36th Annual Workforce Management Briefing

EPSTEIN BECKER GREEN Managing Workforce Compliance in an Unpredictable World



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People Analytics: Using Big Data to Inform Hiring and Selection Processes

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36th Annual Workforce Management Briefing Managing Workforce Compliance in an Unpredictable World What Is Big Data? EPSTEIN BECKER GREEN

What Is "Big Data"?



"BIG DATA" DEFINED:

- Constantly evolving and expanding definition
- Data or methodology?



HR SOFTWARE TECHNOLOGY



KEY FEATURES:

- Embedded "big data analytics" to help employers better assess the quality of their sourcing and selection practices/strategies
- Proprietary computer algorithms that are designed to predict the "best" candidates for job openings and that employers use to improve their sourcing and selection practices/strategies
 - External (new hires) and internals (promotions)



Where Do Companies Get the Data?

COMMON DATA POINTS:







Publicly Available Data

- Social media profiles/activity
- Other data available through the Internet

Applicant Information

- Application, resume, etc.
- Personality testing and other past assessments

Employer Data

- Employment history
- Job performance



Big Data: Examples of Product Offerings

01

02



"Predictive" computerautomated sourcing and matching functionality





"Predictive"
personality tests
and other
assessments



"Predictive" screening interviews

- Vendor-provided screening questions that are "statically proven" based on "world class behavioral data analytics" to identify the best candidates
- Automated screening and scoring (e.g., 1-5 "stars")



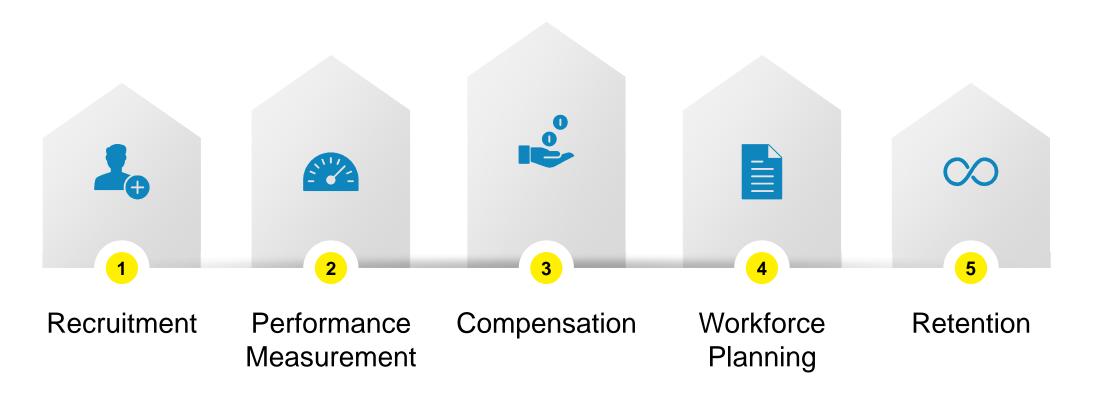
Predictive" automated online reference checking



Grit Scale



How Can Human Resources Use Big Data?





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Advantages: Limiting Number of Applicants



Reduces recordkeeping obligations



"Reduces legal risk by limiting applicants

- Quickly weeds out applicants by using basic qualifications or qualifications without expected adverse impact
- Data management techniques
- "Big numbers are bad numbers"



Speed

 Allows for faster decision making



Efficiency

 Utilizes all available information



Advantages: Neutral Criteria

Initial screening done with objective, non-comparative, job-related factors

Limiting subjectivity in selection



Equal standard for all candidates

Protects against unintentional discrimination

 Consistent application of data evaluation tools may reduce bias



Disadvantages



Correlation vs. causality

- Transient vs. persistent relationships
- Potential spurious correlation



Opaque vs. transparent

- Multitude of factors makes model difficult to interpret
- Model details are often proprietary



Defining success and "me too" bias

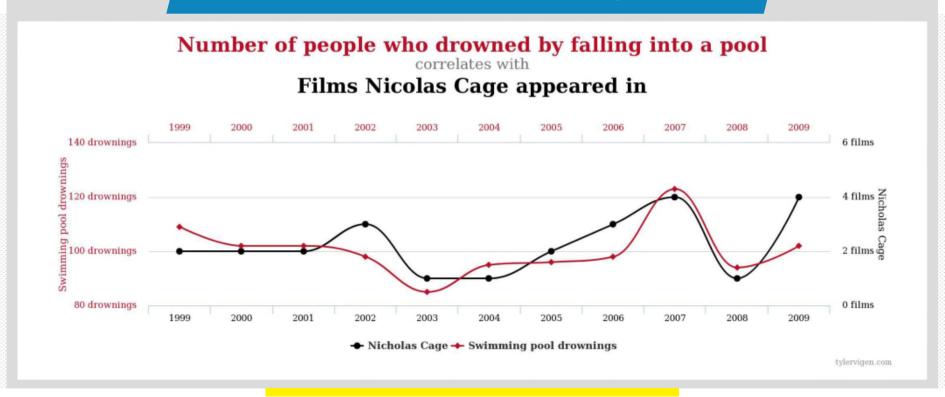


Not consistent with Uniform Guidelines on Employee Selection Procedures

- Validation not feasible
- Adverse impact analysis problematic

Disadvantages: Potential Spurious Correlations

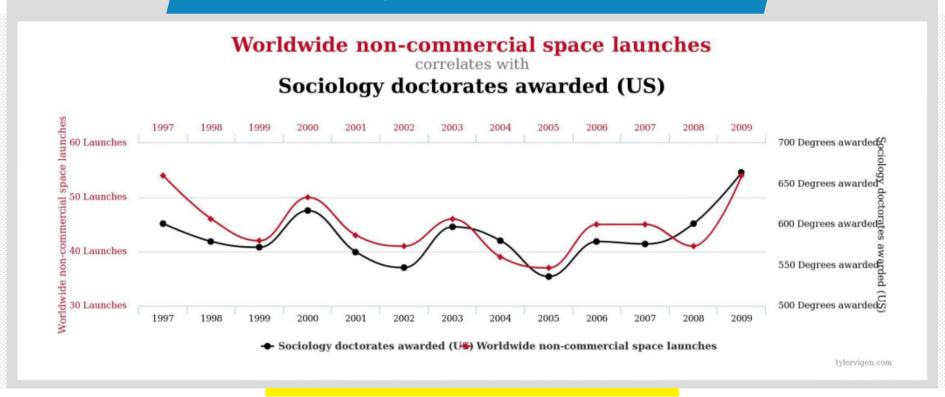
Spurious correlations are easy to find





Disadvantages: Potential Spurious Correlations

And they are often ridiculous





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Discrimination: Disparate Treatment



Disparate treatment:



Claims may arise when:



Potential systemic discrimination findings

- Intentional discrimination based on membership in protected class
- Use of analytics/selection procedures for one protected group but not others
- Use of predictive criterion that may produce fewer candidates in protected group
- Analytics are controlled by too few employees, who may exhibit bias in selection or data inputs
- "Pattern or practice" claims
- Class action claims



Discrimination: Disparate Impact

Disparate impact requires:

- Facially neutral employment practice/policy (i.e., not discriminatory on its face) AND
- Unjustified adverse impact on members of a protected class (i.e., not jobrelated or consistent with business necessity)

Increased focus on hiring by the Equal Employment Opportunity Commission and the Office of Federal Contract Compliance Programs

 Expect scrutiny of big data analytics (particularly if used as a pre-employment test)

Neutral selection policy may have disparate impact

- Presumptive adverse effect using 80% rule
- Encoded biases



Recordkeeping and Validation



Uniform Guidelines on Employee Selection Procedures



Internet Applicant Rule

- Requires all federal contractors and subcontractors to maintain recordkeeping regarding the Internet hiring process and the solicitation of race, gender, and ethnicity of "Internet Applicants"
- Does the Internet Applicant Rule apply to big data analytics?
 - Depends on when data analytics are used:
 - To improve sourcing decisions
 - To narrow applicant pools
 - To make selection decisions



Other Legal Concerns



Applicants with disabilities

- How is the exam/test taken?
- Does it allow for accommodation(s)?
- Be sure to include disclaimer noting availability of accommodations



Fair Credit Reporting Act

- When might big data analytics become a background check?
 - United States v. Spokeo, Inc., No. 2-12-cv-05001-MMM-SH (C.D. Cal. June 12, 2012)

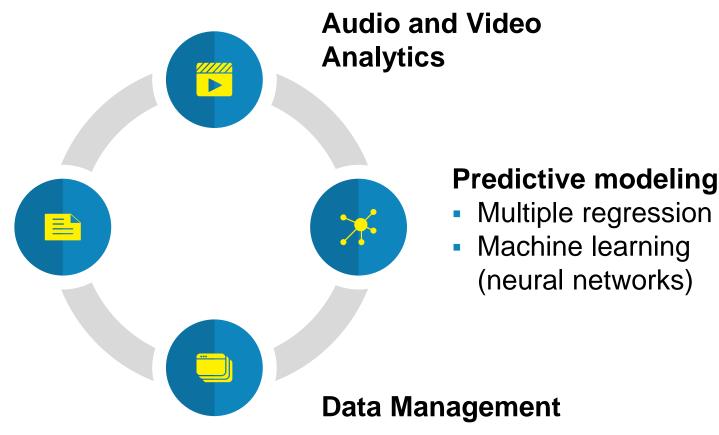


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Analytic Tools

Text analytics (mining)

- Information extraction
- Text summarization
- Question answering
- Sentiment analysis





Analytic Challenges



Data Requirements

- Completeness and accuracy
- Long vs. wide



Statistical Issues

- Heterogeneity
- Noise accumulation
- Spurious correlation
- Incidental endogeneity





Validation Challenges



Interpreting the result

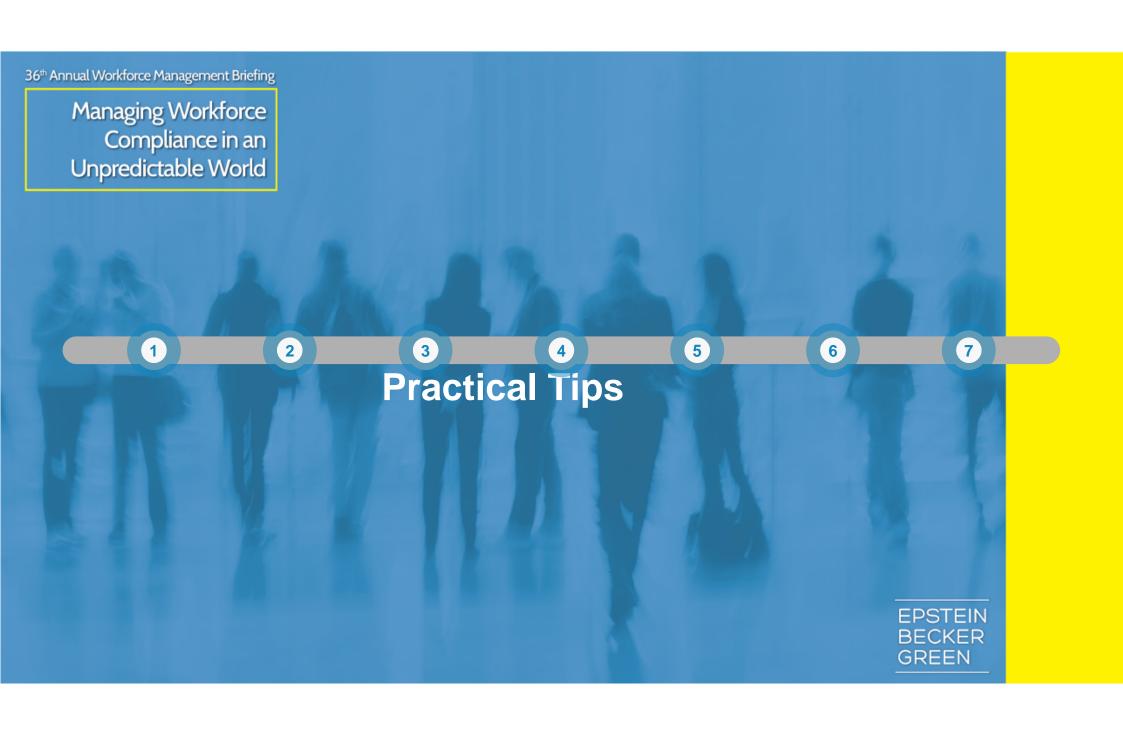
- Rationale for observed relationships
- Rational plus statistical meaningfulness

Validation issues

- Focus on job requirements vs.
 people characteristics
- Test items may not be secure or "face valid"
- Determining what is "passing" score

Algorithms may be based on "tests" designed for very different purposes (e.g., clinical psychological diagnoses)





Questions to Ask Vendors

What safeguards have been put in place to prevent any potential discrimination?

Has the process demonstrated an adverse impact in any context?

What validation evidence has been collected to establish the job-relatedness of the algorithm? For each job?

Does the product or survey include an audit?

Does the validation evidence comply with the requirements of the Uniform Guidelines on Employee Selection Procedures?

What steps have been taken to ensure the security of test questions?

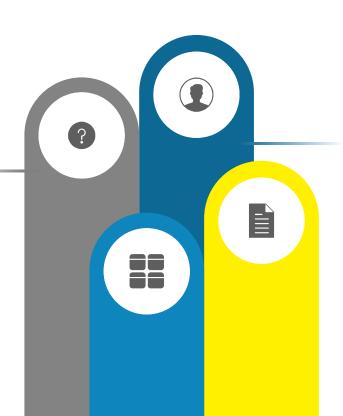
What kind of ongoing monitoring do you provide as we continue using the instrument?

Other Considerations

Questions for internal decision makers

- What is the main goal we are attempting to achieve with the data?
- Are managers properly trained on using the data?

Data Collection and Storage



Who will ultimately be responsible if allegations regarding adverse impact occur?

- What indemnification provisions will be included?
- Transparency may be an issue

Implementation Plan

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