HEALTH WEALTH CAREER

WHAT MILLENNIAL EMPLOYEES ACTUALLY VALUE

LESSONS FROM PREDICTIVE MODELING

PREDICTIVE ANALYTICS WORLD FOR BUSINESS LAS VEGAS

JUNE 5, 2018

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POPULAR CONCEPTS ABOUT GENERATIONAL DIFFERENCES

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DEFINING GENERATIONAL DIFFERENCES
BIRTH PERIOD + EXPERIENCES = BELIEFS & VALUES

GENERATIONS

GENERATIONS	BORN BETWEEN
Traditionalists	1925 – 1944
Baby Boomers	1945 – 1964
Generation X	1965 – 1979
Generation Y (Millennials)	1980 – 1995
Generation Z	1996 - 2010

EXPERIENCES

EXPERIENCES
War
Space Race
Watergate
September 11
iPhone

BELIEFS & VALUES

BELIEFS & VALUES
Patriotism
Everything is Possible
Skepticism
High Morals
Freedom

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WHAT A MILLENNIAL WANTS, WHAT A MILLENNIAL NEEDS

CONVENTIONAL ATTRIBUTES

ATTRIBUTE	DESCRIPTION
LESS LOYAL	• Higher turnover • Likely to leave in less than 3 years
CAREER FOCUSED	• More interested in “experiences” • Less pay oriented
PERFORMANCE FOCUSED	• Needing frequent feedback and approval
TEAM FOCUSED	• More focused on supervisor relationships • More concerned with diverse team
WORK ENVIRONMENT FOCUSED	• Flexible work practices more important • Tech friendly
OTHER	• More entrepreneurial • Mission driven

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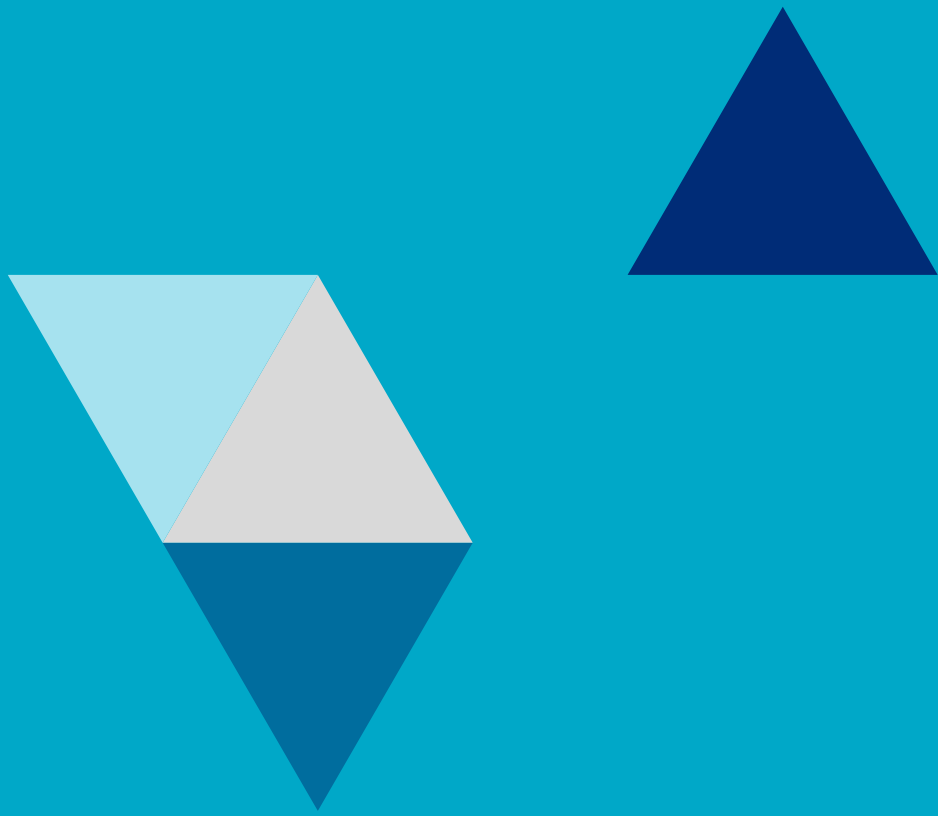
CHALLENGES IN OBSERVING DIFFERENCES



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CONFOUNDING ISSUES

THE THEORETICAL CHALLENGES WITH EXPLAINING GENERATION EFFECTS

- Research points to **challenges of distinguishing effects of generation, time, cohorts**
- Criticism of **a lack of theory about generational effects:** what is it about "generation" that in and of itself could influence values and behavior?

- Are the generational **effects related to age or to the stage of life** an individual is in? Stage of life can produce differences in:
  - Family and / or dependent status
  - Needs, priorities, responsibilities
  - Financial / wealth position
  - Retirement readiness

- Are generational differences conditional on other practices or aspects of the work environment and organizational culture that may influence behavior?
  - **Spillover effects** of work group composition
  - **Characteristics of supervisors** and leaders
  - **External environmental factors** such as labor market conditions

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HELLO FROM THE OTHER SIDE
INSIGHTS FROM AGEING WORKFORCE STUDY

- Our team's **prior work on older workers found**, without exception, **systemically lower** :
  - Promotion likelihood
  - Probability of receiving high ratings
  - Pay growth
  - Probability of turnover

- On the other hand, we **found evidence of spillover effects of older workers on individual and team performance** (as measured by individual and group ratings)
- **Spillover effects could influence behaviors of younger employees** in a way that offsets differences in expressed values

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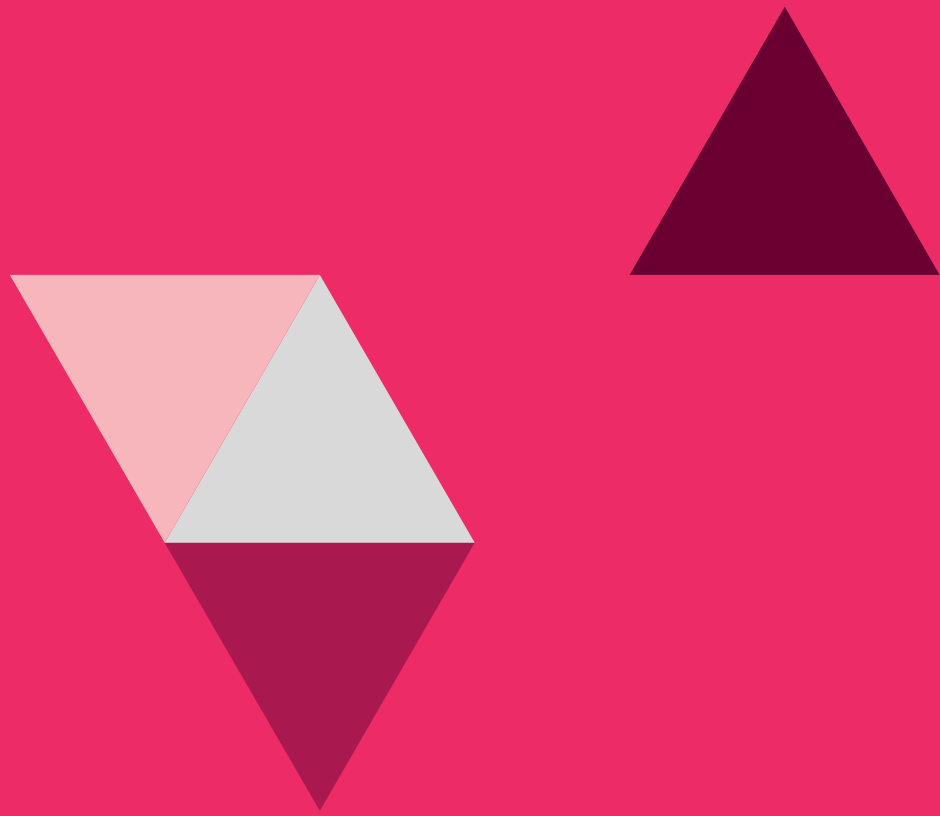
METHODOLOGY AND DATABASE



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THE MERCER LENS
WHAT INSIGHT WE CAN OFFER

SAY-DO

- Apply methodology, amplifying information of the “DO“ side
- **Use turnover probability as expression of what employees value** – as they “vote with their feet”

SEGMENTATION

- Separate **model by generation** to identify and measure **differences in elasticities** of Millennials versus Gen Xers and Baby Boomers
- Separate **model by age bucket** (< 45 years old versus 45+) to identify and measure differences that may be more reflective of stage of life influences

GROUP CHARACTERISTICS

- **Model the effects of supervisor and group characteristics on individual turnover** behavior to better capture and evaluate the role of work environment and working conditions

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SAY-DO

EFFECTIVE ANALYTICS EXAMINES BOTH WHAT PEOPLE/EMPLOYERS *SAY* AND WHAT THEY *DO*

SAY

What employees and employers say as measured through

- Focus groups
- Leadership and HR interviews
- Employee surveys
- Company policies
- Comparative/pattern databases

DO

How employees and employers actually behave as measured through

- Individual employee records
- Employee turnover
- Business performance measures such as customer satisfaction, growth, profit and productivity

Complete, verifiable understanding of the interplay between employer action and employee reaction

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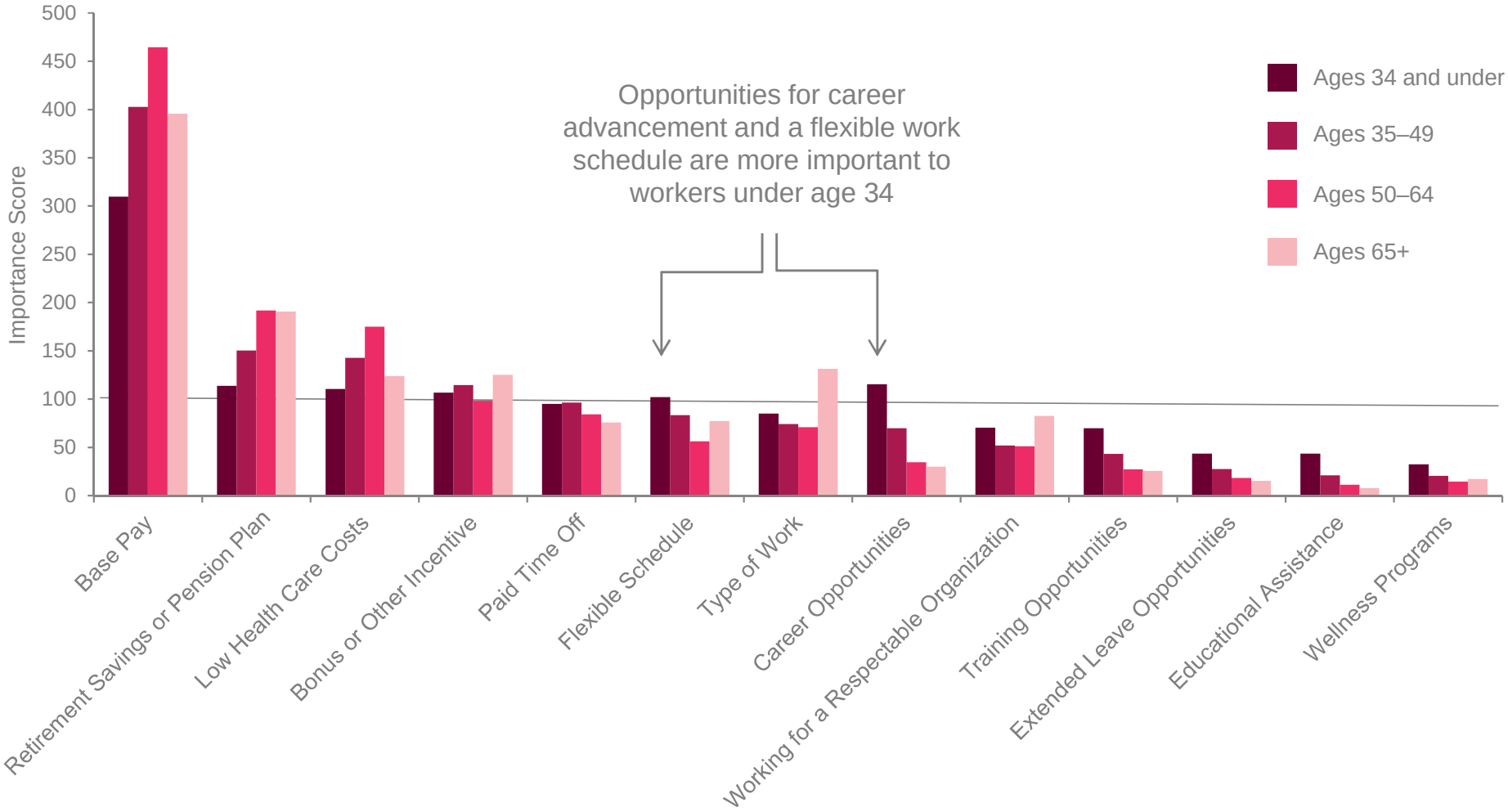
STATED PREFERENCE (SAY)

SOME ORGANIZATIONS RELY SOLELY ON WHAT EMPLOYEES SAY, IN THIS CASE, VIA CONJOINT…



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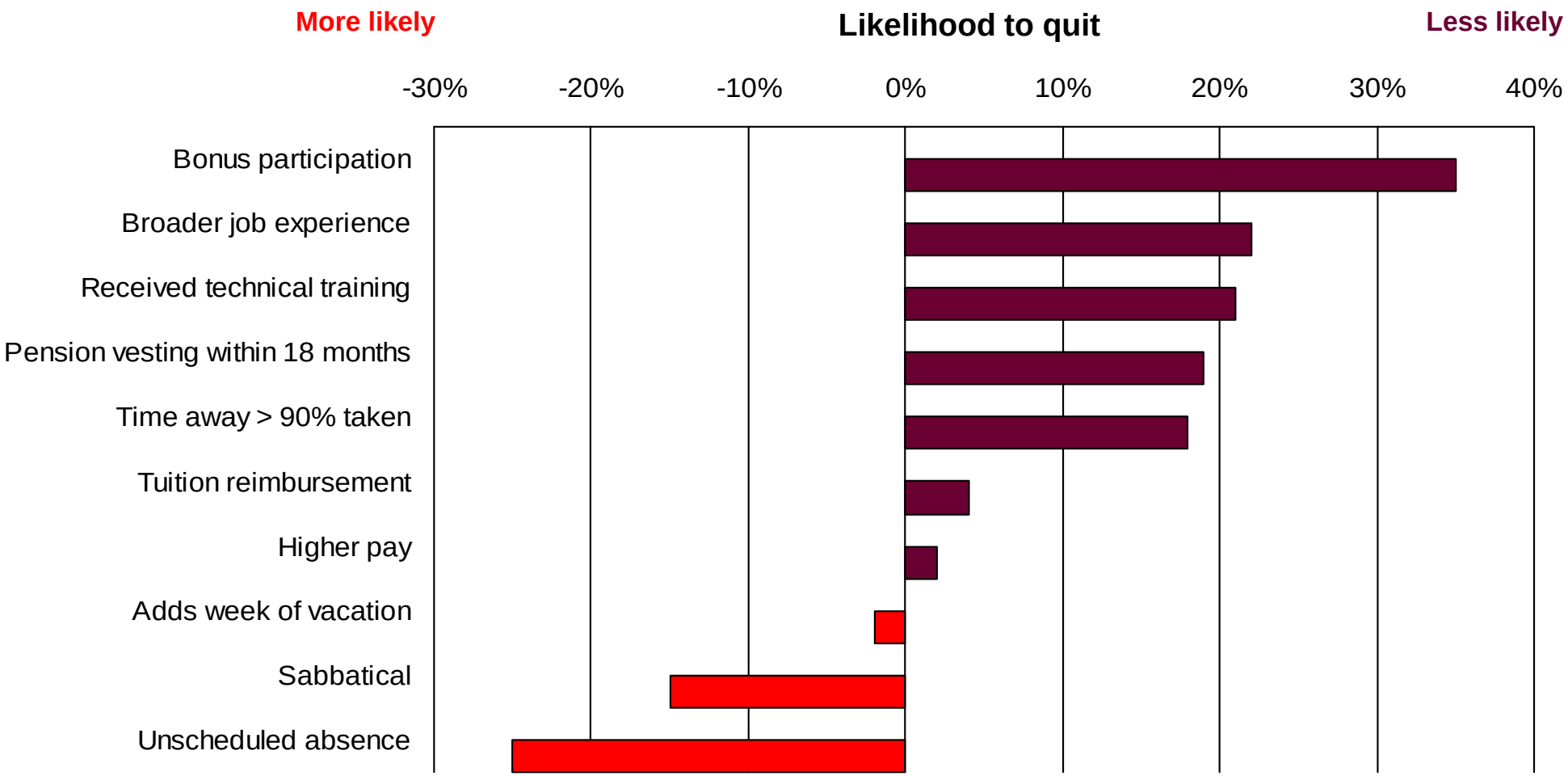
REVEALED PREFERENCES (DO)
…OTHERS RELY ON WHAT EMPLOYEES ACTUALLY DO, LIKE THIS COMPANY. . .



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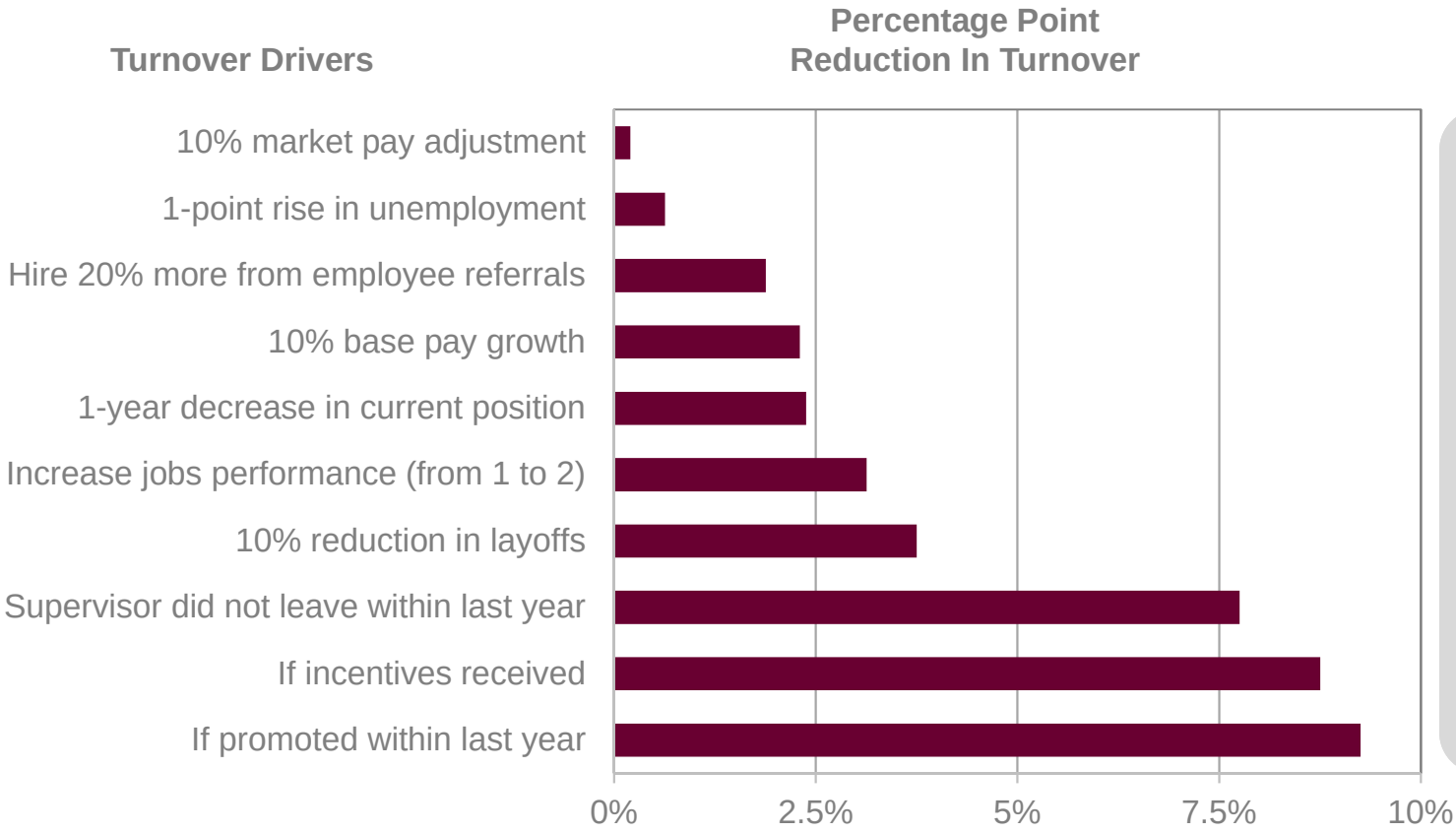
Disguised case example

SAY-DO

EXAMINING BOTH *TOGETHER* CAN BE ESPECIALLY REVEALING

Analysis of Actual Turnover Behavior



Previous surveys of perceptions and exit interviews suggested that pay and workload were most critical to employee commitment and retention (in this organization). Our analysis of **actual behavior showed that career development and management stability** most affected retention.

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Disguised case example

UNCOVERING THE "DO" SIDE OF THE EQUATION
MERCER'S ANALYTICAL PROCESS

1. Gather Data from HRIS

PEOPLE FACTORS

- Turnover events and reasons
- Workforce profile (e.g., age, gender, tenure, education, marital status)
- Performance (e.g., sales)
- Pay (including commissions, bonuses, vouchers, LTI)
- Training and development
- Prior experience
- Supervisor characteristics
- Team characteristics

ORGANIZATION AND ENVIRONMENT FACTORS

- Local unemployment rate
- Local population density

2. Construct Statistical Models

1. Isolate potential drivers of turnover

SEGMENT MODELS AND CONDUCT MODELING

Patterns and variances in turnover over time

EVALUATE FINDINGS IN CONTEXT

2. Estimate models and confirm / measure statistically significant drivers of turnover

3. Assess Results

- Review drivers of turnover
- Test hypotheses
- Identify and evaluate differences in drivers and elasticities by segment
- Synthesize results and determine broader patterns
- Formalize findings
- Identify practices and policies likely to be effective

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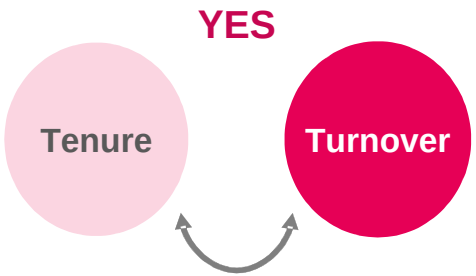
REGRESSION METHODOLOGY
CRITICAL FACTORS TO ACCOUNT FOR IN MODELING

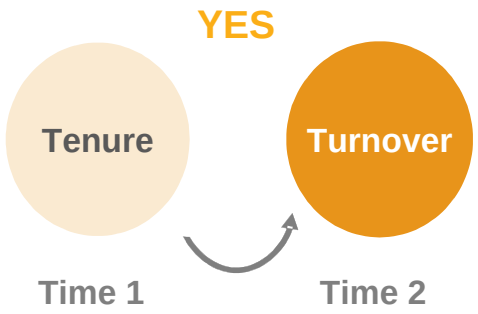
THREE CONDITIONS MUST BE MET TO SHOW THAT ONE FACTOR DRIVES ANOTHER:

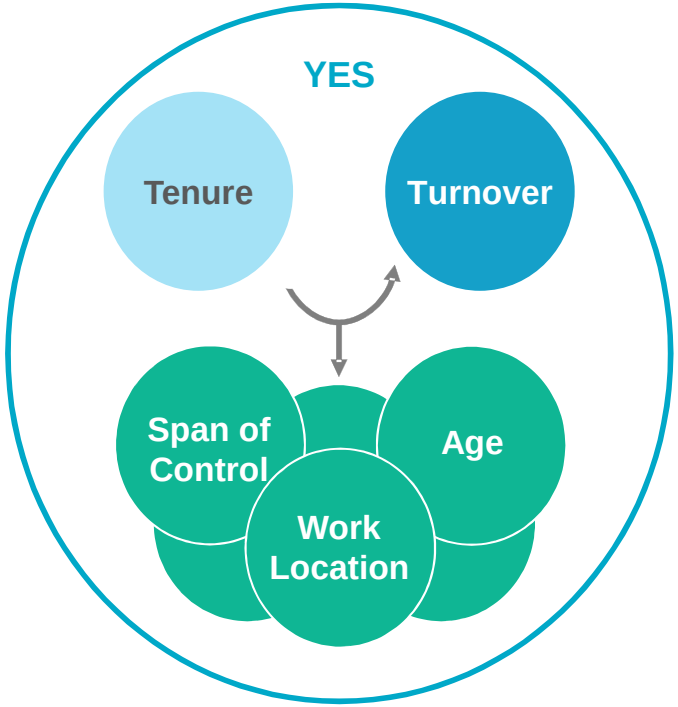
1. CORRELATION
The factors are related

2. TIME (DIRECTIONALITY)
One precedes the other

3. ISOLATION (CONTROLS)
Other factors are ruled out







The key is to analyze multiple variables, then **isolate** those that **directly impact** the outcome

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REGRESSION METHODOLOGY
WE USE LOGISTIC REGRESSION IN ESTIMATING TURNOVER PROBABILITY

$$P(TurnoverNextYear) = \frac{1}{1 + \exp\left[-\left(\begin{matrix}\beta_0 + \beta_1 Age + \beta_2 OrganizationTenure + \beta_3 PerformanceRating + \\ \cdots + \beta_n LateralMoveLast2Years + \varepsilon\end{matrix}\right)\right]}$$

Where explanatory variables are measured at the end of *current* year

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SOURCES
MODELING DATASET

CLIENT INDUSTRY TYPE	N	PERCENT OF TOTAL
Health Care Providers & Services	18,897	1%
Hotels, Restaurants & Leisure	861,063	40%
Insurance	370,743	17%
Media	426,441	20%
Paper & Forest Products	42,260	2%
Personal Products	139,602	6%
Pharmaceuticals	1,385	0%
Public Administration (Non-Profit)	8,940	0%
Textiles, Apparel & Luxury Goods	84,125	4%
Transportation Infrastructure	214,320	10%
TOTAL	**2,167,776**	**100%**

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MODEL SPECIFICATIONS
RESULTS WERE ROBUST ACROSS ALTERNATIVE SPECIFICATIONS

#	MODEL SPECIFICATION	N	CONCORDANCE
1	Baseline	673,397	80%
2	Below 45	430,650	79%
3	+ Supervisor Characteristics	136,949	87%
4	Above 45	242,747	81%
5	+ Supervisor Characteristics	51,177	85%
6	Millennial (Gen Y)	150,704	81%
7	+ Supervisor Characteristics	32,879	82%

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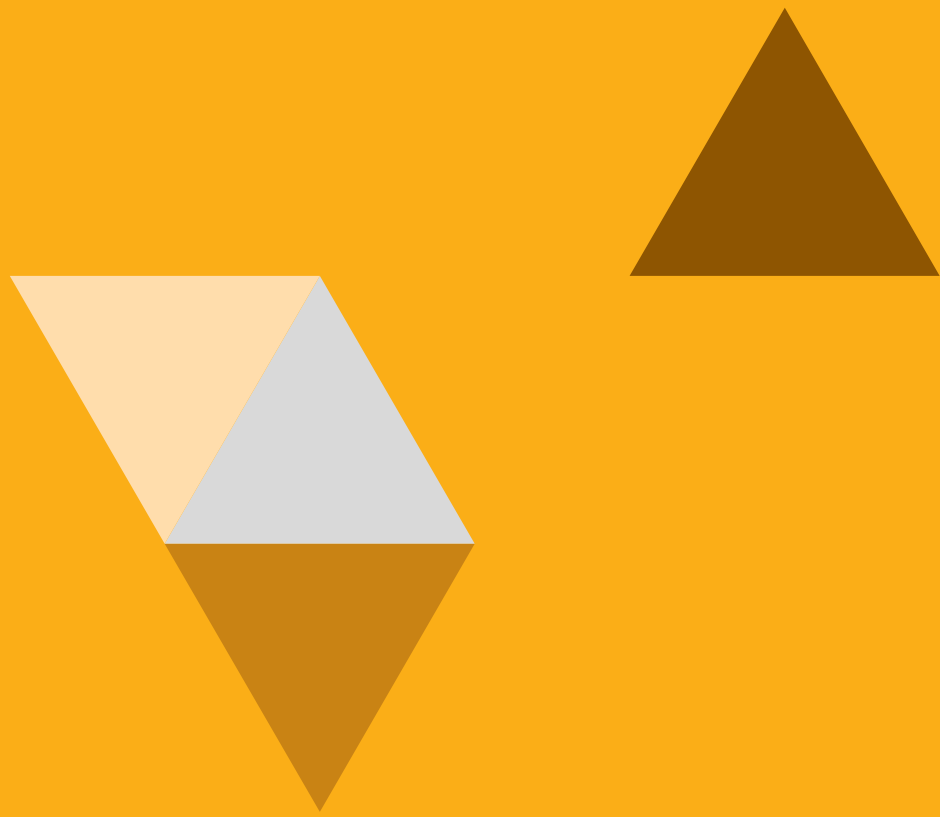
OBSERVED DIFFERENCES



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HYPOTHESES FOR EVALUATION

EXPECTED MODEL EFFECTS BASED ON CONVENTIONAL ATTRIBUTES

ATTRIBUTE	DESCRIPTION	EXPECTED MODEL EFFECT
LESS LOYAL	• Higher turnover • Likely to leave in less than 3 years	• Higher likelihood to quit if millennial
CAREER FOCUSED	• More interested in “experiences” • Less pay oriented	• Promotion, lateral, work location change reduce turnover likelihood • Pay measures have less impact
PERFORMANCE FOCUSED	• Needing frequent feedback and approval	• Above average rating reduces turnover • Below average rating increases turnover
TEAM FOCUSED	• More focused on supervisor relationships • More concerned with diverse team	• Supervisor characteristics have stronger effects, e.g., supervisor span of control • Team composition has stronger effects
WORK ENVIRONMENT FOCUSED	• Flexible work practices more important • Tech friendly	• Part-time status more favorable impact than other groups • Being in an industry or job family that is more tech focused is likely to predict lower turnover
OTHER	• More entrepreneurial • Mission driven	• Incentive compensation more valued • Other?

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MODEL RESULTS

IN OUR BASELINE MODEL, WE FOUND THAT MILLENNIALS (GEN Y) ALL ELSE EQUAL ARE MORE LIKELY TO TURNOVER

Dependent		TURN_VOL_NPR
Comments		all_base
Parameters		60
R2 or Concordance	Percent Concordant	79.9
Where condition		1
INTERCEPT	Intercept	**-4.0000**
AGE_BOOMER	*1 if Baby Boomer	**-0.2800**
AGE_MISS	*1 if Missing AGE	.
AGE_VETERAN	*1 if Gen Silent	**-0.3300**
AGE_Y	*1 if Gen Y	**0.1900**

Legend: Color shading reflect directional impact of variables (blue is positive; red is negative) that are statistically significant at: 1% (dark, bolded), 5% (medium) and 10% (light) level.

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MODEL RESULTS

MILLENNIAL TURNOVER IS DISTINCT FROM YOUNGER AND OLDER WORKERS

Dependent		TURN_VOL_NPR	TURN_VOL_NPR	TURN_VOL_NPR	Gen Y vs.	
Comments		under45_Super	above45_super	GenY_super	Under 45	Above 45
Parameters		72	72	74		
R2 or Concordance	Percent Concordant	87	85.2	82.4		
Where condition		(above45=0)	(above45=1)	(Geny=1)		
INTERCEPT	Intercept	-8.5000	-12.0000	-3.8000		
STAT_LV	*1 if On leave	0.9800	1.4000	1.3000	↑	
TENJOB	Time in Job	0.0360	-0.0083	-0.0950		
TENURE	Tenure based on tenure date	-0.1300	-0.1000	-0.0410	↑	↑
LATERAL	*1 if lateral move	0.3300	-0.1500	0.2100		↑
PROMOLVL	*1 if experienced a career level promotion	0.3700	0.1300	-0.0730		
FULLPART_PART	*1 if Part-time employee	-0.0920	0.1800	-0.0760	↑	
PERF_BLOW	*1 if rating is low	-0.3100	-0.2000	1.1000	↑	↑
PERF_HIGH	*1 if rating is high	0.0650	-0.4900	0.5200	↑	↑
PERF_MISS	*1 if missing rating	-1.6000	-1.4000	-1.2000	↑	↑
PAYGROWTH_NPR	Annual base pay growth into the next period	-10.0000	-10.0000	-5.4000	↑	↑
PAYPERC	Ratio of Basepay to TCC	-0.4600	0.7000	-0.0730	↑	
SUP_TENURE	Supervisor's tenure	-0.0037	0.0023	-0.0066	↑	↑
SUP_TENURE_MISS	*1 if Missing SUP_TENURE	-1.3000	-1.3000	-0.9100	↑	↑
SUP_TURN_VOL	*1 if Supervisor quit in period	-2.9000	-13.0000	-1.3000	↑	↑

Legend: Color shading reflect directional impact of variables (blue is positive; red is negative) that are statistically significant at: 1% (dark, bolded), 5% (medium) and 10% (light) level.

Note: Model results with supervisor variables included actually shift the direction of impact of certain key predictor variables such as promotion and part time status. Given the high variance in the direct effects of supervisor variables across firms, we exercise caution in the interpretation of key variable effects.

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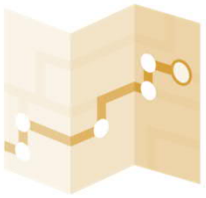
#META FINDINGS
MYTHS BUSTED…

It's all about the base: Contrary to conventional wisdom, Millennials are, if anything, more ***base pay*** oriented than their older counterparts



Internal "experiences" don't matter: There is no evidence that internal mobility is more highly valued by Millennials than by other groups; in fact, if anything, older employees value such moves more

Up *and* out: Millennials do seem more advancement oriented – certain model specifications show that those promoted are actually more likely to leave and longer time in position provokes exit from the firm*

*Model results with supervisor variables included actually shift the direction of impact of certain key predictor variables such as promotion and part time status. Given the high variance in the direct effects of supervisor variables across firms, we exercise caution in the interpretation of the directional changes in key variable effects.

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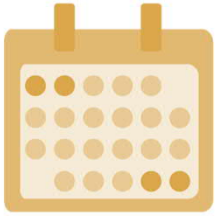
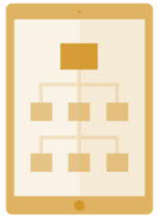
#META FINDINGS
…AND VALIDATED

Performance rating ambivalence: Contrary to expectation, Millennials are less sensitive to ratings – both performance and potential – than their older peers*; high ratings are associated with higher turnover probability



Flexibility ambivalence: Flexible employment is not more valued by Millennials (younger part-timers are even more likely to leave*; LOAs increase turnover)



Supervisor characteristic ambivalence: While conventional wisdom suggests Millennials are more driven by relationships at work, e.g., supervisor performance, team size, there is no evidence that they are systematically more affected by supervisor characteristics

*Model results with supervisor variables included actually shift the direction of impact of certain key predictor variables such as promotion and part time status. Given the high variance in the direct effects of supervisor variables across firms, we exercise caution in the interpretation of the directional changes in key variable effects.

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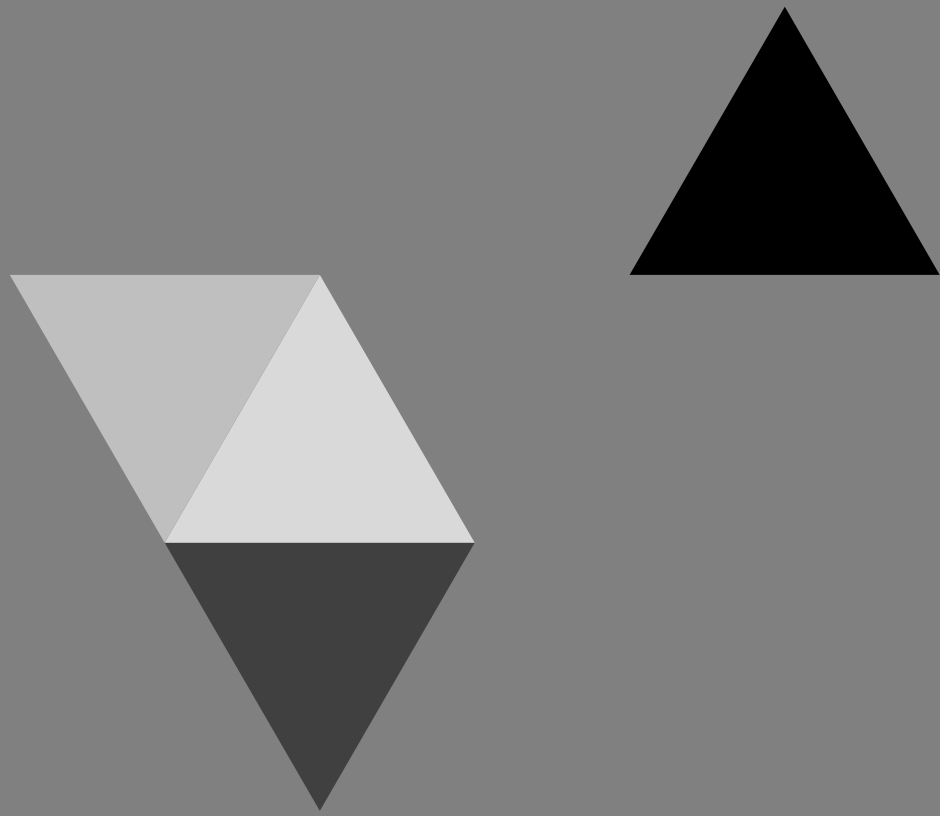
SUMMARY AND CONCLUSIONS



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KEY TAKEAWAYS

ANALYTICS CAN REVEAL THAT COMMONLY HELD CONCEPTIONS ARE IN FACT MISCONCEPTIONS

FINDING	IMPLICATIONS
It's not what you SAY, but what you DO	What people say they value may not actually motivate their behavior, so relying only on surveys can be misleading
While turnover of Millennials is systematically higher, there is considerable variance in the generational differential across companies	The employment value proposition of each organization does matter
Money talks – especially the fixed component of pay	Basic economics of the deal – especially base pay - are actually more important for Millennials than their older counterparts
Mobility is not the sole preserve of the young	Older workers seem to value mobility even more
Don't rely on generalizations	In the age of analytics, you should know your employees at least as well as your customers

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ABOUT THE PRESENTERS
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Haig R. Nalbantian is a Senior Partner at Mercer and a founder/leader of Mercer's Workforce Sciences Institute, the research arm of the workforce strategy and analytics group he help found in the early 90s. He is a pioneer in the creation and application of evidence-based workforce management and the new discipline," Workforce Sciences." A labor / organizational economist by training, Haig has been instrumental in developing Mercer's unique capability to measure the economic impact of human capital practices. Those capabilities have been applied in numerous client projects he has sold and directed for leading companies in the U.S. and abroad across a broad range of industries, including energy, high technology, manufacturing, consumer products, financial services, media and information services, telecommunications, and professional services. In over twenty-five years of consulting, Haig has worked with many high-profile organizations to introduce or strengthen their use of evidence-based workforce management.

Haig came to Mercer from National Economic Research Associates which he joined in 1989. His very first consulting assignment at NERA was for Major League Baseball and involved experimental testing of alternative auction and matching mechanisms to support free agency. Earlier, he was on the faculty of economics at New York University and was a research scientist at its C.V. Starr Center for Applied Economics. He is an internationally recognized expert in incentives, human capital measurement and management and their links to organizational performance. He has published widely on these topics in books and articles in leading academic and professional journals, such as the American Economic Review, The Journal of Labor Economics, The Harvard Business Review, Compensation and Benefits Review, WorldatWork, among many others. His HBR article, "Making Mobility Matter," received the Academy of Management's 2010 award for "Outstanding Practitioner-oriented Publication" in 2009.

Nalbantian co-authored the prize-winning book on human capital measurement and management, Play to Your Strengths (McGraw Hill, 2004). He is also editor of and chief contributor to the book, Incentives, Cooperation and Risk Sharing and is a frequent speaker before industry groups, professional associations and academic audiences across the globe. Currently he is leading Mercer's research, in conjunction with Stanford University's Center on Longevity, on gauging the contribution of older workers.

An avid, lifelong, baseball fan, Haig has long considered the symmetries between the sabermetric revolution in Baseball and the emergence of evidence-based workforce management in organizations. Before sabermetrics appeared in Baseball, he created methods to gauge the true contribution of groups and individuals to the value of their organizations, based on estimates of differences between actual and "expected" performance. These methods have informed policy decisions concerning staffing, compensation design, leadership development, workforce diversity and pay equity.

Haig earned his BA in English and Economics at New York University and has graduate degrees in economics from Columbia University. He is a member of the American Economic Association.

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Tauseef is a Principal in Mercer's Career business, specializing in the Workforce Strategy & Analytics practice. He is responsible for developing and delivering projects which enable organizations for growth through the use of analytics which combine engagement, career, and rewards information.

Currently based in San Francisco, he has also been based in Mercer's Los Angeles, Dubai, Melbourne, and Houston offices.

Some of his recent projects and research include:

- Leading a workforce analytics project for a client to determine the impact of rewards and career movements, e.g., promotions and transfers, in predicting turnover to help adjust the total rewards strategy;
- Managing a global technology company's annual pay equity analysis, including the development of "starting pay calculators" for new hires, and deconstructing the drivers of pay inequities to drive programmatic change;
- Advising on the location and workforce strategy for a global technology organization as they transition their workforce from building and selling hardware products to cloud software as a service;
- Leading an employee survey using conjoint analysis which resulted in changes to parental benefits at a global financial services company;
- Tracking the domestic and global evolution of pay disclosure protections, pay transparency requirements, and its relation to broader pay equity, total rewards, and workforce diversity.

Tauseef has presented at the annual conferences of WorldatWork Total Rewards and National Association of Stock Plan Professionals on the use of analytics in rewards and career advancement.

He holds a bachelor's degree in economics from Claremont McKenna College, in Claremont, California. You can connect with him @Tauseef_R on Twitter or via https://www.linkedin.com/in/tauseefrahman on LinkedIn.

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