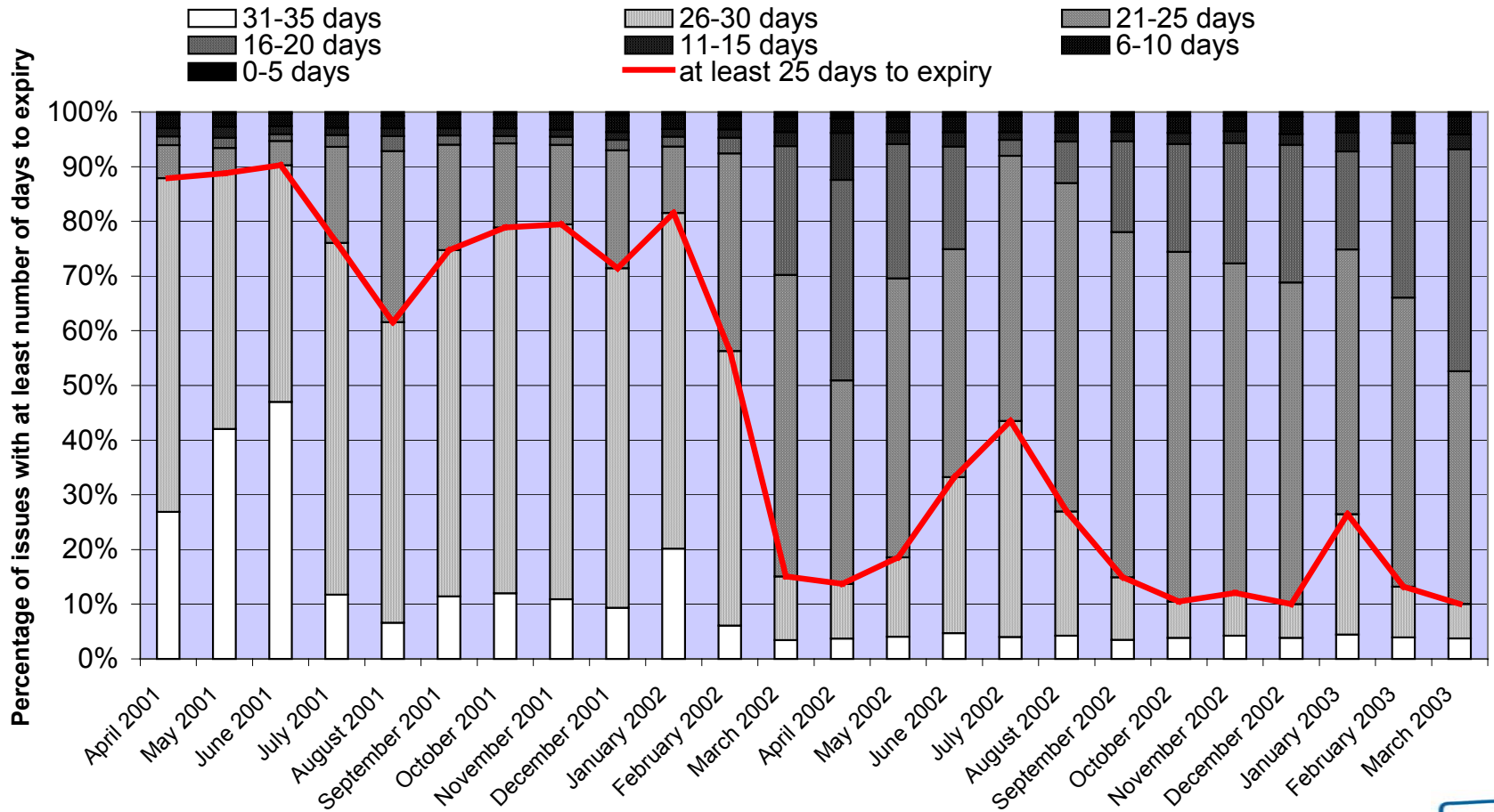


Managing Older Blood

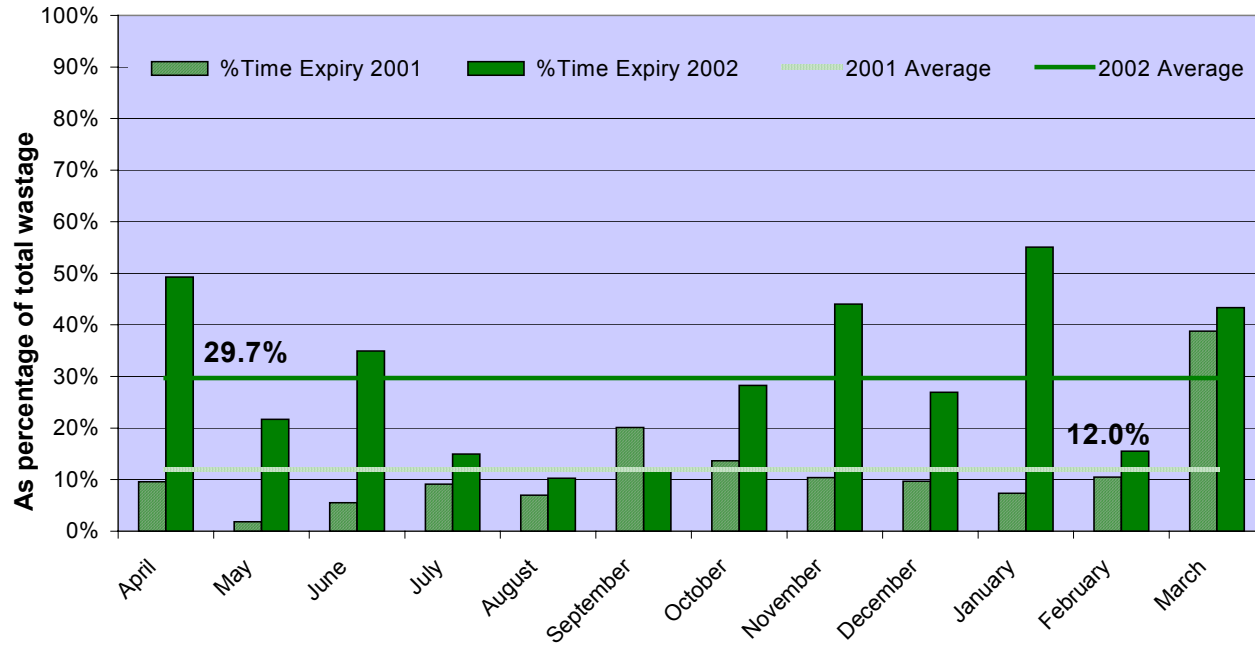
Judith Chapman and Mark Jelly

Percentage of O Pos Issues with at least 25 days to expiry



Time Expiry wastage

NBS



BSMS
Participants

ClusterID	TIMEX
High DGH	2,984
High Teaching	5,600
Mod Usage	10,300
Low Usage	3,012
Private	1,914
Grand Total	23,810

Why is the age of blood important?

What issue policy would hospitals like the NBS to adopt?

What are the relevant factors to consider?

- Pro's
- Con's

Why is the age of blood important?

- More opportunity to crossmatch red cell units leading to cost benefits and reduced wastage
- Fresher red cells benefit the patient?

What issue policy would hospitals like the NBS to adopt?

- Change FIFO practise to LIFO
- Offer a selection of ages of blood
- Offer different policies for different users
 - *hospital size, location or speciality*
- Take blood back into stock
- Redistribute blood on behalf of hospitals

PRO'S

- Happy customers
- More opportunity to crossmatch
- Less wastage
- Change in stock holding
- Reduced or increased transport requirement
- Less *ad-hoc* deliveries
- ? Patient benefit

CON'S

NBS

- *Increased NBS wastage*
- *Manageability by Issues staff*
- *Risk - imbalance in supply v demand*
 - Only old stock left
 - SLA compromised
 - Contingency planning e.g. vCJD
 - Environment e.g. military conflict
- *Staff morale* (increased wastage negative effect on morale)

CON'S cont'd

Hospitals

- *Increased cost of red cell unit*
- *Changing ordering practices*
- *Changing hospital stock levels*

Donors

- *Donor loyalty and effect on donor base*
- *Donor marketing implications*

Con's cont'd

The Public

- *Public perception due to increased wastage*

NBS Issue Policy

(Red Cells)

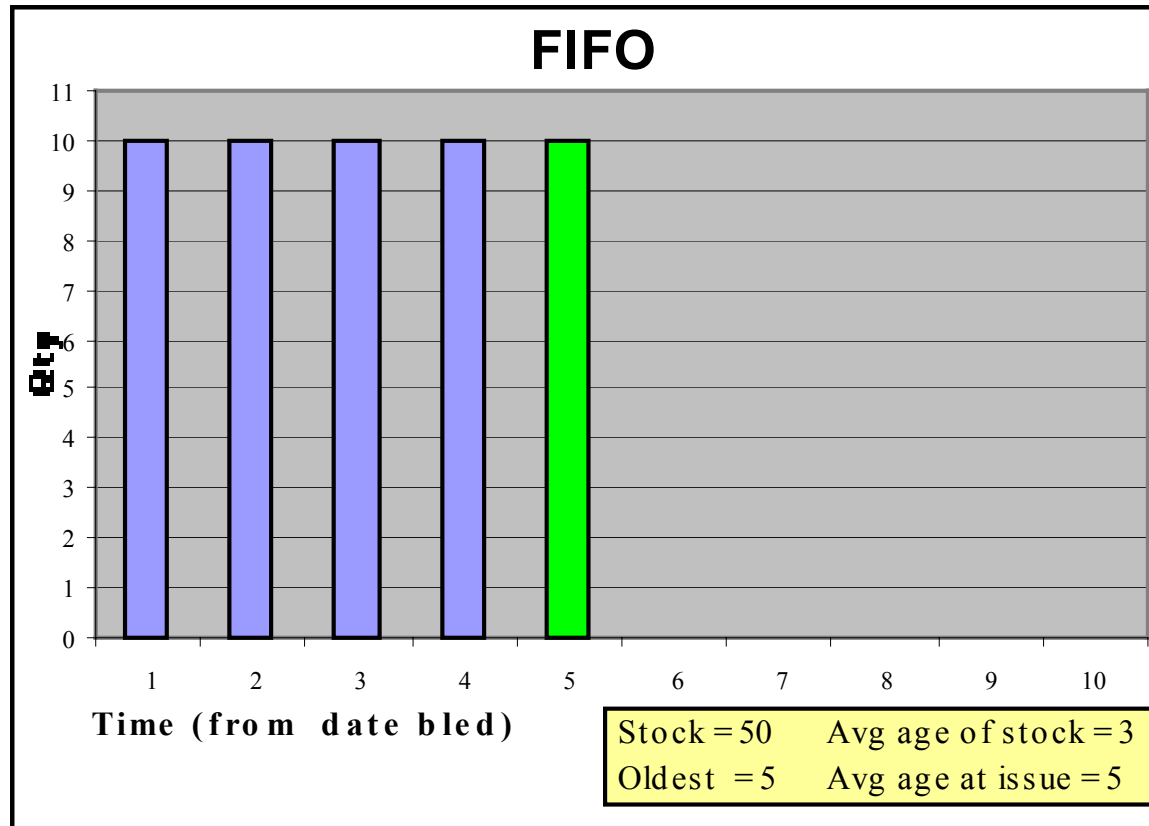
Alternatives v Reality

Mark Jelly

Theoretical Policy

First in First Out
(FIFO)

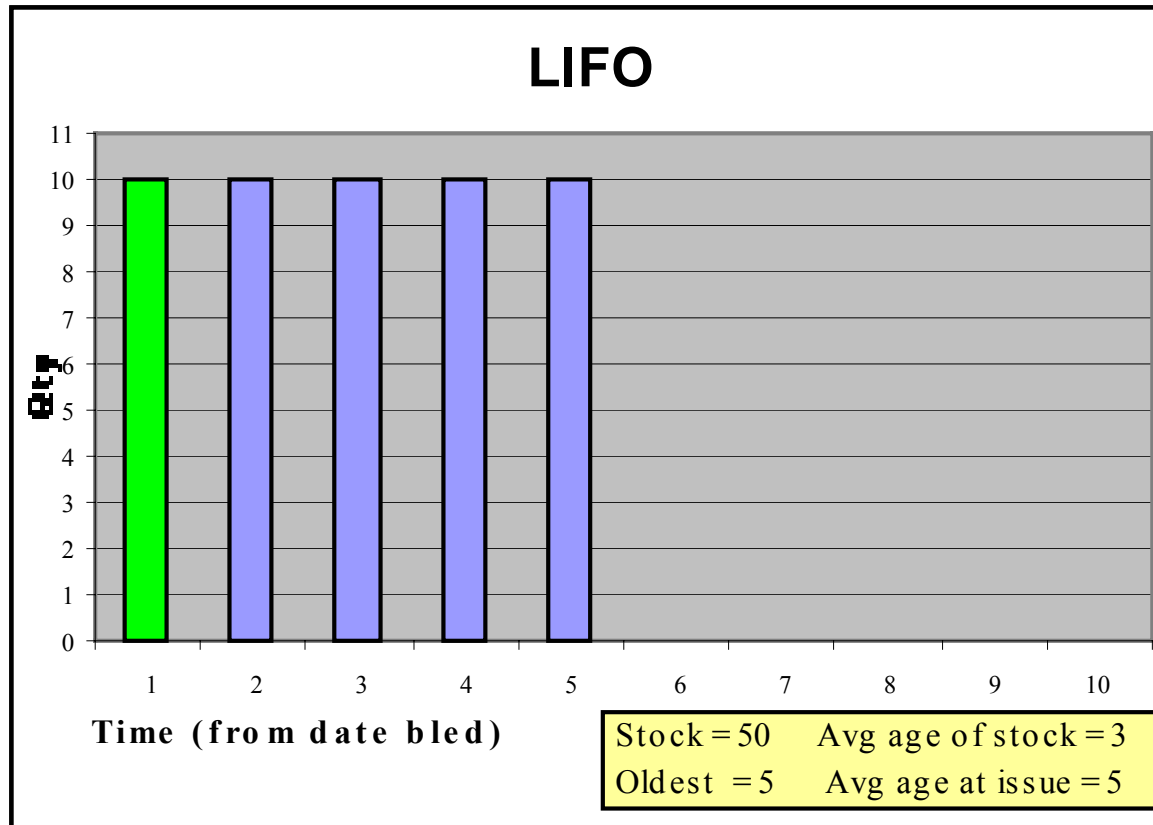
Current NBS Policy (theory)



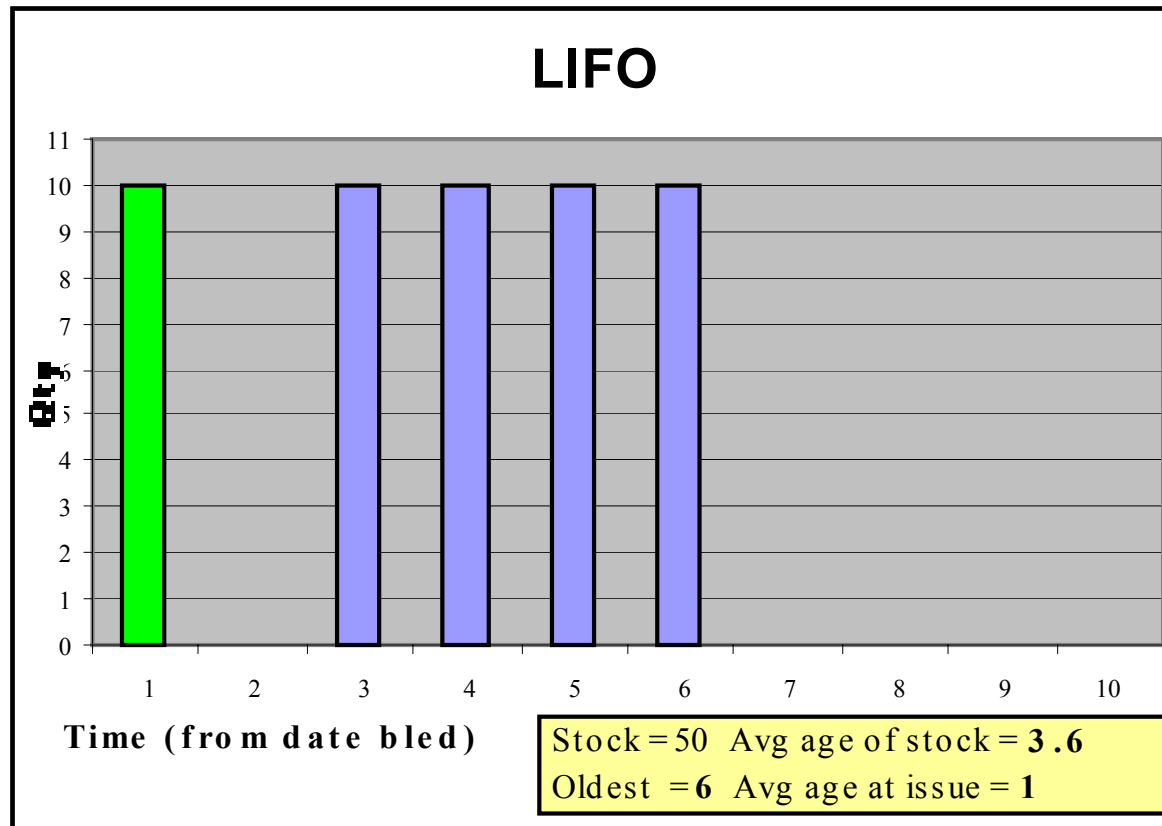
Alternative Policy 1

Last in First Out
(LIFO)

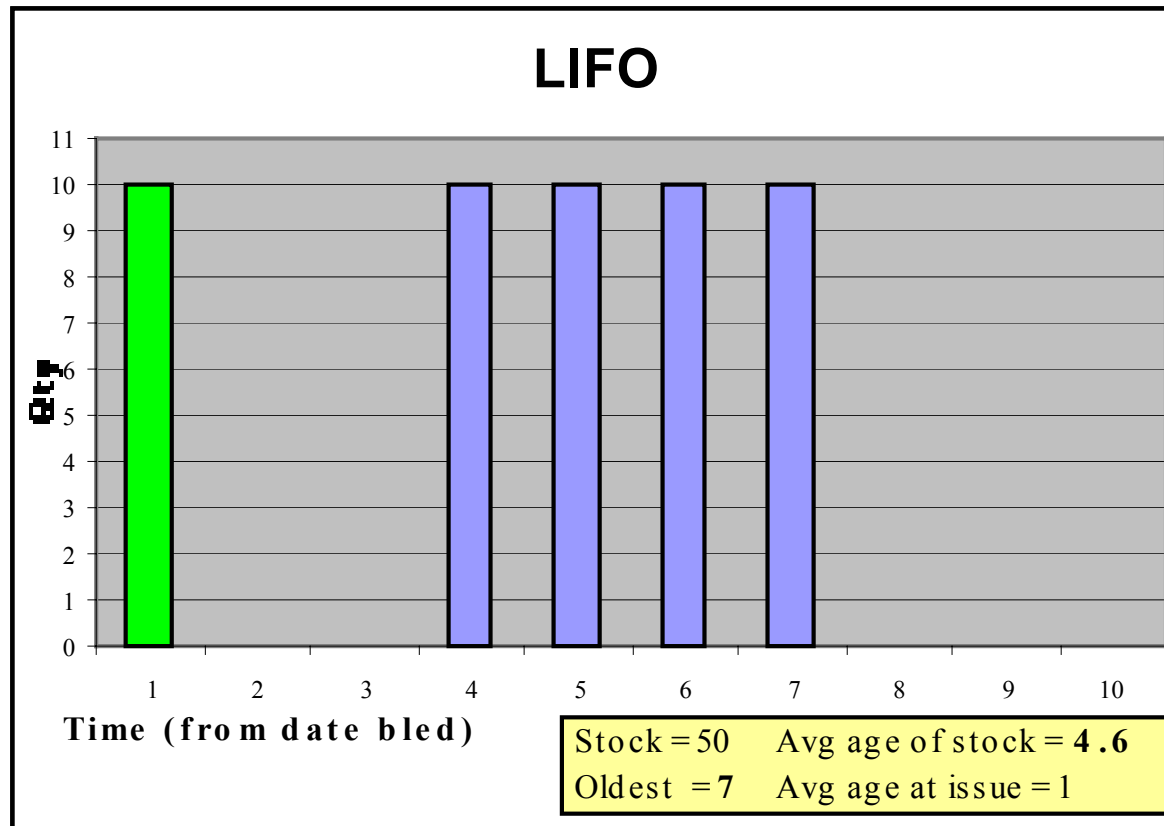
Alternative Policy ?



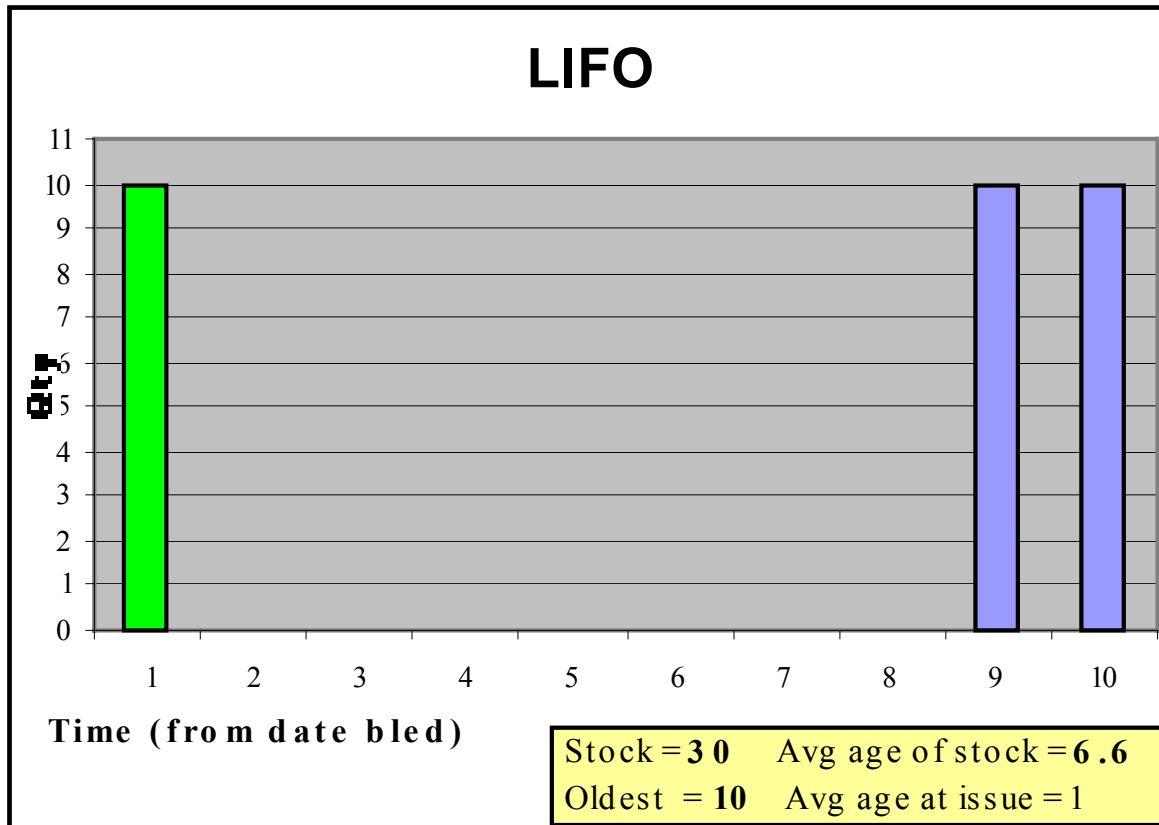
After 1 Day



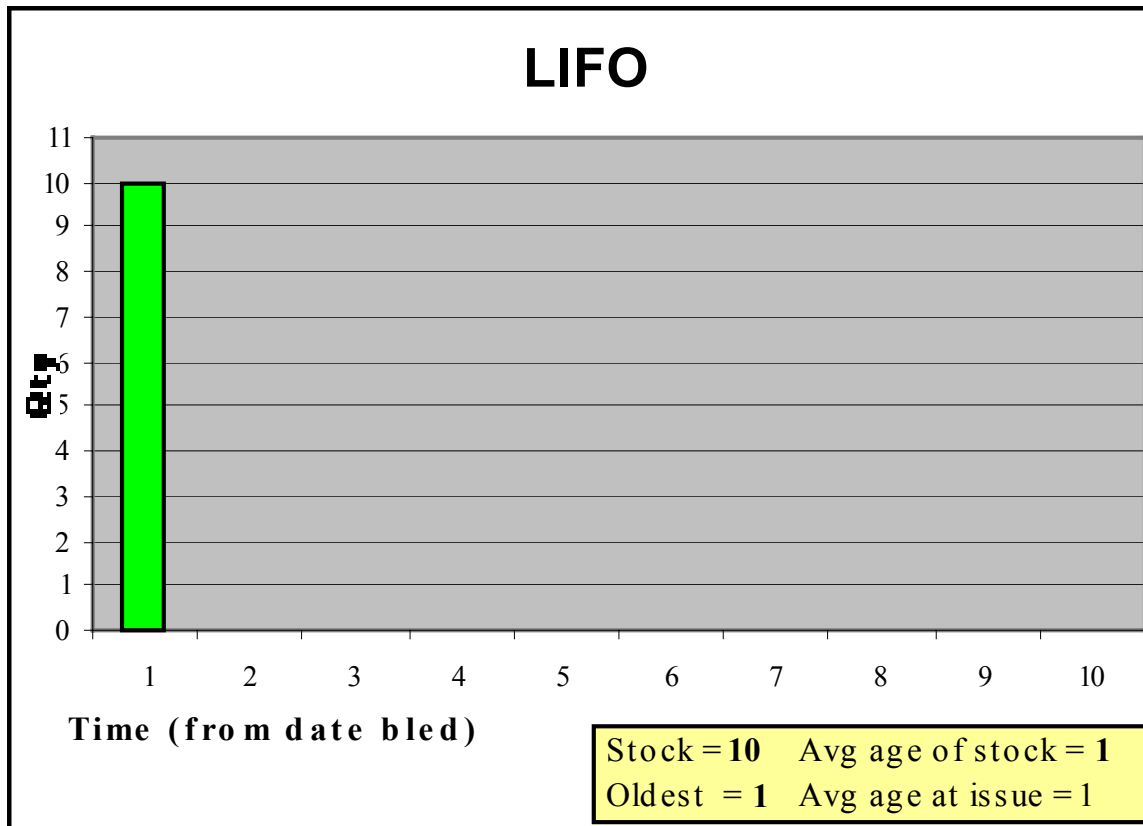
After 2 Days



After 7 Days



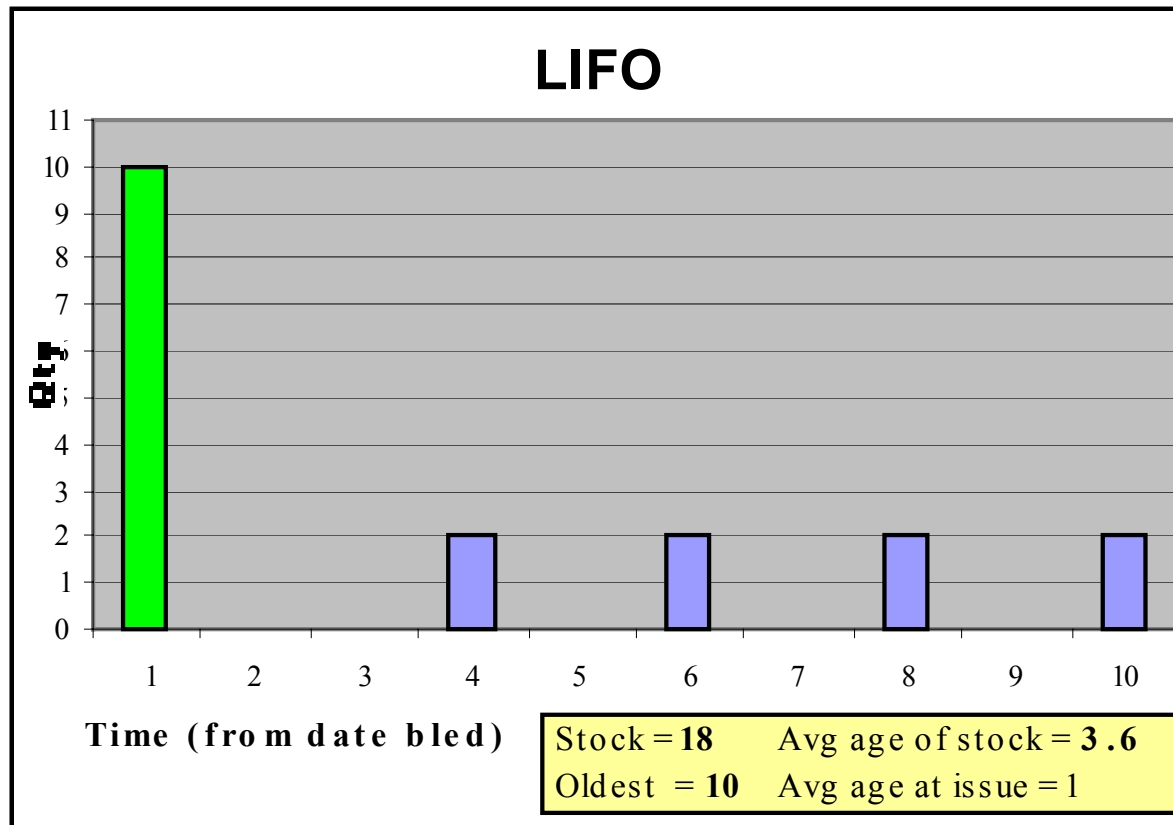
After 9 Days



Q - What if Supply > Demand?

A - Stock left on shelf

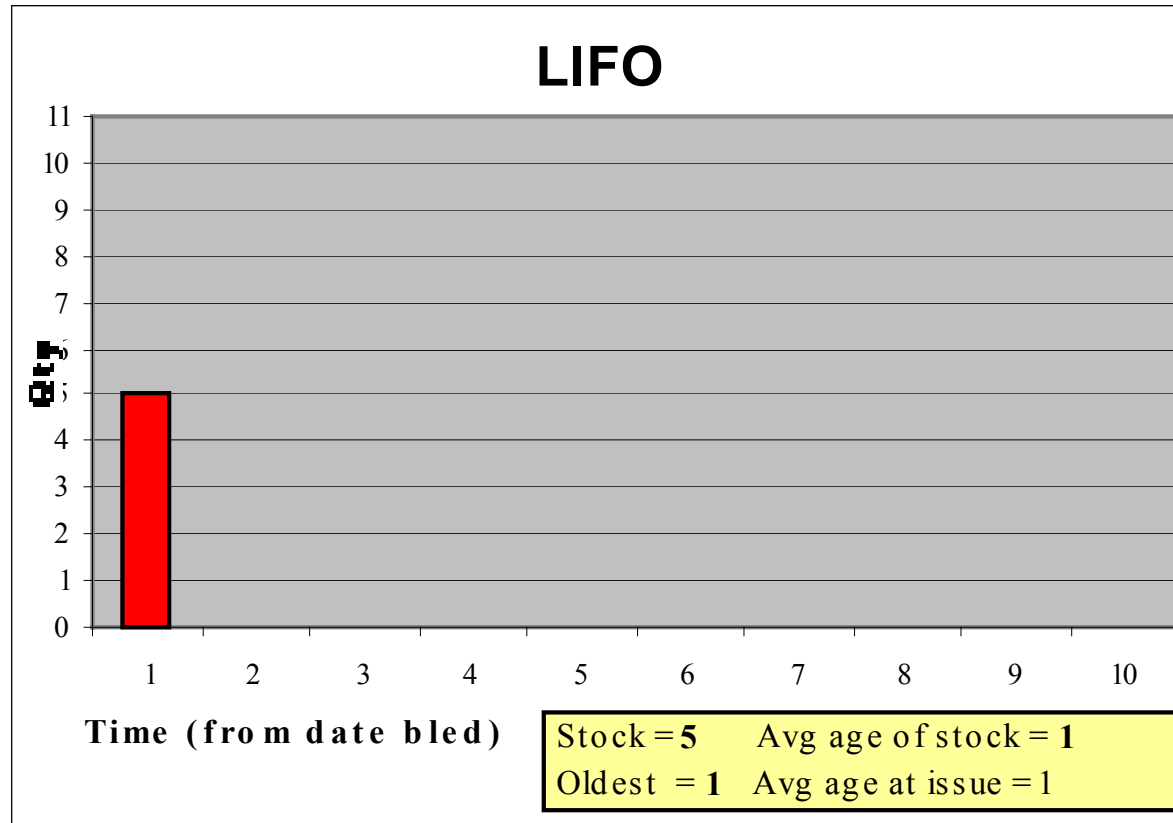
If Supply > Demand



Q - What if Demand > Supply ?

A - Failure to Supply

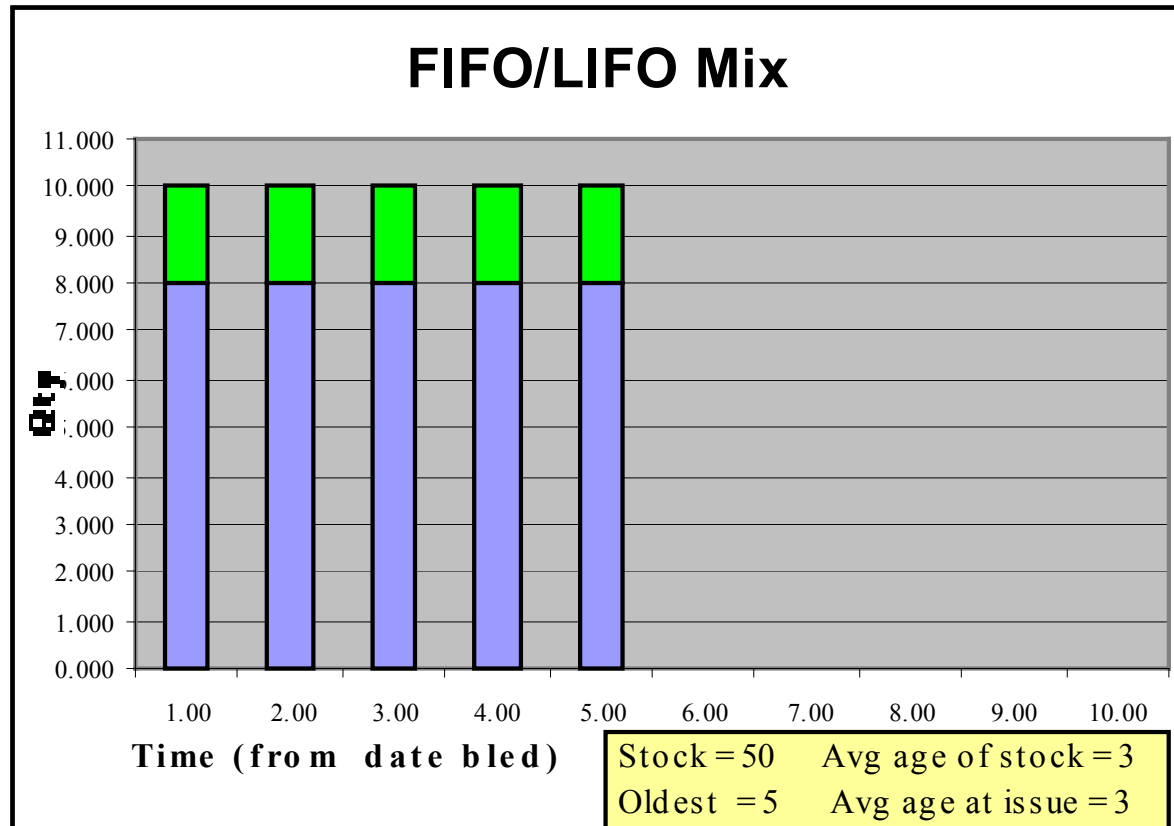
If Demand > Supply



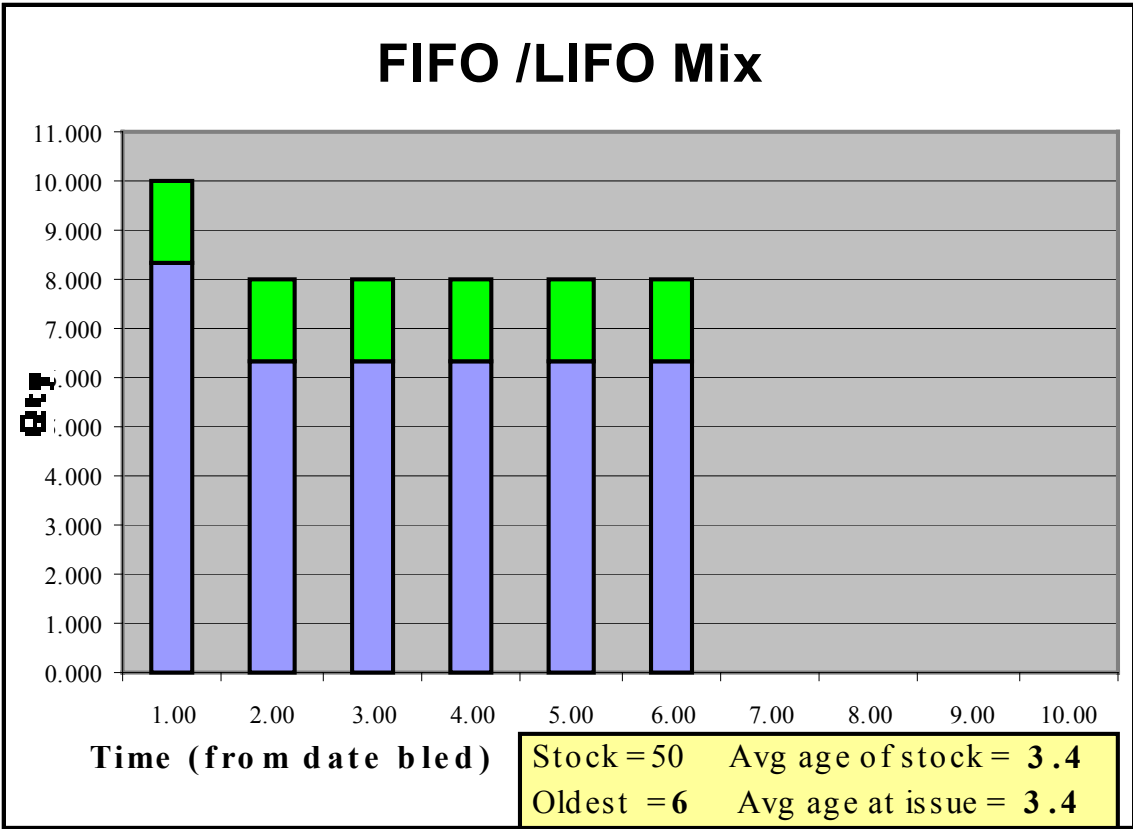
Alternative Policy 2

Offer a 'spread' of ages
(to all users)

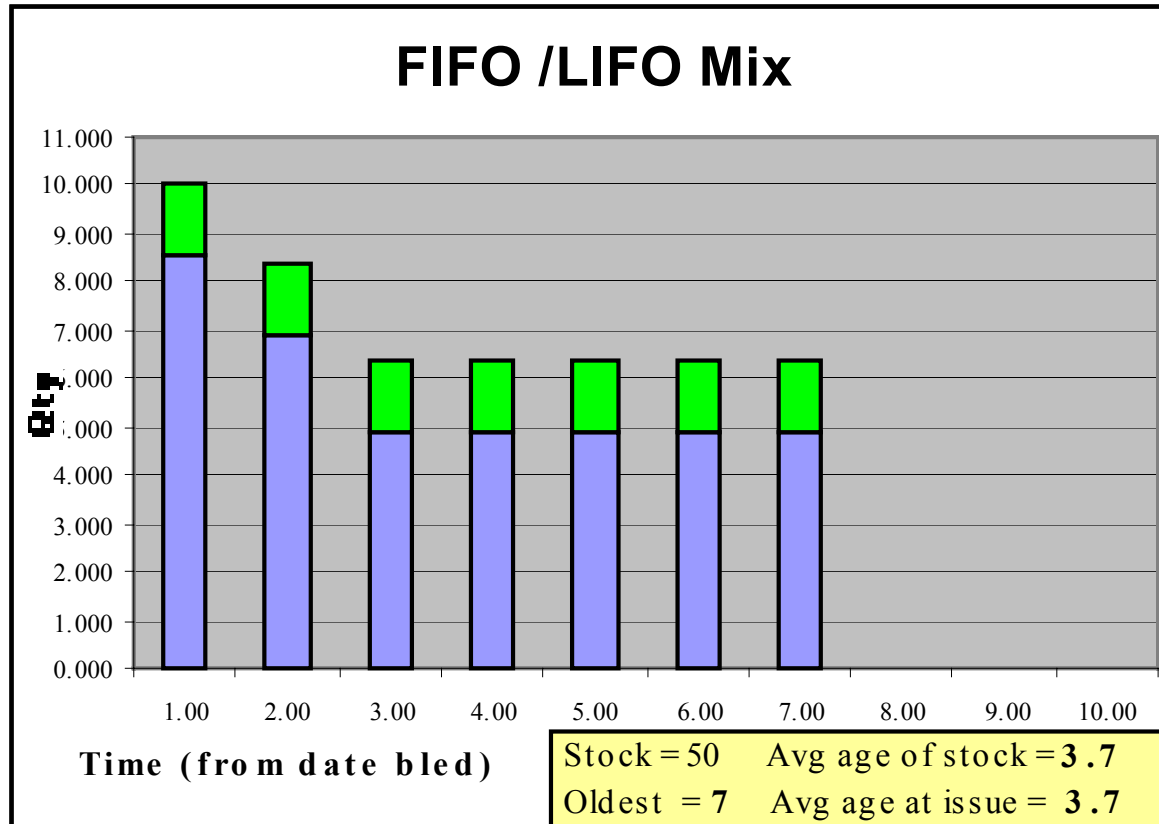
Issue 'spread' of ages to all users



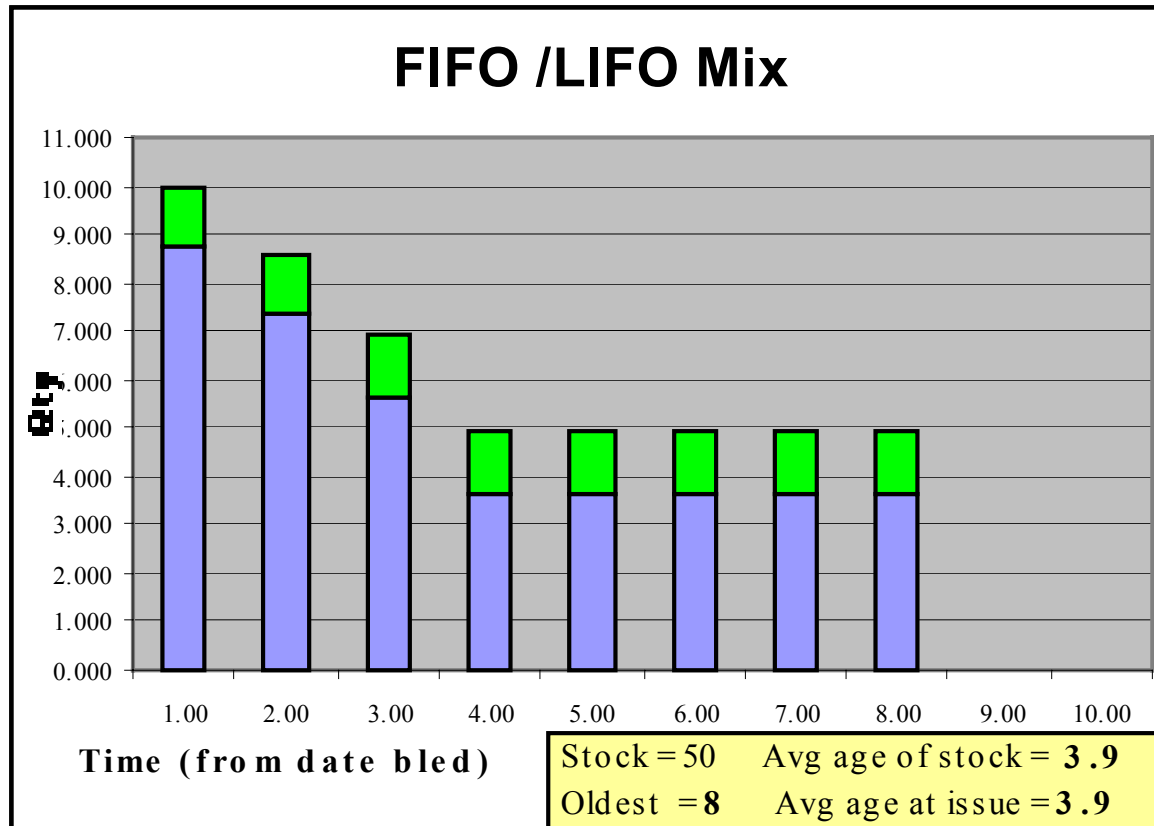
2nd Day



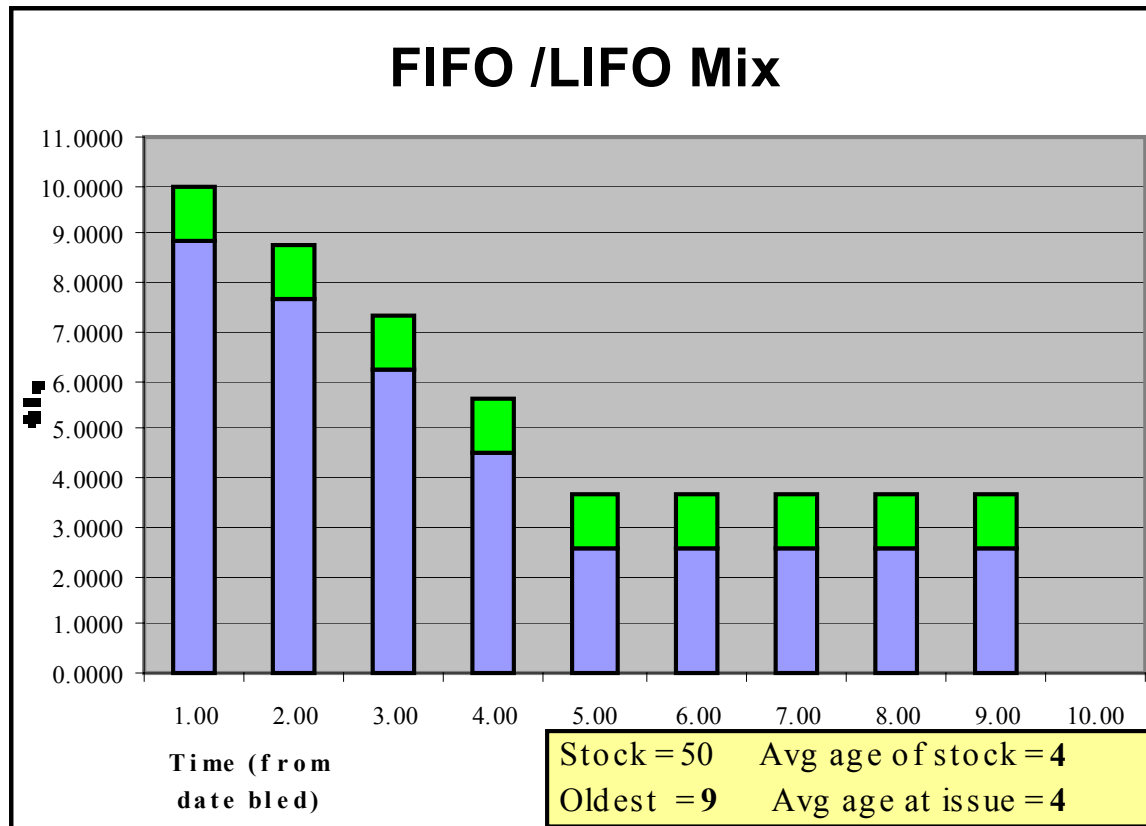
3rd Day



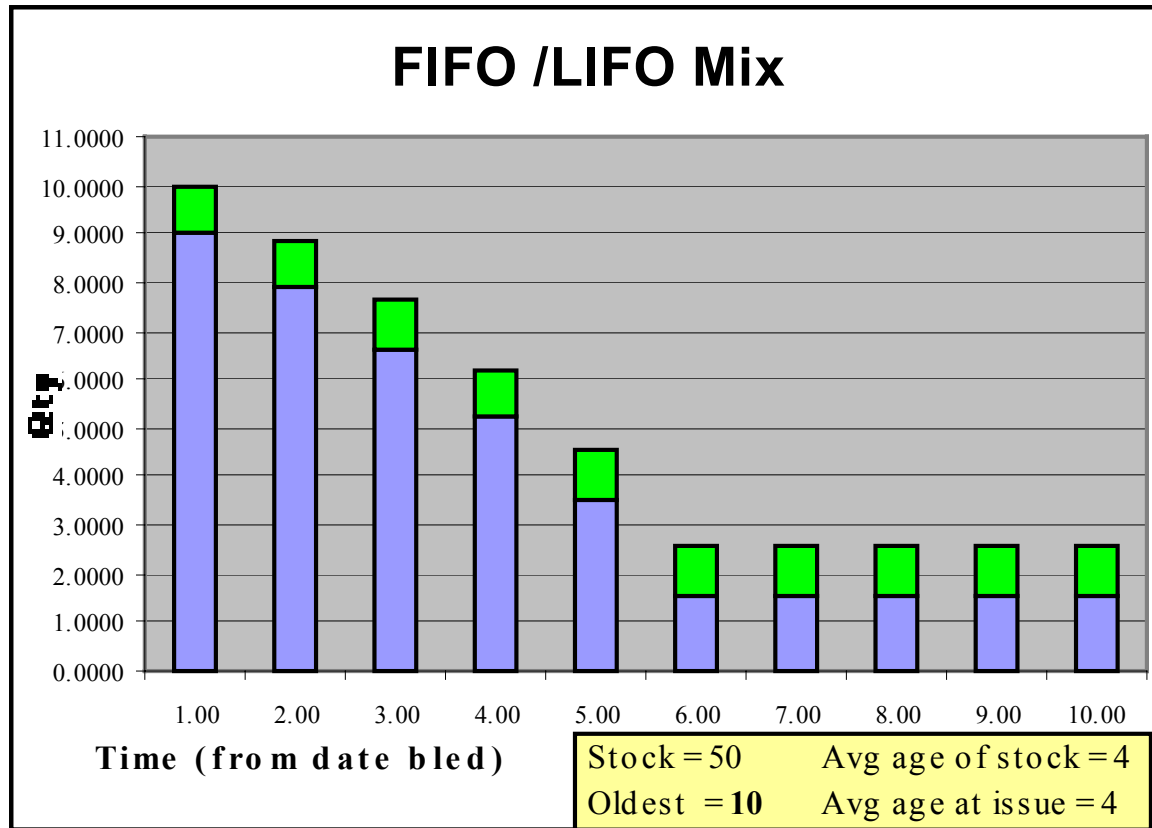
4th Day



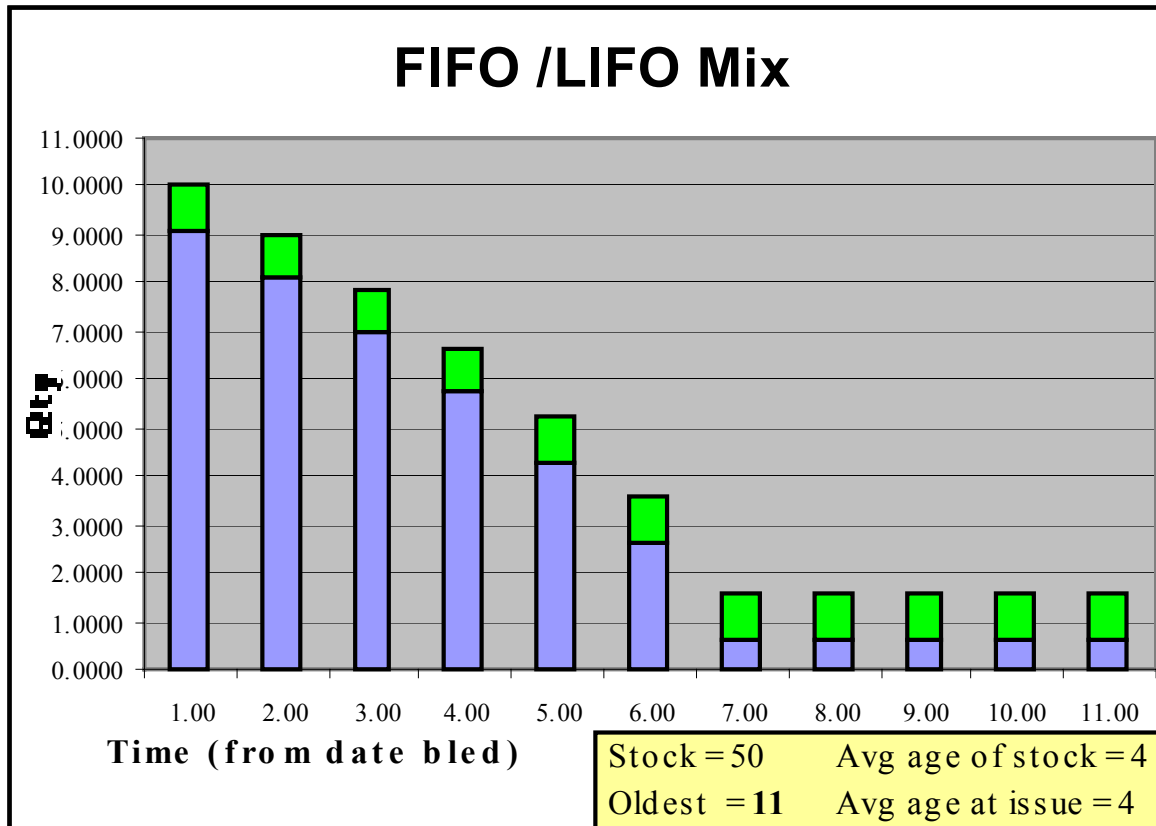
5th Day



6th Day



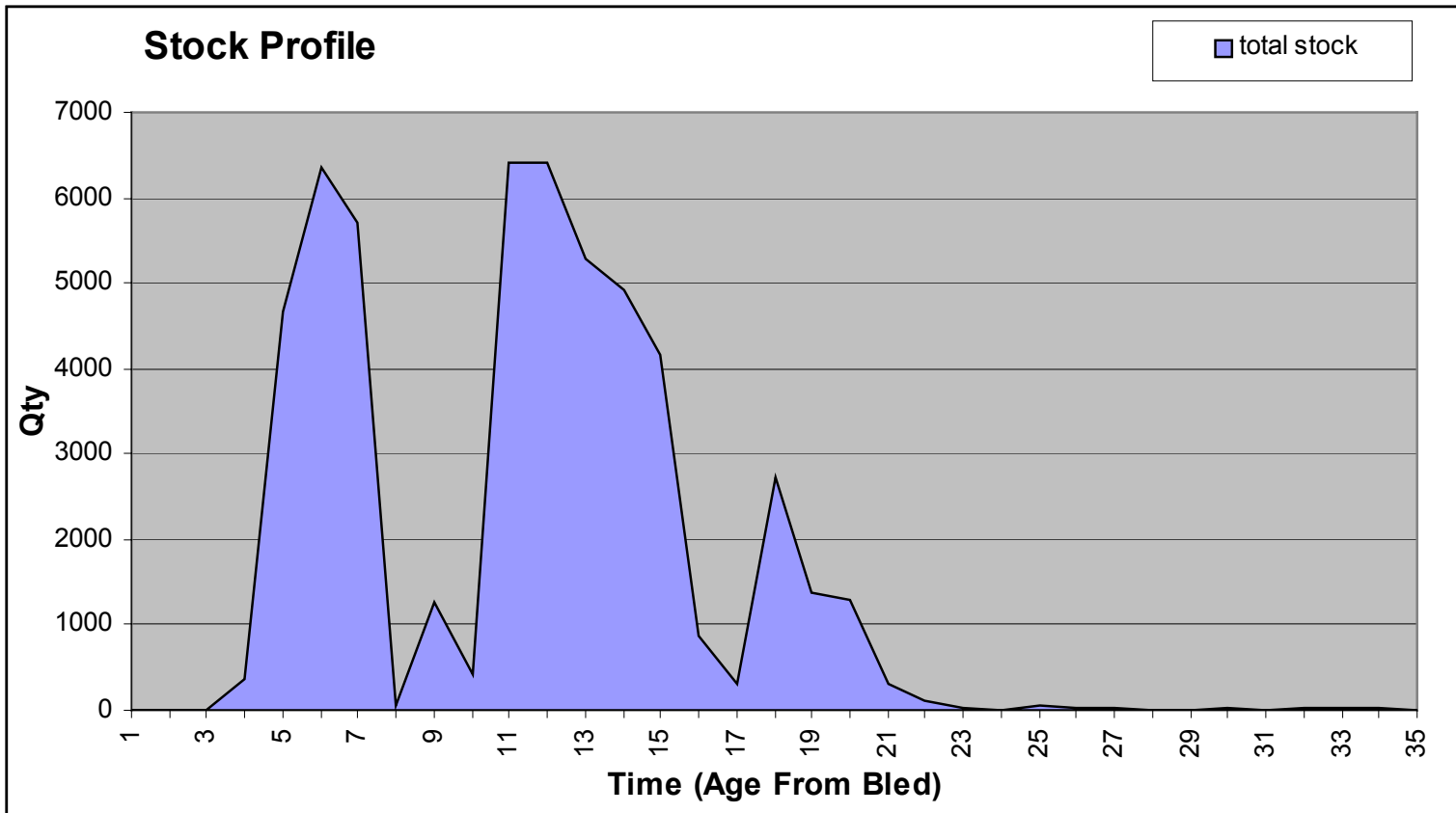
7th Day



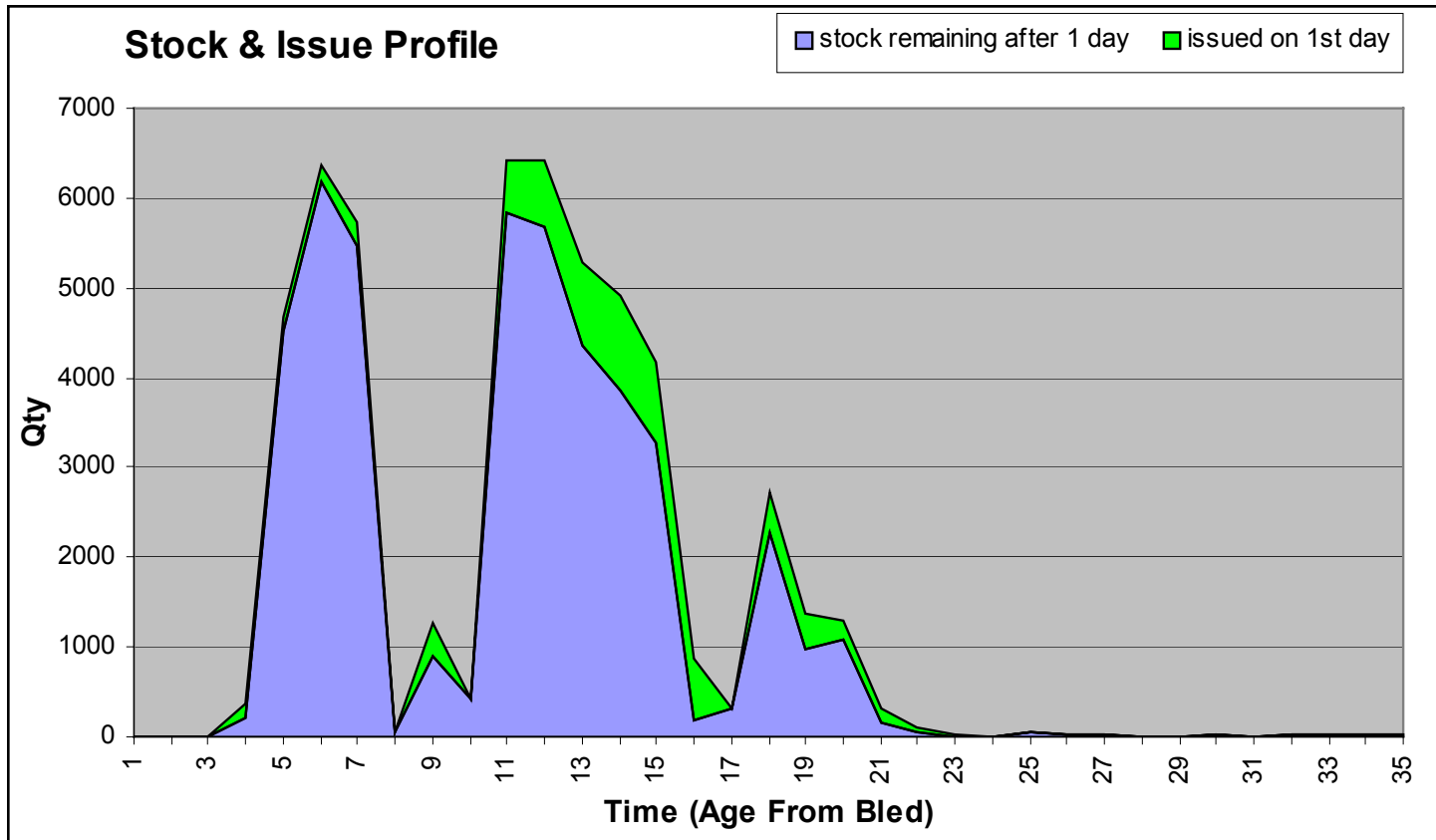
Q - What is the NBS Current Policy?

A - Both LIFO & FIFO

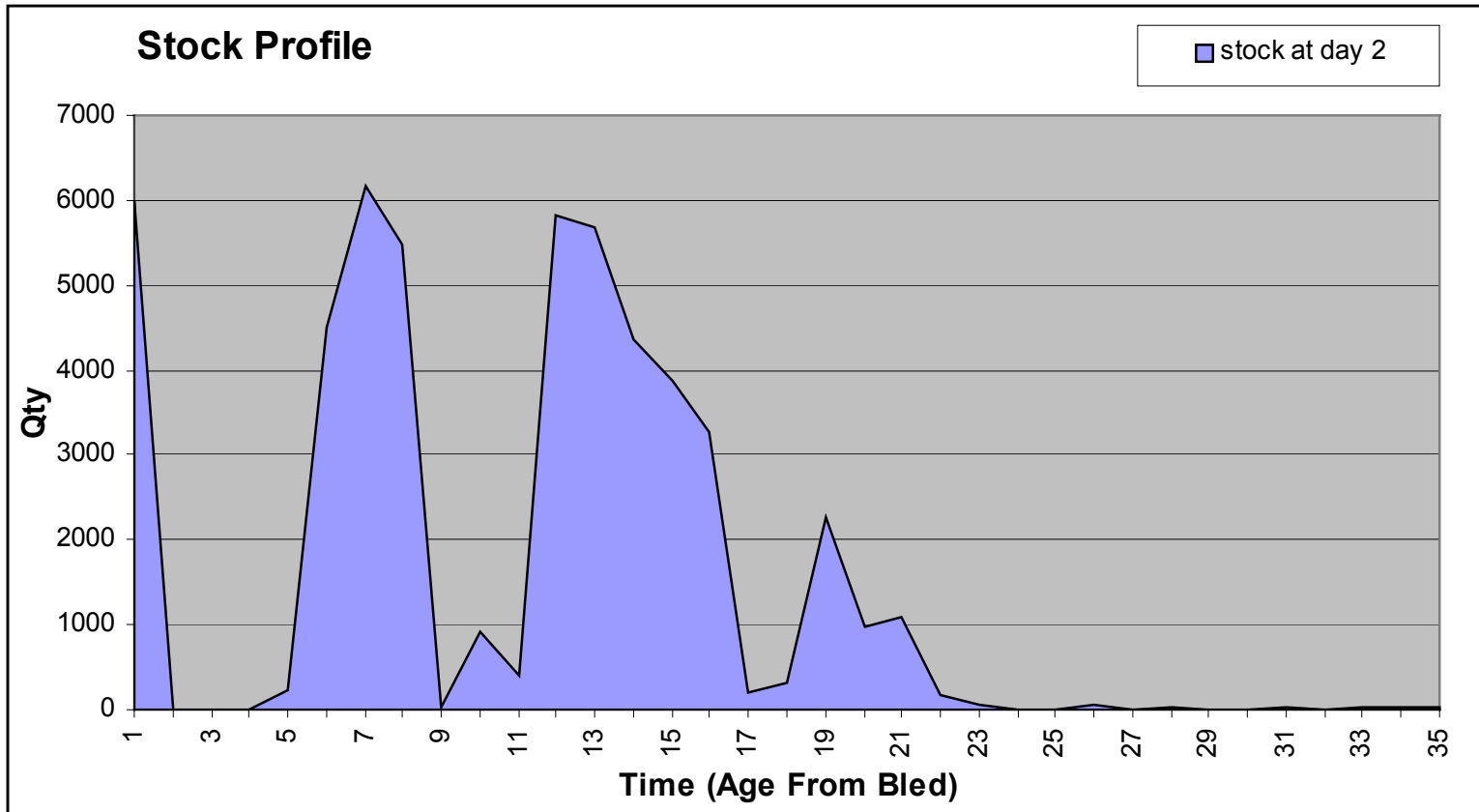
Actual Stock Profile



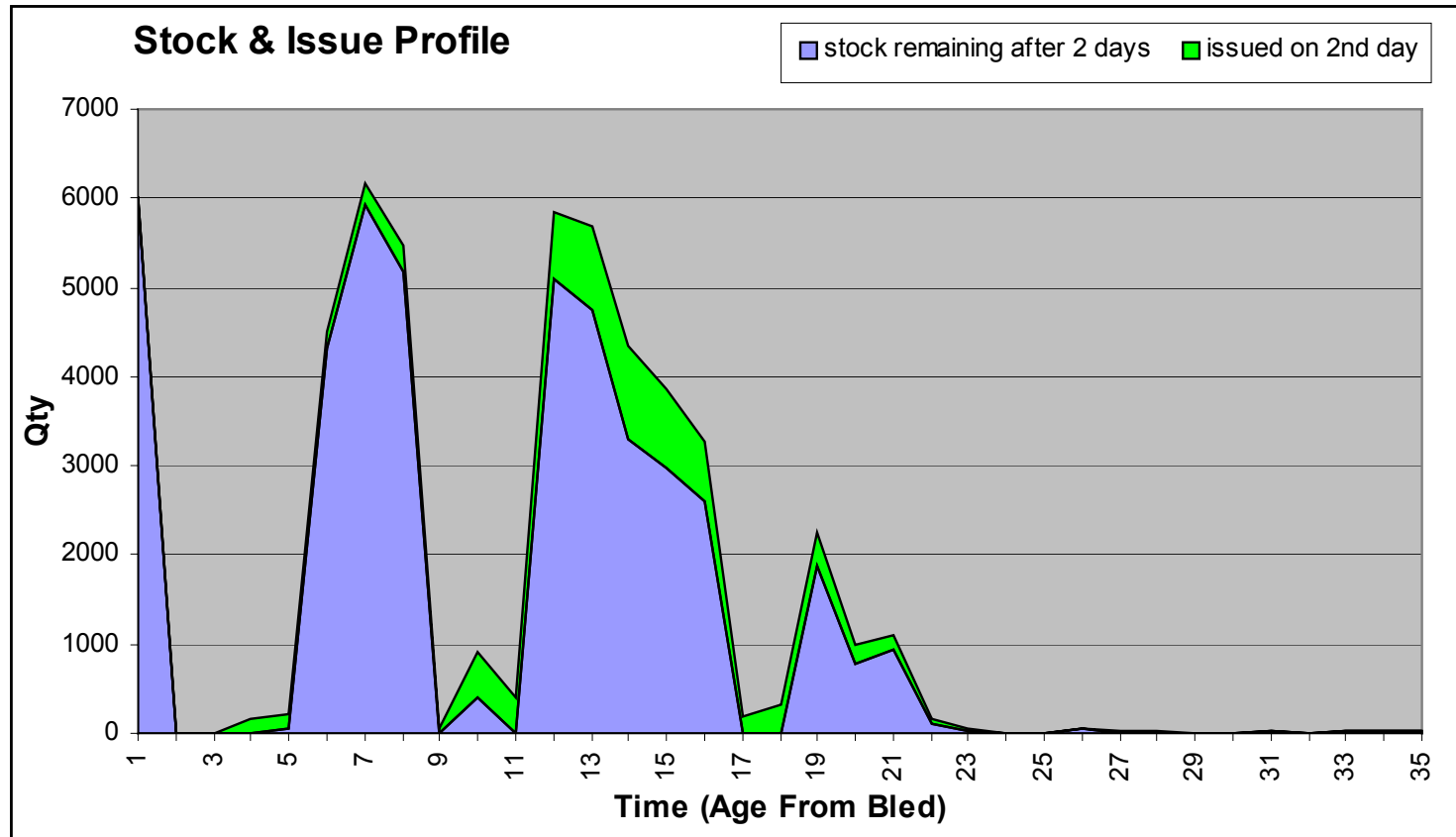
Stock & Issue Profile - Day 1



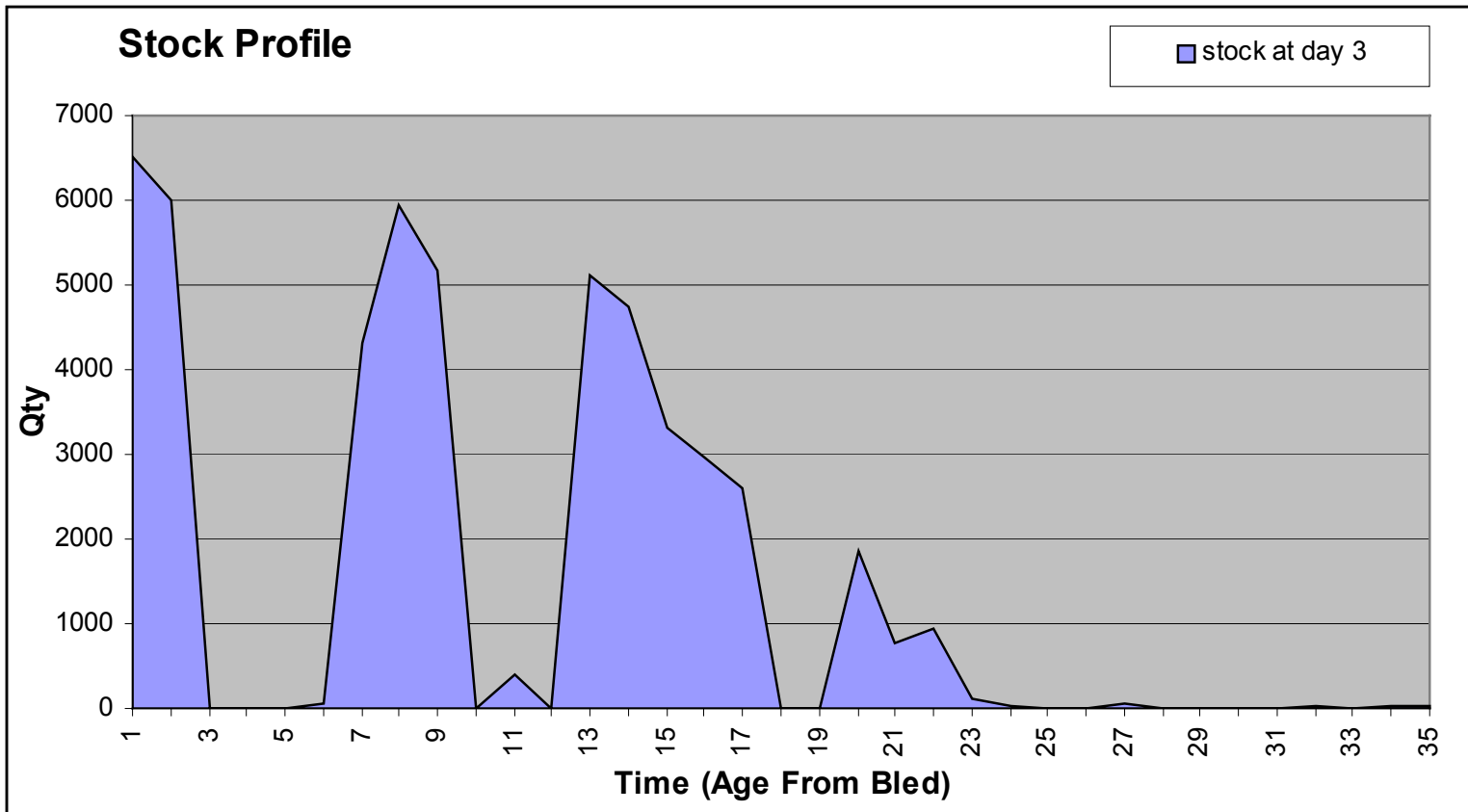
Stock Profile - Day 2



Stock & Issue Profile - Day 2



Stock Profile - Day 3



What can the NBS do?

- Set appropriate stock levels
- Match supply and demand
- Review practices and responsibilities
- Develop tools
 - stock movement model
 - stock management model

What can Hospitals do?

- Set appropriate stock levels
- Understand supply and demand
- Review practices and responsibilities
- Ensure staff training

What NBS activities are underway?

- Customer research
- Modelling the effects of changes in practice
- Reviewing practices and processes
- Developing tools
- Developing the BSMS

What Hospital activities are underway?

- Review practices and processes
- Develop use of the BSMS in terms of:
 - Information
 - Benchmarking
 - Relationship building
 - Training

Conclusion

Awareness of various factors to improve:

- The ability to demonstrate that the NBS is actively managing the process
- Identify and understand “stock v age”

Results

- Projected stock reduction until year end (already 73,000 to 54,000)
- Average age reduction
- Review processes and targets