European Economic Letters
ISSN 2323-5233
Vol 16, Issue 1 (2026)
http://eelet.org.uk

Measuring The Economic Impact Of Neurodivergent Inclusion On Workforce Productivity And Retention

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Abstract

This study examines whether organizations that adopt structured, proactive neurodivergent-inclusive practices (NII) demonstrate measurable differences in workforce productivity and voluntary retention compared to organizations that limit their approach to compliance-based accommodations. Drawing on human capital theory and organizational psychology frameworks, we analyzed data from 242 mid-to-large organizations across four industry sectors using a cross-sectional, mixed-methods design. Neurodivergent inclusion was operationalized through a validated 18-item composite instrument (NII Index, alpha = .87) measuring structural accommodations, cultural integration, and managerial capability. Productivity was indexed via objective OKR attainment scores; retention was measured as annual voluntary turnover rate.

Multiple regression analyses revealed that higher NII scores were significantly and positively associated with OKR attainment (beta = .41, $p < .001$, $f^2 = .29$) and negatively associated with voluntary turnover (beta = -.36, $p < .001$, $f^2 = .17$), after controlling for organizational size, tenure, and industry sector. Psychological safety mediated a significant portion of the retention effect, and a significant NII x psychological safety interaction indicated that high-safety environments amplified the benefits of inclusive practices. Effect sizes were in the medium-to-large range. Conservative economic modelling projects per-organization turnover cost avoidance of $614,200 to $963,800 annually for a 1,000-employee firm. Findings support positioning neurodivergent inclusion as a strategic human capital investment rather than a compliance activity, with implications for HR strategy, organizational design, and workforce planning.

Keywords: neurodiversity, inclusive practices, workforce productivity, employee retention, psychological safety, human capital, organizational performance, turnover costs

1. Introduction

The composition of the modern workforce has shifted substantially over the past two decades. Advances in diagnostic practice, increased awareness among adults of previously unidentified neurodevelopmental conditions, and greater societal transparency have resulted in a growing proportion of employees who identify as neurodivergent — a broad term encompassing individuals with autism spectrum disorder (ASD), attention-deficit/hyperactivity disorder (ADHD), dyslexia, dyspraxia, dyscalculia, Tourette syndrome, and related conditions. Estimates suggest that between 15 and 20 percent of the global population exhibits some form of neurodivergence (Armstrong, 2017; Singer, 2019), with prevalence rates within professional workforces trending upward as disclosure norms shift and recruitment of neurodiverse talent becomes a more deliberate organizational strategy.

Despite this growing visibility, organizational responses to neurodivergent employees have remained largely reactive and compliance-oriented. In the United States, the Americans with Disabilities Act (ADA) mandates reasonable accommodations for employees whose neurodevelopmental conditions qualify as disabilities, and analogous legislation governs employer obligations across the United Kingdom, Australia, Canada, and the European Union. The practical result, however, is that most organizations treat neurodivergent inclusion as a legal floor rather than a strategic opportunity. Accommodations are granted on a case-by-case basis, often following formal disclosure, and rarely embedded into systematic organizational processes or management training.

This compliance-first orientation presents a measurable organizational problem. Research in organizational behavior and human resource management has established that employees who lack access to task-fit environments, inclusive managerial practices, or psychologically safe team climates are significantly more likely to disengage, underperform, or exit voluntarily (Edmondson, 1999; Amabile & Kramer, 2011; Saks, 2006). For neurodivergent employees, these risks are amplified: social communication differences, sensory sensitivities, and executive function variability — when unaddressed — can translate into performance gaps that reflect organizational design failures rather than individual capability limitations (Doyle, 2020). Conversely, when organizations proactively structure work environments, communication norms, and managerial approaches to accommodate cognitive diversity, documented productivity advantages have been observed, particularly in roles demanding focused analytical or technical performance (Austin & Pisano, 2017).

The economic stakes are substantial. Voluntary employee turnover carries well-documented costs estimated between 50 and 200 percent of the departing employee's annual compensation, once recruitment, onboarding, training, and productivity lag are aggregated (Boushey & Glynn, 2012; SHRM, 2022). Productivity losses attributable to poor person-environment fit are similarly costly, though more difficult to quantify across heterogeneous organizational contexts. If structured neurodivergent-inclusive practices generate measurable reductions in voluntary turnover and meaningful increases in productivity, the aggregate economic case for investment in such practices becomes analytically compelling — independent of any ethical or social justice argument.

Despite these stakes, the empirical literature on neurodiversity in organizational settings remains largely qualitative, anecdotal, or restricted to individual case studies from a narrow range of technology-sector employers. There is a conspicuous absence of multi-organization, quantitatively rigorous studies that evaluate the productivity and retention effects of inclusive practices with appropriate controls. This gap limits the evidentiary basis on which organizational leaders, HR strategists, and policy designers can make evidence-based decisions.

The present study addresses this gap directly. We examine whether organizations that score highly on a validated measure of neurodivergent inclusive practices demonstrate statistically and practically significant differences in workforce productivity and voluntary retention relative to organizations whose approach is primarily compliance-oriented. The study is grounded in human

capital theory, organizational psychology, and the resource-based view of the firm, and employs a cross-sectional, multi-organization design with quantitative analysis and mixed-methods verification. The goal is not to advocate for neurodivergent inclusion but to subject it to the same empirical scrutiny applied to any other organizational people practice.

2. Literature Review and Theoretical Framework

2.1 Neurodiversity as a Human Capital Construct

The neurodiversity paradigm, as formalized in organizational contexts by Singer (1999) and extended by Armstrong (2017), conceptualizes neurological differences not as pathologies requiring remediation but as naturally occurring variation in human cognition. From a human capital theory perspective (Becker, 1964), the relevant question is whether cognitive diversity within a workforce generates differential returns on investment in training, task allocation, and organizational design. Early organizational research in this domain, including foundational case work by Austin and Pisano (2017) at firms such as SAP, Hewlett-Packard, and Specialisterne, documented instances in which targeted hiring and support of autistic employees in quality assurance, data analysis, and software testing roles produced measurable output advantages over neurotypical comparators. However, these studies were methodologically limited: single-organization designs, absence of control groups, and self-selected samples restricted external validity.

Subsequent research has attempted to characterize the talent attributes associated with specific neurodevelopmental profiles. Individuals with ADHD have demonstrated elevated performance on tasks requiring hyperfocus, rapid idea generation, and tolerance for high-stimulation environments (White & Shah, 2006). Individuals on the autism spectrum have documented advantages in pattern recognition, systematic analysis, sustained attention on specialized tasks, and detection of inconsistencies within large data sets (Mottron et al., 2006; Wallace et al., 2016). Individuals with dyslexia have shown relative strengths in three-dimensional spatial reasoning and holistic thinking (Eide & Eide, 2012). These advantages are not universal across individuals or contexts, and the literature appropriately cautions against stereotyping; nonetheless, the aggregate evidence suggests that cognitive diversity, when properly supported, may constitute a source of organizational capability rather than merely a compliance obligation.

2.2 Organizational Inclusion and Workforce Outcomes

The relationship between inclusive workplace practices and workforce outcomes has been extensively studied in the broader diversity and inclusion literature. Shore et al. (2011) define inclusion as the degree to which employees feel belongingness combined with a perception that their unique contributions are valued — a formulation with direct relevance to neurodivergent employees, who frequently report either social exclusion or assimilation pressure that suppresses cognitive diversity (Bondy & Barnett, 2021). Psychological safety, defined by Edmondson (1999) as a shared belief that the team is safe for interpersonal risk-taking, has been identified as a critical mediator in the inclusion-performance relationship: environments high in psychological safety support disclosure, accommodation-seeking, and adaptive help-seeking behaviors that are particularly consequential for employees managing neurodevelopmental differences.

Retention research has consistently identified managerial quality, perceived organizational support, and inclusion climate as among the strongest predictors of voluntary turnover intent (Maertz & Griffeth, 2004; Allen et al., 2010). For neurodivergent employees specifically, qualitative research has documented high rates of early career exit attributable to poor communication fit with managers, sensory environments that impair functioning, and workplace cultures that penalize visible difference rather than accommodation-seeking (Hurlbutt & Chalmers, 2004; Lorenz et al., 2016). These exit patterns have direct economic implications, yet they have not been quantified at the organizational level with sufficient methodological rigor to support policy recommendations.

2.3 The Compliance-Investment Distinction

A critical conceptual distinction for the present study is between compliance-based accommodation and proactive inclusive investment. The former is reactive: it responds to individual disclosure events, operates through formal HR channels, and typically results in discrete accommodations (modified workspaces, task restructuring, schedule flexibility) that address immediate functional barriers without addressing the broader organizational environment. The latter is proactive: it embeds accommodation principles into universal design practices, managerial training, team communication norms, and organizational culture, such that barriers to neurodivergent contribution are reduced systematically rather than individually negotiated.

Several frameworks distinguish these orientations. The social model of disability (Oliver, 1990), adopted widely in UK and Australian HR practice, locates disability in environmental barriers rather than individual deficits and implies an organizational obligation to remove structural impediments proactively. Universal Design for Work (Hendricks & Engstrom, 2006) extends this principle to organizational process design. From a resource-based view (Barney, 1991), proactive inclusive practices may constitute a source of sustained competitive advantage if they enable organizations to attract, retain, and deploy neurodiverse talent more effectively than competitors — an advantage that is rare, valuable, and difficult to imitate precisely because it requires embedded cultural and managerial capability rather than episodic compliance activity.

2.4 Gaps in the Empirical Literature

Despite the theoretical foundations summarized above, the quantitative empirical evidence base remains underdeveloped along three dimensions. First, most organizational studies on neurodiversity rely on case study or qualitative methodologies, limiting generalizability and precluding statistical inference about population-level effects. Second, existing quantitative studies have rarely employed validated multi-dimensional measures of inclusive practice, defaulting instead to binary accommodation present/absent classifications that obscure practice quality and depth. Third, no published multi-organization study has simultaneously examined both productivity and retention outcomes with appropriate control variables and economic translation of effect sizes.

The present study addresses all three gaps: it employs a validated composite inclusion index across multiple organizations, examines both productivity and retention using objective organizational data, and translates statistical findings into economic impact estimates using established cost benchmarks.

2.5 Hypotheses

Based on human capital theory, the social model of inclusion, and the empirical patterns reviewed above, the following directional hypotheses are proposed:

H1: Organizations with higher NII scores will demonstrate significantly higher workforce productivity (OKR attainment) than organizations with lower NII scores, controlling for organizational size, tenure, and industry.

H2: Organizations with higher NII scores will demonstrate significantly lower annual voluntary turnover rates than organizations with lower NII scores, controlling for organizational size, tenure, and industry.

H3a: Psychological safety will be positively associated with retention (negatively associated with voluntary turnover) controlling for NII score and covariates.

H3b: Psychological safety will interact with NII score such that the negative relationship between NII and voluntary turnover will be stronger in organizations with higher psychological safety climates.

3. Methodology

3.1 Research Design

This study employs a cross-sectional, quantitative primary design supplemented by qualitative data from a sub-sample of organizations. The cross-sectional design is appropriate given the primary aims of the study: to establish the association between measured levels of neurodivergent-inclusive practice and organizational productivity and retention outcomes at a given point in time. We explicitly acknowledge this design constraint: cross-sectional data support associational inference but not causal claims. Temporal sequence, reverse causality (high-performing organizations may have more resources to invest in inclusion), and unmeasured confounding are recognized limitations addressed in the Discussion section. Longitudinal replication is identified as a priority for subsequent research.

The study is grounded in a post-positivist epistemological orientation: we accept that organizational phenomena are genuinely complex and partially inaccessible to measurement, but maintain that rigorous quantitative methods can identify reliable patterns in the data that have practical significance beyond their statistical properties. Effect sizes and practical significance are therefore reported alongside p-values throughout.

3.2 Sample and Data Collection

Participants were recruited through a stratified, purposive sampling strategy targeting mid-to-large organizations (500+ employees) across four industry sectors: technology, financial services, healthcare, and manufacturing. These sectors were selected to provide variation in cognitive task

demands, regulatory environments, and organizational cultures, while remaining sufficiently similar in structural complexity to support cross-sector comparisons. Smaller organizations (< 500 employees) were included in the sample for comparison but analyzed separately given their structurally different HR capabilities.

HR directors or senior people analytics leads at target organizations were contacted through professional networks, HR industry associations (SHRM, CIPD), and purposive referral. Participation required the organization to complete the NII instrument, provide HR system-derived productivity and turnover data, and permit a survey of a stratified random sample of employees (n = 50-100 per organization) to assess psychological safety climate. Of 397 organizations initially contacted, 261 agreed to participate. Nineteen were subsequently excluded due to data quality issues (missing > 15% of item data, systematic HR data discrepancies, or evidence of response distortion on validation items), yielding a final analytic sample of N = 242 organizations.
Employee-level survey data were collected from 14,380 individuals across the 242 organizations (mean = 59.4 per organization, range = 42-100), using stratified random sampling within each organization to ensure departmental and seniority-level representativeness. Psychological safety scores were aggregated to the organizational level using multilevel confirmatory factor analysis (ICC = .31, indicating acceptable within-organization homogeneity for aggregation).

3.3 Measures

3.3.1 Neurodivergent Inclusion Index (NII)

The NII is an 18-item composite instrument developed for this study, drawing on frameworks from the Chartered Institute of Personnel and Development (CIPD, 2018), the Job Demands-Resources model (Demerouti et al., 2001), and validated inclusion climate scales (Mor Barak et al., 2016). Items are rated on a 5-point Likert scale (1 = Not at all / 0% implementation; 5 = Fully / > 90% implementation) and completed by HR directors with reference to organizational policy documentation.

The NII captures three subscales: (1) Structural Accommodations (7 items; e.g., flexible scheduling protocols, sensory environment modifications, assistive technology provision); (2) Cultural Integration (6 items; e.g., neurodiversity awareness training for all staff, visible leadership endorsement, disclosure-positive policies); and (3) Manager Capability (5 items; e.g., manager training on neurodivergent communication styles, individualized performance evaluation protocols). Pilot testing with 38 organizations established item clarity and discriminant validity between subscales.

Internal consistency for the composite NII was excellent (alpha = .87). Subscale reliabilities were: Structural Accommodations, alpha = .83; Cultural Integration, alpha = .85; Manager Capability, alpha = .80. Convergent validity was assessed against the Diversity and Inclusion Measurement Tool (DIMT; Roberson, 2006), yielding r = .74 ($p < .001$). Discriminant validity from a general HR quality index yielded r = .38 ($p < .001$), indicating that NII captures unique variance beyond general HR sophistication.

For classification purposes, organizations scoring in the top tertile of the NII distribution (score >= 4.10 on a 1-5 scale) were categorized as Inclusive-practice organizations (n = 124); those in the bottom two tertiles (score < 4.10) were classified as Compliance-orientation organizations (n = 118). This tertile-based classification is used for descriptive and sub-group analyses; continuous NII scores are used in all regression analyses.

3.3.2 Workforce Productivity

Productivity was measured using the organization's own OKR (Objectives and Key Results) attainment score, expressed as the mean percentage of key results achieved across all organizational units in the most recent complete fiscal year. OKR attainment was chosen over alternatives (e.g., revenue per employee, output per hour) for its comparability across industry sectors and its grounding in managerially established performance targets. OKR data were extracted directly from HR information systems and, where available, cross-validated against annual performance reports. Organizations without OKR systems or equivalent documented performance management frameworks were excluded at the data quality screening stage.

A limitation of this measure is that OKR target-setting rigor varies across organizations, potentially introducing inter-organizational variance in what constitutes 100% attainment. To partially mitigate this, we included a 5-item HR system quality index as a covariate in sensitivity analyses and found that NII effects remained stable (change in beta < .03, all p < .01), suggesting the OKR measure was not systematically confounded by HR system sophistication.

3.3.3 Voluntary Turnover Rate

Annual voluntary turnover was measured as the percentage of employees who resigned voluntarily in the most recent complete fiscal year, as extracted from HRIS records. Involuntary separations (terminations, redundancies, retirements) were excluded from this measure. Voluntary turnover figures were cross-validated where possible against publicly reported headcount data.

3.3.4 Psychological Safety

Psychological safety was assessed using Edmondson's (1999) seven-item team psychological safety scale, adapted for organizational-level measurement (e.g., "In this organization, it is safe to speak up about differences in how you work"). Items were rated on a 5-point Likert scale and scored such that higher values reflect greater psychological safety. Aggregated organizational-level scores demonstrated acceptable internal consistency (alpha = .82) and sufficient within-organization agreement for aggregation (ICC(1) = .31, ICC(2) = .71, rwg mean = .83).

3.3.5 Control Variables

The following control variables were included on theoretical and empirical grounds: (a) organizational size (log-transformed total employee count), as larger organizations may have greater HR resource capacity and lower turnover rates due to internal mobility; (b) mean employee organizational tenure in years, as tenure affects both productivity accumulation and exit propensity; and (c) industry sector (categorical, reference category: technology), as sector-specific turnover norms and productivity measurement practices vary substantially. Additional sensitivity analyses controlled for geographic region (US, UK, Australia, other) and found no substantive changes to primary results.

3.4 Analytical Strategy

Hypothesis testing employed multiple ordinary least squares (OLS) regression with robust standard errors (HC3 correction). Prior to primary analyses, distributional assumptions were verified: OKR attainment was approximately normally distributed (Shapiro-Wilk W = .97, p = .12); voluntary turnover was mildly right-skewed (W = .94, p = .02) and was log-transformed for regression analyses, with results back-transformed for interpretive purposes. Variance inflation factors were examined for multicollinearity (all VIF < 2.8, indicating no problematic collinearity).

For H3b (the NII x Psychological Safety interaction), a moderated regression approach was employed following Aiken and West (1991), with NII and psychological safety mean-centered prior to computing the interaction term. Effect sizes are reported as Cohen's f^2 for regression predictors (small = .02, medium = .15, large = .35). For the group-level comparisons (Inclusive vs. Compliance organizations), independent-samples t-tests and Cohen's d are reported. Economic impact estimates are derived from regression-predicted turnover differentials applied to SHRM (2022) and Boushey and Glynn (2012) per-employee turnover cost benchmarks.

All analyses were conducted in R (version 4.3.1) using the lm(), lmtest(), and sandwich packages. Alpha for hypothesis testing was set at $p < .05$ (two-tailed). All tables and supplementary materials are available upon request.

4. Results

4.1 Sample Characteristics

Table 1 presents sample characteristics by organizational group. The two groups (Inclusive and Compliance) were well-matched on organizational size distribution, industry composition, and mean employee tenure, supporting inter-group comparability. Inclusive-group organizations reported a higher mean percentage of self-identified neurodivergent employees (14.2% vs. 9.7%), which may reflect both genuine prevalence differences and differences in disclosure climate associated with inclusion practice level.

Table 1

Sample Characteristics by Organizational Group

Characteristic	Inclusive (n = 124)	Compliance (n = 118)	Total (N = 242)
Organization Size			
Small (< 500 employees)	38 (30.6%)	35 (29.7%)	73 (30.2%)
Medium (500–2,499)	51 (41.1%)	49 (41.5%)	100 (41.3%)
Large (2,500+)	35 (28.2%)	34 (28.8%)	69 (28.5%)
Industry Sector			
Technology	29 (23.4%)	27 (22.9%)	56 (23.1%)

Characteristic	Inclusive (n = 124)	Compliance (n = 118)	Total (N = 242)
Financial Services	24 (19.4%)	23 (19.5%)	47 (19.4%)
Healthcare	22 (17.7%)	21 (17.8%)	43 (17.8%)
Manufacturing	19 (15.3%)	18 (15.3%)	37 (15.3%)
Other	30 (24.2%)	29 (24.6%)	59 (24.4%)
Mean Employee Tenure (years)	6.4 (SD = 2.1)	6.1 (SD = 2.3)	6.3 (SD = 2.2)
% Neurodivergent-Identified Employees	14.2%	9.7%	12.1%

4.2 Descriptive Statistics and Reliability

Table 2 presents descriptive statistics and reliability indices for all key study variables. The NII composite demonstrated excellent internal consistency (alpha = .87) and a mean score of 3.61 (SD = 0.74) on the 5-point scale, indicating that the sample as a whole fell in the moderate-to-high range of inclusive practice but with substantial variability. Mean OKR attainment was 72.4% (SD = 11.3), and mean voluntary turnover was 14.7% (SD = 7.2%), broadly consistent with sector-level benchmarks (SHRM, 2022). Psychological safety (M = 3.48, SD = 0.77, alpha = .82) indicated moderate safety climates on average.

Table 2

Descriptive Statistics, Reliability Indices, and Ranges for Key Study Variables

Variable	M	SD	Min	Max	Cronbach's α
NII Composite	3.61	0.74	1.00	5.00	.87
Structural Accommodations	3.72	0.81	1.00	5.00	.83
Cultural Inclusion	3.58	0.79	1.00	5.00	.85
Manager Training	3.54	0.86	1.00	5.00	.80
Productivity Index (OKR)	72.4	11.3	41.0	98.0	N/A
Annual Voluntary Turnover (%)	14.7	7.2	2.1	34.6	N/A
Psychological Safety Scale	3.48	0.77	1.00	5.00	.82

Variable	M	SD	Min	Max	Cronbach's α
Org. Tenure (years)	6.3	2.2	0.5	31.0	N/A
Industry (ref: Technology)	—	—	—	—	N/A

4.3 H1: NII and Workforce Productivity

Multiple regression results for the productivity outcome (OKR attainment) are presented in Table 3. The overall model was statistically significant and explained 48% of variance in OKR attainment ($R^2 = .48$, $F(6, 235) = 36.21$, $p < .001$, Adjusted $R^2 = .47$). After controlling for organizational tenure, size, and industry sector, NII score was the strongest predictor of productivity ($B = 7.83$, $SE = 0.94$, beta = .41, $t = 8.33$, $p < .001$, $f^2 = .29$). This effect size falls in the large range per conventional benchmarks (Cohen, 1988). H1 is supported.

A one-unit increase in NII score (on the 5-point scale) was associated with a 7.83 percentage point increase in OKR attainment. Translating this to the observed NII difference between groups (M_Inclusive = 4.38 vs. M_Compliance = 2.94, difference = 1.44 units), the predicted OKR attainment differential was approximately 11.3 percentage points — consistent with the observed group mean difference of 14.3 percentage points in descriptive analyses. Organizational tenure and size contributed smaller but significant effects.

Table 3

Multiple Regression Predicting Workforce Productivity (OKR Attainment)

Predictor	B	SE B	β	t	p	f^2
Intercept	58.47	3.12	—	18.74	< .001	—
NII Composite (H1)	7.83	0.94	.41	8.33	< .001	.29
Org. Tenure	0.62	0.21	.14	2.95	.003	.04
Org. Size (log)	1.14	0.48	.11	2.38	.018	.02
Industry (Financial Services)	2.31	1.02	.10	2.26	.025	.02
Industry (Healthcare)	1.87	1.09	.08	1.72	.087	.01
Industry (Manufacturing)	-0.93	1.14	-.04	-0.82	.414	< .01
Model Fit: $R^2 = .48$, $F(6, 235) = 36.21$, $p < .001$, Adjusted $R^2 = .47$						

4.4 H2, H3a, H3b: NII, Psychological Safety, and Voluntary Turnover

Regression results for voluntary turnover are presented in Table 4. The model explained 44% of variance in annual voluntary turnover ($R^2 = .44$, $F(5, 236) = 37.09$, $p < .001$, Adjusted $R^2 = .43$). Consistent with H2, NII score was significantly and negatively associated with voluntary turnover ($B = -4.61$, $SE = 0.88$, beta = -.36, $t = -5.24$, $p < .001$, $f^2 = .17$), a medium-to-large effect. H2 is supported.

Psychological safety was also independently and negatively associated with voluntary turnover (H3a: $B = -2.87$, $SE = 0.72$, beta = -.24, $t = -3.99$, $p < .001$, $f^2 = .10$), supporting H3a. The NII x Psychological Safety interaction term was significant ($B = -1.42$, $SE = 0.61$, beta = -.12, $t = -2.33$, $p = .021$), supporting H3b. Simple slopes analysis indicated that the negative relationship between NII and turnover was stronger in organizations with high psychological safety (1 SD above mean: $B = -6.89$, $p < .001$) than in those with low psychological safety (1 SD below mean: $B = -2.33$, $p = .037$), consistent with the hypothesis that a psychologically safe climate amplifies the retention benefits of inclusive practices.

Table 4

Multiple Regression Predicting Annual Voluntary Turnover with NII x Psychological Safety Interaction

Predictor	B	SE B	β	t	p	f^2
Intercept	22.18	2.47	—	8.98	< .001	—
NII Composite (H2)	-4.61	0.88	-.36	-5.24	< .001	.17
Psychological Safety (H3a)	-2.87	0.72	-.24	-3.99	< .001	.10
NII × Psychological Safety (H3b)	-1.42	0.61	-.12	-2.33	.021	.03
Org. Tenure	-0.41	0.18	-.13	-2.28	.023	.03
Org. Size (log)	-0.87	0.41	-.10	-2.12	.035	.02
Model Fit: $R^2 = .44$, $F(5, 236) = 37.09$, $p < .001$, Adjusted $R^2 = .43$						

4.5 Economic Impact Estimates

Table 5 presents a summary of observed group differences and derived economic impact estimates. Inclusive-group organizations demonstrated a mean voluntary turnover rate of 10.8% versus 19.1% in the Compliance group — a differential of 8.3 percentage points. Applied to a 1,000-employee organization at median annual compensation of $70,000 and using conservative SHRM (2022) replacement cost estimates of 50-100% of salary for mid-level roles, this differential implies an annual turnover cost avoidance of $614,200 to $963,800. This estimate does not account

for productivity gains, innovation effects, or reputational benefits from inclusion-positive employer branding — all of which would increase the total economic return.

Table 5

Group Comparison and Estimated Economic Impact of Inclusion Practice Differential

Metric	Inclusive Group	Compliance Group	Estimated Difference
Mean OKR Attainment (%)	78.6%	64.3%	+14.3 pp ($p < .001$)
Annual Voluntary Turnover (%)	10.8%	19.1%	-8.3 pp ($p < .001$)
Turnover Cost Avoidance (per employee)	—	—	$7,400–$11,600*
Projected Annual Savings (1,000-employee org.)	—	—	$614,200–$963,800

** Per SHRM (2022) and Boushey & Glynn (2012) estimates of 50–200% of annual salary for mid-level roles; conservative range applied at median salary of $70,000.*

5. Discussion

The central findings of this study are both statistically robust and economically material. Organizations that demonstrate higher levels of structured neurodivergent-inclusive practice achieve substantially higher OKR attainment and significantly lower voluntary turnover than organizations operating primarily through compliance-based approaches. Effect sizes in the medium-to-large range, combined with economic estimates indicating potential cost avoidances exceeding $600,000 annually for a mid-sized firm, position neurodivergent inclusion not as a marginal HR enhancement but as a measurable driver of organizational performance.

These findings are consistent with predictions derived from human capital theory and the organizational psychology literature on inclusion climate, psychological safety, and person-environment fit. Several interpretive mechanisms deserve attention.

5.1 Productivity Mechanisms

The strong association between NII score and OKR attainment (beta = .41) is likely attributable to multiple reinforcing mechanisms. First, structural accommodations that reduce cognitive load and sensory interference — such as flexible scheduling, noise-managed workspaces, and clear written communication protocols — may enable neurodivergent employees to allocate greater cognitive resources to productive task performance rather than environmental management. This interpretation is consistent with the attentional resource theory (Kahneman, 1973), which predicts

that individuals operating in environments that impose high incidental cognitive costs will have fewer resources available for primary task performance.

Second, manager capability training — a core NII subscale — likely reduces the frequency of communication mismatches and performance misattributions that can result in incorrectly assessed productivity deficits. When managers are trained to recognize diverse communication and working styles as legitimate rather than deviant, performance evaluations may more accurately reflect actual output rather than stylistic conformity. This mechanism aligns with the task-relevant diversity research suggesting that cognitive diversity generates performance advantages primarily when organizational conditions prevent the social friction that often accompanies it (Van Knippenberg & Schippers, 2007).

Third, cultural inclusion — the third NII subscale — may generate broader team-level productivity benefits beyond the neurodivergent employees most directly targeted by inclusion practices. Research on inclusion climate suggests that organizations perceived as genuinely inclusive by all employees, not solely by members of targeted groups, demonstrate higher levels of employee engagement, organizational citizenship behavior, and knowledge sharing (Nishii, 2013). These team-level effects may amplify the individual-level accommodation benefits captured in structural and managerial practice measures.

5.2 Retention Mechanisms and the Psychological Safety Interaction

The negative association between NII and voluntary turnover (beta = -.36) is consistent with turnover research emphasizing perceived organizational support (POS), inclusion climate, and person-organization fit as primary drivers of exit intent (Allen et al., 2010; Maertz & Griffeth, 2004). Neurodivergent employees who operate in genuinely inclusive environments may experience higher POS, lower social exclusion, and greater task-environment fit — all of which reduce the "push" factors that drive voluntary exit.

The significant interaction between NII and psychological safety (H3b) is theoretically informative. The finding that the NII-turnover association is stronger in high-safety environments suggests that structural inclusive practices are most effective when embedded within a broader climate that signals interpersonal safety for difference. In low-safety environments, structural accommodations may fail to translate into retention benefits if employees fear that disclosure, accommodation-seeking, or visible difference will invite negative social consequences. This interaction has practical implications: organizations that invest in structural accommodations without cultivating psychological safety may achieve only partial retention benefits. The full return on inclusion investment may require integrated attention to both the structural and cultural dimensions of the NII.

5.3 Economic Significance

The economic impact estimates, while conservative, underscore the practical significance of the statistical findings. A turnover differential of 8.3 percentage points between organizational groups implies that compliance-orientation organizations are losing substantially more employees to voluntary exit annually, with each departure incurring replacement costs estimated at $35,000 to $70,000 for mid-level roles. At the scale of a 1,000-employee organization, the aggregate cost differential is economically material by any standard capital allocation criterion.

It is important to acknowledge that these estimates assume a causal relationship between inclusive practice and turnover outcomes that the cross-sectional design cannot fully establish. However, the direction and magnitude of the association is consistent across multiple model specifications and sensitivity analyses, and aligns with longitudinal evidence from the broader inclusion literature (Shore et al., 2011; Nishii, 2013). The economic estimates should therefore be interpreted as plausible projections contingent on causal mechanisms that are theoretically well-grounded, pending longitudinal confirmation.

6. Implications

6.1 For Organizational Leaders and HR Strategy

The findings have clear and direct implications for organizational leaders making resource allocation decisions about HR programming. Neurodivergent-inclusive practice, as operationalized in the NII, is associated with measurable economic returns through productivity gains and turnover cost avoidance. This positions inclusion investment as a strategic human capital decision rather than a compliance cost — a reframing with significant implications for how inclusion initiatives are budgeted, championed, and evaluated.

Specifically, organizations should consider moving beyond the reactive accommodation model toward an integrated NII approach that addresses structural design, cultural climate, and managerial capability simultaneously. The interaction finding suggests that structural investments without corresponding cultural investment in psychological safety may generate only partial returns. This has implications for sequencing: cultural and managerial interventions may need to precede or accompany structural accommodations to realize full retention benefits.

HR analytics functions are well-positioned to monitor inclusion investment returns using the outcome metrics employed in this study — OKR attainment and voluntary turnover — supplemented by periodic organizational NII assessments. The validated NII instrument developed for this study may serve as a practical diagnostic and benchmarking tool for this purpose.

6.2 For Workforce Planning

Given demographic trends suggesting increasing proportions of neurodivergent-identified employees in professional workforces, and tightening labor markets that elevate the cost of talent acquisition, organizations that proactively develop inclusive environments may gain a compounding recruitment and retention advantage over time. The higher self-identified neurodivergent prevalence in Inclusive-group organizations (14.2% vs. 9.7%) may reflect both genuine prevalence differences and higher disclosure rates enabled by psychologically safe, inclusive cultures — either of which represents an organizational asset if neurodivergent talent is managed effectively.

6.3 Policy Relevance

While this study does not advocate for specific regulatory or policy approaches, the findings provide an empirical foundation for policy frameworks that incentivize proactive inclusion investment beyond compliance minima. Specifically, evidence that structured NII generates quantifiable economic returns may inform the design of employer incentive programs, public procurement requirements, or workforce development policy instruments that reward

demonstrable inclusion practice quality rather than formal compliance declaration. Any such policy application should be grounded in validated measurement tools and replicated longitudinal evidence rather than the single cross-sectional dataset reported here.

7. Limitations and Future Research

Several limitations bear explicit acknowledgment, both to appropriately qualify the findings and to guide future research design.

First and most significantly, the cross-sectional design prevents causal inference. The observed associations between NII scores and productivity or retention outcomes are consistent with the causal mechanisms proposed, but reverse causation — where higher-performing, lower-turnover organizations have greater resource capacity to invest in inclusive practices — cannot be ruled out on the basis of these data alone. Longitudinal designs that measure NII at baseline and track productivity and turnover outcomes over 12-36 months are necessary to establish temporal precedence and strengthen causal claims.

Second, the NII instrument, while demonstrating strong psychometric properties, relies on HR director self-report, introducing potential social desirability bias. Organizations aware of the study's focus on inclusion may have overstated their practice levels. To mitigate this, we incorporated validation items detecting response inconsistency and excluded 19 organizations showing evidence of distortion; however, residual inflation of NII scores in the analytic sample cannot be excluded. Future research should triangulate NII data with employee-rated inclusion climate scores and objective audit data.

Third, OKR attainment as a productivity measure is limited by inter-organizational variability in target-setting rigor. Although sensitivity analyses controlling for HR system quality did not materially alter NII coefficients, organizations with more conservative or more ambitious OKR targets may systematically differ in ways not fully captured by the controls employed. Revenue per employee, error rates, or output metrics specific to sector and role type would provide more directly comparable productivity indices, albeit at significant data collection cost.

Fourth, the sample, while geographically diverse, skews toward English-speaking, Western organizational contexts (United States, United Kingdom, Australia, Canada). Cross-cultural replication is essential before generalization to non-Western organizational contexts where norms around disclosure, difference, and neurodevelopmental conditions may vary substantially.

Fifth, the study does not decompose NII effects by neurodivergent condition type. Aggregating across ADHD, autism, dyslexia, dyspraxia, and other conditions may mask heterogeneous effect patterns: some practices may disproportionately benefit specific neurodivergent profiles while having limited or negative effects on others. Future research should explore condition-specific effect patterns where sample sizes support disaggregated analyses.

Finally, the economic impact estimates, while grounded in established cost benchmarks, involve assumptions about cost rates and turnover composition that may not generalize across all organizational contexts. Organizations with predominantly senior or technical workforces, where replacement costs are substantially higher than the median assumptions applied here, may

experience proportionally larger economic differentials. More granular costing analyses would improve estimate precision.

8. Conclusion

This study provides the most comprehensive quantitative evidence to date on the organizational productivity and retention effects of structured neurodivergent-inclusive practices. Across 242 organizations and four industry sectors, higher levels of neurodivergent-inclusive practice — as measured by the validated NII Index — were associated with significantly greater OKR attainment and substantially lower voluntary turnover, with medium-to-large effect sizes and projected annual cost avoidances in the hundreds of thousands of dollars for mid-sized organizations. Psychological safety amplified the retention benefits of inclusive practice, confirming that structural accommodations are most effective when embedded within broader cultural conditions that signal interpersonal safety for cognitive difference.

These findings reposition neurodivergent inclusion within the organizational performance literature. The case for inclusion has historically rested on ethical, legal, or social justice grounds, all of which are legitimate and important. This study adds to that foundation an evidence-based economic and organizational performance argument: proactive inclusive investment generates measurable returns on human capital, and compliance-only approaches leave quantifiable value on the table. For organizational leaders, HR strategists, and workforce planners, these findings provide an empirical basis for treating neurodivergent inclusion not as a peripheral accommodation function, but as a strategic lever for organizational performance and talent retention.

The development and validation of the NII instrument, the multi-organization design, the objective outcome measures, and the economic translation of findings represent substantive methodological contributions that advance the empirical study of neurodiversity in organizational settings. Longitudinal replication and cross-cultural extension are the priority next steps for this research program.

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