

## Talent Selection Algorithm

We developed the Parker Analytics Talent Selection Algorithm (TSA) in response to the challenges of our law firm clients, most notably:

1. Increasing the share of high-performing hires;
2. Increasing retention of entry level and lateral hires;
3. Increasing confidence in expanding conventional selection criteria; and
4. Increasing the number of women and lawyers from underrepresented groups.

The TSA gives recruiting teams more time to focus their efforts on recruitment and lawyers more time to focus on client work. The non-invasive process relies on firms' existing comprehensive biographical and performance-related data. On-campus and call-back candidates' interview experiences are unchanged. Interviewers gain novel insight into the candidates and can ask more deliberate interview questions.

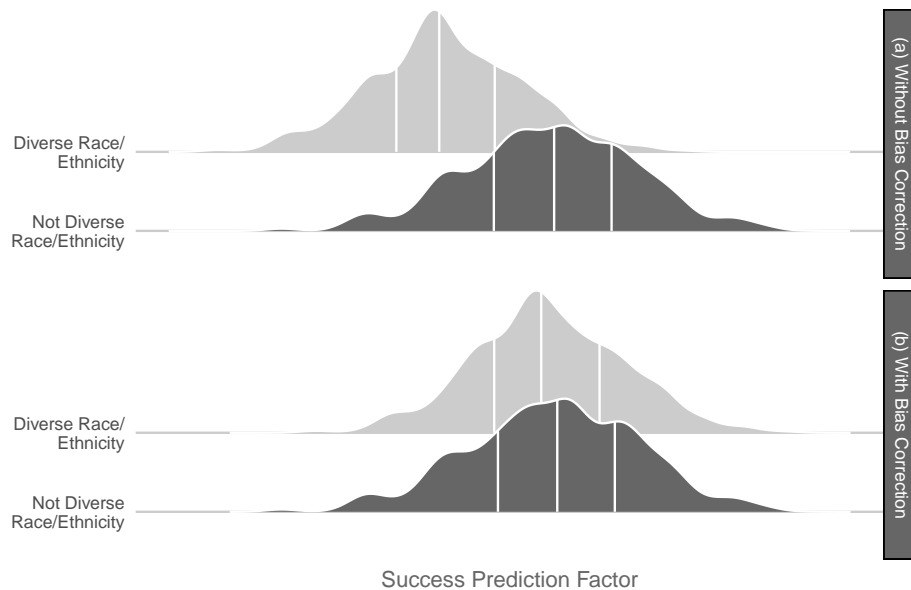
Firms who use the Talent Selection Algorithm can expect to see a 39% increase in high-performing associates and a 23% decrease in under performing associates over firms who extended offers based on conventional hiring criteria. Additionally, retention rates for associates hired under the data-driven TSA outperform a conventional approach. From a single hire year, the gap between TSA-driven and conventional selection grows to 23% eight years on (see the orange line in Figure 1 above).

The cumulative cost savings of using the TSA, assuming a firm hires 50 new associates each year, compounds to nearly \$16.5 million over eight years based solely on the cost savings from retaining 33 more high-performing associates.

Developing the TSA is a diagnostic research project that leverages social science methods. A key result is a “de-biased” Algorithm tailored to the firm’s success profile. After testing for asymmetries in the business system—e.g., whether attorneys with diverse racial/ethnic backgrounds receive significantly lower performance reviews than those without such backgrounds—we adapt the Algorithm so that predictive scores for different groups are statistically equivalent.

Figure 2 (next page) demonstrates how this asymmetry manifests itself in predictive scores derived from a firm’s historical data and how the TSA mitigates the asymmetry. The vertical lines inside the distributions reflect the 25th, 50th, and 75th percentiles for the predictive scores, or “success prediction factors” (SPF). Without correcting for bias in the historical data (top panel), the 75th percentile of the diverse race/ethnicity attorney SPFs is equal to the 25th percentile of the non-diverse SPFs. With bias correction (bottom panel), however, the 25th, 50th, and 75th percentiles for these two groups are equivalent.

Figure 2. Success Prediction Factor Scores Before and After De-Biasing



## How the TSA Works

The Talent Selection Algorithm project has two phases. Phase One—the “Diagnostic Phase”—involves data collection and Algorithm development and refinement. Phase Two—the “Predictive Phase”—involves application of the Algorithm to predict the performance of potential hires.

### Diagnostic Phase: Data Collection and Algorithm Development

- Firms provide us with time-of-hire resumes, and performance evaluation, utilization, and bonus data for associates hired through both the on-campus recruitment process and laterally for the past five to seven recruiting seasons.
- Resumes and accompanying data for departed associates are included and accounted for in the Algorithm.
- Ideally, firms provide a minimum of 100 unique attorneys (resumes) and at least 500 observations (100 attorneys observed over a five-year period)

equals 500 observations).

- Personally Identifiable Information (PII) as defined by privacy laws in the U.S. is redacted prior to transmitting data. Treatment of linked PII is at the discretion of the firm.
- Unique Employee ID numbers that tie into the firm's other reporting systems are assigned to each resume, providing the flexibility to undertake further analysis.
- On average, firms complete the data collection exercise in four (4) to six (6) weeks.

### **Predictive Phase: Implementation of the Selection Algorithm**

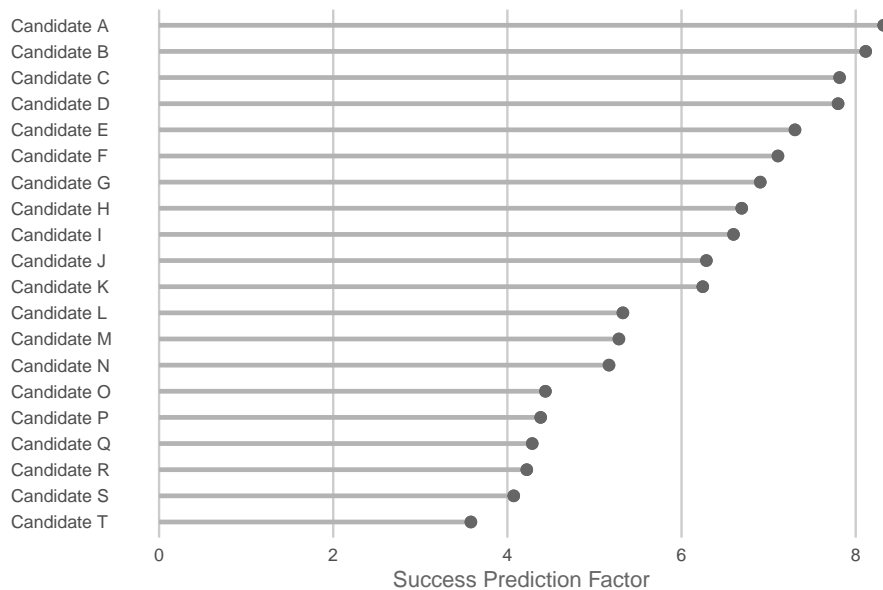
Parker Analytics runs the Predictive Phase for clients on an ongoing basis.

- On-campus interview candidates' un-redacted resumes are transmitted to PA in real time.
- Resumes are coded and returned with Success Prediction Factors (SPF) within 48 to 72 hours based on client needs.
- At the client's request, PA will develop a set of standardized on-campus interview questions based on biographical success factors.

The data PA collects in Phase One is created by highly-trained PhD and MS statisticians. A machine cannot capture the nuances that our research demonstrates are most likely to predict success—e.g., military or blue collar work experience, both of which predict success at certain firms.

The Success Prediction Factors generated in Phase Two are reported in visualizations that can accompany your firm's on-campus interviewer packets. We work with firms to design visualizations that suit their objectives, however, most prefer the format in Figure 3 below.

Figure 3. Success Prediction Factors for 20 OCI Candidates



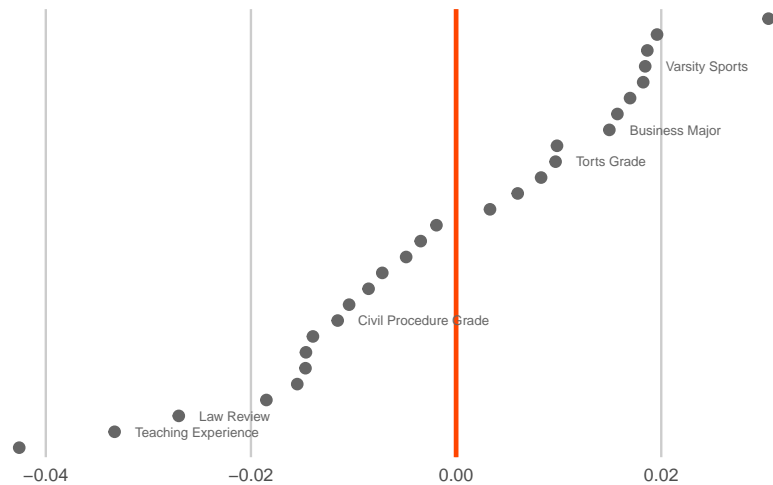
## Why the TSA Works

- Biographical factors that do not predict success are the same across firms, and compose many firms' core selection criteria.
- Biographical factors that are highly predictive of success are different across firms, and rarely compose central elements of a firms' selection criteria.

Our TSA isolates more than 50 biographical factors relevant to success. And it is only in combination that these factors are strongly predictive of success. We use statistical models to derive weights for the biographical factors. Each biographical factor is assigned a numerical estimate indicating its ability to predict job performance under "all else equal" conditions.

PA presents the results by visualizing the final Talent Selection Algorithm, a redacted and simplified example of which is below. A factor that falls on the center-line is not predictive of success. Factors to the right of the line are predictive; the further to the right the more predictive. Factors to the left are "red flags" because, all else equal, they predict a low likelihood of success.

Figure 4. Example TSA Highlighting Selected Biographical Factors



We perform validation and auditing of the firm-tailored TSA during both the Diagnostic Phase and the Predictive Phase to ensure compliance with [Section 14](#) of the EEOC Uniform Guidelines on Employment Selection Procedures (“Technical standards for validity studies”).

- We test the beta version against the biographical data received from the firm in the Diagnostic Phase to confirm the predictive outcomes against the actual data.
- We collect data on the performance of candidates hired on an ongoing basis and work with clients to refine their TSA over time.

### About Parker Analytics

Parker Analytics (PA) employs systems thinking, data science and powerful ideals to challenge established thinking, solve complex business issues and accelerate progress in the legal profession. Our work enables clients to rise above industry benchmarks and outperform their competition.

PA is the official analytics partner to the Leadership Council on Legal Diversity (LCLD) and works with many Member corporate legal departments and firms to increase diversity within their organizations and the profession. Our Diversity Scorecard, developed in collaboration with BASF, was named an Innovation in Diversity at the LCLD 2018 Annual Leadership Summit and the subject of a 2018 Harvard Law School Case Study.

PA serves as advisor to best-selling author Malcolm Gladwell as he collaborates with our clients to explore the immediate and long-term impact(s) of our Talent Systems, especially on their ability to eradicate the inefficiencies in legal talent selection and development.

Kathleen Fredriksen  
Managing Partner  
Email: [kat@parkeranalytics.us](mailto:kat@parkeranalytics.us)  
Direct (917) 733 6758

Evan Parker, PhD  
Founder  
Email: [evan@parkeranalytics.us](mailto:evan@parkeranalytics.us)  
Direct (919) 454 1119