Jessie
Jumpshot
Common Mistakes

• Forgetting to deduct the agent’s salary from Jessie’s total package
• Failing to calculate certainty equivalents

  – I.E. $12M*10\%\text{ProbabilityWin} + $2M*90\%\text{ProbabilityLose} = \text{CE[Sharks Merchandising Profit]} = $3M
  – \text{CE[Sharks:20\% merchandising profit if win]} = $1.2M*0.20 = $240,000
  – Where $12M * 10\% = $1.2M
• Teammates writing down “different deals”
  – When differences occurred, I went with the majority
Histogram of Salary Range

Histogram - Range of Salaries

Number of Students

Salary Range

1M - 1.9M  2.1M  2.2M-2.49M  2.5M-2.9M  3M+
Histogram of Jessie’s Total Value

Total Dollar Values for Jessie

<table>
<thead>
<tr>
<th>Total $ Values</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2.5M-$3.0M</td>
<td>6</td>
</tr>
<tr>
<td>$3.0M-$3.5M</td>
<td>1</td>
</tr>
<tr>
<td>$3.5M-$4.0M</td>
<td>1</td>
</tr>
<tr>
<td>$4.0M-$5.0M</td>
<td>4</td>
</tr>
<tr>
<td>$5.0M-$5.5M</td>
<td>2</td>
</tr>
<tr>
<td>$6M+</td>
<td>4</td>
</tr>
</tbody>
</table>
Histogram of Shark’s Total Costs

Histogram - Sharks Total Cost

<table>
<thead>
<tr>
<th>Total Cost</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1.0M-$2.5M</td>
<td>2</td>
</tr>
<tr>
<td>$2.5M-$3.0M</td>
<td>8</td>
</tr>
<tr>
<td>$3.0M-$3.5M</td>
<td>2</td>
</tr>
<tr>
<td>$3.5M-$4.0M</td>
<td>4</td>
</tr>
</tbody>
</table>
Comparing Jessie vs Shark Net Gains

Sharks vs. Jessie's Net Gains

Jessie’s Best, Sharks Worst

Jessie’s Worst, Sharks Best

Sharks Net Gain

Jessie's Net Gains
Jessie Z-Score Calculation

Average Net Gain: $2,200,038  Standard Dev: $1,734,676

Jessie’s NET GAIN = [.95(Salary) + .6Win(Merchandise Profit) + .4Don’t(Merchandise Profit) + .6Win(Bonus) + .4Don’t(Bonus)] – $2.1M

Jessie’s Z-score = ([Jessie’ NET GAIN-Avg(Jessie Net Gain)] /([Jessie StDev Net Gain])

Notice: Jessie’s Certainty Equivalent assumes she will win 60% of the time and not win 40% of the time

Average Final Agreement: $4,558,866
Agent Z-Score Calculation

**Agent**

Average Commission: $118,080   Standard Dev: $23,293

Agent’s NET GAIN = .05(Salary) – Average Commission

Agent’s Z-score = ([Agent’s NET GAIN] /([Agent’s StDev]))

Notice: Agent’s Certainty Equivalent is fixed at 5% of Jessie’s salary
Sharks Z-Score Calculation

**Sharks Manager**

Average Net Gain: $58,824  Standard Dev: $543,109

Manager’s NET GAIN = $3M - [Salary + .1Win(Merchandise Profit) + .9Don’t(Merchandise Profit) + .1Win(Bonus) + .9Don’t(Bonus)]

Manager’s Z-score = (Manager’s’ NET GAIN-Avg(Manager Net Gain)] /([Manager StDev])

Notice: Manager’s Certainty Equivalent assumes Jessie will win 10% of the time and not win 90% of the time

Average Final Cost: 2,933,333
15.067 Competitive Decision-Making and Negotiation
Spring 2011

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