

CASE STUDY:

Bennett Mechanical Comprehension Test®

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at a Major Automotive Transport Company
in the USA



The Issue

Bennett Mechanical Comprehension Test® (BMCT) is used to assist in the selection of **Car Haulers** who need to learn how to properly load and secure vehicles on their trucks and ensure the load is within legal height, weight, and length requirements. The **efficiency and productivity** of the drivers is directly related to how much revenue their truck produces for the company. The decision to trial BMCT was initially based on the car damage and associated claim frequency rates, but the measurements of **revenue generated** and **turnover rates** were used during the BMCT validation study, conducted after 12 months of use.

The Findings

The company has hired 216 drivers over the past 12 months and has been tracking their revenue and turnover (the number of haulers leaving the company since joining). The applicant pool contains both experienced and inexperienced haulers. All hires complete BMCT and attend an interview. The company's data analysis looked at 3 BMCT cutoff points: the 20th, 40th, and 60th percentiles.

After analysis of the data, John has concluded that "At each point those scoring higher in the BMCT have lower staff turnover AND greater revenue than those scoring below that percentile."

THE RESULTS

Experienced Haulers ($n = 123$)

Norm group—employees in the warehouse transportation industry

BMCT Percentile Score	Average Revenue Increase	Turnover Change
20 and over vs. under 20	+2%	-10%
40 and over vs. under 40	+16.9%	-6%
60 and over vs. under 60	+11.5%	-3%

The reduction in **turnover rates** (in the 12 months since starting to use the BMCT) correlated with BMCT scores. The **largest average revenue increase** (+16.9%) was seen between scores below and at or above the 40th percentile.

THE RESULTS (CONT.)

Inexperienced Haulers (n = 93)

Norm group—employees in the warehouse transportation industry

BMCT Percentile Score	Average Revenue Increase	Turnover Change
20 and over vs. under 20	+20.5%	-29%
40 and over vs. under 40	+4.4%	-18%
60 and over vs. under 60	+4.3%	-16%

The reduction in **turnover rates**, over the 12 months, correlated with BMCT scores. The **largest average** revenue increase (+20.5%) was seen between scores below and at or above the 20th percentile.

Because the revenue and turnover data were only correlated with BMCT scores after 12 months, below were the recommended cut-scores prior to the data analysis. The validity study findings support these initial cut-scores.

BMCT Percentile Range	What It Means
0 to 19 Red Low Probability of Success	Likely to struggle and find it challenging to learn the job. May require longer than average to learn the job and reach productivity goals. May require close, one-on-one supervision while learning. Likely to have significantly higher turnover and lower than average revenue. Risky Hire.
20 to 39 Yellow Caution, Good Probability of Success	Better aptitude and understanding of basic mechanical and physical principles, but may still find them challenging and require fairly close supervision. Likely to have a higher than average turnover and lower than average revenue. Good Hire only if the candidate demonstrates quality personal skills in the interview.
40 to 59 Green High Probability of Success	Good solid understanding of basic mechanical and physical principles. Likely to learn the job at a good pace. Will require less supervision on a day to day basis. Likely to have lower than average turnover and average to higher revenue. Very Good Hire.
60 to 79 Green Very High Probability of Success	Excellent understanding of basic mechanical and physical principles. Likely to learn the job quickly and require less frequent supervision. Likely to have lower than average turnover and higher than average revenue. Very Good Hire.
80+ Green Extremely High Probability of Success	In-depth understanding of basic mechanical and physical principles. Likely to learn the job quickly and will require little supervision once they have mastered it. Learns new and unfamiliar concepts quickly. Likely to have lower than average turnover and higher than average revenue. Very Good Hire.

*The following is sent to all recruiting managers: We use the terms may and likely in the chart above because in any range, for any test, there can be people who perform better or worse than our original test group would indicate. The test measures mechanical aptitude only, which is a critical aspect of our driving positions. The person may do the job better than expected because of a great work ethic and determination to learn. In the same way an unmotivated individual or one with personal problems may perform worse than expected. **This is why we combine these results with an in-depth interview** to try to tap into their motivation and desire to learn the job.*

THE RESULTS demonstrate that BMCT scores have a strong impact on both revenue and turnover rates. Following these findings, the organization will continue to use BMCT as a useful indicative tool in the Car Hauler hiring process.