JBAM

Exploring New Technology-Based Employee Deviant Work Behaviors

Gary Blau
Temple University

Kyle Stephens
Temple University

Published academic research on deviant work behavior (DWB) has generally fallen behind on incorporating technology, along with newer work generations and alternative work environments. In this study, a revised construct of DWB, i.e., technology-based deviant work behavior is defined (TbDWB), and a new 18-item TbDWB measure with three related but distinct and reliable scales is offered: Tb Time Abuse Deviance (3 items), Tb Communication Deviance (4 items), and Tb Production Deviance (11 items). Using an anonymous self-report online survey, supportive reliability and validity data for these three scales is found using two separate split complete-data samples (Sample 1, n = 643, Sample 2, n = 585). Data integrity checks resulted in the loss of 30% of the overall sample. Some support was also found for the discriminant validity of these scales from the Robinson and Bennett (2000) Interpersonal Deviance and Organizational Deviance scales, comparing the samples across three generations (Generations Z, Y, X) as well as work environments (remote, hybrid, in-person). A promising new TbDWB measure, more broadly incorporating the role of technology in the workplace, is offered to further DWB research.

Employee deviant work behavior (DWB) has been defined as "voluntary behavior that violates significant organizational norms, and in doing so, threatens the well-being of the organization or its members" (Robinson & Bennett, 1995, p.556). One estimate for the cost of DWB in the United States (US) was $759 billion dollars per year (Martin et al., 2010). It can be argued that all forms of employee deviant work behavior involve some sort of time theft, i.e., employees being paid for time not spent engaged in productive activities at work (Harold et al., 2022). Hu et al. (2023) cited research where it has been estimated that approximately 75% of US businesses are affected by some type of employee time theft, costing approximately 20% of each dollar earned. As such, DWB represents a critical challenge for businesses.

The purpose of this study is twofold: first, briefly review the literature on DWB to propose developing and testing an updated technology-based DWB measure, following guidance on scale development research (Hinkin, 1998; Lambert & Newman, 2023). Second, to compare this new updated DWB measure to Robinson and Bennett's (2000) DWB measure, highlighting generation and work environment comparisons. Given the exploratory nature of this study, two research questions and not formal hypotheses will be stated.

Literature Review—Robinson and Bennett DWB-Related Research

The gold standard scale for DWB research has been Robinson and Bennett's (R&B) (2000) measure, comprised of two related but distinct scales, a seven-item measure of Interpersonal Deviance (R&B_ID), item e.g., "made fun of someone at work" and a twelve-item measure of Organizational Deviance (R&B_OD), e.g., "taken property from the organization without permission." These items have been rated on a 7-point frequency behavior scale, asking how often a respondent engaged in each behavior in the last year, where 1 (never), 2 (once a year), 3 (twice a year), 4 (several times a year), 5 (monthly), 6 (weekly), and 7 (daily). Prior conceptual work by Bennett and Robinson (1995) formed the basis for this scale development in which four types of DWB were distinguished – production deviance, political deviance, property deviance and personal aggression. Peterson (2002) developed a separate measure of DWB, based on Bennett and Robinson's (1995) four-quadrant typology consisting of three items measuring each type of DWB. More recent DWB research has most consistently applied either the formal Robinson and Bennett (2000) measures (e.g., Koopman et al., 2020; Liu et al., 2021; Pletzer et al., 2023), or the four types of DWB proposed by Bennett and Robinson, 1995), e.g., Dang-Van et al. (2022). However, other measures of DWB have been developed.

Newer Forms of DWB Types

Citing the difficulty of combining more minor DWBs (e.g., coming late to work, acting rudely towards someone) with more serious DWBs (e.g., stealing from the organization, illegal drug use on the job) to collectively measure DWB, Spector et al. (2006) created a 45-item Counterproductive Work Behavior (CWB) measure, where CWB involves employee behaviors that are intentional and harm or intend to harm an organization and/or organization stakeholders, such as employees, customers, and supervisors (Spector & Fox, 2005). The 45-item CWB measure is composed of five specific DWB scales, i.e., abuse towards others, production deviance, sabotage, theft, and withdrawal, with items measured on a more

constrained five-point behavioral scale from 1 = never to 5 = daily. Spector et al. (2006) further combined their scales into more general measures, CWB-O (directed against the organization) and CWB-P (directed against people). In their meta-analysis of studies comparing interpersonal and organizational dimensions of DWB (n = 66 studies) and CWB (n = 20 studies), Thrasher et al. (2020) concluded that the interpersonal and organizational dimensions were more distinct within DWB than CWB.

Cyberloafing or cyberslacking (Tandon et al., 2022) has emerged as a specific form of DWB, initially conceptualized as an employee using an organization's internet resources for reasons unrelated to their assigned work (Lim, 2002). An example of a cyberloafing scale is Henle and Blanchard (2008), where survey participants were instructed to answer 15 items (1=never to 5 = a great deal), reporting personal computing use during regular work hours (e.g., checked non-work-related email, downloaded music). Cyber incivility (Torres et al., 2024) has also emerged as a new form of DWB in a remote work setting, where employees are technologically connected through various mechanisms, e.g., email, texting, instant messaging, zoom meetings. In their qualitative analyses of 502 critical incidents by 257 service employees which showed cyber incivility, three general content themes emerged: sense of reproach (e.g., demeaning), sense of aggression (e.g., foul language), and lack of regard (e.g., interrupting). Yuan et al. (2020) focused on a specific type of DWB cyber incivility, e-mailing. In distinguishing between active email (e.g., sending a rude comment) versus passive e-mail (e.g., ignoring a request) incivility, Yuan et al. (2020) found that while active e-mail incivility led to greater emotional appraisals, passive e-mail incivility was positively related to insomnia. Time theft was mentioned earlier as a generalized form of DWB (Harold et al. 2022), and Harold et al (2022) developed a 15-item time theft scale, broken down into five dimensions – unsanctioned breaks, falsifying work hours, manipulating the speed of work, excessive socialization, and spending work on nonwork. This scale has been further validated (Hu et al., 2023). However, the scale is restricted to hourly worker samples and its item content is non-technological.

Even more recent forms of specific DWBs have emerged, linked to the Covid-19 pandemic and post-pandemic effects (e.g., great resignation), such as quiet quitting and coffee badging. Quiet quitting involves employees who intentionally limit their work by doing the minimum required. Recent scales for measuring this have been developed by Galanis et al. (2023) and Anand et al. (2024). Galanis et al. (2023) developed a 9-item measure of quiet quitting, further broken down into three sub-scales, i.e., detachment, "I take as many breaks as I can", lack of initiative, "I don't express opinions or ideas about my work because I am afraid the manager assigns me more tasks" and lack of motivation, "I feel inspired when I work" (reverse-scored). Seven of the nine items us a 5-point response scale, where 1= strongly disagree to 5 = strongly agree, while two items are framed as questions, e.g., "how often do you take initiative at your work" and

use a 5-point frequency-based response scale, 1 = never to 5 = always. Anand et al. (2024) developed a 7-item scale, using a 1 = completely disagree to 5 = completely agree response scale, sample item, "I do the bare minimum work to avoid being fired (Anand et al., 2024). As a growing resistance to return- to-office mandates by companies (Ding & Ma, 2024) coffee badging has emerged as a form of DWB. Although no formal academic research has been published (to the authors' knowledge), coffee badging involves an employee who must report to work, "showing up" briefly for a cup of coffee to then exit the office as quickly as possible to go back to working remotely (Resources for Employers, 2023).

General Critique of Prior DWB Research

What the prior above-mentioned DWB measures have in common as a general limitation is not basing DWBs on emerging technology (except for cyberloafing and cyber incivility), or considering work environment, and generation as comparison variables for types of DWB. The Covid-19 pandemic led to increased work environment options for many, including fully remote work, or hybrid work, representing some combination of remote and in-person office work. The publication dates for much prior DWB research made it difficult to include more recent employee generations (Parker et al., 2020, i.e., Generation Z, born 1997 or later and Generation Y, born between 1981 to 1996), or different work environments, e.g., remote, hybrid. This leads to proposing an updated approach to include these more recent comparison variables, while measuring technology-based DWB.

An Updated Technology-Based DWB Definition and Measure Development

Grounded in Bennett and Robinson's (1995) initial DWB conceptualization, technology-based deviant work behavior (TbDWB) is defined as "an employee's voluntarily using organizational technology to engage in behavior that violates significant organizational norms." As such, this definition is meant to be broader than focusing on a particular type of DWB, e.g., cyber incivility (Torres et al., 2024). A construct definition of TbDWB is mandatory (Lambert & Newman, 2023) before the process of scale development can begin. This process involves various steps, including operationalizing the construct by generating items, expert item assessment for their validity, collecting data to initially determine content valid scales, including their reliability, and then confirming the validity of the construct through additional measurement (Bennett & Robinson, 2000; Hinkin, 1998; Lambert & Newman, 2023). This criterion is what Colquitt et al. (2019, p. 1243) have collectively defined as "definitional correspondence," the degree to which a scale's items correspond to the definition of the construct. This leads to the study's first research question:

RQ1. Can distinct and reliable TbDWB scales be created?

Comparing the R&B_ID and R&B_OD Scales to an Updated TbDWB Measure

The two Robinson and Bennett (2000) scales still dominate DWB measures in contemporary DWB literature. For

example, as noted earlier, Thrasher et al.'s (2020) meta-analysis compared 66 DWB studies using R&B_ID and R&B_OD scales versus 20 CWB studies using the CWB measure (Spector et al., 2006). By comparing an updated TbDWB measure to R&B_ID and R&B_OD this will account for Colquitt et al.'s (2019, p. 1243) second criterion for scale evaluation, "definitional distinctiveness," i.e., the degree to which a new scale's items correspond more to the construct's definition than to definitions of other orbiting constructs. Direct comparison between DWB scales will be made for the created TbDWB scales to the two Robinson and Bennett (2000) scales.

> RQ2a. What is the relationship between the two Robinson and Bennett DWB scales to new TbDWB scales?

Generation and Work Environment "Gap" in Using Broader Technologically Based DWB Measures

Working with a sample of 328 full-time, in-person non-managerial employees from energy-based companies in Pakistan, Abbasi et al. (2024) found that perceived corporate environment irresponsibility (e.g., pollution) was positively related to DWBs, with Generation Z employees exhibiting greater DWBs than Millennials. The DWBs were measured using more "traditional" in-person DWB behaviors, e.g., employee theft, sabotage coming to work late, taking long breaks, and absenteeism (Bennett & Robinson, 2000). In a separate study also focusing on perceived corporate social irresponsibility but comparing full-time, in-person 272 Millennials and Genneration Z non-managerial textile workers, Abbasi et al. (2024) also found that Generation Z employees exhibited greater DWBs than Millennials, using in-person traditional DWBs (Bennett & Robinson, 2000). Studying a sample of new nurses (less than one year of work experience) across five hospitals in China, Meng et al. (2024) found that organizational justice was negatively related to DWB, while emotional labor was positively related to DWB. Again, traditional in-person DWBs were used. Although age was not reported, it can be assumed that as new nurses with less than one year of work experience, most were probably Generation Z (born 1997 or later). Such research indicates a generation and work environment "gap" in not using more up-to-date broader technologically-based DWB measures. The above-cited research suggests testing the following research question (RQ) below:

> RQ2b. Are there differential relationships of generation and work environment to the TbDWB scales versus the Robinson and Bennett scales?

Method

Sample and Data Collection

The research site was a large business school located in a Mid-Atlantic US public university, and two anonymous Qualtrics surveys were used, with permission from the University Institutional Review Board (9/15/24 approval letter). The first survey collected all relevant study variables, along with verification of a human (not bot) survey response, consent to voluntary participate statement, participants stating they were currently working at least part-time, and being at least 18 years of age. If any of these requirements were not met, a respondent was not allowed to proceed with the first survey. There were also three "authentication check" items embedded in the first survey at different points, to try and ensure that respondents were not giving fraudulent responses, i.e., paying attention as they answered the survey items, especially since a monetary incentive for participation was involved. If a respondent missed at least two of the authentication check items they were automatically dismissed from answering additional survey items. Only respondents who answered at least two of three authentication check items correctly were eligible for money incentive participation. Upon this first survey completion, respondents were then taken to a second survey, via a separate Qualtrics survey link, where they were allowed to give their email address for a subsequent random drawing of 20 Amazon gift cards worth $50. each. The separate surveys preserved the anonymity of the first survey responses. These precautions, i.e., use of bot-identifying item (via Completely Automated Public Turing test to tell Computers and Humans Apart or CAPTCHA), authentication check items, and unique second survey link, were all designed to ensure the highest level of online survey data integrity possible (Goodrich et al., 2023).

The data collection period spanned from mid-September 2024 to mid-December 2024, approximately three months. Various recruitment strategies were used to enlist respondents including repeat email and in-person appeals to: Management Department faculty at the public university, student business school professional organization members, and use of LinkedIn and Facebook by the authors as well as students enrolled in the business school's doctoral business administration program. Snowball sampling, to have participants recruit other participants, was also encouraged. Ultimately, 1747 survey responses were recorded. Of these 1747 responses, 1228 (70%) were successfully completed for inclusion in this study. The 1228 complete data responses were randomly split into two samples (Sample 1, n = 643, Sample 2, n = 585) for the data analyses described below. The remaining 519 responses, (30%), i.e., "incomplete data", could not be included due to a combination of authentic item disqualification and missing data.

Measures

TbDWB Instrument Development

Following prior scale development research recommendations (Harold et al., 2022; Hinkin, 1998; Lambert & Newcombe, 2023), the following general phases were performed: item generation; item review and selection; pilot survey work; survey administration/initial item reduction; exploratory factor analysis on one sample; confirmatory factor analysis on a second independent sample; and convergent and discriminant validity assessment. For the item generation stage, a group of working Generation X, Y, and Z managers and employees were asked to generate a list of observed deviant work behaviors, i.e., behaviors where an employee voluntary used organizational technology to engage in behavior that violated significant organizational norms. 30 items were collectively generated.

These 30 items were reviewed by several different judges, i.e., academic professors and doctoral students, practicing managers, and working employees. These judges independently reviewed these items for consistency with the definition of voluntary technology-based deviance violating organizational norms, as well as item clarity, and behavior relevance to a wide variety of jobs. These reviews were submitted to the authors, and final determination was made to keep 21 of the 30 items for further analysis (9 items were deleted). Pilot survey work was then done in several phases with independent groups of potential respondents (n = 35 total), resulting in multiple survey revisions, including: item wording clarity, the use of answer sliders, breaking up survey sections for easier readability, giving more specific examples of deviant behaviors, transition to second independent reward eligibility survey, and time to complete the first survey (average time 17 minutes).

The 21 items identified above were kept for the final survey. The same self-report 7- point behavioral anchors for items were used as the Robinson and Bennett (200) items to allow direct comparison. In their meta-analytic comparison of self-reports of CWBs to supervisor or co-worker reports, Berry et al. (2012) concluded that self-reports were a viable source of DWBs. These 21 items were then reduced via data analysis as described below, as well as the subsequent scale development steps. The additional measures also used in this study are given below.

Robinson and Bennett Scales

The 7-item Interpersonal Deviance (R&B_ID) and 12-item Organizational Deviance (R&B_OD) scales were used, with their behavior frequency response scales, 1 = never to 7 = daily. This 7-point response scale, with the same past year time frame, was used for the new TbDWB items. For this study, the scale reliabilities (coefficient alpha), were: Sample 1, R&B_ID @ = .92; R&B_OD @ = .93 and Sample 2, R&B_ID @ = .90; R&B_OD @ = .91.

Generation

Respondents were asked which generation they most identified with and five choices were given (Parker et al., 2020): Generation Z (born after 1996); Generation Y (born 1981 - 1996); Generation X (born 1965 - 1980); Baby Boomer (born 1946 – 1964) and Silent Generation (born 1926–1945).

Work Environment

Respondents were asked what is your current work environment for your job, and three choices were given: completely remote, hybrid (some combination of remote and in-person and completely in-person).

Additional Demographic Variables

Additional variables were asked, i.e., employee age, employee gender, race, highest degree of education level, work experience, industry, does the company have a return-to-office policy, full-time (hours), part-time (hours). To conserve text space the response scales for each of these variables, and respondent percentage answers, are listed in Table 1.

Data Analysis

In order to test RQ1(can distinct and reliable TbDWB scales be created?), exploratory factor analysis (EFA) was used, along with initial reliability and correlation tests. This was followed by confirmatory factor analysis (CFA). In order to test RQ2a (what is the relationship between the two Robinson and Bennett DWB scales to new TbDWB scales?) direct correlation comparisons were made. Finally, to test RQ2b (are their differential relationships of generation and work environment to the TbDWB scales versus the Robinson and Bennett scales?), paired sample t-tests comparisons were carried out. SPSS-PC, v.29 (SPSS, 2021) was used for the EFA, correlation, reliability, and paired sample t-tests, and Amos, v. 29 (SPSS, 2021), was used for the CFA.

Results

Demographic Variables—Sample 1 versus Sample 2

Table 1 shows a demographic variable comparison of the complete data for Sample 1 (n = 643) versus Sample 2 (n = 585). Sample creation was based on a random splitting of the overall sample, using SPSS (SPSS 2021). An overview breakdown shows that both samples are approximately equal in terms of age, gender, generation, race, highest degree of education level, work experience, industry worked, current work environment, return-to-office policy requirement, and full-time versus part-time working. A comparison of the complete to incomplete data, (30%) indicated no significant demographic variable differences.

Tests of Research Questions

Using Sample 1 (n = 643), an EFA on the self-reported 21 TbDWB items was conducted, using principal axis factor analysis with varimax rotation, and a scree test to determine the number of factors (Costello & Osborne, 2005; Hinkin, 1998). Strong factor loadings of at least .60 with a cross-loading differential of at least .15 were used as criteria for determining an item to be part of a factor, as well as selected items representing the content domain (Lambert & Newman, 2023) of the underlying construct (factor). Based on this, 18 of the 21 items were selected, representing three different TbDWB factors, named; Technology-based Production Deviance (TbPD), Technology-based Communication Deviance (TbCD) and Technology-based Time Abuse Deviance (TbTAD). TbPD consisted of 11 items, i.e., #2, 5, 8, 9, 10, 11, 13, 14, 17, 20 and 21; TbCD consisted of four items, i.e., #6, 7, 12, and 19; and TbTAD, consisted of 3-items, i.e., #1, 3 and 4. Three items were deleted due to either insufficient loading or cross-loading problems, i.e., items #15, 16 and 18. The scale reliabilities for each scale (coefficient alpha) were: TbPD = .94; TbCD = .84; and TbTAD = .80, all exceeding the recommended cutoff of .70 (Hinkin, 1998) (Table 2).

This EFA analysis was followed by a CFA analysis on the second independent sample (n = 585). Results indicated that the three-factor (18-item) TbDWB model showed a good fit to the data (Jackson et al., 2009), i.e., $\chi2(132)$ = 548.68; CFI = .96; TLI = .95; RMSEA = .06, with item variance estimates all exceeding .50 and no model modifi-

Table 1

Nominal Complete Data Demographic and Work Background Variables for Both Samples

Variable	Sample 1 (*n*=643)	Sample 2 (*n*=585)
Employee age (years)	M=34.33, SD=9.95	M=33.89, SD=9.58
Gender with which you most identify		
Female	328 (51%)	288 (49%)
Male	313 (49%)	296 (51%)
Non-binary/third gender	2	1
Generation with which you most identify		
Generation Z (born after 1996)	183 (29%)	164 (28%)
Generation Y (born 1981–1996)	315 (49%)	308 (53%)
Generation X (born 1965–1980)	125 (19%)	99 (17%)
Baby Boomer (born 1946–1964)	17 (3%)	13 (2%)
Silent Generation (born 1926–1945)	3	1
With what race do you predominantly identify?		
White or Caucasian	468 (73%)	450 (77%)
Black or African American	101 (16%)	82 (14%)
Asian	33 (5%)	23 (4%)
Hispanic	22 (3%)	15 (3%)
Mixed race	19 (3%)	15 (3%)
Highest degree of education		
High School diploma or equivalent	45 (7%)	51 (9%)
Associate degree	73 (11%)	47 (8%)
Some college (junior or senior)	138 (22%)	143 (25%)
Bachelor's degree	261 (41%)	248 (42%)
Master's degree	93 (15%)	71 (12%)
Doctoral degree (e.g., PhD, DBA)	19 (3%)	18 (3%)
Professional degree (e.g., JD, MD)	14 (2%)	7 (1%)
Work experience (years)	M=12.51, SD=9.49	M=12.11, SD=8.75
Which industry best describes where you currently work?		
Technology	146 (23%)	122 (21%)
Healthcare	103 (16%)	83 (14%)
Finance	123 (19%)	136 (23%)
Education	91 (14%)	77 (13%)
Manufacturing	98 (15%)	85 (15%)
Government	11 (2%)	10 (2%)
Other (e.g., hospitality, insurance, legal, retail, construction)	71 (11%)	72 (12%)
What is your current work environment?		
Completely remote	89 (14%)	76 (13%)
Hybrid (some combination of remote and in-person)	356 (55%)	323 (55%)
Completely in-person	198 (31%)	186 (32%)
Does your company have some type of formal return-to-office (RTO) policy in place that affects your job		
No	355 (55%)	326 (56%)
Yes	288 (45%)	259 (44%)

cations necessary. Table 3 presents the item variance estimates using CFA for the 18 TbDWB items. The scale reliabilities for each scale (coefficient alpha) for this second sample were: TbPD = .95; TbCD = .85; and TbTAD = .82.

Table 4 presents the Means, Standard Deviations, and Correlations for the three TbDWB scales, as well as the two R&B scales. The diagonal in the matrix separates Sample 1 versus Sample 2 correlations. Using paired sample t-tests for each sample, the means for the TbTAD scale (Sample 1, M = 3.01, Sample 1, M = 3.07) are significantly higher (p < .01, two-tailed) than corresponding means for the TbCD (Sample 1, M = 1.93, Sample 2, M = 2.63) and TbPD (Sample 1, M = 2.33, Sample 1, M = 2.34) scales. In addition, the TbTAD scale mean is higher than both Robinson and Bennett scales (p < .01, two-tailed): Sample 1, R&B_ID, M = 2.34; R&B_OD, M = 2.48; Sample 2, R&B_ID, M = 2.38; R&B_OD, M = 2.53. The correlation results between these three TbDWB

scales show high intercorrelations for both samples, with a range from r = .62 to r = .82, with a mean r = .71 (.712 = 50% overlap). Despite this scale overlap, the results for Table 2, 3 and 4 combined show support for RQ1 – distinct and reliable TbDWB scales can be created.

Correlation results are also presented in Table 4 to test RQ2a – what is the relationship between the two Robinson and Bennett DWB scales to new TbDWB scales? First, it should be pointed out that the R&B_ID and R&B_ID scales are strongly correlated across both samples (Sample 1, r = .88; Sample 2, r = .86). The overall correlations between the three TbDWB scales to the two Robinson and Bennett DWB scales across both samples is high, with the strongest correlations found for TbPD, Sample 1, r = .85, R&B_ID and r = .87, R&B_OD; Sample 2, r = .85, R&B_ID and r = .88, R&B_OD; with somewhat weaker correlations found for TbTAD, Sample 1, r = .63, R&B_ID and r = .69, R&B_OD; Sample 2, r = .61, R&B_ID and r = .71, R&B_OD. The correlations

Table 2

Principal Axis Factor Analysis (Varimax Rotation)

	Deviance factor		
Item	Production	Communication	Time abuse
1. Excessive personal internet use during work hours	.07	.22	**.84**
2. Using 'Zoom or other internet fatigue' as an excuse to avoid required virtual meetings or work tasks	**.73**	.37	.21
3. Spending disproportionate amounts of time on social media platforms during work hours	.22	.24	**.81**
4. Regularly engaging in online shopping during work hours	.35	.23	**.69**
5. Using technology to work unauthorized irregular hours or weekends	**.60**	.39	.32
6. Marking oneself as available on communication platforms while being absent or engaging in personal activities	.33	**.65**	.33
7. Engaging in excessive personal activities (e.g., cooking, personal mail, cleaning during work meetings	.31	**.66**	.40
8. Using email or text to indirectly express hostility or undermine/discredit work colleagues in some way	**.78**	.23	.25
9. Faking illness or mental health issues to avoid work responsibilities while working remotely	**.75**	.20	.33
10. Using screen-sharing functions to subtly display inappropriate content or private messages	**.80**	.27	.18
11. Recording virtual meetings without consent to use against colleagues or managers later	**.78**	.24	.20
12. Pretending to attend virtual meetings while not actually paying attention or participating	.37	**.66**	.35
13. Consistently ignoring company communication protocols (e.g., digital etiquette)	**.75**	.34	.20
14. Unauthorized access to colleagues' shared files or emails out of curiosity or malice	**.81**	.28	.15
15. Engaging only in virtual meetings, and avoiding in-person meetings or vice versa[a]	**.61**	.51	.18
16. Deliberately delaying responses to work-related emails or messages[a]	.45	.40	.47
17. Using software or tools to simulate activity while not actually working	**.63**	.47	.23
18. Using remote work allowances to take excessively long or frequent breaks[a]	.51	.48	.36
19. Using within company communication tools (e.g., Teams) for extensive personal conversations	.46	**.64**	.20
20. Altering digital performance metrics or logs to appear more productive than reality	**.72**	.38	.17
21. Only participating in high-visibility remote-related tasks, while ignoring routine responsibilities	**.66**	.44	.19

Note. n = 643. Numbers in bold indicate dominant factor loadings. Referent – "Using the response scale below, please indicate how frequently you have engaged in the following behaviors at work:" 1=never, 2=at least once a year, 3=at least twice a year, 4=several times a year, 5=monthly, 6=weekly, 7= daily. Three deviance factors: Factor 1 – Technology-based production deviance, 11 items, #2, 5, 8, 9, 10, 11, 13, 14, 17, 20, 21, Factor 2 – Technology-based communication deviance, 4 items, #6, 7, 12, 19, Factor 3 – Technology-based time abuse, 3 items, #1, 3, 4. [a]Items #15, 16 and 18 removed from further analyses due to cross-loadings or insufficient loading problems.

between TbCD to both R & scale scales fall in-between Tb PD and TbTAD, i.e., Sample 1, r = .75, R&B_ID and r = .81, R&B_OD; Sample 2, r = .77, R&B_ID and r = .82, R&B_OD. The mean correlation between the TbDWB to R&B scales across samples is r = .77 (.772 = 59% overlap). The 41% unshared variance (100% - 59%) indicates there is at least some discriminant validity between the Robinson and Bennett DWB scales versus the three new TbDWB scales, but there is weaker support for RQ2a.

The final RQ2b asked, are their differential relationships of generation and work environment to the TbDWB scales versus the Robinson and Bennett scales? Paired-sample t-testing was used for each Sample, comparing DWB scale means, first for generation (Table 5) and then work schedule (Table 6). The results for Table 5 (generation) are limited to comparing Generations Z, Y, and X. Across both samples and all three generation, TbTAD had a higher mean than the R&B scales. The re-

sults for the TbCD scale are more mixed, with Sample 2 showing the TbCD means to be generally higher across generations than both R&B scales, but the opposite pattern is true for Sample 1. The results for the TbPD scale across both samples generally show no generational differences in means with the R&B_ID scale, but a somewhat stronger pattern with the R&B_OD mean higher than the TbPD mean, where a difference was found.

For work environment (remote, hybrid, in-person), across both samples and all three work environments, TbTAD had a higher mean than the two R&B scales. The results for TbCD are more mixed, for Sample 2 if there is a mean difference, TbCD was higher than the two R&B scales, but the opposite pattern was found for Sample 1 (TbCD being lower). For TbPD, there are mixed results for the remote and hybrid work environment scale comparisons, but for the in-person work environment, both R&B scales are higher across samples than TbPD. Based

Table 3

Confirmatory Factor Analysis for 18 Technology-Based Deviant Work Behavior Items with Item Variance Estimates

Item	Variance estimate[a]
1. Excessive personal internet use during work hours	.60
2. Using 'Zoom or other internet fatigue' as an excuse to avoid required virtual meetings or work tasks	.66
3. Spending disproportionate amounts of time on social media platforms during work hours	.59
4. Regularly engaging in online shopping during work hours	.65
5. Using technology to work unauthorized irregular hours or weekends	.62
6. Marking oneself as available on communication platforms while being absent or engaging in personal activities	.70
7. Engaging in excessive personal activities (e.g., cooking, personal mail, cleaning during work meetings	.68
8. Using email or text to indirectly express hostility or undermine/discredit work colleagues in some way	.67
9. Faking illness or mental health issues to avoid work responsibilities while working remotely	.71
10. Using screen-sharing functions to subtly display inappropriate content or private messages	.65
11. Recording virtual meetings without consent to use against colleagues or managers later	.65
12. Pretending to attend virtual meetings while not actually paying attention or participating	.66
13. Consistently ignoring company communication protocols (e.g., digital etiquette)	.64
14. Unauthorized access to colleagues' shared files or emails out of curiosity or malice	.59
15. Using software or tools to simulate activity while not actually working	.54
16. Using within company communication tools (e.g., Teams) for extensive personal conversations	.60
17. Altering digital performance metrics or logs to appear more productive than reality	.66
18. Only participating in high-visibility remote-related tasks, while ignoring routine responsibilities	.55

Note. n = 585. [a]Variance estimates for each item.

Table 4

Means, Standard Deviations, and Correlations of Continuous Variables for Samples 1 and 2

Deviance variable[a]	M	SD	M	SD	1	2	3	4	5
1. R&B Interpersonal	2.34	1.44	2.38	1.44	–	.86**	.61**	.77**	.85**
2. R&B Organizational	2.48	1.37	2.53	1.40	.88**	–	.71**	.82**	.88**
3. Tb Time abuse	3.01[b]	1.62	3.07[b]	1.64	.63**	.69**	–	.69**	.63**
4. Tb Communication	1.93[b]	1.18	2.63[b]	1.53	.75**	.81**	.70**	–	.82**
5. Tb Production	2.33[b]	1.49	2.34[b]	1.50	.85**	.87**	.62**	.79**	–

Note. Sample 1, n = 643; Sample 2 n = 585; Sample 1 correlations below diagonal, Sample 2 correlations above diagonal. aR&B interpersonal deviance (R&B_ID), R&B organizational deviance (R&B_OD), Tb time abuse deviance (TbTAD), Tb communication deviance (TbCD), Tb production deviance (TbPD), 1=never, 2=at least once a year, 3=at least twice a year, 4=several times a year, 5=monthly, 6=weekly, 7=daily. b Tb Time Abuse Deviance Mean (in bold) significantly higher than the two other TbDWB scales in both samples at $p < .01$ (two-tailed); Sample 1 – TbTAD versus Tb CD, $t(642) = 14.84$, TbTAD versus Tb PD, $t(642) = 14.59$; Sample 2 – TbTAD versus Tb CD, $t(584) = 10.95$, TbTAD versus Tb PD, $t(584) = 15.92$. ** $p < .01$ (two-tailed).

on their publication date (Robinson & Bennett, 2000), and lack of work environment data, it is assumed that all participants worked in-person. Overall, there is partial support for RQ2b.

Discussion

The recent Covid-19 pandemic and post-pandemic has led to increased work environment options for many, including fully remote work, or hybrid work, representing some combination of remote and in-person office work. Remote work requires technology. The publication dates for much DWB research focused on in-person samples and also made it difficult to include more recent employee generations (Parker et al., 2020, i.e., Generation Z, born 1997 or later and Generation Y, born between 1981 to 1996). These gaps led to proposing an updated approach to measuring technology-based DWB. Technology-based deviant work behavior (TbDWB) was defined as "an employee's voluntarily using organizational technology to engage in behavior that violates significant organizational norms." Study results show a promising new 18-item

TbDWB measure with three related but distinct and reliable scales: TbTAD (3 items), TbCD (4-items), and TbPD (11-items). This supports Colquitt et al.'s (2019, p. 1243) "definitional correspondence," the degree to which a scale's items correspond to the definition of the construct. The TbPD scale directly adopts Bennett and Robinson's (1995) "production deviance" DWB model component. In addition, items in the TbPD scale (e.g., #8, 13, 14) capture active and passive e-mail incivility (Yuan et al., 2020).

However, the evidence for Colquitt et al.'s (2019, p. 1243) second criterion for scale evaluation, "definitional distinctiveness," i.e., the degree to which a new scale's items correspond more to the construct's definition than to definitions of other orbiting constructs, is more mixed. The TbTAD scale showed the strongest correlational distinctiveness, as well as generation-based and work environment-based distinctiveness from both the Robinson and Bennett (2000) Interpersonal Deviance and Organizational Deviance scales. The TbCD scale distinctiveness was weaker, and the TbPD scale was the weakest. All forms of DWB involve some sort of time theft (Harold et

Table 5

Paired Sample T-tests Comparing Three New Technology-Based Deviant Based Scales versus Robinson and Bennett Scales for Three Generations

	Sample					
	1 (*n*=643)			2 (*n*=585)		
Deviance	**Mean subtraction**	***t*(df)**	***p* (two-tailed)**	**Mean subtraction**	***t*(df)**	***p* (two-tailed)**
Generation Z scale comparison						
Tb Time abuse–R&B Interpersonal	3.04–2.06	8.77(182)	*p* < .001	3.20–1.98	9.49(163)	*p* < .001
Tb Time Abuse–R&B Organizational	3.04–2.35	6.88(182)	*p* < .001	3.20–2.28	8.54(163)	*p* < .001
Tb Communication–R&B Interpersonal	1.79–2.06	-3.64(182)	*p* < .001	2.29–1.98	3.19(163)	*p* = .002
Tb Communication–R&B Organizational	1.79–2.35	-9.04(182)	*p* < .001	2.29–2.28	.11(163)	*p* < .92
Tb Production–R&B Interpersonal	2.06–2.06	.09(182)	*p* < .94	1.82–1.98	-2.45(163)	*p* = .02
Tb Production–R&B Organizational	2.06–2.35	-5.56(182)	*p* < .001	1.82–2.28	-7.19(163)	*p* < .001
Generation Y scale comparison						
Tb Time Abuse–R&B Interpersonal	3.12–2.63	6.91(314)	*p* < .001	3.17–2.71	6.45(307)	*p* < .001
Tb Time Abuse–R&B Organizational	3.12–2.64	7.03(314)	*p* < .001	3.17–2.77	6.18(307)	*p* < .001
Tb Communication–R&B Interpersonal	2.10–2.63	-9.47(314)	*p* < .001	2.92–2.71	3.98(307)	*p* < .001
Tb Communication–R&B Organizational	2.10–2.63	-11.71(314)	*p* < .001	2.92–2.77	3.18(307)	*p* = .002
Tb Production–R&B Interpersonal	2.57–2.63	-1.04(314)	*p* = .30	2.67–2.71	-.95(307)	*p* < .34
Tb Production–R&B Organizational	2.57–2.64	-3.64(314)	*p* = .30	2.67–2.77	-2.94(307)	*p* = .004
Generation X scale comparison						
Tb Time Abuse–R&B Interpersonal	2.60–2.00	6.40(124)	*p* < .001	2.74–2.12	6.00(98)	*p* < .001
Tb Time Abuse–R&B Organizational	2.60–2.25	4.58(124)	*p* < .001	2.74–2.36	4.42(98)	*p* < .001
Tb Communication–R&B Interpersonal	1.69–2.00	-4.10(124)	*p* < .001	2.48–2.12	3.99(98)	*p* < .001
Tb Communication–R&B Organizational	1.69–2.25	-8.92(124)	*p* < .001	2.48–2.36	1.66(98)	*p* =.10
Tb Production–R&B Interpersonal	2.10–2.00	1.26(124)	*p* < .11	2.28–2.12	1.93(98)	*p* = .05
Tb Production–R&B Organizational	2.10–2.25	-3.08(124)	*p* = .003	2.28–2.36	-1.47(98)	*p* < .15

al., 2022), employees being paid for time not spent engaged in productive activities at work. However, the difference between the time theft scale developed by Harold et al. (2022) and the three new TbDWB scales presented here is that the Harold et al. (2022) time theft scale is restricted to hourly workers and has a non-technological item-based content. As such the three new TbDWB scales show definitional distinctiveness from the Harold et al. (2022) time theft scale (Colquitt et al., 2019).

Study Strengths, Limitations, and Future Research

Beyond the need for updating prior DWB studies with a new technology-based DWB measure and including newer working generations and remote and hybrid work environments, there are other study strengths. A strong survey development process was carried out, with built in safeguards (e.g., bot identifying item, authentication check items, and unique second survey link), designed to ensure the highest level of data integrity possible (Goodrich et

Table 6

Paired Sample T-tests Comparing Three New Technology-Based Deviant Based Scales versus Robinson and Bennett Scales for Remote, Hybrid, and In-Person Work Environments

	Sample					
	1 (*n* = 643)			2 (*n* = 585)		
Scale comparison	**Mean subtraction**	**t(df)**	***p* (two-tailed)**	**Mean subtraction**	**t(df)**	***p* (two-tailed)**
Remote						
Tb Time abuse–R&B Interpersonal	3.22–2.44	5.56(88)	*p* < .001	3.80–2.96	4.96(75)	*p* < .001
Tb Time Abuse–R&B Organizational	3.22–2.68	4.11(88)	*p* < .001	3.80–3.23	4.06(75)	*p* < .001
Tb Communication–R&B Interpersonal	2.10–2.44	-3.28(88)	*p* < .001	3.31–2.96	2.95(75)	*p* = .004
Tb Communication–R&B Organizational	2.10–2.68	-6.40(88)	*p* < .001	3.31–3.23	.64(75)	*p* < .53
Tb Production–R&B Interpersonal	2.61–2.44	2.22(88)	*p* < .05	3.05–2.96	1.09(75)	*p* < .28
Tb Production–R&B Organizational	2.61–2.68	-1.03(88)	*p* < .31	3.05–3.23	-1.72(75)	*p* = .09
Hybrid						
Tb Time Abuse–R&B Interpersonal	2.89–2.40	7.63(355)	*p* < .001	2.93–2.39	7.98(322)	*p* < .001
Tb Time Abuse–R&B Organizational	2.89–2.51	6.56(355)	*p* < .001	2.93–2.51	6.68(322)	*p* < .001
Tb Communication–R&B Interpersonal	1.98–2.40	-8.94(355)	*p* < .001	2.68–2.39	5.31(322)	*p* < .001
Tb Communication–R&B Organizational	1.98–2.51	-12.87(355)	*p* < .001	2.68–2.51	3.35(322)	*p* < .001
Tb Production–R&B Interpersonal	2.42–2.40	.47(355)	*p* < .64	2.39–2.39	-.04(322)	*p* < .98
Tb Production–R&B Organizational	2.42–2.51	-2.48(355)	*p* < .02	2.39–2.51	-3.84(322)	*p* < .001
In-person						
Tb Time Abuse–R&B Interpersonal	3.13–2.18	9.08(197)	*p* < .001	3.03–2.12	8.08(185)	*p* < .001
Tb Time Abuse–R&B Organizational	2.13–2.36	8.36(197)	*p* < .001	3.03–2.28	8.33(185)	*p* < .001
Tb Communication–R&B Interpersonal	1.78–2.18	-5.40(197)	*p* < .001	2.29–2.12	2.19(185)	*p* = .03
Tb Communication–R&B Organizational	1.78–2.36	-10.22(197)	*p* < .001	2.29–2.28	.30(185)	*p* < .77
Tb Production–R&B Interpersonal	2.05–2.18	-5.40(197)	*p* < .001	1.95–2.12	-2.87(185)	*p* = .005
Tb Production–R&B Organizational	2.05–2.36	-3.08(124)	*p* = .003	2.15–2.28	-6.44(185)	*p* < .001

al., 2023). Unfortunately, these data integrity checks resulted in a 30% incomplete data sample loss. However, the demographics for this incomplete sample were consistent with the complete data sample, suggesting that these data integrity checks were useful to incorporate in online survey research. The remaining complete data sample size of n = 1228 allowed for randomly splitting this sample for separate EFA and CFA analyses, as well as other results comparisons. The study research design is less than ideal, i.e., self-report, cross-sectional, so that no causality can be inferred. A one-factor test for method variance (Podsakoff et al., 2003) found that 37% of the variance was accounted for in Sample 1 and 38% in Sample 2. However, the very strong ratio of respondents to items (N/K) well exceeding the recommended 10:1 ratio for stable factor analysis (Hinkin, 1998) further increases confidence that method variance alone is not driving the self-report TbDWB-related results. Although Berry et al. (2012) concluded that self-reports were a viable source of DWBs, future research collecting TbDWB data from other sources, i.e., coworkers, supervisors, is needed to further demonstrate the definitional correspondence (Colquitt et al., 2019) of this new measure.

There are sampling limitations, across both samples, to note beyond the 30% respondent loss. There were too few Baby Boomer participants to analyze and even less Silent Generation respondents, so that the study focused only on Generation Z, Y and X, with Generation Y being dominant of the three. Although Generation Y is overrepresented in both samples, it is also expected to grow to 75% of the US workforce by 2030 (Paczka, 2024). In addition, the samples were predominantly White, with a bachelor's degree as the most frequent education degree, working in a hybrid work environment, generally without a return-to-office policy (RTO), and working primarily full-time. Additional distinction of a hybrid work environment would be useful in future research (e.g., two versus three day in-person work requirement). There was a heterogeneous mix of industry respondents across the samples. There were differences when comparing the two samples by generation and work environment, e.g., TbCD versus R&B scales. However, clearly additional heterogeneous sample data with additional variables must be collected to test the generalizability of the initial results found (e.g., company size). For example, there seems to be an increased pressure for RTO in many organizations, especially larger ones, for 2025 (Dennison, 2024), which may also lead to increased employee resignations, suggesting job turnover/turnover intentions as a future variable for measurement.

Future research needs to find a way to incorporate TbDWB with newer non-technological DWB measures such as quiet quitting (Galanis et al., 2023; Anand et al., 2024) and coffee badging (Resources for Employers, 2023). DWB has been viewed as detrimental to an organization, including TbDWB. Emerging research on constructive deviance (Liu et al., 2021), incorporating newer technology is also needed. Finally, updated research on the financial cost of TbDWB should be done. To conclude, the promising new, broader TbDWB measure offered here will be a useful addition to the DWB literature, helping academic research to keep up with current trends, as well as helping organizations deal more effectively with DWB. One goal of this study is to stimulate continued research on employee voluntary DWB.

References

Abbasi, M. A., Amran, A., & Sahar, N. E. (2024). Assessing the impact of corporate environmental irresponsibility on workplace deviant behavior of Generation Z and Millennials: A multigroup analysis. *International Journal of Ethics and Systems, 40*(1), 45–67. https://doi.org/10.1108/IJOES-05-2022-0099

Abbasi, M. A., Amran, A., Kahn, R., & Sahar, N. E. (2024). Linking corporate social irresponsibility to workplace deviant behavior: A comparative analysis of Generation Z and Generation Y. *Current Psychology, 43*, 1118–1135. https://doi.org/10.1007/s12144-023-04372-z

Anand, A., Doll, J., & Ray, P. (2024). Drowning in silence: A scale development and validation of quiet quitting and quiet firing. *International Journal of Organizational Analysis, 32*(4), 721–743. https://doi.org/10.1108/ijoa-01-2023-3600

Bennett, R. J., & Robinson, S. L. (2000). Development of a measure of workplace deviance. *Journal of Applied Psychology, 85*(3), 349–360. https://doi.org/10.1037/0021-9010.85.3.349

Berry, C. M., Carpenter, N. C., & Barratt, C. L. (2012). Do other-reports of counterproductive work behavior provide an incremental contribution over self-reports? A meta-analytic comparison. *Journal of Applied Psychology, 97*(3), 613–636. https://doi.org/10.1037/a0026739

Colquitt, J. A., Sabey, T. B., Rodell, J. B., & Hill, E. T. (2019). Content validation guidelines: Evaluation criteria for definitional correspondence and definitional distinctiveness. Journal *of Applied Psychology, 104*(10), 1243–1265. https://doi.org/10.1037/apl0000406

Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation, 10*(7), 1–9.

Dang-Van, T., Vo-Thanh, T., Usman, M., & Nguyen, N. (2024). Investigating employees' deviant work behavior in the hotel industry during Covid-19: Empirical evidence from an emerging country. *Tourism Management Perspectives, 44*, 1–13. https://doi.org/10.1016/j.tmp.2022.101042

Dennison, K. (2024, December). An update on return to office policies as we enter 2025. *Forbes.* https://www.forbes.com/sites/karadennison/2024/12/12/an-update-on-return-to-office-policies-as-we-enter-2025/

Ding, Y., & Ma, M. *Return-to-office mandates.* (2023, December). Social Science Research Network. http://dx.doi.org/10.2139/ssrn.4675401

Galanis, P., Katsiroumpa, A., Vraka, I., Siskou, O., Konstantakopoulou, O., Moisoglou, I., Gallos, P., & Kaitelidou, D. (2023). The quiet quitting scale: Development and initial validation. *AIMS Public Health, 10*(4), 828–848. https://doi.org/10.3934/publichealth.2023055

Goodrich, B., Fenton, M., Penn, J., Bovay, J., & Mountain, T. (2023). Battling bots: Experiences and strategies to mitigate fraudulent responses in online surveys. *Applied Economic Perspectives and Policies, 45*, 762–784. https://doi.org/10.1002/aepp.13353

Harold, C. M., Hu, B., & Koopman, J. (2022). Employee time theft: Conceptualization, measure, development, and valida-

tion. *Personnel Psychology, 75*, 347–382. https://doi.org/10.1111/peps.12477

Henle, C. A., & Blanchard, A. L. (2008). The interaction of work stressors and organizational sanctions on cyberloafing. *Journal of Managerial Issues, 20*(3), 383–400.

Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods, 1*(1), 104–121.

Hu, B., Harold, C. M., & Kim, D. (2023). Stealing time on the company's dime: Examining the indirect effect of laissez-faire leadership on employee theft time. *Journal of Business Ethics, 183*, 475–493. https://doi.org/10.1007/s10551-022-05077-2

Jackson, D., Gillaspy, J., & Purc-Stephenson, R. (2009). Reporting practices in confirmatory factor analysis: An overview and some recommendations. *Psychological Methods, 14*(1), 6–23. https://doi.org/10.1037/a0014694

Koopman, J., Rosen, C. C., Gabriel, A. S., Puranik, H., Johnson, R. E., & Ferris, D. L. (2019). Why and for whom does the pressure to help hurt others? Affective and cognitive mechanisms linking helping pressure to workplace deviance. Personnel Psychology, 73(2), 333–362. https://doi.org/10.1111/peps.12354

Lambert, L. S., & Newman, D. A. (2023). Construct development and validation in three practical steps: Recommendations for reviewers, editors, and authors. *Organizational Research Methods, 26*(4), 574–607. https://doi.org/10.1177/10944281221115374

Lim, V. K. G. (2002). The IT way of loafing on the job: Cyberloafing, neutralizing and organizational justice. *Journal of Organizational Behavior, 23*(5), 675–694.

Liu, X., Wang, X., Zhao, Y., Xia, N., & Guo, S. (2020). Solving workplace deviant behavior in construction by leader-member exchange and leader-member Guanxi. *Journal of Construction Engineering and Management, 146*(6), 1–10. https://doi.org/10.1061/(asce)co.1943-7862.0001859

Liu, Y., Zhang, Z., & Zhao, H. (2021). The influence of the Covid-19 event on deviant workplace behavior taking Tiajin, Beijing and Hebei as an example. *International Journal Environmental Research and Public Health, 18*(59), 1–16. https://www.mdpi.com/1660-4601/18/1/59#

Martin, L. E., Brock, M. E., Buckley, M. R., & Ketchen, D. J. (2010). Time banditry: Examining the purloining of time in organizations. *Human Resource Management Review, 20*(1), 26–34.

Meng, R., Jian, Z., Su, Y., Lu, G., & Chen, C. (2024). The effect of perceived organizational justice on workplace deviant behavior of new nurses: The role of emotional labor and psychological capital. *BMC Nursing, 23*, 288–298. https://doi.org/10.1186/s12912-024-01937-6

Paczka, N. (2024, December). *A statistical look at millennials in the workplace*. Live Career. https://www.livecareer.com/resources/special-reports/stats/millennials-in-the-workplace

Parker, K., Graf, N., & Igielnik, R. (2020m January). *Generation Z looks a lot like Millennials on key social and political issues*. Pew Research Center's Social & Demographic Trends Project. https://www.pewresearch.org/social-trends/2019/01/17/generation-z-looks-a-lot-like-millennials-on-key-social-and-political-issues/

Peterson, D. K. (2002). Deviant workplace behavior and the organization's ethical climate. *Journal of Business and Psychology, 17*(1), 47–61.

Pletzer, J. L., Oostrom, J. K., & Voepel, S. C. (2023). Age and workplace deviance: A meta-analytic test and a trait-based examination of why older employees engage in less workplace deviance. *Work, Aging and Retirement, 9*, 153–168. https://doi.org/10.1093/workar/waab033

Podsakoff, P., MacKenzie, S., Lee, J., & Podsakoff, N. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879–903.

Resources for Employers (2023, December). *What is coffee badging—and what you can do about it*. https://resources.workable.com/stories-and-insights/what-is-coffee-badging

Robinson, S. L., & Bennett, R. J. (1995). A typology of deviant workplace behaviors: A multi- dimensional scaling study. *Academy of Management Journal, 38*(2), 555–572. https://doi.org/10.5465/256693

Spector, P. E., & Fox, S. (2005). *A model of counterproductive work behavior.* In S. Fox & P. E. Spector (Eds.), Counterproductive workplace behavior: Investigations of actors and targets (pp. 151–174). APA.

Spector, P. E., Fox, S., Penney, L. M., Bruursema, K., Goh, A., & Kessler, S. (2006). The dimensionality of counterproductivity: Are all counterproductive behaviors created equal? *Journal of Vocational Behavior, 68*(3), 446–460. https://doi.org/10.1016/j.jvb.2005.10.005

SPSS. (2021). *Statistical package for the social sciences* (ver. 29). IBM.

Tandon, A., Kaur, P., Ruparel, N., Islam, J. U., & Dhir, A. (2022). Cyberloafing and cyberslacking in the workplace: Systematic literature review of past achievements and future promises. *Internet Research, 32*(1), 55–89. https://doi.org/10.1108/INTR-06-2020-0332

Thrasher, G. R., Krenn, D. K., & Marchiondo, L. A. (2020). Are counter-productive workplace behaviors and workplace deviance parallel constructs? A meta-analytic test of a common practice. *Occupational Health Science, 4*(3), 239–270. https://doi.org/10.1007/s41542-020- 00065-2

Torres, E. N., Morman, B., & Mistry, T. G. Incivility meets remote work: A typology of cyber incivility behaviors. *International Journal of Hospitality Management, 118*, 1–11. https://doi.org/10.1016/j.ijhm.2024.103689

Yuan, Z., Park, Y. A., & Sliter, M.T. (2020). Put you down versus tune you out: Further understanding active and passive e-mail incivility. *Journal of Occupational Health Psychology, 25*(5), 330–344. http://dx.doi.org/10.1037/ocp0000215

Gary Blau (gary.blau@temple.edu)

Kyle Stephens (kyle.stephens0002@temple.edu)