

Effects of Management Practices on Work Engagement of Public Servants

Marizaura Reis de Souza Camões¹ , Adalmir de Oliveira Gomes² 
& Rafael Barreiros Porto² 

¹*Ministério da Gestão e Inovação em Serviços Públicos, Brasília, DF, Brasil*

²*Universidade de Brasília, Brasília, DF, Brasil*

ABSTRACT – Work engagement is widely regarded as one of the primary predictors of performance in the public sector. Management practices serve as key instruments to enhance workplace engagement. This study aimed to test the impact of three management practices – project continuity, performance evaluation, and results-based promotion – on the work engagement of federal public servants. To achieve this, an intra-subject experiment was conducted. The results revealed that project continuity exerted the strongest positive impact on engagement, while performance evaluation had a negative effect. When combined, results-based promotion and project continuity emerged as the most effective strategies for bolstering public servants' work engagement.

KEYWORDS: work engagement, experiment, public service

Efeitos de Práticas Gerenciais no Engajamento no Trabalho de Servidores Públicos

RESUMO – O engajamento no trabalho é amplamente reconhecido como um dos principais preditores de desempenho no setor público, e as práticas de gestão constituem instrumentos centrais para fortalecê-lo. Este estudo teve como objetivo testar o impacto de três práticas de gestão, continuidade de projetos, avaliação de desempenho e promoção baseada em resultados, sobre o engajamento de servidores públicos federais. Para isso, foi conduzido um experimento intra-sujeitos. Os resultados indicaram que a continuidade de projetos apresentou o efeito positivo mais forte sobre o engajamento, enquanto a avaliação de desempenho teve efeito negativo. Quando analisadas em conjunto, a promoção baseada em resultados e a continuidade de projetos se mostraram as estratégias mais eficazes para aumentar o engajamento no trabalho de servidores públicos.

PALAVRAS-CHAVE: engajamento no trabalho, experimento, serviço público.

There is a broad consensus in the literature that various interventions in human capital management models within organizations – commonly referred to as Human Resource Management (HRM) practices – should be considered central to organizational success, as they positively influence work performance (Ahmed et al., 2016). A study by Jiang et al., (2012) identified that HRM practices can focus on ensuring that organizations have qualified personnel through comprehensive recruitment, rigorous selection, and continuous training; increasing motivation via performance

management and evaluation, incentives and rewards, and career development opportunities; and enabling individuals to apply their skills and motivation toward achieving organizational goals through flexible job design, teamwork, and information sharing. Evidence suggests that HRM practices aimed at increasing motivation have a direct and positive relationship with work engagement, as they provide a framework for rewarding individuals throughout their professional careers (Karatepe, 2013; Rich et al., 2010; Salanova et al., 2005).

Work engagement is defined as a positive, fulfilling, work-related mental state characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). In the public sector, engagement is often associated with intrinsic motivation, particularly the concept of Public Service Motivation - PSM (Fletcher et al., 2019). According to Vandenberg et al. (2013), creating meaningful work, defined as the perception that one's work serves a greater purpose and contributes to societal well-being, is achieved through practices that ensure employees perceive organizational strategic goals and outcomes, often through strategic projects. These practices increase the perception of public value creation and, consequently, PSM, a predictor of work engagement in the public sector.

Despite the relevance of this topic, there is a lack of research exploring the relationship between HRM practices and work engagement (Memom et al., 2020; Urbini et al., 2021; Van De Voorde et al., 2016). While some authors argue that work engagement depends on the effective implementation of HRM practices (Truss et al., 2013), empirical evidence on the relationship between HRM practices, engagement, and work performance remains limited (Camões & Gomes, 2021; Camões et al., 2023; Camões & Gomes, 2024). Additionally, some studies indicate that poorly implemented practices may produce results contrary to expectations, reducing employee engagement (Guo et al., 2019). These negative outcomes can be further exacerbated by factors such as pathological personality traits and career adaptability (Salvador et al., 2022).

Performance evaluations and career promotion opportunities are considered by experts to be among the most relevant HRM practices for fostering engagement (Camões et al., 2023; Jiang et al., 2012). The Brazilian public administration has made efforts to implement these two practices. Since the establishment of the former Administrative Department of Public Service (DASP) in 1938, various regulatory initiatives have sought to institutionalize performance evaluations and career promotions¹. However, studies such as that by Elvira and Bruno-Faria (2021) highlight the inefficacy of performance evaluations and resistance to these processes by both employees and supervisors in Brazil's public sector. These authors emphasize that following all stages of the evaluation cycle—ensuring goal setting and accountability for results—is crucial for achieving desired outcomes in Brazil's public administration.

Most studies on work engagement are grounded in the Job Demands-Resources (JD-R) model, which posits that the availability of organizational resources predicts work engagement through motivational processes (Camões &

Gomes, 2021; Schaufeli & Bakker, 2004). In Brazil, numerous studies have explored work engagement using the JD-R model, including De Moraes and Teixeira (2017), Andrade (2019), Corrêa et al. (2020), De Moraes and Teixeira (2020), Camões and Gomes (2021), Mavignio and Mainardes (2021), Camões et al. (2023), and Camões and Gomes (2024).

Corrêa et al. (2020) argue that the lack of criteria for promotions in Brazil's federal public administration negatively affects employee motivation and performance. However, no studies have analyzed the effects of such practices on work engagement in the Brazilian context (Camões & Gomes, 2021). In their study on the antecedents of engagement, Camões et al. (2023) found no references to performance evaluation practices or their potential effects on engagement. However, professional opportunities, especially those involving leadership roles or assignments, emerged as key antecedents of engagement.

Another significant finding highlighted by Camões et al. (2023) is that moments of administrative transition—when management roles shift, and relevant projects are interrupted—are often perceived as periods of heightened disengagement. This phenomenon, known as policy dismantling, is described by Bauer et al. (2012) as a process that reduces the number, intensity, or scope of policies, often through cuts or the elimination of key projects. In Brazil, Spink (1987) identified policy dismantling because of administrative discontinuity, often driven by the distribution of appointed positions as part of coalition politics. While this phenomenon has not been extensively studied in the public sector engagement literature (e.g., Fletcher et al., 2019), this article justifies its inclusion by highlighting the potential effects of project outcomes on employees' sense of work meaning and motivation, which are predictors of public sector engagement (Vandenberg et al., 2012).

Given the importance of understanding how management practices affect work engagement in specific contexts, this study aims to test the isolated and combined effects of three interventions on work engagement: (a) goal-based individual performance evaluation, (b) results-based promotion criteria for leadership roles, and (c) the continuity of projects generating significant results during administrative transitions. Building on prior research, the study employs an experimental design with federal executive branch public servants in Brazil.

This study contributes to the growing body of knowledge on HRM practices and their effects on engagement. Additionally, it offers evidence-based guidance for policymakers and HRM professionals in federal organizations, enabling them to make informed choices regarding promising practices.

¹ Refer to the following legal provisions: Law No. 3,780 of 1960; Law No. 5,467 of 1970; Decree No. 80,602/1977; Decree No. 84,669/1980; Law No. 8,112 of 1990; Provisional Measure No. 1,548 of 1995; Constitutional Amendment No. 19 of 1998; Decree No. 4,247/2002; Law No. 11,784 of 2008; and Decree No. 7,133/2010.

PREDICTORS OF WORK ENGAGEMENT

Performance Evaluation and Work Engagement

The literature on work engagement highlights its positive relationship with performance indicators, such as individual productivity (Christian et al., 2011). Common measures for assessing the impact of engagement on work outcomes include self-reported performance (Alfes et al., 2013; Matta et al., 2015) and performance ratings given by immediate supervisors (Halbesleben & Wheeler, 2008; Matta et al., 2015). Evidence suggests a positive association between work engagement and performance evaluation outcomes assessed by both immediate supervisors (Rich et al., 2010) and peers (Bakker et al., 2012). However, these relationships must be carefully revisited due to the significant influence of managerial behavior patterns (Schoorman, 1988; Zivnуска et al., 2004).

A study by Guo et al. (2019) demonstrated that in highly politicized organizations, the relationship between individual performance evaluation and work engagement may be negative. This occurs because organizational politics can influence managers, preventing them from evaluating employees accurately and objectively (Guo et al., 2019). When employees perceive decision-making—such as evaluations and promotions—as politically driven, these policies are viewed as hindrance demands, potentially reducing work engagement (Karatepe, 2013). One way to mitigate this distortion is to base performance evaluations on goals agreed upon between the immediate supervisor and the employee, as observed in a study on Brazil's public sector by Elvira and Bruno-Faria (2021).

Given prior evidence (Camões et al., 2023) and the importance of performance evaluation as a critical HRM practice in Brazil's public administration (Camões, 2019), it is important to test its effect on public servants' work engagement. Accordingly, the first hypothesis (H1) of this study posits that performance evaluation based on goal setting may positively influence work engagement. This is because goal setting minimizes evaluation subjectivity, potentially aligning evaluations with organizational or societal outcomes depending on the public servant's sector.

H1: Performance evaluations based on goal setting have a positive effect on public servants' work engagement.

Results-Based Promotion and Work Engagement

Several studies have explored the relationship between work engagement and career development through promotions (Albrecht, 2012; James et al., 2011) and professional opportunities (Bakker & Demerouti, 2007). Evidence indicates a positive correlation between career development and engagement (Ahmed et al., 2017; Albrecht, 2012).

A study by Anitha (2014) demonstrated that fair promotion policies encourage public servants to engage with their organizations. In organizational contexts, promotion opportunities generate high levels of employee engagement (Choo et al., 2013). Conversely, the lack of opportunities can be a significant disengagement factor. As Sardar et al. (2011) noted, employees are more likely to engage in their work when fair and transparent promotion policies are in place. Thus, the prospect of promotion serves as a trigger to increase engagement among public servants (Schaufeli & Salanova, 2010).

In Brazil's federal public administration, the progression model is defined by specific career rules and mostly depends on seniority (Corrêa et al., 2020). Promotions, however, occur through appointments to commissioned roles and positions. Because these appointments are discretionary, they leave significant room for political influence, often referred to as *political appointments*, with personal networks playing a crucial role in occupying such positions (Lopez et al., 2015). A study by Camões et al. (2023) also showed that the appointment of underqualified individuals to such positions could lead to decreased work engagement.

Corrêa et al. (2020) identified negative effects of the lack of performance-based criteria for promotion on motivation and performance in the Brazilian public sector. The authors highlighted that Brazilian federal public servants typically have three options for achieving a real salary increase: waiting for automatic career progression (which usually concludes within 20 years of service), passing a competitive examination for a higher-paying position, or being appointed to a commissioned position.

When public servants perceive that opportunities for promotion are tied to work results, their engagement tends to increase (Camões et al., 2023). Therefore, promotion based on work results appears to be an antecedent variable for work engagement. Accordingly, the second hypothesis (H2) of this study posits a positive relationship between results-based promotion and work engagement. Specifically, the study aims to test an organizational practice in which

results are used as criteria for selecting individuals for commissioned positions.

H2: Results-based promotion has a positive effect on public servants' work engagement.

Project Continuity and Work Engagement

The interruption of policies and projects delivering significant results has been the focus of various studies and is extensively described in Bauer et al. (2012). These authors define *policy dismantling* as “a change, whether direct or indirect, covert or symbolic, that reduces the number of policies in a given area, diminishes the instruments of policy employed, and/or decreases their intensity” (p. 35). Typically, dismantling occurs through budget cuts, program reductions, or even the elimination of impactful policies, programs, or projects, often during periods of fiscal austerity (Bauer et al., 2012).

In Brazil's federal public administration, policy dismantling is particularly evident during government transitions, which often result in leadership changes and interruptions to ongoing projects (Freire et al., 2014). This phenomenon, sometimes referred to as administrative discontinuity, is a byproduct of political strategies such as the distribution of trust-based positions under the coalition presidentialism model (Spink, 1987).

Project discontinuity was highlighted in studies on policy dismantling by Sa and Silva (2021) and Camões et al. (2023), with significant negative impacts on public servants. For instance, respondents in Camões et al. (2023) identified transitions that interrupted meaningful projects as moments of pronounced disengagement. Conversely, the continuation of impactful projects emerged as a critical factor in fostering engagement, as these projects contribute value to the organization and society.

Relevant projects are those that significantly influence societal outcomes. Based on prior findings, the third hypothesis (H3) of this study posits a positive relationship between project continuity and public servants' work engagement. Specifically, the hypothesis tests the impact of a new administration's decision to maintain a relevant project, ensuring the same level of support in terms of budget, personnel, and roles.

H3: Project continuity positively affects public servants' work engagement.

Combination of Practices and Work Engagement

In addition to testing interventions in isolation, this study also examines the combined effects of interventions, building on findings from previous studies (Camões et al., 2023; Elvira e Bruno-Faria, 2021; Gargantini et al., 2022). The underlying assumption is that both extrinsic strategies (e.g., performance evaluation and promotion) and intrinsic strategies (e.g., project continuity) are critical to work engagement. Therefore, it seems reasonable to hypothesize that combining these practices will yield stronger effects on engagement than implementing any single strategy in isolation.

Elvira and Bruno-Faria (2021) highlighted that one reason for the limited effectiveness of performance evaluation in Brazil's public sector is the lack of concrete consequences for those being evaluated. This suggests that linking performance evaluations with results-based promotion could enhance engagement. Similarly, project continuity could provide meaning to goal-based performance evaluations, as agreed-upon goals would be tied to project outcomes. Project continuity fosters intrinsic motivation, while results-based promotion serves as an extrinsic motivator; when combined, these practices are expected to positively impact work engagement.

A study by Gargantini et al. (2022) demonstrated that combined interventions are more effective in promoting work engagement compared to single-strategy approaches. Building on these findings, the fourth hypothesis of this study, along with its derived hypotheses, proposes a positive relationship between the combination of interventions and work engagement.

H4: Combined interventions—goal-based performance evaluation, results-based promotion, and project continuity—generate a greater positive effect on public servants' work engagement compared to the isolated presence of each intervention.

H4.1: Goal-based performance evaluation combined with results-based promotion generates a greater effect on work engagement compared to the isolated presence of each intervention.

H4.2: Results-based promotion combined with project continuity generates a greater positive effect on work engagement compared to the isolated presence of each intervention.

H4.3: Goal-based performance evaluation combined with project continuity generates a greater effect on work engagement compared to the isolated presence of each intervention.

METHOD

This study employed an intra-subject experimental design to examine how three interventions—goal-based performance evaluation, results-based promotion, and project continuity—impact the work engagement of federal public servants. The experiment followed the Randomized Controlled Trial (RCT) framework proposed by Haynes et al. (2012). The design included independent variables presented both in isolation and in combination.

Table 1 outlines the experimental design, detailing the independent variables, their combinations, and the groups formed for the study.

Variables and Design

The dependent variable (DV) in this study is work engagement, measured using two approaches. The first is based on respondents' perceptions, captured through the Portuguese version of the Utrecht Work Engagement Scale (UWES), a validated and widely used instrument in Brazil (Martins & Machado, 2022; Porto-Martins & Benevides-Pereira, 2008). Semantic validation was conducted with eight federal public servants from different organizations, leading to minor adjustments to enhance item clarity.

The second measure of work engagement is productive hours; an observable behavioral indicator linked to the "absorption" dimension of engagement. Absorption reflects intense focus and concentration at work, as defined by Schaufeli et al. (2002). The instruments used for data collection are detailed in Appendix B.

The independent variables (IVs) are the three interventions implemented by the researchers: (a) Goal-Based Performance Evaluation: Performance evaluations based on pre-agreed goals between employees and their supervisors; (b) Results-Based Promotion: Selection for leadership positions based on the results of employees' work; and (c) Project Continuity: The sustained implementation of relevant projects during administrative transitions, ensuring continuity of support (e.g., personnel, budget, resources). To measure the IVs, the study utilized the vignette methodology (Silva et al., 2018), following the recommendations of Atzmüller and Steiner (2010). Vignettes ensure that all participants are exposed to the same experimental conditions, reducing the impact of extraneous variables and allowing causal relationships to be identified.

The vignette method involves constructing a control text that incorporates specific scenarios for each intervention being tested in the experiment (Silva et al., 2018). The findings from Camões et al. (2023) significantly contributed to the development of the control text and vignettes used in this study. Vignettes are descriptions of individuals or social situations designed to present factors that enable respondents to make judgments and decisions (Wason et al., 2002). They

can be defined as "brief descriptions of hypothetical situations in people's lives that are relevant to a particular domain of interest" (Silva et al., 2018, p. 17).

The control text simulated a fictional yet realistic scenario involving a public servant named 'Ana.' Semantic validation of this text was conducted with a group of seven public servants to ensure the narrative was relatable, comprehensible, and capable of distinguishing between the two presented scenarios (see the pre-test script in Appendix A). Adjustments were made to the control text based on pre-test results. Subsequently, another round of testing involved 77 public servants to evaluate response times, instrument clarity, and differentiation in responses. These testing phases refined both the control text and vignettes used in the experiment (detailed in Appendix C).

In addition to semantic adjustments, the UWES instrument was tailored to align with respondents' perceptions of the vignette character created for the experiment.

Sample and Data Collection

The target population comprised federal public servants from the executive branch, excluding university and federal institute staff due to differences in their management models. Data collection utilized the National School of Public Administration (ENAP) database, encompassing over 300,000 federal employees. An initial random sampling yielded 15,000 potential participants. After data cleaning to exclude invalid email addresses, the final sample size was 14,261.

Between April 10 and 20, 2022, participants received an email survey administered through Qualtrics. Respondents were randomly assigned to experimental groups per the study's design. After excluding incomplete responses, 846 valid responses were obtained, providing approximately 100 participants per group. All participants signed an informed consent form and were informed of their right to withdraw at any time.

Each group began by reviewing a control scenario involving Ana, responding to the engagement measures based on her situation. Subsequently, participants reviewed the same scenario, augmented by one or more vignette interventions depending on their assigned group (see Table 1). They then completed the engagement measures again, reflecting on the updated scenario.

Respondents represented diverse demographics. Women comprised 50.8% of participants. Age distribution included 5.6% aged 20–30, 29.9% aged 31–40, 32.6% aged 41–50, 22.3% aged 51–60, and 9.6% over 60 years old. Regarding tenure, 12.5% had 0–5 years of service, 20.8% had 6–10 years, 28.7% had 11–15 years, 16.8% had 16–20 years, and 21.1% had more than 21 years of public service.

Table 1 – Experimental Design

Group	Hypothesis	Goal-Based Performance Evaluation	Project Continuity	Results-Based Promotion
G1	H4	Present	Present	Present
G2	H1	Present	Absent	Absent
G3	H4.1	Present	Absent	Present
G4	H4.3	Present	Present	Absent
G5	H4.2	Absent	Present	Present
G6	H2	Absent	Absent	Present
G7	H3	Absent	Present	Absent
G8	Control	Absent	Absent	Absent

Note: G1: Presence of all three interventions; G2: Presence of goal-based performance evaluation only; G3: Presence of performance evaluation and results-based promotion; G4: Presence of performance evaluation and project continuity; G5: Presence of results-based promotion and project continuity; G6: Presence of results-based promotion only; G7: Presence of project continuity only; G8: No intervention.

Data Analysis

To detect differences in engagement levels across the two engagement measures, a repeated-measures analysis of covariance (ANCOVA) was conducted using Jamovi 2.5.6. Binary coding (0 and 1) was applied to identify the presence or absence of each independent variable. Additionally, the study controlled for gender, age, and tenure based on findings from previous research (Garbin et al., 2020; Ng & Feldman, 2010; Salas-Vallina & Alegre, 2017).

Initial diagnostic tests revealed a lack of homogeneity of variance. To address this, the dependent variables were transformed into Z-scores, and rankings were applied following the adjustment procedure suggested by Conover and Iman (1982). The Levene's test yielded non-significant results for both the rankings of perceived engagement (control group for the engagement measure: $F = 1.01, p > .05$; groups with interventions presented in vignette format: $F = 1.55, p > .05$) and the rankings of productive hours (control group for the productivity measure: $F = 0.329, p > .05$; groups with interventions presented in vignette format: $F = 0.950, p > .05$), allowing the use of non-parametric ANCOVAs.

RESULTS

The results for the adapted work engagement scale (UWES), presented in Table 2, reveal significant differences in mean scores between the control and intervention scenarios ($p < 0.05$) for the following conditions: goal-based performance evaluation, project continuity, and the combined presence of results-based promotion and project continuity. Partial eta-squared (η^2) was used to determine the effect size between variables, as recommended by Keppel (1991).

The analysis of covariance (ANCOVA) demonstrated that the continuity of relevant projects exerted the most substantial effect on participants' perceived engagement [$F(1,823) = 123.246, p \leq .05, \eta^2 = .130$]. A comparison between the control and intervention conditions revealed a significant increase in the mean engagement perception, rising from [$M = 572$ ($SE = 15.5$)] to [$M = 679$ ($SE = 15.2$)]. Furthermore, the interaction between performance evaluation and project continuity produced a significant effect [$F(1,823) = 8.141, p \leq .05, \eta^2 = .010$], highlighting a decrease in perceived engagement when performance evaluations were present. Additionally, the combination of promotion based

on results and project continuity yielded a positive effect on engagement perception [$F(1,823) = 27.719, p \leq .05, \eta^2 = .033$], with the mean increasing from [$M = 577$ ($SE = 21.5$)] to [$M = 652$ ($SE = 21.5$)].

No significant interactions ($p \leq .05$) were observed between the repeated-measures independent variable and the remaining covariates. However, the variable "gender" influenced engagement perception, with male participants assigning higher scores on the engagement perception scale [$F(1,823) = 7.966, p \leq .05$].

Regarding productive hours, results presented in Table 3 indicate that, in the second measure of the dependent variable – work engagement – there were significant differences in means ($p \leq .05$) associated with the presence of promotion based on results [$F(1,823) = 83.386, p \leq .05, \eta^2 = .010$], project continuity [$F(1,823) = 698.373, p \leq .05, \eta^2 = .078$], and the combined presence of both factors [$F(1,823) = 80.138, p \leq .05, \eta^2 = .010$]. The most pronounced effect was observed for project continuity.

All three significant measures had positive effects. Project continuity alone yielded the greatest increase in mean productive hours, as evidenced by a comparison between responses to the control and vignette texts [$M = 552$ and $M = 627$, $SE = 15.6$ for both]. The combined presence of project continuity and promotion similarly resulted in a significant

positive effect compared to their absence [$M = 571$ and $M = 628$, $SE = 21.7$ and $SE = 22.0$, respectively]. Finally, the isolated promotion intervention based on results also led to a meaningful increase in mean productive hours between the control and vignette conditions [$M = 580$ and $M = 608$, $SE = 15.8$ for both].

Table 2 – Intra-Subject Measures for Perceived Engagement

Interventions	Sum of Squares	df	Mean Square	F	p	Partial η^2 (η^2p)
Perceived Engagement (PE)	388,605	1	388,605	10.205	0.001	0.012
PE * Promotion	126,273	1	126,273	3.316	0.069	0.004
PE * Performance Evaluation	310,008	1	310,008	8.141	0.004	0.010
PE * Project Continuity	4,700,000	1	4,700,000	123.346	<0.001	0.130
PE * Age	29,099	1	29,099	0.764	0.382	0.001
PE * Tenure	18,708	1	18,708	0.491	0.484	0.001
PE * Gender	303,323	1	303,323	7.966	0.005	0.010
PE * Promotion * Performance Evaluation	22,488	1	22,488	0.591	0.442	0.001
PE * Promotion * Continuity	1,060,000	1	1,060,000	27.719	<0.001	0.033
PE * Performance Evaluation * Continuity	4,339	1	4,339	0.114	0.736	0.000
PE * Promotion * Performance Evaluation * Continuity	29,300	1	29,300	0.769	0.381	0.001
Residual	31,300,000	823	38,079			

Table 3 – Intra-Subject Measures for Productive Hours

Interventions	Sum of Squares	df	Mean Square	F	p	Partial η^2 (η^2p)
Productive Hours (PH)	368,962	1	368,962	114.654	<0.001	0.014
PH * Performance Evaluation	2,725	1	2,725	0.085	0.771	0.000
PH * Project Continuity	2,250,000	1	2,250,000	698.373	<0.001	0.078
PH * Age	90,715	1	90,715	28.189	0.094	0.003
PH * Tenure	3,747	1	3,747	0.116	0.733	0.000
PH * Gender	237,142	1	237,142	73.691	0.007	0.009
PH * Promotion	268,341	1	268,341	83.386	0.004	0.010
PH * Performance Evaluation * Continuity	54,989	1	54,989	17.088	0.192	0.002

Table 3 – *Cont.*

Interventions	Sum of Squares	df	Mean Square	F	p	Partial η^2 (η^2_p)
PH * Performance Evaluation * Promotion	1,903	1	1,903	0.059	0.808	0.000
PH * Continuity * Promotion	257,889	1	257,889	80.138	0.005	0.010
PH * Performance Evaluation * Continuity * Promotion	20,668	1	20,668	0.642	0.423	0.001
Residual	26,500,000	823	32,181			

DISCUSSION

The findings from this experiment did not support the first hypothesis (H1), which proposed that goal-based performance evaluation increases work engagement in Brazil's federal public administration. Despite the emphasis by Elvira and Bruno-Faria (2021) on the potential positive effects of goal-based evaluations, this was not confirmed in the present study. One possible explanation is that leaders are often appointed without the necessary competencies for their roles, as highlighted by Camões et al. (2023). This can delegitimize these leaders and undermine positive recognition in the goal-setting and achievement process. Additionally, Brazil's federal executive branch is a highly politicized environment, and as Guo et al. (2019) note, in such settings, the relationship between performance evaluation and engagement may be negative. The introduction of goals was insufficient to reverse this dynamic.

The second hypothesis (H2) was partially supported. Using work results as a criterion for promotion positively impacted engagement in terms of productive hours but not in terms of perceived engagement. This discrepancy may indicate that result-based promotions have only short-term effects, impacting the absorption dimension of engagement, which relates to focus and concentration, but not fostering a sustained, fulfilling mental state as proposed by Schaufeli et al. (2002). Furthermore, the organization's adoption of this practice may not generate a sense of justice among employees, which Anitha (2014) identified as crucial. This likely stems from distortions in Brazil's federal public service career models, as noted by Corrêa et al. (2020).

The third hypothesis (H3) was confirmed. Project continuity during administrative transitions was the most effective intervention for increasing work engagement among the public servants studied. Evidence indicated a positive effect on both measures of engagement: perceived engagement and productive hours. These findings align with Sa and Silva (2021), who highlighted the negative consequences of policy dismantling in Brazil, including its

impact on public servant behavior. The likely explanation is that meaningful projects enhance the perceived purpose of public service work, boosting Public Service Motivation (PSM; Fletcher et al., 2019).

The fourth hypothesis (H4) and its derivatives, which posited that combined interventions would have a stronger effect than isolated ones, were partially confirmed. The combination of all three interventions did not yield significant results in intra-subject measures. Hypothesis 4.1 was rejected as no significant differences were observed in intra-subject or productive hours measures for the combination of goal-based performance evaluation and results-based promotion. This suggests that while linking performance evaluation to specific outcomes (e.g., promotions) neutralized its negative effects, it was insufficient to produce positive engagement outcomes.

The combination of project continuity and performance evaluation (H4.3) showed greater effect sizes than performance evaluation alone, but the intra-subject results were not significant, leading to the hypothesis's rejection. Continuity of projects mitigates the negative effects of performance evaluation, but its isolated presence had a stronger positive impact. The combination of results-based promotion and project continuity (H4.2) showed a positive impact, confirming this sub-hypothesis. This pairing affects both intrinsic and extrinsic motivation simultaneously, supporting engagement more effectively.

The findings underscore the need to rethink HRM practices in Brazil's federal public administration, which remain heavily focused on individual-centered interventions such as performance evaluation and competency management (Camões, 2019). Results-oriented interventions that emphasize intrinsic motivation and public service delivery, though underexplored in HRM literature (Kim, 2018), are promising for enhancing engagement and performance. As argued by Leisink et al. (2013), fostering a sense of purpose through strategic projects can enhance perceptions of public value, thereby motivating and engaging public servants.

CONCLUSION

The experimental study using vignettes reported here successfully tested the effects of three interventions – (a) goal-based performance evaluation, (b) results-based promotion, and (c) project continuity – on the work engagement of public servants in Brazil's federal administration. Although the use of vignettes limits the generalization of results due to their

hypothetical nature (Atzmüller & Steiner, 2010), this study addresses a gap in experimental research on organizational behavior within public administration, particularly in the Brazilian context. The findings provide valuable evidence for the design of HRM policies and practices in the public sector.

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APPENDIX A – PRE-TEST SCRIPT FOR VIGNETTES

Step 1	<i>Presenting the scope and objective of the research.</i> “Before we begin, I’d like to thank you for accepting the invitation to participate in this research, which is part of an innovation project on work engagement among public servants. The goal is to analyze your understanding of the instrument we are presenting. There are no right or wrong answers; we simply want to know how you interpret and understand this instrument.”
Step 2	<i>Explaining the research process.</i> “Here’s how it will work: I’ll tell you a short story about a federal public servant, and afterward, I’ll ask you questions about the story. Then, I’ll tell you another story about the same public servant and repeat the questions. Feel free to answer as you see fit.”
Step 3	<i>Project the vignette file and read the control story aloud to the respondent, allowing time for them to process and understand the text. Repeat this process for each question, recording their responses and clarifying any doubts that arise.</i>
Step 4	<i>Read the intervention story and corresponding questions aloud to the respondent, repeating the process.</i>
Step 5	<i>After completing both stories, ask the respondent the following questions to evaluate the vignettes’ clarity, realism, and relevance, if these topics were not addressed spontaneously during the conversation.</i>

Source: prepared by the authors.

APPENDIX B – DATA COLLECTION INSTRUMENTS

Measure 1: Engagement Perception Scale

The following nine items reflect feelings about work. How would Ana rate each of these feelings, from 1 (strongly disagree) to 5 (strongly agree), considering the change described in Story 1? (To respond, click the blue button, drag to the number that best represents your answer, and release.)

1. At work, I feel full of energy.
2. I am enthusiastic about my job.
3. My job inspires me.
4. I am absorbed in my work.
5. I feel happy when I’m deeply engaged in my work.
6. At work, I feel strong and vigorous.
7. I look forward to going to work when I wake up in the morning.
8. I feel proud of the work I do.
9. I feel so excited that I lose track of time while working.

Source: Adapted from Porto-Martins and Benevides-Pereira (2008).

Measure 2: Productive hours

In Story 1, considering that this is Ana’s only project at work, how many hours do you estimate she spends on the following activities? (The total must equal 24 hours.)

Sleeping:

Productively working (e.g., focused, uninterrupted work):

Working unproductively (e.g., distracted, multitasking):

Engaging in unpaid projects that provide personal fulfillment (e.g., social work, taking a course):

Other personal activities (e.g., leisure, family, household tasks):

Total:

APPENDIX C – VIGNETTES

Control text

Ana has been a federal executive servant for 15 years and has experienced several changes in her organization's upper management and structure. These changes often involve project interruptions and process changes. Currently, Ana is working on an important project that delivers significant results for her organization. She has just learned that her organization will undergo a management transition, which could lead to significant changes to the project she is involved in. Ana is uncertain whether it's worth investing so much time in this project.

Directive for control text responses

"We understand you may not have all the information about Ana to answer the following questions related to Story 1. However, we ask you to give your best guess based on your experience."

Directive for intervention text responses

"We understand you may not have all the information about Ana to answer the following questions related to Story 2. However, we ask you to give your best guess based on your experience."

Vignettes presented for each group in the experiment

Group	Vignettes
G1 – Presence of the three interventions	However, three situations arise in Ana's work: She remembers that her grade in the annual performance evaluation depends on meeting the agreed-upon goals for the project; and An announcement is made that, next year, employees with the best results in their projects will have priority in selections for positions and roles; and After the conversation with Ana and the team, the new management, seeing the impressive results of the project Ana is working on, decides to maintain it with the same support (budget, personnel, positions) as before.
G2 – Evaluation based solely on goals	Ana remembers, however, that her grade in the annual performance evaluation depends on meeting the agreed-upon goals for the project.
G3 – Evaluation based solely on goals and promotion based on results.	However, two situations arise in Ana's work: She remembers that her grade in the annual performance evaluation depends on meeting the agreed-upon goals for the project; and An announcement is made that, next year, employees with the best results in their projects will have priority in selections for filling positions and roles.
G4 – Evaluation based solely on goals and project continuity	However, two situations arise in Ana's work: She remembers that her grade in the annual performance evaluation depends on meeting the agreed-upon goals for the project; and After the conversation with Ana and the team, the new management, seeing the impressive results of the project Ana is working on, decides to maintain it with the same support (budget, personnel, positions) as before.
G5 – Promotion based solely on results and continuity of projects.	However, two situations arise in Ana's work: An announcement is made that, next year, employees with the best results in their projects will have priority in selections for filling positions and roles; and After talking with Ana and the team, the new management, seeing the impressive results of the project Ana is working on, decides to maintain it with the same support (budget, personnel, positions) as before.
G6 – Lack of intervention	No vignette shown.
G7 – Promotion based solely on results.	It has been announced that, next year, employees with the best results in their projects will be given priority in selections for positions and roles.
G8 – Presence only of continuity of projects.	After speaking with Ana and the team, the new management, seeing the impressive results of the project Ana is involved in, decided to maintain it with the same support (budget, personnel, positions) as before.

Source: prepared by the authors.

Conflict of interest

The authors have no conflicts of interest to declare.

Data availability statement

The data supporting the findings of this study can be requested from the corresponding author upon reasonable request.

Editor-in-Chief

Tiago Jessé Souza de Lima

Associate Editor

Mary Sandra Carlotto

Corresponding author

Adalmir de Oliveira Gomes

Email: adalmir@unb.br

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