## Big Foot Resort

## The Game Tree

## Big Foot's <br> Decision <br> Sasquatch's <br> Reaction



## Building the Model

## Sasquatch Incremental Financials

| Sasquatch Reaction | Do Nothing | Boarding | Expand | Both |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Incremental Revenue | $(\$ 918,981)$ | $\$ 751,200$ | $\$ 4,217,337$ | $\$ 4,231,760$ |  |
| Direct Costs | $(\$ 609,100)$ | $\$ 525,840$ | $\$ 2,795,251$ | $\$ 2,687,168$ |  |
| S\&A | $\$ 0$ | $\$ 300,000$ | $\$ 700,000$ | $\$ 750,000$ |  |
| Depreciation | $\$ 0$ | $\$ 0$ | $\$ 650,000$ | $\$ 650,000$ |  |
| Net Taxable Income | $(\$ 309,880)$ | $(\$ 74,640)$ | $\$ 72,086$ | $\$ 144,592$ |  |
| Tax | $(\$ 108,458)$ | $(\$ 26,124)$ | $\$ 25,230$ | $\$ 50,607$ |  |
| Net Income | $(\$ 201,422)$ | $(\$ 48,516)$ | $\$ 46,856$ | $\$ 93,985$ |  |
| Cash Flow |  |  |  |  |  |
| PV @ 8x | $(\$ 201,422)$ | $(\$ 48,516)$ | $\$ 696,856$ | $\$ 743,985$ |  |
|  |  | $(\$ 1,611,377)$ | $(\$ 388,128)$ | $\$ 5,574,847$ | $\$ 5,951,880$ |
| Cost | $\$ 0$ |  | $\$ 0$ | $\$ 6,500,000$ | $\$ 6,500,000$ |
|  |  |  |  |  |  |
| NPV | $(\$ 1,611,377)$ | $(\$ 388,128)$ | $(\$ 925,153)$ | $(\$ 548,120)$ |  |

## Building the Model (cont.)

## Big Foot Incremental Financials Conditional on Sasquatch Reaction

| Sasquatch Reaction |  | Nothing | Boarding | Expand | Both |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Incremental Revenue | , | \$5,588,928 | \$4,505,572 | \$4,595,341 | \$3,603,506 |
| Direct Costs |  | \$3,912,250 | \$3,063,789 | \$3,216,739 | \$2,450,384 |
| S\&A |  | \$500,000 | \$600,000 | \$600,000 | \$500,000 |
| Depreciation |  | \$500,000 | \$500,000 | \$500,000 | \$500,000 |
| Net Taxable Income |  | \$676,678 | \$341,783 | \$278,602 | \$153,122 |
| Tax | , | \$236,837 | \$119,624 | \$97,511 | \$53,593 |
| Net Income |  | \$439,841 | \$222,159 | \$181,091 | \$99,529 |
| Cash Flow |  | \$939,841 | \$722,159 | \$681,091 | \$599,529 |
| PV @ 8x | - | \$7,518,728 | \$5,777,272 | \$5,448,732 | \$4,796,235 |
| Cost |  | \$5,000,000 | \$5,000,000 | \$5,000,000 | \$5,000,000 |
| NPV |  | \$2,518,728 | \$777,272 | \$448,732 | (\$203,765) |

## Evaluating the Game Tree (no uncertainty)



## Simulation Results

| Unconditional |
| :---: |
| Simulation Results |

Output

1 SP: Do nothing
2 SP: Open to boarding
3 SP: Expand
4 SP: Do both
5 BF : If SP does nothing
6 BF : If SP opens to boarding 7 BF : If SP expands 8 BF: If SP does both

| Average | Median | Standard <br> Deviation | Skewness |
| :---: | :---: | :---: | :---: |
| $(\$ 1,834,690)$ | $(\$ 1,770,001)$ | $\$ 1,864,161$ | -0.533 |
| $(\$ 454,929)$ | $(\$ 442,303)$ | $\$ 1,234,478$ | 0.230 |
| $(\$ 248,429)$ | $(\$ 561,346)$ | $\$ 3,174,038$ | 0.472 |
| $\$ 14,944$ | $(\$ 403,555)$ | $\$ 4,623,659$ | 0.684 |
| $\$ 2,534,769$ | $\$ 2,426,027$ | $\$ 1,446,400$ | 0.122 |
| $\$ 792,378$ | $\$ 716,887$ | $\$ 1,848,243$ | 0.487 |
| $\$ 442,449$ | $\$ 378,908$ | $\$ 1,480,588$ | 0.404 |
| $(\$ 175,314)$ | $(\$ 333,752)$ | $\$ 2,238,155$ | 0.319 |

Trials $=10000$

## Venture.SIM

| Percentiles |  |  |  |  |
| ---: | :---: | ---: | ---: | ---: |
| Minimum | $25 \%$ | $50 \%$ | $75 \%$ | Maximum |
|  |  |  |  |  |
| $(\$ 5,274,898)$ | $(\$ 2,928,993)$ | $(\$ 1,770,001)$ | $(\$ 626,470)$ | $\$ 5,258,317$ |
| $(\$ 10,044,243)$ | $(\$ 2,542,474)$ | $(\$ 561,346)$ | $\$ 1,811,721$ | $\$ 13,098,868$ |
| $(\$ 16,299,580)$ | $(\$ 3,219,125)$ | $(\$ 403,555)$ | $\$ 2,549,154$ | $\$ 26,995,604$ |
| $(\$ 1,930,345)$ | $\$ 1,461,050$ | $\$ 2,426,027$ | $\$ 3,573,581$ | $\$ 7,912,857$ |
| $(\$ 4,820,373)$ | $(\$ 582,627)$ | $\$ 716,887$ | $\$ 1,954,054$ | $\$ 9,282,452$ |
| $(\$ 4,063,064)$ | $(\$ 603,423)$ | $\$ 378,908$ | $\$ 1,364,493$ | $\$ 7,650,074$ |
| $(\$ 8,428,741)$ | $(\$ 1,789,604)$ | $(\$ 333,752)$ | $\$ 1,275,344$ | $\$ 11,501,300$ |

## Evaluating the Game Tree

 (with uncertainty)

