

Making Data Actionable

2016



MARKET SUMMARY DASHBOARD

*UTILIZING DASHBOARDS TO DRIVE STRATEGIC MARKET INSIGHTS BY
COMBINING DISPARATE DATA, STANDARD SCORING, & DECISION TREE LOGIC*

Presenters

Mark Hanson – Human Capital Consultant, Talent Analytics & Intelligence

Jacob Hegman – Sr. Human Capital Analyst, Talent Analytics & Intelligence

Ideation Team

Olivier Vankerck – Vice President, Talent Analytics

Charles Alexander – Sr. Director, Workforce Planning & Reporting

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Brian Houghton – Human Capital Consultant, Talent Analytics

United Health Group and Big Data

With over **250,000** employees in **15** countries, over **176** billion dollars worth of annual revenue and over **175** acquisitions, serving over **70** million members...



UHG is sitting on a mountain of data!

6-Month Long Research & Data Integration

UHG's COO initiated an ask for a **decision making tool** based on the analysis of operational, human capital and external data sources, to evaluate UHG presence in the 50 geographic markets around the US.

Biggest Challenges:

- Gaining alignment on definitions of key metrics (attrition, call quality, call productivity, etc.)
- Breaking down silos between data sets and systems
- Integrating external data sources and standardizing disparate internal data

Data Sources

UNITEDHEALTH GROUP®

Real Estate Services

Talent Acquisition

Legal

Human Capital

Call Center Metrics



OPTUM™



UnitedHealthcare®

External Data Sources

Emsi

CBRE



GLOBAL LABORVIEW
Powered by Labor Analytics Group



$$P = \frac{e^{a+bX}}{1 + e^{a+bX}}$$

Statistical analysis of Call Center turnover



Design and delivery of Attrition Trigger Metric Report

Validated design of Labor Market Dashboard



Delivery of Market Dashboards for 50 Call Center markets

2015

March

May

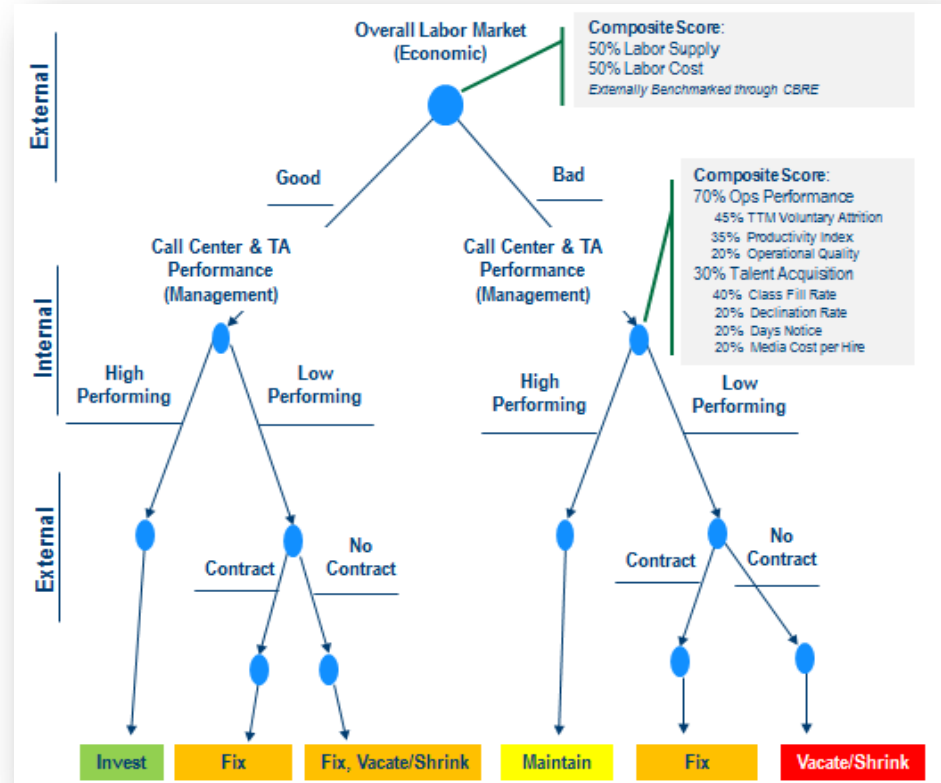
July

October

Decision Tree Framework Allows Data to Speak

Gathering and presenting data in a dashboard **isn't enough...**

- Decision framework based on iterative discussion with Executive and function leadership across the enterprise
- Decision logic goes through three steps:
 - Evaluate the external labor market
 - Evaluate UHG's performance in that market
 - Evaluate UHG's contractual obligation to the market
- Calculated indices used for evaluating the external labor market and UHG performance
 - Each index is made up of weighted components
 - Each branch of the decision node is generated with a composite score or range of scores
- Specific recommendations delivered (Invest, Fix, Maintain, Vacate, Fix, etc.)



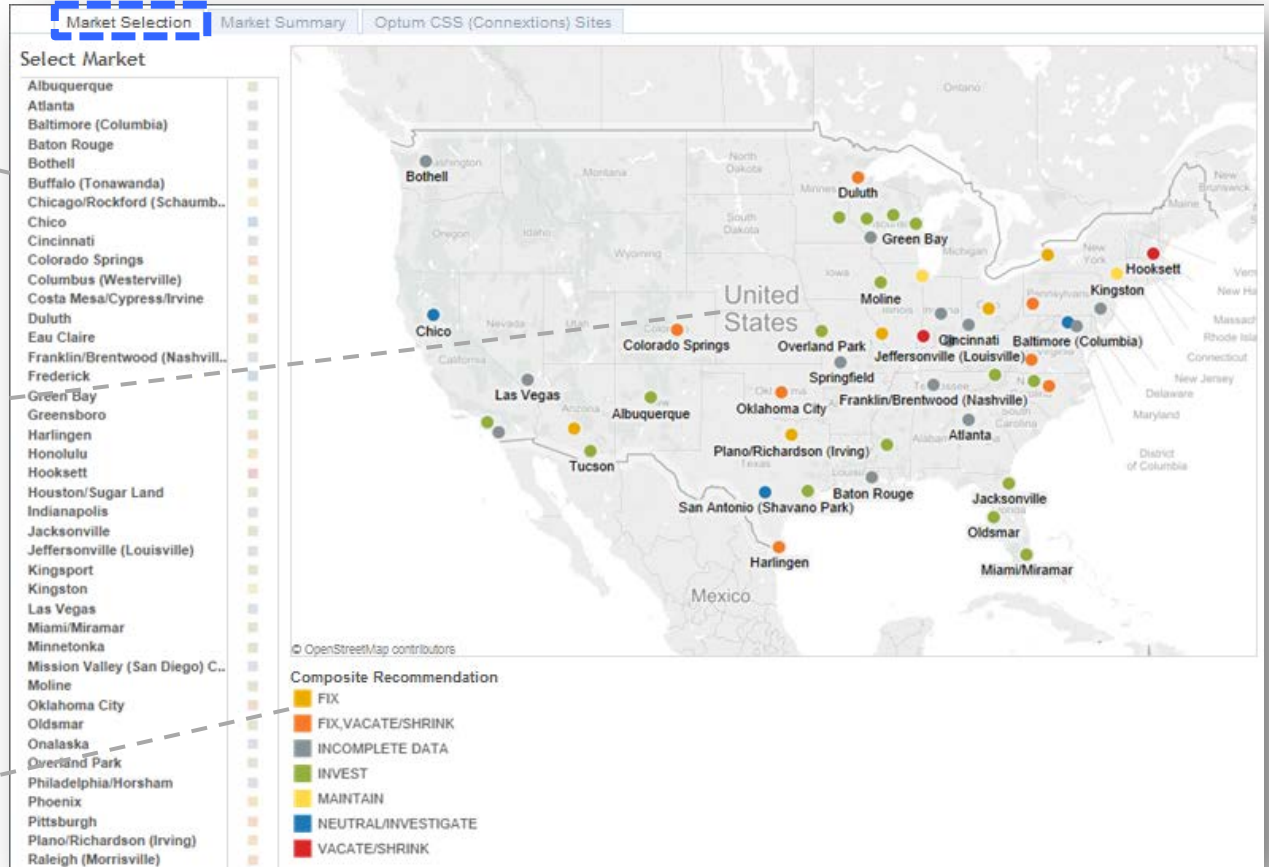
Home Page – Market Summary Dashboard

50 Locations of UHG Call Center throughout USA

Interactive visualization!

Clicking on a location in the map opens more details on that location

Location Specific **Recommendations** to Drive Decision



Market Summary

The detailed dashboard view presents the location specific **recommendation right on top**; lead with the answer

Internal Performance

Call Center Performance (70%)					Talent Acquisition Performance* (30%)					Internal Performance Composite Score
Operational Quality (35%)	Productivity (20%)	TTM Voluntary Attrition (45%)	Cost Per Unit	Call Center Index Score	Media Cost Per Hire (\$) (20%)	Declination Rate (%) (20%)	Fill Rate (%) (40%)	Avg. Days Notice (# of days) (20%)	TA Index Score	
				117					155	128
Avg				100					100	

The data display is structured to show the location specific values and the average all locations to help the reader understand the **relative position** of this market

For the data elements that make up the index scores, the **relative weight** is also shared with the reader

Market Summary Dashboard for Tucson

Market Selection: **Market Summary** | Optum OSS (Connections) Sites

Composite Recommendation: **INVEST**

Map showing Tucson location with markers AZ124 and AZ207.

Labor Market Demographics

UE Rate	Local vs National UE Rate	Total Workforce	Labor Pool (Office & Admin)	Labor Pool (CUS)
6.2%	0.0%	467,199	61,800	10,780

Labor Market Performance

Labor Supply Index (50%)	Labor Cost Index (50%)	Market Pay Rate - Call Center Represe...	Avg. UHG Pay Rate (CU5002 only)	UHG to Market Variance	UHG to National Variance (\$32,945)	Labor Market Composite Score
110	107	\$30,488				109

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Considerations

Contractual Obligation	Contract Commitments	Vital Signs EEI	EEO Change YOY (% pts)	Vital Signs MEI	MEI Change YOY (% pts)	Vital Signs Physical Space	Physical Space Sat YOY (% pts)
No	Null	9	91%	6	88%	2	

Skill Set Competitors

Expert Global Solutions	Sears Holdings Corporation	Convergys Corporation	Comcast Corporation	Aflac
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Impact

“The work [the] team did to develop our market dashboards was extremely valuable to the senior leadership as it allowed us to determine where we should focus on growing, shrinking or maintaining [UHG Call Operations] sites.”

“We are now utilizing these dashboards to help us determine, in a very timely manner, what locations we are having problems in and what locations we are thriving in and why.”

-- Dirk McMahon, UHG COO

- **Standardized definitions** for critical operational metrics
- **Decision Making / Diagnostic Power**; for all locations with a Fix recommendation, business leadership has developed and implemented specific actions aligned to metric(s) driving the recommendation for that location
- Delivered an **enterprise-first decision making** framework, rather than optimizing for one Market Group or one Business at the expense of others; **enables systems thinking**
- Proof of ability to **integrate** external data and first **enterprise-wide** example of breaking down functional silos preventing the sharing of internal data; generated organizational will to **collaborate**

We are still innovating...

- Exploring tools and approaches to more **seamlessly integrate and scale** the data from all of the native sources to maintain data integrity and reduce manual data cleansing.
- Version 2.0 will focus on the ability to drill into the key operational and labor market metrics providing line of **business break outs** and **trending** information.
- Considering **additional metrics** such as, Employee Relations cases per capita, competition intensity, forecasted occupational growth and market saturation, hiring yield modeling, and other measures of employee and market sentiment.
- Examining **statistical analytics** to identify the **key drivers** of each of the operational metrics included in the composite score indices.

And the Story doesn't end here

Merely visualizing data isn't enough...

Data Analysts must **analyze** data, **not outsource** that responsibility to the consumer of data and reports...

Our task is to **enable data** to *speak to us* and **enable better business decisions**