Case 4: Airplane De-Icing (I of IV)
Bain, Round 1

Problem statement narrative

Your client is AirCo, a U.S. airline that has significant operations at on the of Chicago airports.

Due the cold weather, the client's place often have to be de-iced, but because the need de-icing is very unpredictable, the client decided to outsource the de-icing to IceCo last year. However, IceCo's performance has not been satisfactory.

The client is considering in-sourcing airplane de-icing, but currently does not have enough resources do the de-icing in-house.

The client requires a 4-year payback on investments and wants to know if they should in-source or outsource the de-icing?

Guidance for interviewer and information provided upon request(1)

- Cost comparison on in-sourcing vs. outsourcing – see Handout 1, but first have candidate outline what the major cost bucket are.
- If the client in-sources the de-icing, they will need to hire 150 people for the whole icy season, but the actual number of workers per month fluctuates and can get as high as 60. We have to pay workers for the whole month, even if we only need them for one week
- Each worker costs $4,000 / month
- There are 5 months in the icy season
- The performance problems result from IceCo taking too long to de-icy the planes, leading to delays. We cannot quantify the impact of this.

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Comparison of Outsourced vs. Insourced De-Icing Costs

	IceCo	Client
Number of Events	3000	3000
Fee per Event	$300	NA
Labor Costs	N/A	?
Cost per Gallon of Chemicals	$5	$5
# of Gallons of Chemical per Event	40	40
Cost per Event	?	?

Candidate: Please complete and explain the 2nd column

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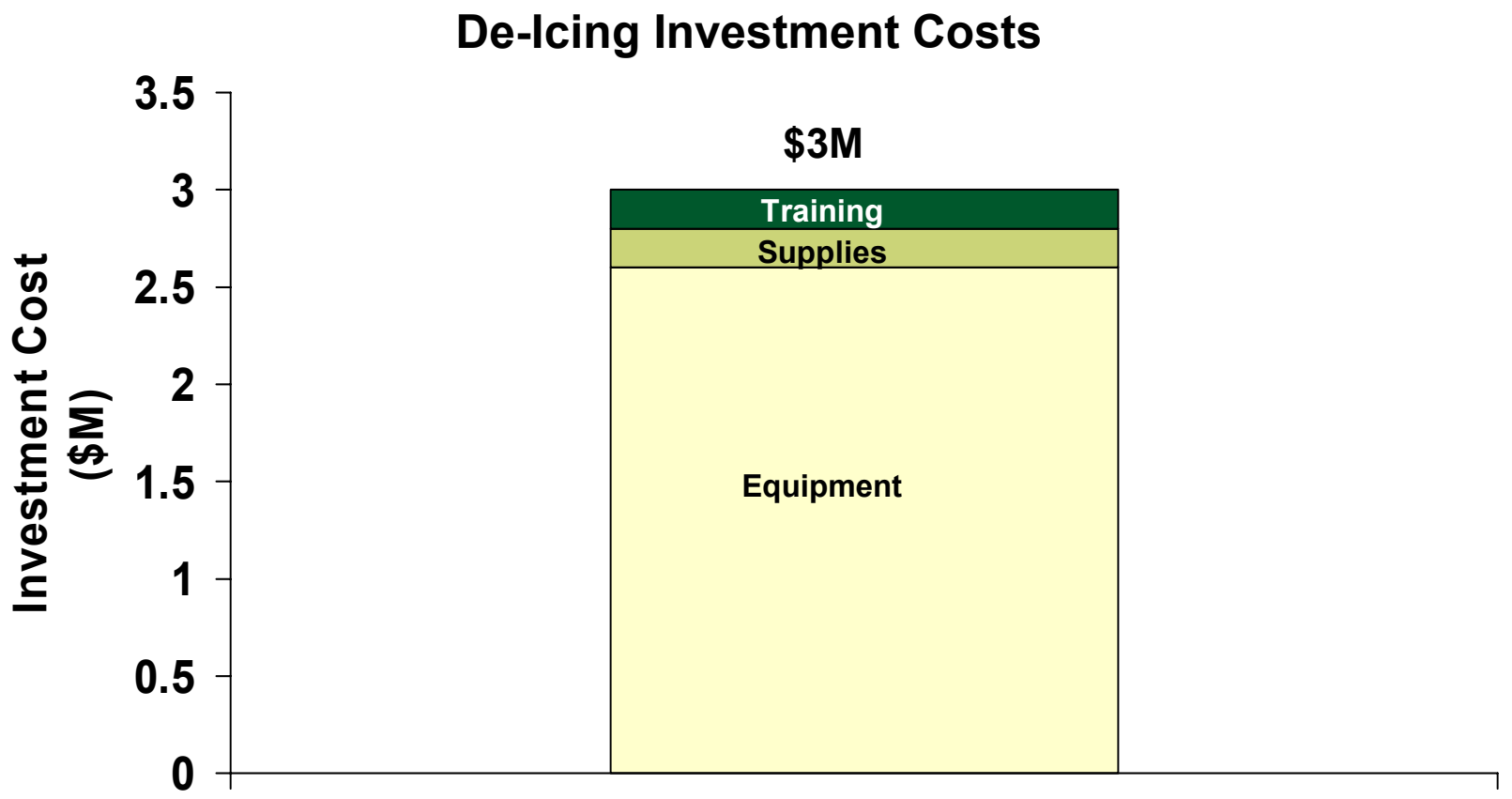

Case 4: Airplane De-Icing (IV of IV)
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Calculate in-sourced labor costs per event

3000 events/season x 5 months/event = 600 events/month

150 workers/season / 5 months/season = 30 workers/month

30 workers/month x $4000/worker/month = $120K/month

Labor cost/event = $120K/600 = $200 per event

Calculate in-sourced labor costs per event

Outsourced cost:
$300 + $5 x 40 = $500/event

In-sourced cost:
$200 + $4 x 40 = $360

Savings = $140/event

Calculate payback period for the investment

Savings per year:
$140/event x 3000 events/yr = $420K

Payback:
$3M/$420K = 7 years > than 4 year payback requirement

To decrease payback period…

Reduce investment costs – lease equipment instead of purchasing it.

Decrease labor costs to increase savings per event: re-negotiate labor contracts; explore more flexible options instead of hiring by month.

Try to quantify impact of performance problems so these benefits can be monetized and added to the payback calculation.

To improve IceCo's performance…

Implement SLAs that require IceCo to meet pre-determined performance metrics.

Tie IceCo fees to meeting SLAs.