Analysis Plan

Evaluation Name: Increasing Awareness of GSA Resources for Small Businesses on the Multiple Award Schedule

Evaluation Code: 2604

Date Finalized: August 19, 2026

Project Description

This evaluation is designed to build evidence in response to the second key question in SBA's FY2026 Annual Evaluation Plan: **How can the SBA improve small business awareness of and access to free resources in federal contracting to reduce the burden of completing these processes and to avoid unnecessary or exploitative charges by intermediaries?**

Specifically, we test whether targeted email outreach can increase awareness and uptake of free, official U.S. General Services Administration (GSA) resources among small businesses holding Multiple Award Schedule (MAS) contracts. Small business MAS contractors face a complex federal procurement environment, including multiple systems, requirements, and information sources. Our prior qualitative work and descriptive analyses suggest that many small business MAS contractors may not be aware of free GSA resources that could help them navigate MAS contract management and pursue opportunities. Thus, we developed an intervention that targets barriers to learning about and using GSA resources by providing a concise, personalized email with direct links.

The intervention consists of two emails sent to small business MAS contractors: an initial outreach message and reminder. The messages highlight three sets of resources: official communications through MAS Interact, office hour series provided by the MAS Program Management Office (PMO), and training provided by the GSA Office of Small Business (OSB), which we will refer to collectively as "highlighted resources."

This evaluation will measure the effect of outreach and reminder messages on signups of highlighted resources.

Preregistration Details

This Analysis Plan will be posted on the OES website at oes.gsa.gov before outcome data are analyzed.

Hypotheses

The primary confirmatory hypothesis (H1) is that assignment to be sent the SBA/GSA outreach and reminder emails will increase new sign-ups of *at least one* of the highlighted resources among small business MAS contractors, relative to the control group that is not sent these messages during the evaluation period.

Because the outreach message and reminder provide links to multiple resources, the intervention may affect not only whether a firm signs up for *any* resource, but also *how many* resources they sign up for. Thus, a secondary confirmatory hypothesis (H2) is that the intervention will increase the *number* of highlighted resources that small business MAS contractors sign up for during the evaluation period.

We will also conduct exploratory analyses to help identify the causal pathway and examine how assignment to the treatment, which encourages the utilization of the highlighted resources, may affect firms' MAS procurement activity. Our exploratory hypotheses are:

- H3: The treatment will increase sign-ups for each of the three *sets* of highlighted resources: MAS Interact, office hour series provided by the MAS PMO, and training provided by the GSA OSB.
- H4: The treatment will increase live attendance at office hours provided by the MAS PMO and training provided by the GSA OSB.
- H5: The treatment will increase the number of firms that complete a MAS contract modification during the evaluation period.
- H6: The treatment will increase the number of firms with compliant transactional data reporting (TDR) submissions during the evaluation period.

The design and data to examine hypotheses H5 and H6 are still under consideration.

Data and Data Structure

Data Source(s)

We used the following datasets to construct and randomize the evaluation sample:

- GSA eLibrary list of MAS contracts [downloaded April 29, 2026]
- Baseline sign-ups for highlighted resources:[1]
    - MAS Interact sign-ups [downloaded June 10, 2026]
    - MAS Office Hour sign-ups [downloaded June 4, 2026]
    - OSB Training on GSA eTools sign-ups [session occurred on April 3, 2026, report generated April 6, 2026]
- GovDelivery upload results [downloaded June 11, 2026]
- Stratification variables:
    - Baseline sign-ups for highlighted resources (see above)
    - SAM.gov Entity Registration [file created on June 7, 2026]: we defined a firm's industry using the first two digits of their primary NAICS code, which we aggregate.
    - FAS Schedule Sales Query Plus (SSQ+) FY25 MAS sales [downloaded March 31, 2026]

We will use the following datasets to monitor intervention implementation:

- GovDelivery bulletin address report - outreach message [downloaded on June 25, July 1, July 16, August 19]
- GovDelivery bulletin address report - reminder [downloaded on July 10, July 16, August 19]

We will use the following datasets to construct outcome measures:

- MAS Interact sign-ups [downloaded August 19]
- MAS Office Hour sign-ups [downloaded August 19]
- MAS TDR Office Hour sign-ups [downloaded August 19]
- OSB Training "Beyond the Award: Making Your MAS Contract Work for You" [session occurred on June 25, 2026, report generated June 29, 2026]
- OSB Training "RFIs, RFPs, RFQs - Understanding the Difference" [session occurred on July 10, 2026, report generated July 15, 2026]
- The datasets used to construct outcome measures reflecting contract modifications and compliance are still under consideration. One method of measuring contract modifications is to compare SINs on MAS contracts in eLibrary downloaded on August 19 to the file downloaded on April 29. A strength of this method is that it measures a type of modification that reflects growth on the MAS; a

[1] As the MAS TDR Office Hour series is a new resource, baseline sign-ups were not analyzed to construct the sample definition, though we expect that it will be possible to analyze baseline sign-ups retroactively.

downside is that it does not capture all types of contract modifications. We will use this strategy unless a more comprehensive alternative is available.

Outcomes to Be Analyzed

We will measure outcomes at the following intervals:

- One week after the initial message is sent: July 1, 2026
- One week after the reminder message is sent: July 16, 2026
- Six weeks after the reminder message is sent (8 weeks after initial outreach message, also referred to as endline): August 19, 2026

Our primary analyses will be conducted using outcomes measured at endline.

The outcomes are:

- New resource uptake due to outreach [confirmatory]
    - Uptake of any resource:1 if a firm signs up for at least one of the highlighted resources (below) during the evaluation period, 0 otherwise:
        - MAS Interact
        - MAS Office Hours series
        - MAS TDR Office Hour series
        - OSB Training "Beyond the Award: Making Your MAS Contract Work for You"
        - OSB Training "RFIs, RFPs, RFQs - Understanding the Difference"
    - Number of resources taken up: sum of sign-ups for the highlighted resources (below) during the evaluation period, ranges 0 to 5 for each firm:
        - MAS Interact
        - MAS Office Hours series
        - MAS TDR Office Hour series
        - OSB Training "Beyond the Award: Making Your MAS Contract Work for You"
        - OSB Training "RFIs, RFPs, RFQs - Understanding the Difference"
- Resource set uptake due to outreach [exploratory]
    - Sign-ups for MAS Interact: 1 if a firm signs up during the evaluation period, 0 otherwise
    - Sign-ups for MAS PMO Office Hours: 1 if a firm signs up during the evaluation period for *either* of the resources below, 0 otherwise
        - MAS Office Hours series
        - MAS TDR Office Hour series
    - Sign-ups for OSB Trainings: 1 if a firm signs up during the evaluation period for *either* of the resources below, 0 otherwise
        - OSB Training "Beyond the Award: Making Your MAS Contract Work for You"
        - OSB Training "RFIs, RFPs, RFQs - Understanding the Difference"
- Office hour and training attendance [exploratory]
    - Attendance at MAS PMO Office Hour: 1 if a firm had a representative that attended a live session of the resources below during the evaluation period, 0 otherwise

        - MAS Office Hours series
        - MAS TDR Office Hour series
    - Attendance at OSB Training: 1 if a firm had a representative that attended the live session of the resources below during the evaluation period, 0 otherwise
        - OSB Training "Beyond the Award: Making Your MAS Contract Work for You"
        - OSB Training "RFIs, RFPs, RFQs - Understanding the Difference"
- Activity in MAS procurement [exploratory]: While the datasets used to construct outcome measures reflecting contract modifications and compliance are still under consideration, we expect the outcomes to be defined as:
    - Compliance: 1 if a firm's latest transactional data reporting (TDR) submission during the evaluation period is compliant, 0 otherwise
    - Modifications: 1 if a firm modified their contract during the evaluation period, 0 otherwise. Our current method compares SINs on MAS contracts on April 29 and August 19. If a firm has new SINs on at least one of their MAS contracts in August that were not present in April, the variable takes the value 1, 0 otherwise.

Imported Variables

The evaluation sample is based on the list of small business MAS contractors in eLibrary. The SBA defines businesses as "small" by industry, but if a business provides products or services in more than one industry, they may be "small" in some industries but not others. To simplify the sample definition, we labeled a firm as a "small business" if they are "small" in at least one industry on their MAS contract.

Firms provide a primary email address on their MAS contract. For firms with more than one active MAS contract, we only use the email address from the contract with the earliest start date. We uploaded the list of email addresses of small business MAS contractors to GovDelivery, which returned a list of errors and suppressions (emails that had unsubscribed from communications). Email addresses with errors were fixed and included in the sample, while firms with suppressed email addresses were removed from the evaluation sample.

In our sample, each small business MAS contractor was associated with one email address, but some email addresses were associated with multiple firms. This mainly occurs due to entities that manage more than one MAS contract. Hence, we conducted the randomization at the email address level. The randomization was stratified by the following variables:

1. Any baseline sign-ups for MAS Interact, the MAS Office Hours (not TDR Office Hours), and OSB Training on GSA eTools: 1 if any, 0 otherwise.
    - Sign-ups for these resources were linked to the sample using both the full email address (e.g., "yourname@companyname.com") and only the email domain (e.g., "companyname.com"). For the domain matching, we exclude the domains gmail.com, aol.com, msn.com, hotmail.com, sbcglobal.net, and yahoo.com.
2. Whether the firm had at least $25k in MAS sales in FY25: 2 if yes, 1 if no, 0 if no data available
    - SSQ+ data is unique at the contract level. Because a few firms have more than one MAS contract, we defined a firm as having at least $25k in FY25 MAS sales if they did for at least one of their contracts. When we convert the firm-level variable to email-level, because a few firms are associated with the same email address, we define an email address as having at least $25k in FY25 MAS sales if at least one of the firms associated with the email

address did. We say that an email address has “no data available” if none of the firms associated with the email address had contracts with FY25 MAS sales data in SSQ+ Finally, if an email address was associated with firms that had data in SSQ+, but none had more than $25k in FY25 MAS sales, we say that the email address is associated with less than $25k in FY25 MAS sales.

3. Sectors
    - “Primary NAICS” is a field in SAM.gov at the firm level (unique by UEI). We use the first two digits of primary NAICS as an indicator of the firm’s sector. Because some sectors are less common, we combined low-frequency sectors with similar sectors to increase the minimum strata size.[2] The sector groupings will not be used for subgroup analyses.

Transformations of Variables

The outcome variables reflecting resource sign-ups will be cleaned, defined, and merged using the same procedures as completed for baseline resource sign-ups. These variables are described in the sections “Outcomes to Be Analyzed” and “Imported Variables.” While the datasets used to construct outcome measures reflecting contract modifications and compliance are still under consideration, we expect to define them as simple indicators that can be merged with small business MAS contractors in the evaluation sample using either their unique entity identifier or a MAS contract number. If a firm has more than one active MAS contract, we define a firm as having completed a modification or compliant TDR report if this is true for at least one of their MAS contracts.

Transformations of Data Structure

Our final dataset will be at the firm level (one observation per firm), with separate variables for each outcome and time period examined.

Data Exclusion

Our final dataset will include all small business MAS contractors in the evaluation sample. Details on the sample construction and excluded email addresses are provided in the section “Imported Variables.” We will not drop additional observations for outlier outcome values.

The primary intent-to-treat analysis will include all email addresses assigned to the treatment group, regardless of whether the email was successfully delivered. This includes addresses that were suppressed after randomization or experienced delivery failure. Delivery failure, suppression, and related measures will be reported descriptively.

Treatment of Missing Data

Whether a firm has signed up for one of the highlighted resources (below) is coded as 0/1 and aggregated as described in “Outcomes to be Analyzed”. For each resource, unmatched firms are treated as having not signed up and attended.

- MAS Interact
- MAS Office Hours series
- MAS TDR Office Hour series
- OSB Training “Beyond the Award: Making Your MAS Contract Work for You”

[2] The list of sectors and their descriptions are taken from https://www.census.gov/programs-surveys/economic-census/year/2022/guidance/understanding-naics.html . The groupings of sectors to achieve a minimum strata size is available upon request.

- OSB Training "RFIs, RFPs, RFQs - Understanding the Difference"

If it is not possible to download data on a highlighted resource, it will be excluded from outcome definitions and analysis.

Missing values of variables used for stratification were addressed by assigning the email address to a new strata, as described in "Imported Variables."

While the datasets used to construct outcome measures reflecting contract modifications and compliance are still under consideration, we will treat missing data similarly.

Descriptive Statistics, Tables, and Graphs

We will report:

1. A balance table (means, p-values) comparing firms assigned to treatment vs. control on pre-treatment characteristics, including baseline resource sign-ups and other variables used for stratification.
2. Descriptive statistics for intervention implementation, including email addresses suppressed after randomization, delivery failure, open rate, click rate, and the number of links clicked for both the initial outreach message and reminder.
3. The confirmatory coefficient table (estimates, SEs, p-values, and adjustments for multiple hypothesis testing) at endline.
4. Exploratory coefficient tables (estimates, SEs, p-value) at endline.
5. Plots of means and confidence intervals for the outcomes analyzed for the confirmatory hypotheses
6. Plots of means and confidence intervals for the outcomes analyzed for the confirmatory hypotheses across multiple timepoints.

Statistical Models and Hypothesis Tests

This section describes the statistical models and hypothesis tests that will make up the analysis — including any follow-ups on effects in the main statistical model and any exploratory analyses that can be anticipated prior to analysis.

Statistical Models

The primary statistical model will estimate intent-to-treat effects of assignment to treatment using ordinary least squares. For binary outcomes, this is a linear probability model; for count outcomes, it is a linear regression model. The main specification will be:

$$Y_i = \alpha + \beta T_i + \gamma_s + \epsilon_i$$

Y_i is the outcome for firm *i*, T_i is firm i's treatment assignment, γ_s are strata fixed effects, and ϵ_i is the error term. The primary estimate is the coefficient on treatment assignment β.

The model includes strata fixed effects because the randomization was stratified, and we will estimate robust standard errors clustered by email address. Besides strata fixed effects, the model does not include any pre-treatment covariates.

Confirmatory Analyses

We will conduct one-sided tests for all confirmatory hypotheses.

H1: Small business MAS contractors that are assigned to be sent the outreach and reminder messages will be more likely to have signed up for *any* of the highlighted resources during the evaluation period than firms that are assigned to be sent business-as-usual communications

- Estimand 1: Effect of intervention on any resource uptake

  Let $Y_i^{AnyResource}$ be an indicator for sign-ups for any of the highlighted resources during the evaluation period. The model is:

  $$Y_i^{AnyResource} = \alpha + \beta T_i + \gamma_s + \epsilon_i$$

  Test: $\beta > 0$

H2: Small business MAS contractors that are assigned to be sent the outreach and reminder messages will sign up for a greater number of highlighted resources during the evaluation period than firms that are assigned to be sent business-as-usual communications

- Estimand 2: Effect of intervention on activity in MAS procurement

  Let $Y_i^{NumResource}$ reflect the number of highlighted resources (0 to 5) signed up for during the evaluation period. The model is:

  $$Y_i^{NumResource} = \alpha + \beta T_i + \gamma_s + \epsilon_i$$

  Test: $\beta > 0$

Exploratory Analysis

We will conduct one-sided tests for all exploratory hypotheses.

H3: Small business MAS contractors that are assigned to be sent the outreach and reminder messages will be more likely to have signed up for each of the three sets of highlighted resources (MAS Interact, office hour series provided by the MAS PMO, and trainings provided by the GSA OSB) during the evaluation period than firms that are assigned to be sent business-as-usual communications

- Estimands 3a, b, and c: Effect of intervention on resource uptake for each set

  Let $Y_i^{ResourceSet}$ be an indicator for sign-ups for highlighted resources within each set (MAS Interact, office hour series provided by the MAS PMO, and trainings provided by the GSA OSB) during the evaluation period. We estimate three models, one for each set of highlighted resources, with the form:

  $$Y_i^{ResourceSet} = \alpha + \beta T_i + \gamma_s + \epsilon_i$$

  Tests: $\beta > 0$

H4: Small business MAS contractors that are assigned to be sent the outreach and reminder messages will be more likely to attend at least one live session of the office hours provided by the MAS PMO and trainings provided by the GSA OSB during the evaluation period than firms that are assigned to be sent business-as-usual communications

- Estimand 4a and b: Effect of intervention on live attendance

Let $Y_i^{Attendance}$ be an indicator for live attendance at at least one office hour provided by the MAS PMO or training provided by the GSA OSB during the evaluation period. We estimate separate models for office hours provided by the MAS PMO and trainings provided by the GSA OSB with the form:

$$Y_i^{Attendance} = \alpha + \beta T_i + \gamma_s + \epsilon_i$$

Tests: $\beta > 0$

H5: Small business MAS contractors that are assigned to be sent the outreach and reminder messages will be more likely to complete a contract modification during the evaluation period than firms that are assigned to be sent business-as-usual communications

- Estimand 5: Effect of intervention on completing a contract modification

  Let $Y_i^{Modification}$ be an indicator for completing a contract modification during the evaluation period. The model is:

  $$Y_i^{Modification} = \alpha + \beta T_i + \gamma_s + \epsilon_i$$

  Test: $\beta > 0$

H6: Small business MAS contractors that are assigned to be sent the outreach and reminder messages will be more likely to submit a compliant TDR report (latest report during the evaluation period) than firms that are assigned to be sent business-as-usual communications

- Estimand 6: Effect of intervention on compliance

  Let $Y_i^{Compliance}$ be an indicator for the firm's latest TDR report in the evaluation period being compliant. The model is:

  $$Y_i^{Compliance} = \alpha + \beta T_i + \gamma_s + \epsilon_i$$

  Test: $\beta > 0$

Inference Criteria, Including any Adjustments for Multiple Comparisons

We will conduct one-sided tests with a significance level of $\alpha = 0.05$. To adjust for multiple hypothesis testing for H1 and H2, we will conduct randomization inference.

Limitations

- Limited evaluation period: While participation in the federal marketplace involves long term planning and timelines, we are limited to a two-month evaluation period. However, we will preserve the treatment assignment lists so that in the future, SBA and/or OES could analyze the evaluation outcomes or additional outcomes (such as MAS sales) with a longer time horizon.
- Challenges linking outcomes with our sample: Small businesses in our sample are identified by their "unique entity identifier," and on a MAS contract, each business provides one email address as their "primary contact." Although the outreach message was delivered to the email address listed as the "primary contact," it is possible that firms may use a different email address to sign up for MAS Interact, the MAS PMO Office Hours, and/or the OSB Trainings. Hence, we will link sign ups for

these resources and "primary contacts" using both the full email address (e.g., "yourname@companyname.com") and only the email domain (e.g., "companyname.com"). For the domain matching, we exclude the domains gmail.com, aol.com, msn.com, hotmail.com, sbcglobal.net, and yahoo.com.

- Modification and compliance data in progress: The datasets used to construct outcome measures reflecting contract modifications and compliance are still under consideration. We have outlined variable definitions and merging techniques, but there may be unexpected data issues that interfere with analysis. We will conduct all analyses for which data is available.
- Identification of small businesses: The SBA defines businesses as "small" by industry. If a business provides products or services in more than one industry, they may be "small" in some industries but not others. Hence, even if a business is "small" in one industry on their MAS contract, it may not be their main industry by sales volume. To simplify the analysis, we follow the practice of labeling firms as a "small business" if they are "small" in at least one industry on their MAS contract.
- Email addresses from consultancies: Some small business MAS contractors have an email address associated with a consultant as their "primary contact." Since these firms have given consultants this authority, if the consultant has taken up a resource, we consider the small business to have taken up this resource as well.

Link to An Analysis Code/Script

The analysis code script is in development and can be provided upon request.