



Using Storytelling to Support a Data-Driven Approach Talent Management

Business Analytics for Human Resource Management



ABOUT PRESENTER

Steve Gao – Data Scientist

Steve specializes in advanced analytics, algorithmic computing, statistical modeling, and machine learning. Steve is capable of turning vast amounts of data into actionable insights and designing machine learning protocols in the realm of workforce analytics. Steve's work ranges from predictive turnover algorithms to sentiment analysis using Natural Language Processing (NLP).



Business Analytics for Human Resource Management

About HCMI

Vision: a future in which Human Capital data as key to business decisions as financial data is today.

Business Analytics for Human Resource Management

- Transform workforce data into business intelligence
- Tools and training to quantify workforce decisions
- Help HR to partner with Finance
- Focus on Workforce Analytics and Planning
- Created Human Capital Financial Statements
- Workforce Analytics and Planning experts

Agenda

- My Own Personal Struggle with HR Analytics
- What HR Analytics Is Actually About
- Why Tell a Story With Data?
- Elements of Good Data Storytelling
- Three Tips For Good Data Stories

What Everyone Thinks of HR Analytics



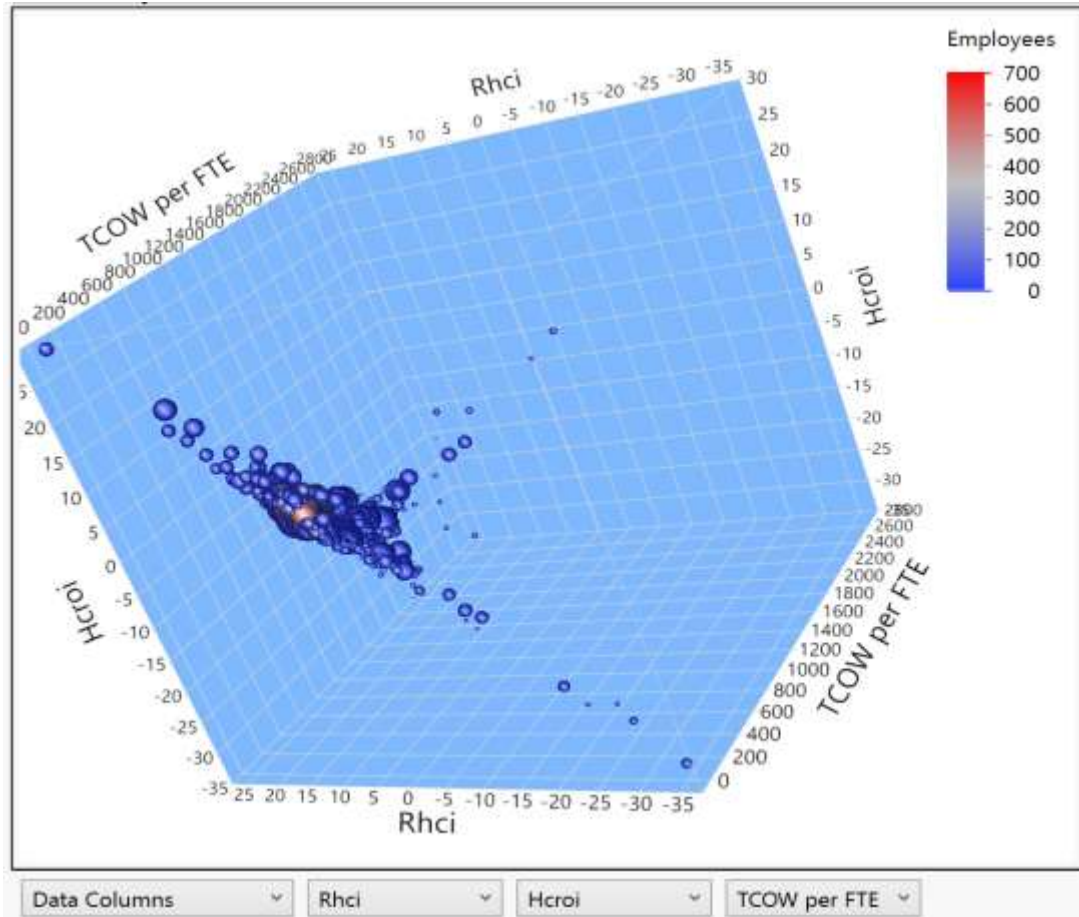
My Own Personal Struggle with HR Analytics



<https://www.hcmi.co/Docs/White-Papers>

My Own Personal Struggle with HR Analytics

What I thought was a “good visualization”



What I thought was a “killer slide”

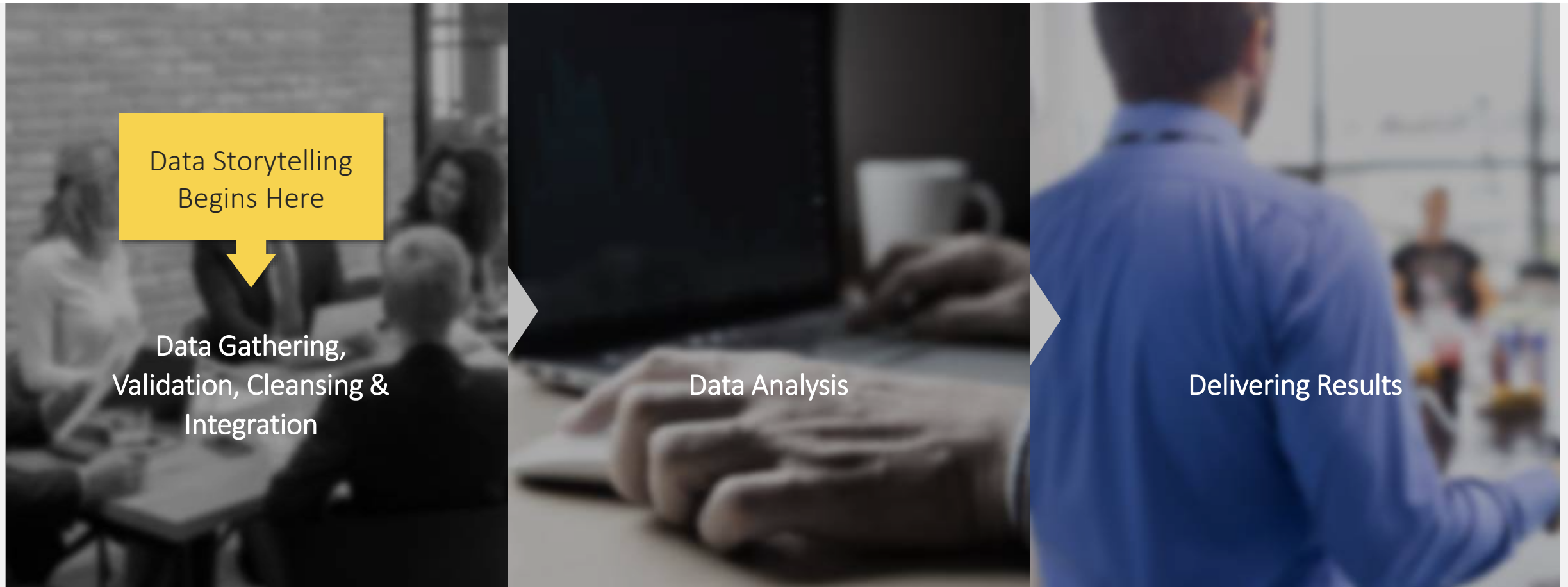
UCLAAnderson
THINK IN THE NEXT

Linear Regression with Lasso Regularization

- Lasso's ability to perform subset selection relies on the form of the constraint and has a variety of interpretations including in terms of geometry, Bayesian statistics, and convex analysis.
- Also Lasso Regularization can solve the problem of multicollinearity and simple linear regression cannot fix the problem which will influence the result of statistical inference.

Introduction Data Overview **Modeling** ML Prediction Summary

What HR Analytics Is Actually About



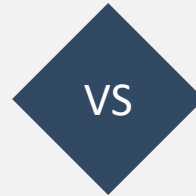
Why Tell a Story With Data?



5%

of participants remembered a

Statistic



63%

of participants
remembered a

Story

Source: An information survey done by Professor Jennifer Aaker at the Stanford Graduate School of Business.

Why Tell a Story With Data? Cont. (Not a Great Example!)



Impact of **graphical storytelling**
on reader engagement

16%-34% more comments and shares

65% – 100% lift in average session duration

Up to 317% improvement on depth of scroll

Source: Infogram <https://infogram.com/blog/how-data-visualization-impacts-engagement/>



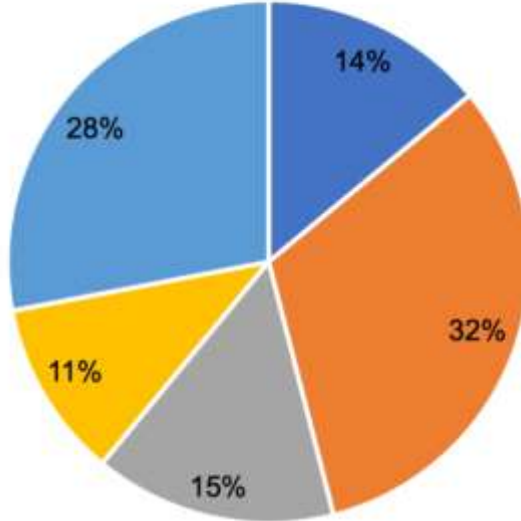
Poll Question

How often do you have trouble explaining project findings with your team / supervisors / stakeholder?

Example: Is There a Good Pie Chart?

Lost reasons

■ Competition ■ Not qualified ■ Salesperson ■ Price ■ Timing



VS

Why we're losing deals

% of total deals lost (204)
from mmyy-mmyy



60% of deals were lost because we **didn't qualify appropriately** or timing was **outside of the customers' budgeting cycle**.

How might we improve our process?

Source: StoryTellingwithData.com,
<http://www.storytellingwithdata.com/blog/2020/2/26/how-to-make-a-better-pie-chart>

Elements of Good Data Storytelling

Simple

Persuasive

Credible

Emotional

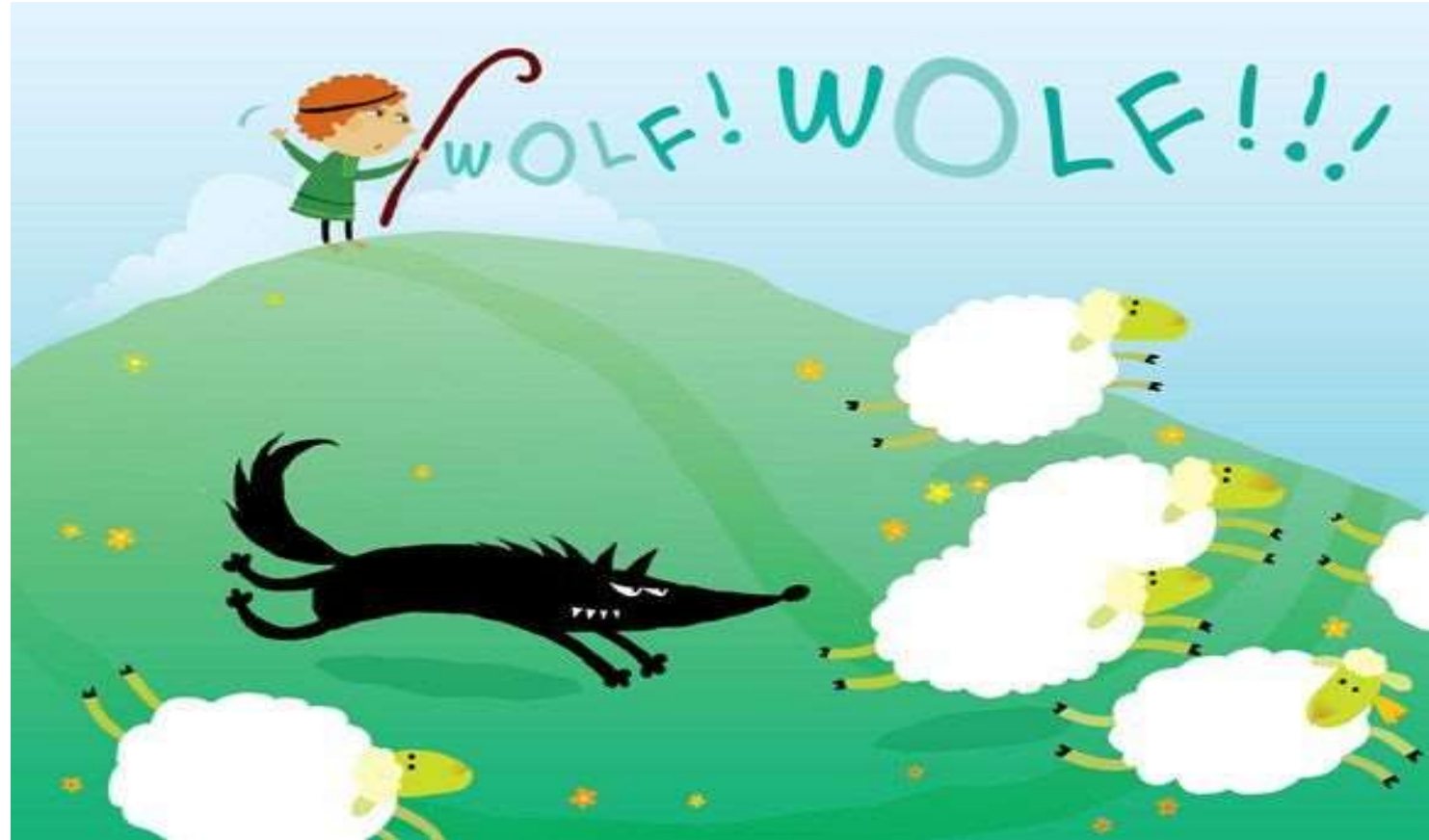
Actionable

What Makes A Good Story – Simple

The simpler the story, the more likely they will remember it

“The Boy Who Cried Wolf”

Message: Don't lie! Liars are not believed even when they speak the truth.



What Make A Good Story – Persuasive

Tell the tale that your audiences love. For business managers, its often ROI or achieving business goals!

Instead of “if we do XYZ the team will be way better off” try this:

“If we do XYZ, we will be able to cut overhead cost by xx% next year”



What Makes A Good Story – Credible

- ✓ Find credible data sources
- ✓ Cross checks & reference
- ✓ Sanity checks



What Makes A Good Story – Emotional

Emotion is always the key to any storytelling!

For most people, emotion comes before logic
and data

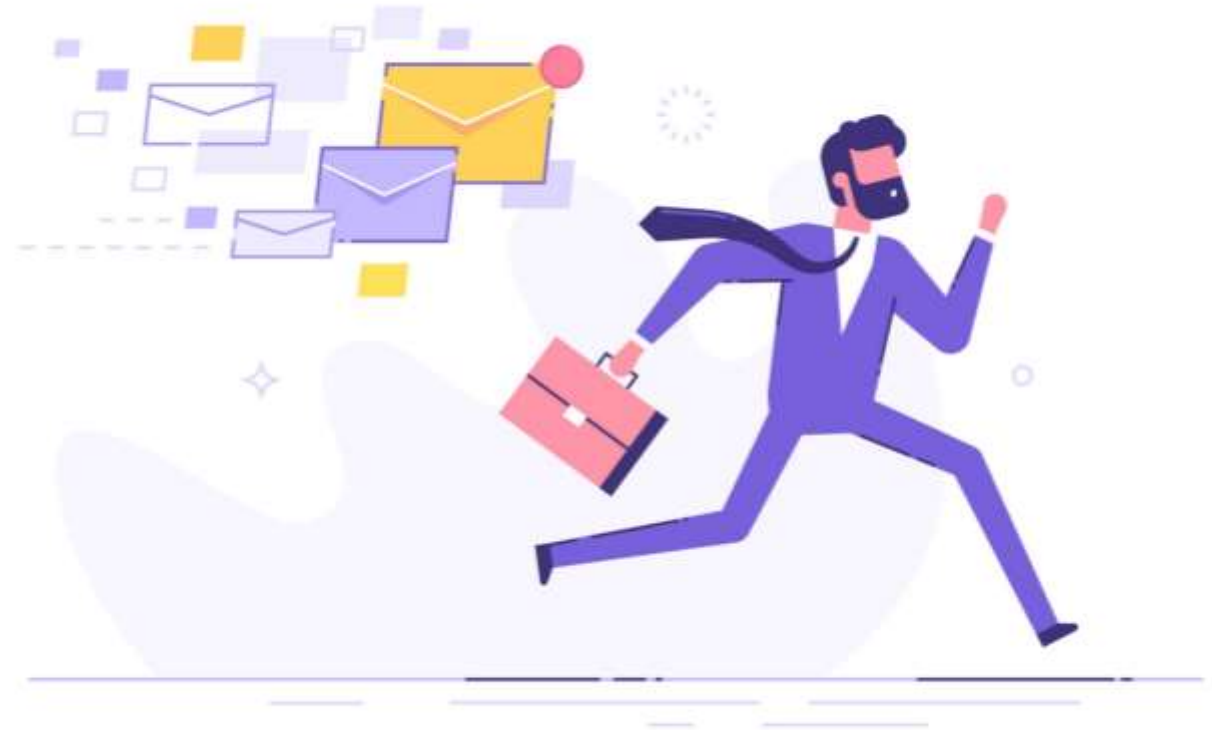


What Makes A Good Story – Actionable

Having “said” a good story is not enough! In our world, every insight and prescription needs to be actionable.

Example: You found out that hiring internally leads to more money save and a higher chance of a new hire is a high performer.

Actionable: for every position hired internally, the business can save \$10,000 per position and have 3 in 5 new hires turning out to be a high performer



Example: Find the Best Cities to Hire Software Programmers





Poll Question

What factor(s) should you consider for this talent
arbitrage analysis?

Example: Find the Best Cities to Hire Software Programmers



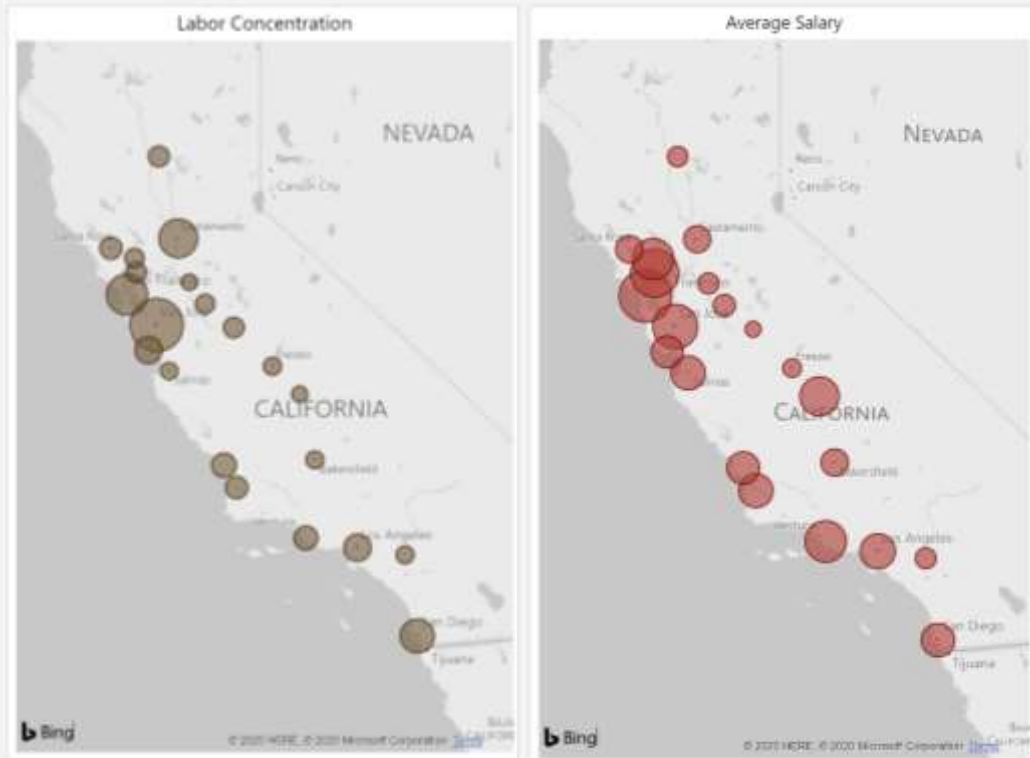
What to Consider

1. Talent supply
2. Talent density
3. Avg. Salary

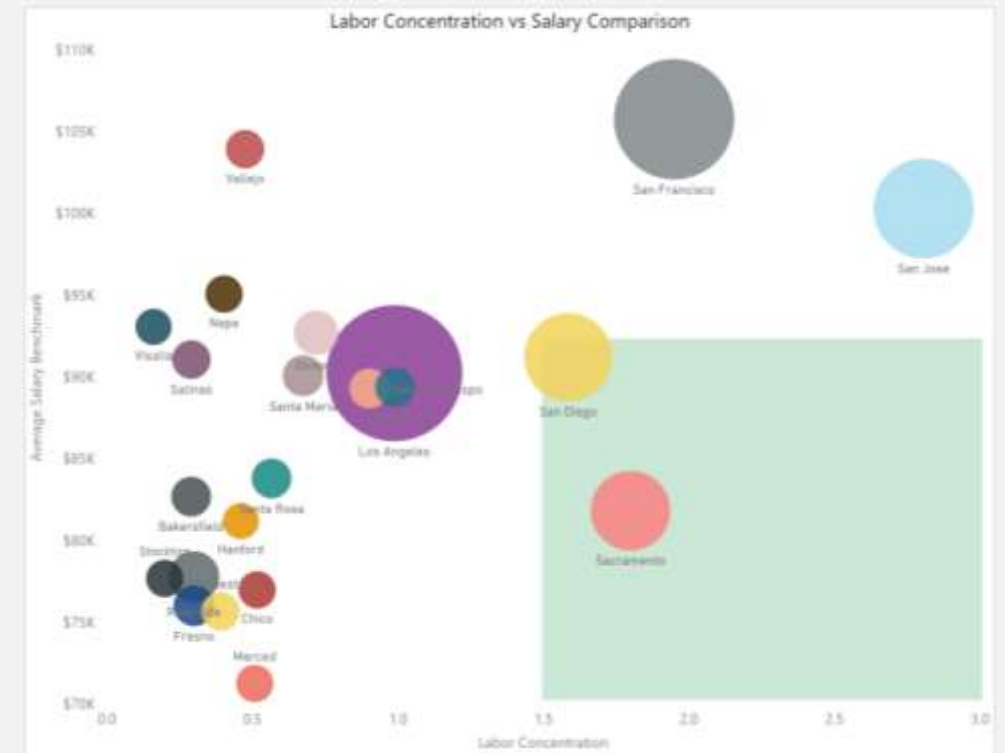
Goals

Rank cities by their abundance of talent supply vs. cost

Tip #1 Choose the Best Chart for Contents, not the Best Looking



VS



Tip #2 Avoid Jargon and Technicality Terms



Jargons

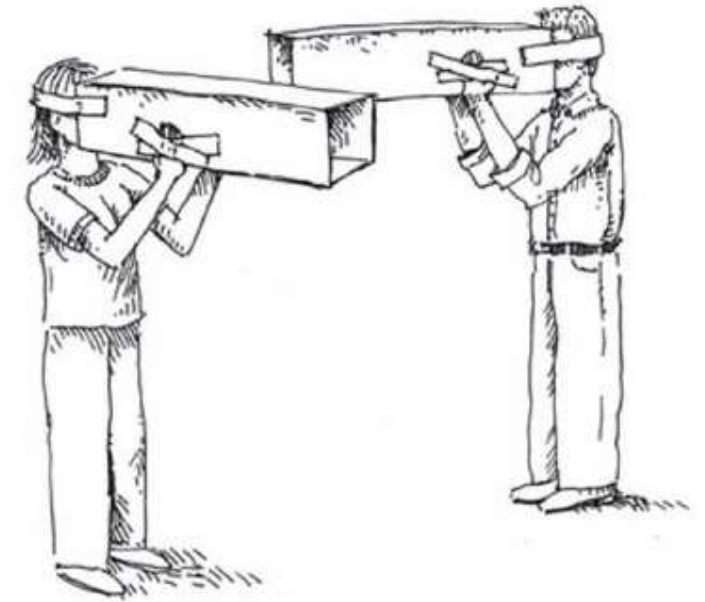
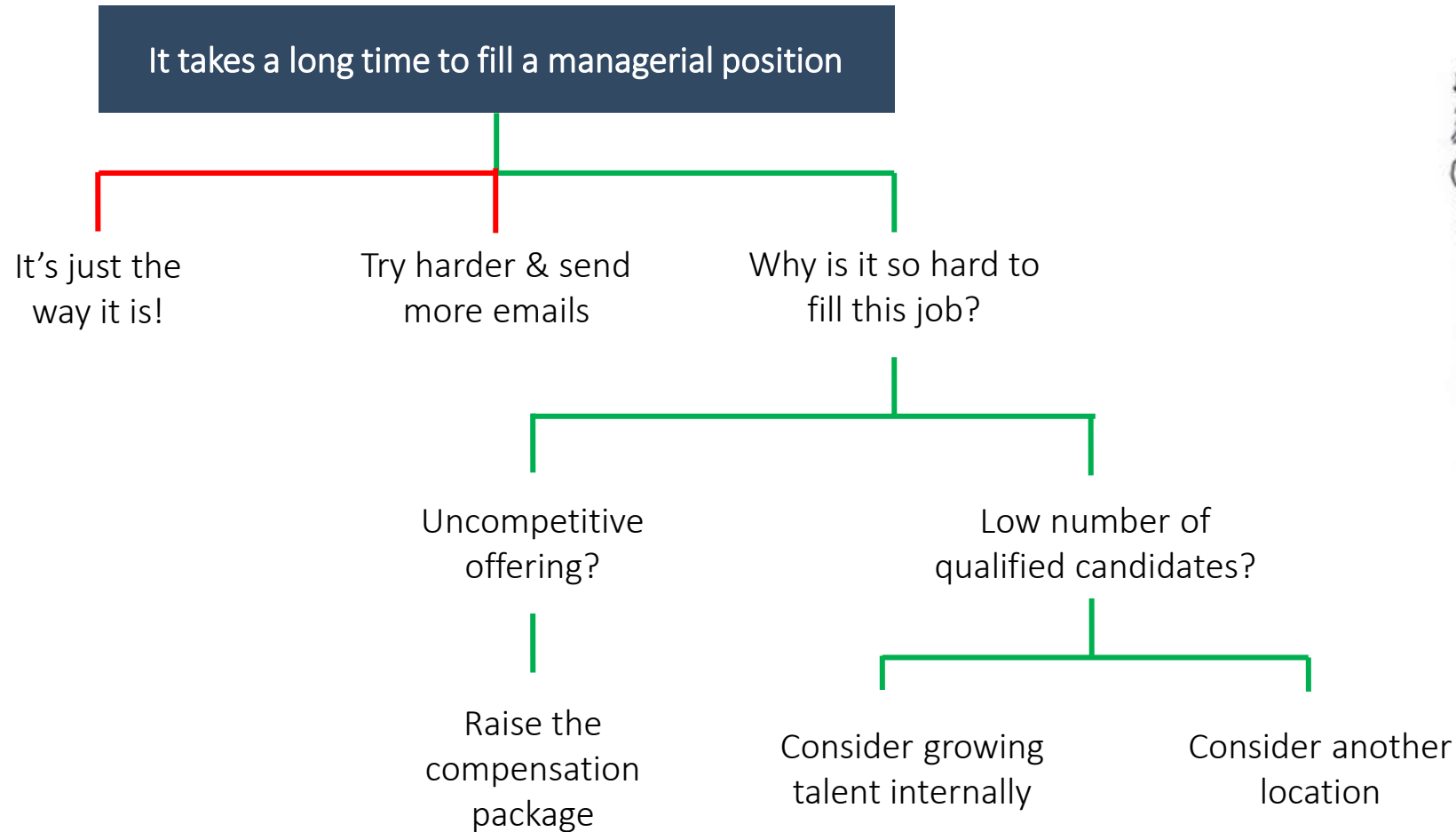
- Null Hypothesis
- Confidence Interval
- Location Quotient



Everyday Language

- Alternative
- Chance of Success
- Number of candidates in one location

Tip #3 Avoid Tunnel Vision and Focus on The Big Picture



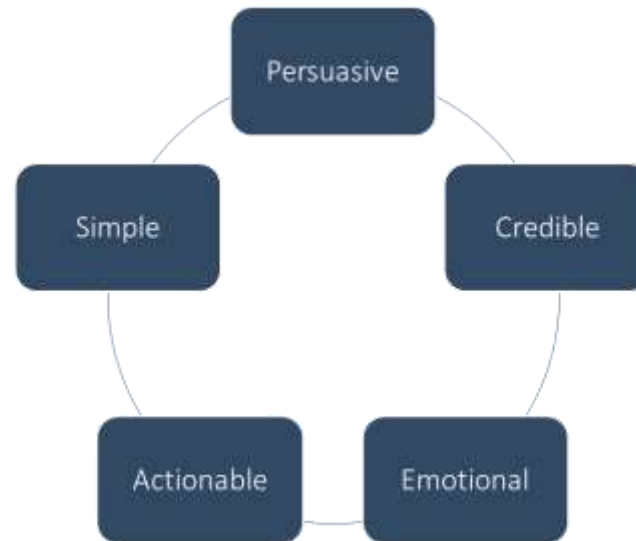
Summary

What People Think about HR Analytics vs. Reality



1. Define business questions / Issues
2. Data gathering, validation, cleansing & integration
3. Data Analysis
4. Translate data into actionable insights

Elements of Good Data Storytelling



3 Tips For Good Data Stories

#1 Choose the Best Chart for Contents, not the Best Looking

#2 Avoid Jargon and Technicality Terms

#3 Avoid Tunnel Vision and Focus on The Big Picture



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