



Criticall3D

Hire Like Lives Depend On It



Behavioral

Personality Assessments



Operational

Skills-Based Assessments



Situational

Interactive Role-Playing Assessments

EXECUTIVE SUMMARY

*Development & Validation of a Predictive,
Three-Dimensional Dispatcher Assessment*

r=.634

Overall Validity vs.
Job Performance

~40%

Of Job Performance
Explained

1,400+

Call Centers
Using CritiCall

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The Case for CritiCall 3D

Every 911 call answered by an underqualified dispatcher carries risk — to callers, to field responders, and to agency liability. Every dispatcher who washes out during training or leaves within the first year carries a steep financial cost. CritiCall 3D was built to address both problems at once: a single, validated pre-employment battery that predicts who will succeed on the console and who is likely to struggle before an agency ever makes a job offer.

CritiCall has been the industry-leading dispatcher assessment for over 25 years, adopted by more than 1,400 911 and emergency communication centers nationwide. CritiCall 3D is the next generation of that platform: a shorter, more efficient battery that combines three validated dimensions of applicant qualification — Operational skill, Behavioral fit, and Situational judgment — into a single composite score with a criterion-related validity of $r = .634$, explaining approximately 40% of job performance.

Why Three-Dimensional Testing Wins

The legacy CritiCall assessment set the industry standard for a reason: it's a rigorous, well-validated measure of operational skill - the concrete abilities a dispatcher needs on day one, such as data entry, decision making, and call summarization. CritiCall 3D builds directly on that proven foundation and makes it stronger, adding two more validated dimensions that research shows separate top performers from the rest: the interpersonal judgment to de-escalate a caller in crisis, and the personality drivers – composure, conscientiousness, resilience – that predict who will thrive under sustained pressure.

The result is a more complete picture of the “whole applicant,” captured in the same administration window agencies and applicants already expect. Rather than trading breadth for speed, CritiCall 3D delivers both: three validated, independently predictive dimensions in roughly the time it took to administer operational testing alone. That efficiency is what makes the jump in predictive power – from a strong single-dimension test to a composite validity of $r = .634$ – possible without asking more of applicants or hiring teams.

Three Dimensions, One Composite Score

CritiCall 3D weighs three assessments equally, each independently and significantly correlated to dispatcher job performance across multiple studies:

	Operational (Skills-Based)	Behavioral (Personality)	Situational (Interactive Role-Play)
What it Measures	Day-one operational skills — decision making, call summarization, data entry, memory recall, cross-referencing, position locating, proofreading.	Five-factor personality drivers statistically linked to dispatcher success, refined to 40 high-value items.	Interpersonal judgment through branching scenarios that ask candidates to select and forecast outcomes of responses.
Validated Reliability	$r = .93$ (alpha)	$r = .732$ (alpha)	$r = .82$ (test-retest)
Validity vs. Job Performance	$r = .33 - .37$ (operational)	$r = .321$ (uncorrected)	$r = .415$ (uncorrected)

The Power of the Composite

Combining three independently valid tests would be a modest improvement on their own. What makes CritiCall 3D exceptional is how little the three components overlap — each one captures a distinct slice of what makes a good dispatcher, so their predictive power stacks rather than duplicates.

	Operational	Behavioral	Situational
Operational	1.00	0.03	.219**
Behavioral	0.03	1.00	.269**
Situational	.219**	.269**	1.00

Because Behavioral and Operational scores are essentially uncorrelated ($r = .03$) and Situational overlaps only modestly with the others ($r = .219$; $r = .269$), the three tests combine into a composite validity of **$r = .634$** — explaining roughly 40% of the variance in on-the-job dispatcher performance.

For context, the U.S. Department of Labor classifies any pre-employment test with a validity coefficient above .35 as “very beneficial.” CritiCall 3D nearly doubles that threshold:

Coefficient Value	Interpretation	% of Performance Explained
.11 – .20	Depends on circumstances	1.2% – 4%
.21 – .30	Likely to be useful	4.4% – 12.3%
Above .35	Very beneficial	12.3%+
CritiCall 3D = .634	Far exceeds benchmark	~40%

Source: U.S. Department of Labor (2000), *Testing and Assessment: An Employer's Guide to Good Practices*.

DISPATCHER JOB PERFORMANCE



Turning Predictive Power Into Dollars Saved

Higher validity translates directly into fewer bad hires, fewer training washouts, and lower turnover. Consider a representative 20-person emergency communication center with a 50% baseline applicant qualification rate, a \$54,340 average dispatcher salary, and the industry-standard 29% annual turnover rate:

Metric	50% Cutoff	Top 20% Cutoff
Training/Probation Success Rate	50% → 72%	50% → 86%
Annual Turnover Rate	29% → 22.8%	29% → 18.6%
Annual Separations (20-person center)	5.8 → 4.6/yr	5.8 → 3.7/yr
5-Year Savings	\$844,647	\$1,415,873
Reduction in Unplanned Turnover Cost	21%	36%

The stronger the cutoff an agency applies, the greater the return — because CritiCall 3D's composite score does the work of both screening out at-risk candidates and selecting in high performers simultaneously, from a single test administration.

Flexible, Defensible Implementation

Agencies hiring for a position highly similar to the mainstream 911 dispatcher role can apply CritiCall 3D scores using whichever selection strategy best fits their hiring volume and risk tolerance:

- Strict rank ordering — for agencies prioritizing maximum predicted performance.
- Top-down banding — the most balanced approach, grouping candidates of similar ability while accounting for normal test-score variability.
- Pass/fail cutoff — for high-volume hiring where a qualifying threshold is preferred.

For agencies concerned about adverse impact, or hiring for a role that differs meaningfully from the mainstream dispatcher position, Biddle Consulting Group offers a validity transportability study — a streamlined process using structured surveys completed by a small panel of subject-matter experts, designed to satisfy the transportability requirements of Section 7B of the *Uniform Guidelines on Employee Selection Procedures*.

The Bottom Line

CritiCall 3D gives 911 and emergency communication centers a single, efficient assessment — administered in the same time window as the legacy test — that captures the full range of what predicts dispatcher success: operational skill, behavioral fit, and situational judgment. With a validated composite correlation of $r = .634$ to job performance, agencies using CritiCall 3D can expect meaningfully higher training and probation success rates, lower turnover, and substantial cost savings — while building a more defensible, well-rounded selection process.

Ready To See the Impact for Your Center?

Contact TestGenius CritiCall
at **(800) 999-0438** or **info@criticall911.com**
to run your agency's numbers through
the CritiCall 3D Job Performance and Turnover Calculator.