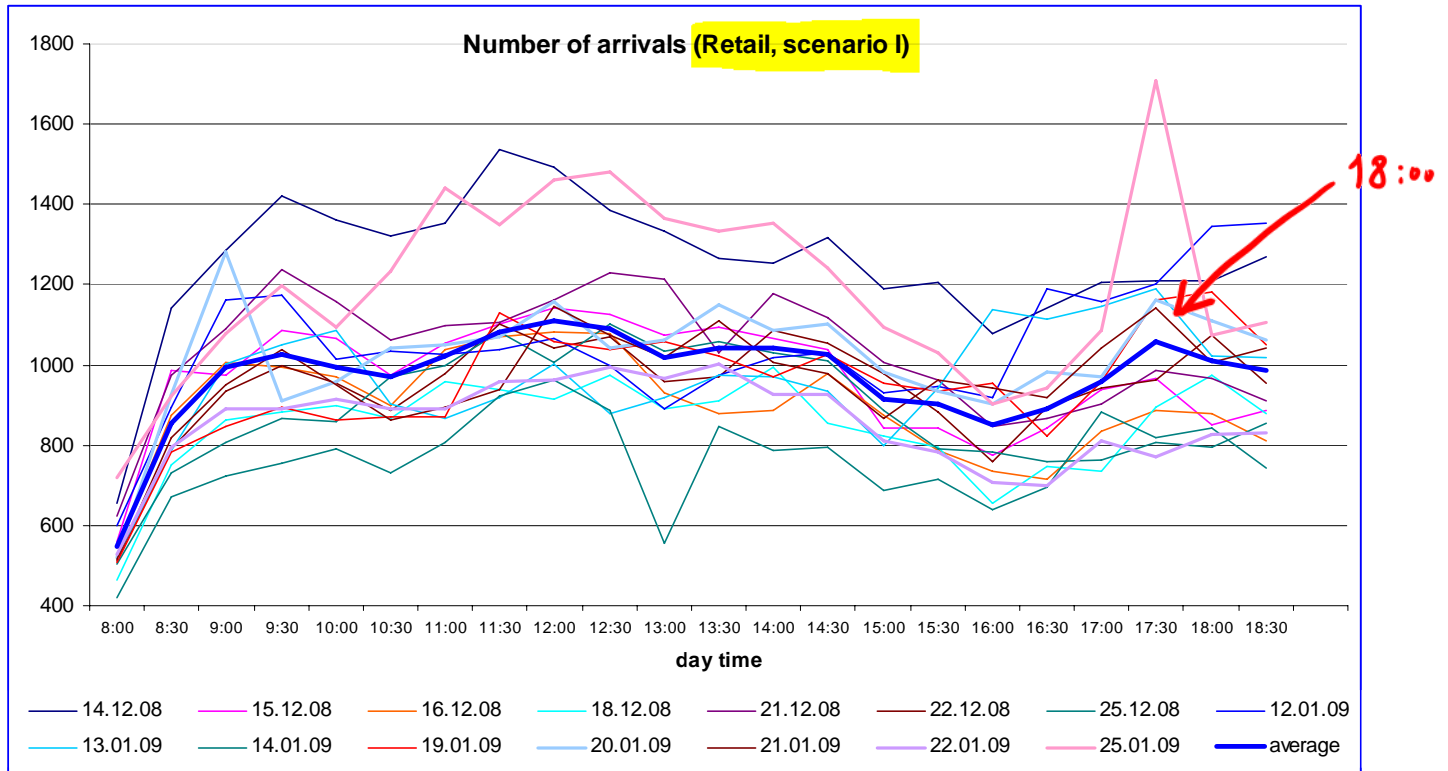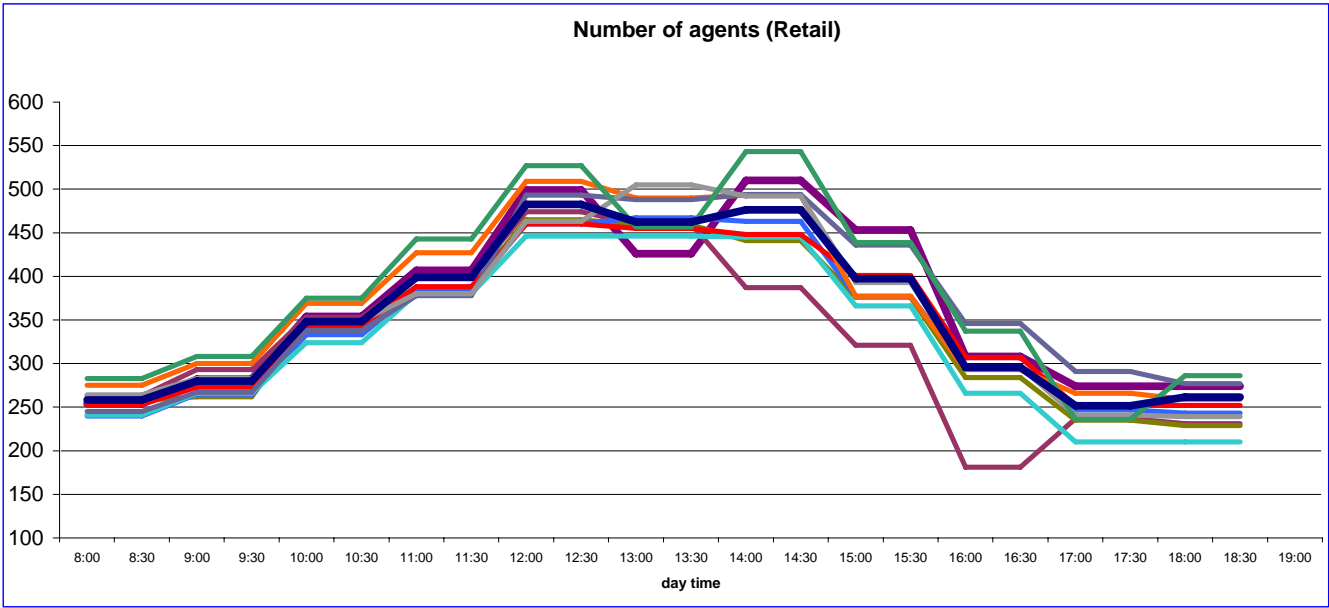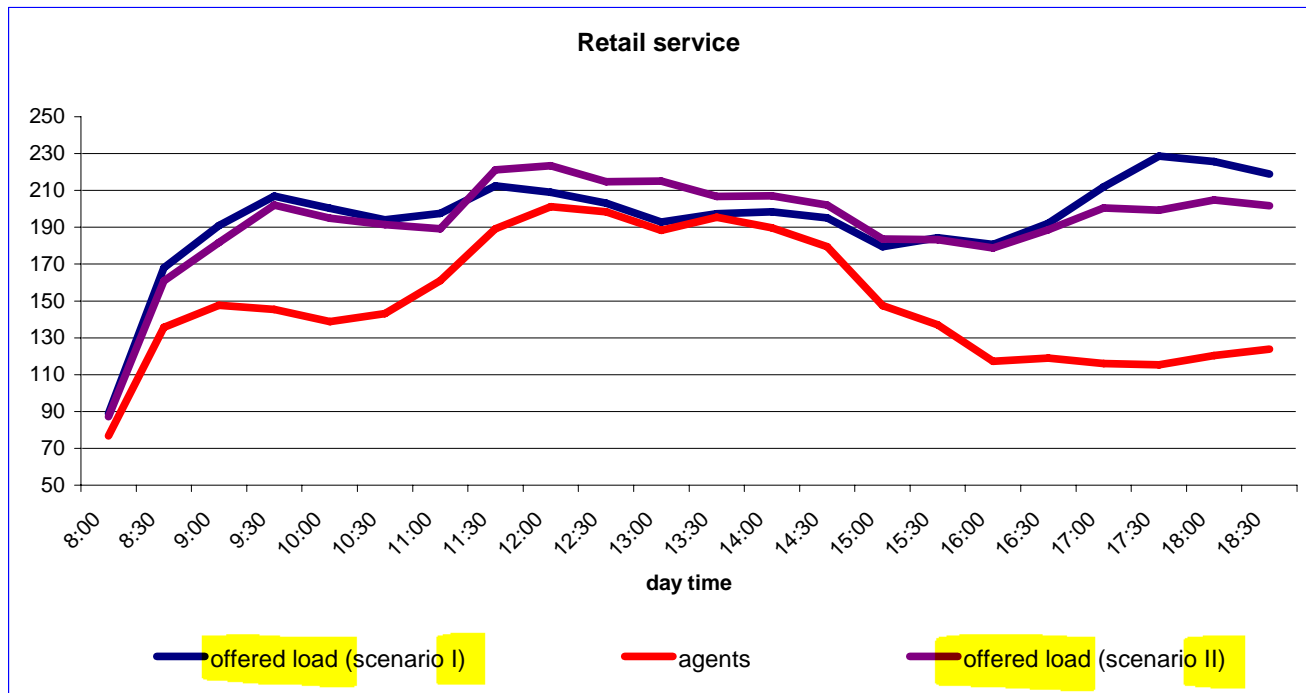# CASE STUDY : Staffing (must be driven by the Offered-Load)

Calls arrive by different scenarios: sometimes arrivals during a day have a bell-form with peak around 12:00 (scenario II) and in some days we ~~can~~ see peaks in evenings around 18:00 (scenario I).

Number of arrivals (Retail, scenario I)

18:00

Legend			
14.12.08	15.12.08	16.12.08	18.12.08
21.12.08	22.12.08	25.12.08	12.01.09
13.01.09	14.01.09	19.01.09	20.01.09
21.01.09	22.01.09	25.01.09	average

Number of arrivals (Retail, scenario II)

12:00

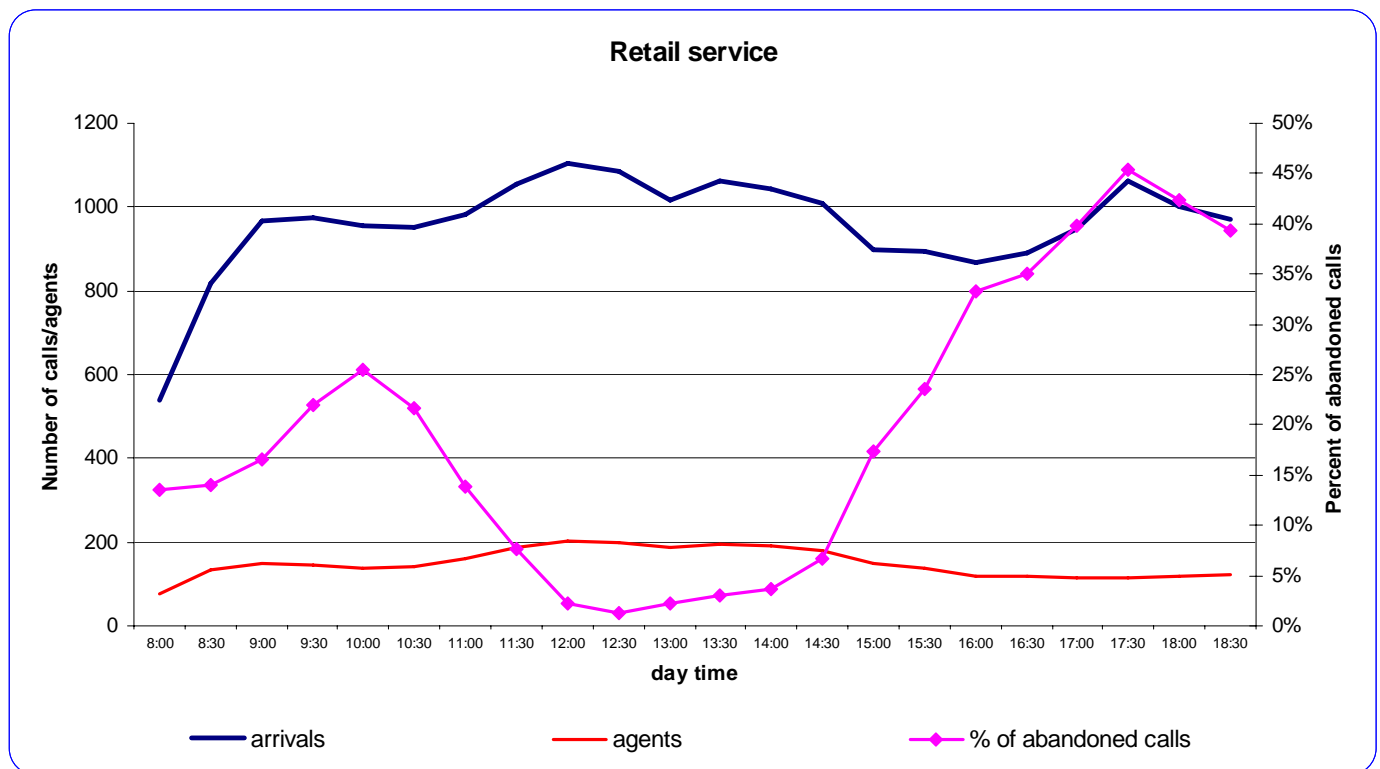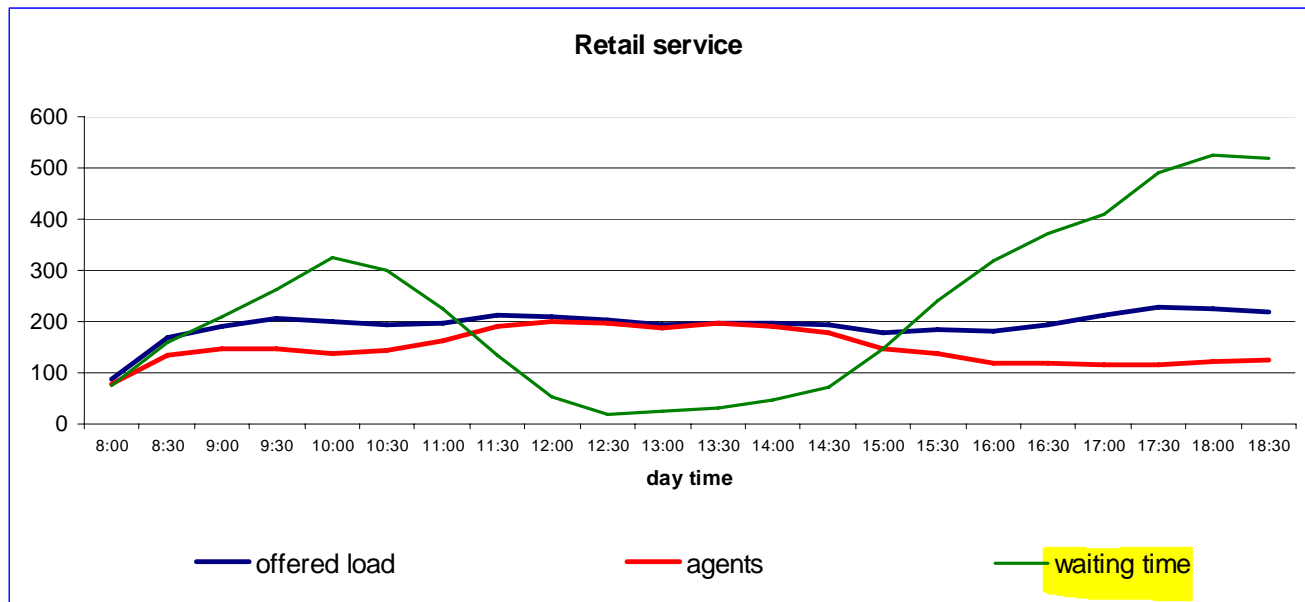Legend: average, 17.12.08, 23.12.08, 24.12.08, 28.12.08, 11.01.09, 18.01.09, 15.01.09

At the same time, the form of the agents' staffing does not changed for the days with different scenario for arrivals.

Number of agents (Retail)

day time

Retail service

Legend: offered load (scenario I) — agents — offered load (scenario II)

The figure above shows inconsistency in forms of the offered load and agents' staffing. All values presented in this figure are averages of the offered load in two different scenarios and the number of agents, calculated in each 30 minutes interval.

Retail service

Legend: offered load — agents — waiting time

Retail service

Legend: arrivals — agents — % of abandoned calls

Hard to deduce from the above graph
(which is the one most frequently used)
the source of the problem?

Retail service

Erlangs

Legend: offered load — agents — % of abandoned calls
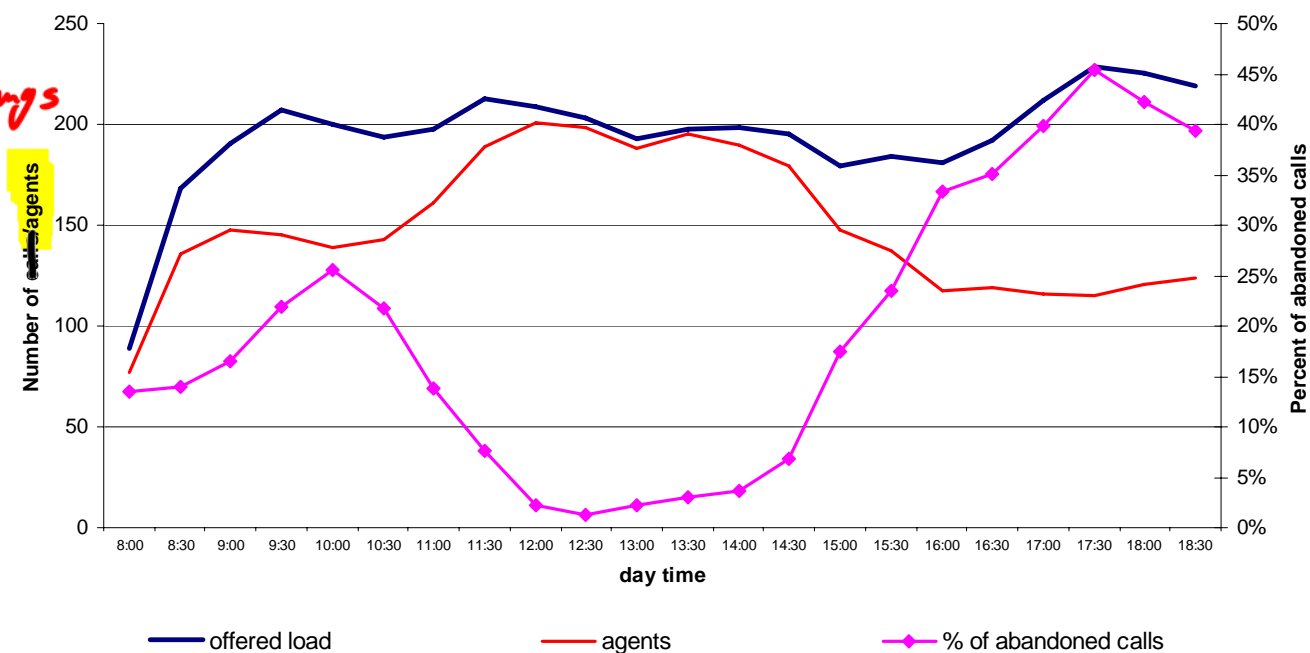
An example of the best case scenario

We choose Sunday 18.01.09 as a day with the best performance characteristics between weekdays 18-15.01.09. Even in this day we see problems in the service in morning and evening hours.

Average service time changes dramatically during the day. We can see that in the evening average service time is much bigger than in the midday. This means that the offered load in the evening is bigger than in the midday.

Average service time (Retail service)

Nightmare: longest services during most congested times!

Why? Preventable?