

The Neurodiverse Federal Workforce Pilot Program: A Quantitative Evaluation  
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Author Note

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### Abstract

This paper is a proposed quantitative evaluation of the Neurodiverse Federal Workforce Pilot Program. While there are a number of evaluations of neurodiverse work programs, there are few that are quantitative and few that involve the federal workforce. This evaluation aims to fill both gaps. In addition to evaluating the general success of the program, we aim to determine the program's return-on-investment (ROI) for the government and its partners. Data to be collected and analyzed includes Likert-style survey questions, administrative data, and web data. Specifically, we are aiming to examine supervisors' and coworkers' perceptions of the program and the interns, the program's outreach and recruitment outcomes, and interest in the program. It is predicted that overall, the program will have positive outcomes and show positive ROI.

### Introduction

While the number of “Autism@Work” programs is growing steadily in the private sector, the Neurodiverse Federal Workforce (NFW) Program is the first government program in the United States designed to recruit a federal workforce of neurodivergent individuals (i.e., individuals with atypical neurological variations in the brain in sociability, learning, attention, mood and other mental functions such as autistics and individuals with ADHD; Singer, 1998). In fact, federal government neurodiversity recruitment programs are so new that to-date, only one has any peer-reviewed evaluations of its efficacy: The Dandelion Employment Program (DXC) in Australia (Hedley, et al., 2017; Hedley, et al., 2021; Spoor, Bury, & Hedley, 2021; Spoor, Flower, Bury, & Hedley, 2021). Importantly, the few existing peer-reviewed evaluations of this program are mostly qualitative; the researchers deduce themes from transcripts of interviews and focus groups involving neurodivergent DXC participants, their family members and coworkers, and program staff. Moreover, the single peer-reviewed quantitative evaluation of the program solely involves self-report survey measures of coworkers’ workloads, supervisor support, engagement, and affective and continuance commitment.

In this paper, we are proposing to present inferential analyses of both survey and administrative program data, as well as advanced computational analyses of web/online program data. Specifically, we aim to determine the program’s return-on-investment (ROI) for the government and its partners (i.e., The MITRE Corporation and Melwood) not only in terms of supervisor- and coworker-reported satisfaction, benefits, and performance survey measures, but also in terms of objective measures on program outreach (via traditional/social media and presentations), interest (via inquiries), and recruitment outcomes (via vacancy fulfilment and employee retention).

### Methods

In March of 2024, Melwood, a nonprofit disability employment services organization in the District of Columbia, used an executive recruitment approach to talk through the hiring of neurodivergent applicants with the Cybersecurity Infrastructure and Security Agency (CISA) via a pilot program run by The MITRE Corporation (i.e., MITRE), a nonprofit organization responsible for managing federally funded research and development centers for the government. In total, they presented CISA with 10 applicants and provided an overview of the strengths and weaknesses of each applicant that could not be found in their accompanying resumes. CISA plans to down-select their final interns from this list over a month-long collaboration. Eventually, applicants will be recruited from various nonprofits to attend Melwood’s one-week virtual bootcamp, which consists of practical interview training and staff observation of exercises to assess how the applicants work and problem-solve, their teamwork and collaboration skills, and their abilities to handle stress while completing a group project. Roughly six months later, four of the applicants officially will be hired by CISA and started their internships.

CISA will provide interns with mentors and support staff throughout the program while Melwood will offer all-day professional development seminars once a month on various topics (e.g., formal policies, human resources, soft skills, reported areas of need) via employment experts and peer leaders. Melwood also will provide multiple two-hour virtual staff trainings on best practices for CISA at their request, including an introduction to autism, how to conduct neuro-inclusive interviews, and possible environmental accommodations for sensory sensitivities, among others. Additional more specific program information is being made available via the development of a playbook for federal government agencies in the United States, currently in progress.

## Procedures

*Supervisor and coworker survey.* Sometime in 2024, the MITRE program manager will send the interns' supervisors and coworkers a participant recruitment email with the survey link. From the email, the supervisors and coworkers will learn about the survey's purpose, that it is voluntary, and that it will take roughly 30 minutes to complete at maximum. Once they click on the link, the interns will be presented with an Institutional Review Board (IRB)-approved consent form that they can electronically sign, followed by the survey. Using approaches from prior research (Whelpley, Banks, Bochantin, & Sandoval, 2021), all survey items will be derived from qualitative themes identified in other studies that evaluated similar programs (Black, et al., 2019; Flower R. L., Hedley, Spoor, & Dissanayake, 2019; Flower R. , Hedley, Spoor, & Dissanayake, 2019; Hedley, et al., 2017; Hedley, Wilmot, Spoor, & Dissanayake, 2017). The supervisor and coworker survey will be divided into two sections: one in which they will respond to questions designed to evaluate the program and one in which they will respond to questions designed to evaluate the intern/s with whom they worked. While the supervisors and coworkers will answer the first set of items only once, the second section of the survey will be delivered to them once for each intern with whom they worked.

At the beginning of the survey, all supervisors and coworkers will be asked to enter the number and name/s of the intern/s with whom they worked solely for purposes of displaying the questions. (The name data purposefully will be omitted from being recorded by the survey platform.) Within the first section of the survey, there will be three separate tables of Likert questions, each with different instructions and point anchors. In the first table, supervisors and coworkers will be asked to indicate the extent to which they agree or disagree with nine statements that will be anchored on a 7-point scale (e.g., "The program's training and assessment process enabled the intern/s to be successful on the job," 1 = Strongly Disagree; 7 = Strongly Agree). In the second table, supervisors and coworkers will indicate their satisfaction with different aspects of the program on a 5-point scale (e.g., "Were you satisfied... With the support given by the program to your intern/s after hiring them?" 1 = Strongly Disagree; 5 = Strongly Agree). The third table will not have any instructions and will include only one item anchored on a 5-point scale ("Would you recommend the program to another agency?" 1 = Not at all; 5 = Absolutely).

The second section of the survey will be designed to evaluate the interns. It also will be divided into three Likert tables, each with different instructions and point anchors. In the first table, the supervisors and coworkers will indicate the extent to which they agree or disagree with seven statements on a 7-point scale (e.g., "I can identify beneficial contributions by [name of intern]," 1 = Strongly Disagree; 7 = Strongly Agree). In the second table, they will be given a list of 19 characteristics (e.g., punctual, assiduous) on which they will be asked to describe each intern using a 7-point scale (0 = Never/Needs Help; 3 = Average/Usually; 6 = Always/Excellent). The third table will have no instructions but will consist of two items rated on a 5-point scale (e.g., "Would you have decided to hire [intern's name] without the support of the program's services?" 1 = Not at all; 5 = Absolutely). Survey items will be randomized within their respective tables.

*Administrative data.* Additional return-on-investment measures will include five variables found within CISA administrative data that the researchers will obtain: 1) program retention data, 2) program presentations data, 3) program media/public relations data, 4) program inquiry data, and 5) human resources recruitment data for the program. Retention data will be used to determine how many interns, supervisors, and coworkers involved in the NFW program

retain their employment at CISA in comparison to those not involved in the NFW program. Presentations, media, and inquiries data all will be used to determine the program's ability to bring recognition and attention to involved parties via outreach, which ultimately could result in attraction of additional talent or future funds. Specifically, data will be obtained on the number, date, and type (invited vs. not) of presentation, media piece, and inquiry, as well as audience characteristics (size, job titles and affiliations), locations (venues, media sources), and for inquiries, the methods (email, phone, etc.) and reasons for contact (primarily for the program vs. the program as a secondary reason). Finally, human resources recruitment data will be collected to examine the program's impact on the number of vacancies filled, recruitment timeframes, and recruitment effort levels (via numbers of applicants and interviews).

*Web/Online data.* The MITRE team will collect data from multiple media sources with the goal of analyzing sentiment surrounding The Neurodiverse Federal Workforce Pilot Program. Two main categories of media will be collected: traditional media and social media. For both categories, the team will use queries to find media pertaining to the program, neurodiversity in general, and the organizations involved with the program. For traditional media, the team will query RSS feeds to collect news articles from a large variety of federal news sites. Large language models (LLMs) will then be used to analyze the sentiment of the articles. For social media, the team will query social media site(s) such as LinkedIn to collect posts, the associated comments, and number of interactions. In addition to analyzing the sentiment of the posts with LLMs, the team will also analyze the amount and sentiment of the interactions of posts pertaining to the program compared to posts not pertaining to the program.

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