



# Football Bowl

## Bonanza

Wide Receiver: Kim

Tight End: Jolawn

Technical Staff: Kevan

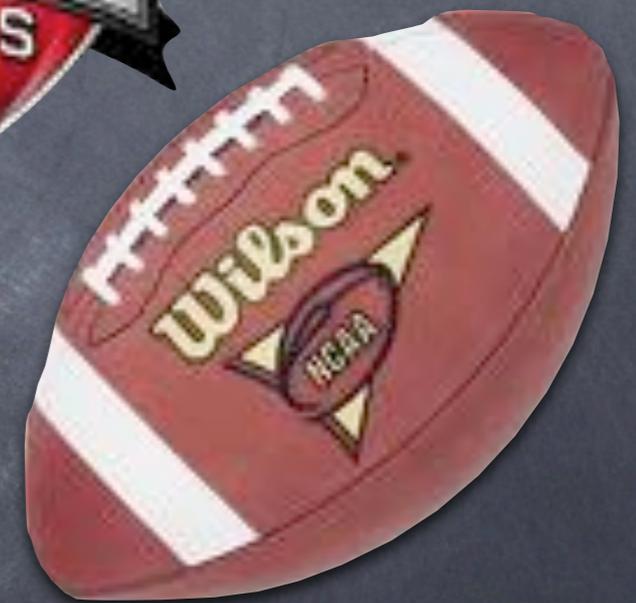
Reserve: Ronnie

# Game Plan

- Objectives
- Opposition
- Finding Momentum
- Water Breaks
- ...On The Goal Line

# Objective

- After not getting into DBi during lottery, you decide to do something else with your time off
- Football season is in the air so you decide to hit as many bowls as you can
- The question is:  
**How many of the best bowls can you attend over winter break with a budget that doesn't exceed the average cost of a DBi??**



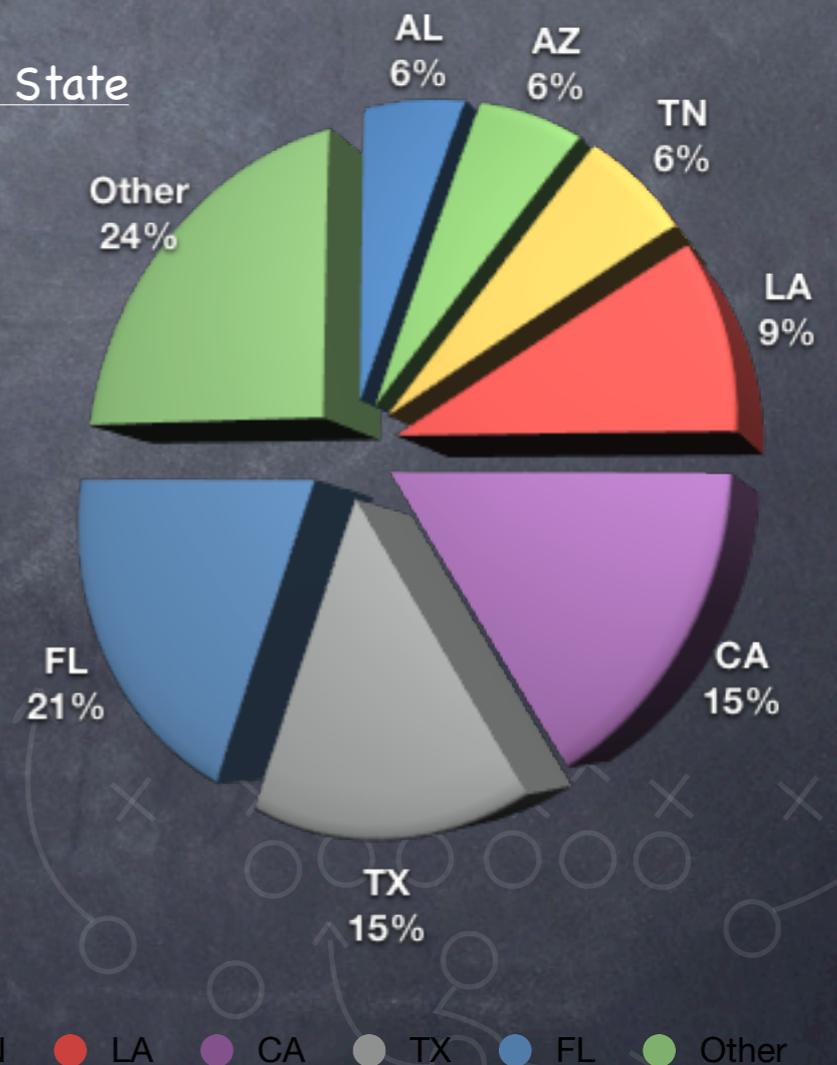


# The Bowl Map

# Dates and Facts

- 34 Bowls to be Played in '08/'09 series
- 22 Bowls happen in the month of Dec
- Top ranked teams usually start play Dec 30

Bowl Distribution by State



2008/2009 Bowl Games	Date
EagleBank Bowl	Dec 20, 2008
Las Vegas Bowl	Dec 20, 2008
New Mexico Bowl	Dec 20, 2008
St. Pete Bowl	Dec 20, 2008
New Orleans Bowl	Dec 21, 2008
Poinsettia Bowl	Dec 23, 2008
Hawaii Bowl	Dec 24, 2008
Motor City Bowl	Dec 26, 2008
Champs Sports Bowl	Dec 27, 2008
Emerald Bowl	Dec 27, 2008
Meineke Bowl	Dec 27, 2008
Independence Bowl	Dec 28, 2008
Alamo Bowl	Dec 29, 2008
PapaJohns.com Bowl	Dec 29, 2008
Holiday Bowl	Dec 30, 2008
Humanitarian Bowl	Dec 30, 2008
Texas Bowl	Dec 30, 2008
Armed Forces Bowl	Dec 31, 2008
Chick-fil-A Bowl	Dec 31, 2008
Insight Bowl	Dec 31, 2008
Music City Bowl	Dec 31, 2008
Sun Bowl	Dec 31, 2008
Capital One Bowl	Jan 1, 2009
Gator Bowl	Jan 1, 2009
Orange Bowl	Jan 1, 2009
Outback Bowl	Jan 1, 2009
Rose Bowl	Jan 1, 2009
Cotton Bowl	Jan 2, 2009
Liberty Bowl	Jan 2, 2009
Sugar Bowl	Jan 2, 2009
International Bowl	Jan 3, 2009
Fiesta Bowl	Jan 5, 2009
GMAC Bowl	Jan 6, 2009
BCS Championship Bowl	Jan 8, 2009

# Making the First Cut

34 Games were far too many choices and we only wanted the best games...

- Since we don't know who will play in this year's bowl games, we used last year's bowl games as a proxy for this year's
- We looked at the Associated Press Rankings for bowl participants for each game in 2007
- Only considered games that had both participants in the Final top 25 poll last year
- This cut the list down to 9 possible bowl games

# Game Utilities

Again using rankings from last year's games.....

## 2007 Participants

Date	Bowl Name	Location	Team 1	Final Top 25 Rank	Team 2	Final Top 25 Rank	Utility Points
Dec. 30	Pacific Life Holiday Bowl	San Diego	Texas	10	Arizona State	16	60
Dec. 31	Chick-fil-A	Atlanta	Auburn	15	Clemson	21	30
Jan. 1	Outback	Tampa	Tennessee	12	Wisconsin	24	30
Jan. 1	Capital One	Orlando	Michigan	18	Florida	13	50
Jan. 1	Rose Bowl	Los Angeles	USC	3	Illinois	20	70
Jan. 1	FedEx Orange	Miami	Kansas	7	Virginia Tech	9	80
Jan. 2	Allstate Sugar	New Orleans	Georgia	2	Hawaii	19	70
Jan. 5	Tostito's Fiesta	Phoenix	WVU	6	Oklahoma	8	80
Jan. 8	FedEx BCS Championship	Miami	LSU	1	Ohio State	5	100

### Utility Point System

	Points per Team in Bowl Game
Ranked 16-20	20
Ranked 11-15	30
Ranked 6-10	40
Ranked 1-5	50

# Water Break

Stop for a moment! There are a few more input variables to account for here...

- **Airline Flights** (Source: Kayak.com)
- **Game Ticket Prices** (Source: Stubhub.com)
- **Accommodations** (Source: Kayak.com)
- **Game Utilities**

# The Opposition

Despite your determination, you face a few obstacles

- You only want to spend so much Money
  - The average DBi costs about \$3,000
- You can only do one game per day
- You can only return home once (NYC)

# Momentum Play

Hope springs eternal. You decide to model your way to a successful winter break

Total Cost		2050	<=	\$ 3,000.00												
Maximized Utility		240														
	30-Dec	31-Dec	1-Jan	2-Jan	3-Jan	4-Jan	5-Jan	6-Jan	7-Jan	8-Jan	9-Jan	sum			Bowl	Utility
NYC	0											0	<=	11	NYC	0
San Diego	1											1	<=	1	Holiday	60
NYC		0										0	<=	1	Chick-fil-A	30
Atlanta		1										1	<=	1	Outback	30
NYC												0	<=	1	Capitol One	50
Tampa												0	<=	1	Rose	70
Orlando												0	<=	1	Orange	80
Pasadena												0	<=	1	Sugar	70
Miami			1									1	<=	1	Fiesta	80
NYC					1	1	1					2	<=	3	BCS	100
New Orleans				1								1	<=	3		570
NYC								1	1	1		3	<=	3		
Glendale								0	0	0		0	<=	3		
NYC											1	1	<=	1		
Miami												0	<=	1		
NYC												1	=	1		
sum	1	1	1	1	1	1	1	1	1	1	1	1				
	1	1	1	1	1	1	1	1	1	1	1	1				
															Total Util.	
															NYC	0
															Holiday	60
															Chick-fil-A	30
															Outback	0
															Capitol One	0
															Rose	0
															Orange	80
															Sugar	70
															Fiesta	0
															BCS	0
															TOTAL	240
Stay in NYC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -					
San Diego	\$ 369.00															
Return to NYC		\$ 171.00														
Atlanta		\$ 354.00														
Return to NYC			\$ 106.00													
Tampa			\$ 268.00													
Orlando			\$ 322.00													
Pasadena			\$ 574.00													
Miami			\$ 300.00													
Return to NYC				\$ 356.00	\$ 356.00	\$ 356.00										
New Orleans				\$ 315.00	\$ 69.00	\$ 4,000.00										
Return to NYC							\$ -	\$ -	\$ -							
Glendale							\$ 4,000.00	\$ 4,000.00	\$ 4,000.00							
Return to NYC										\$ -						
Miami										\$ 4,000.00						
NYC											\$ -					
Constraint	1	1	1	1	1	1	1	1	1	1	1	1				
	1	1	1	1	1	1	1	1	1	1	1	1				

# Costs

Decision Variable Cost/Utility			
<u>Day</u>	<u>Date</u>	<u>Viable Decisions</u>	<u>Cost (\$)</u>
Day 3	1-Jan	Outback Bowl -- from Alt	268
Day 3	1-Jan	Outback Bowl -- from NYC	278
Day 3	1-Jan	Capital One Bowl -- from Alt	322
Day 3	1-Jan	Capital One Bowl -- from NYC	332
Day 3	1-Jan	Rose Bowl -- from Alt	574
Day 3	1-Jan	Rose Bowl -- from NYC	604
Day 3	1-Jan	Orange Bowl -- from Alt	300
Day 3	1-Jan	Orange Bowl -- from NYC	307
Day 3	1-Jan	Go Back Home -- from Alt	106
Day 3	1-Jan	Stay in NYC	0
Day 10	8-Jan	BCS Championship -- from Phoenix	953
Day 10	8-Jan	BCS Championship -- from NYC	859
Day 10	8-Jan	Go Back Home -- from Phoenix	138
Day 10	8-Jan	Stay in NYC	0

# ...On the Goal Line

It's the final play and you are on the goal line. Don't give up now!

Total Cost = \$2,050  
Total Utility = 240



# Post Game Analysis

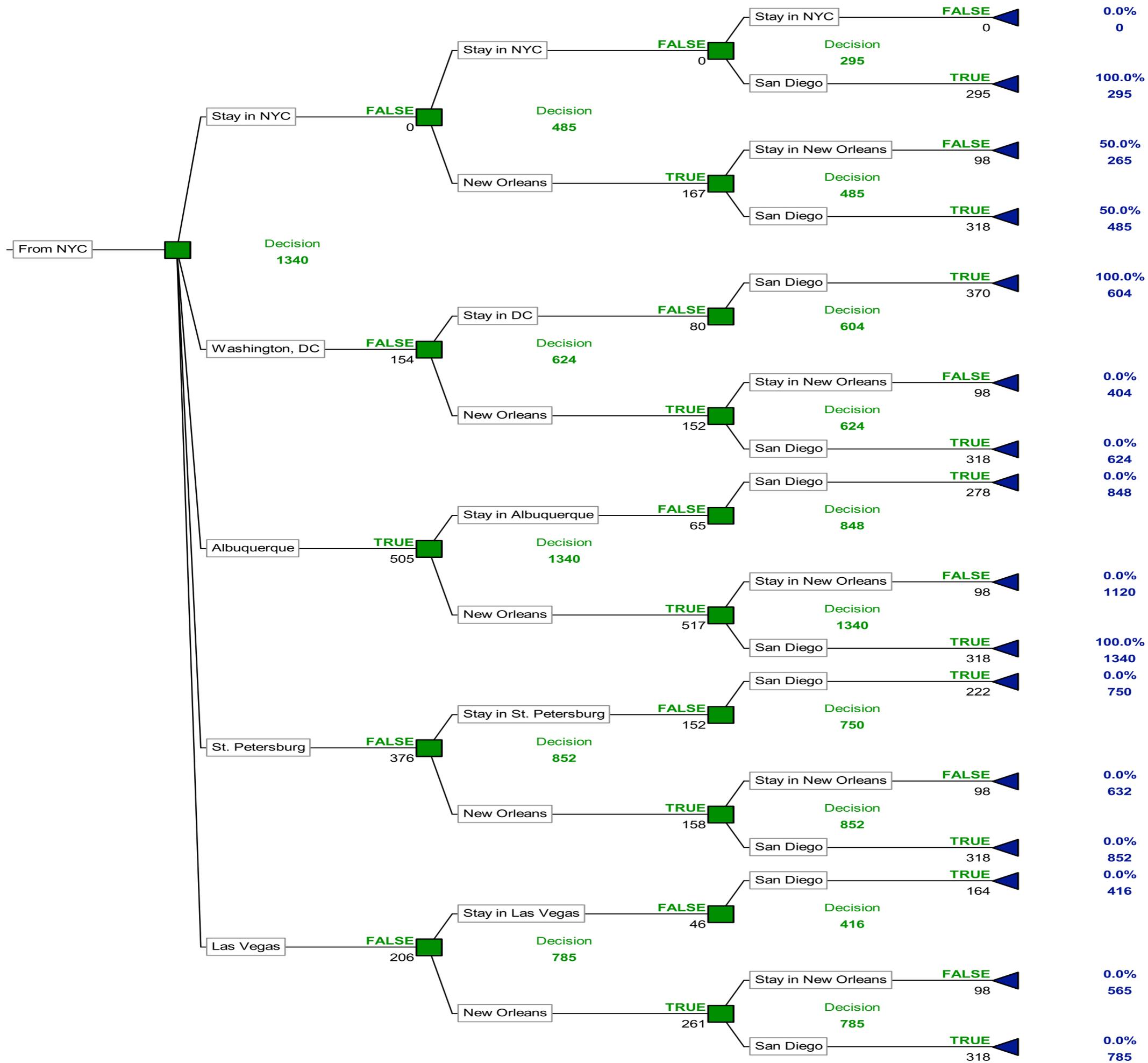
What other approaches did we consider?

## Crystal Ball Model

- Randomize the game utilities based on game outcomes
- Randomize the costs for flights and hotels

## Precision Tree Model

- Make a go / no-go decision for each game
- Assign a cost to each game (flight, hotel, ticket cost)
- Assign a 50% probability to each decision



# Press Conference

Questions?

