U.S. Small Business Administration

Fiscal Year 2021 Economic Impact Study – Small Business and Type of Set-Aside Procurement Programs

Final Report

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The statements, findings, and conclusions found in this study are those of the contractor and do not necessarily reflect the views of the Office of Program Performance, Analysis, and Evaluation, the U.S. Small Business Administration, or the United States Government.

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Glossary

Term	Definition
8(a) Business Development Program	The 8(a) program is a robust nine-year program created to help firms owned and controlled by socially and economically disadvantaged individuals.
Conservative Hybrid Model	A mixed approach whereby 59 three-digit NAICS codes are treated as firms. The remaining 39 three-digit NAICS, final demand industries, are treated as industry variables. For full definition, please see page 8.
Employment	The estimated number of jobs created or retained by the FY 2021 total small business dollars by the Federal Government for small business and socio-economic demographics. For full definition, please see page 8.
Firm Variable	Assumes there is competition for business and resources, in which case while one firm in the study region may benefit from increased sales or employment, another may lose (a crowding-out effect). The firm variable approach reduces the overall economic effect given that some of the production is shifted from one firm to another.
Gross Domestic Product (GDP)	An economic measure of the value of goods and services produced within a country. It is the broadest measure of economic activity within a country.
HUBZone program	The HUBZone program fuels small business growth in historically underutilized business zones with a goal of awarding at least 3 percent of federal contract dollars to HUBZone-certified companies each year.
Industry Variable	Assumes that some (or all) of the goods or services are "exported" out of the study region.
Intermediate Hybrid Model	Treats 33 three-digit NAICS codes linked to goods-producing industries as firm variables and the rest (65) as industry variables.
Optimistic Model	An unconstrained approach, where all 98 NAICS codes are treated as industry variables. It assumes that an increase in revenue of one establishment does not affect or reduce the revenue of another firm. For full definition, please see page 7.
Output	Includes both GDP and expenditures on intermediate inputs. In that way, it is considered double counting but is an essential statistical tool to understand the interrelationships between industries.
Personal Income	The goods and services produced by citizens and residents of a country (i.e., gross national product) minus the consumption of fixed capital (i.e., depreciation).
Regional-Economic Models, Inc. (REMI)	A dynamic economic forecast model that uses feedback loops which allows REMI to be more dynamic as it goes through the iterations of solving for the estimates of impacts. For more detailed information, please see pages 3 and 4.

Term	Definition
Service-Disabled Veteran-Owned Small Business Contracting program	The Department of Defense (DoD) has undertaken an outreach effort to identify small businesses owned and controlled by veterans and service-disabled veterans. The DoD outreach effort aims to improve prime and subcontracting opportunities for veteran and Service-Disabled Veteran-Owned Small Business. The DoD believes that the sacrifices made by veterans in the service of our country need to be recognized at all levels of government. The Department of Defense is committed to make the maximum practicable prime and subcontracting opportunities available to such firms.
Small Business	Meeting the criteria in FPDS that 'Contracting Officer's Selection of Business Size' is equal to "Small Business."
Small Business Set-Aside program	To help provide a level playing field for small businesses, the government limits competition for certain contracts to small businesses. Those contracts are called "small business set-asides," and they help small businesses compete for and win federal contracts.
Women-Owned Small Business Contracting Program	The U.S. Small Business Administration (SBA) identifies eligible industries for the Women-Owned Small Business Federal Contracting Program (WOSB Program), which provides set-aside and sole-source contract opportunities to small business concerns owned and controlled by women.

Acronyms

Term	Description
FPDS-NG	Federal Procurement Data System - Next Generation
FY	Fiscal Year
GDP	Gross Domestic Product
HUBZone	HUBZone program
NAICS	North American Industry Classification System
REMI	Regional Economic Models, Inc.
SB Set-Aside	Small Business Set-Aside program
SBA	Small Business Administration
SDVOSB	Service-Disabled Veteran-Owned Small Business Contracting program
WOSB	Women-Owned Small Business Contracting Program

Executive Summary

The U.S. Small Business Administration's (SBA's) small business program helped small businesses procure $145.8 billion during Fiscal Year (FY) 2021. This independent study conducted by Optimal Solutions Group, LLC computed the economic effects of the dollars obligated through the small business procurements and set-aside programs. This report presents the economic effects of the contract dollars obligated through the SBA programs and set-asides in the national economy on employment, output (sales), value-added (gross domestic product), and personal income. This study does not measure the counterfactual scenario of the economic effects in the absence of the contract dollars obligated through the SBA program. The study found that the contract dollars obligated through the small business procurement program and for each SBA program and set-aside generated positive economic effects on the national economy.

The magnitudes of the effects on employment, output (sales), value-added (gross domestic product), and personal income and the relative effects to the dollars obligated on the SBA small business and set-aside programs spending are a function of the magnitudes of the dollars obligated and the industries (three-digit NAICS codes) in which the federal spending took place. Dollars obligated to small businesses in the SBA small business and set-aside programs concentrated (50 percent or more) on the personal services industries.[1] As modeled in this study, goods-producing industries generally have more robust supply chains than those in the services sector, and thus are more impactful on the intermediate industries (supply chain) demand than other industries. Professional and personal services industries, including those supporting business and people, are set up to have a significant effect directly through their employees. When the employees spend money in their communities, these industries are more impactful on the consumption of goods and services from individuals active in the direct and intermediate industries than goods-producing industries.

The economic effects of the FY 2021 contract dollars obligated through the small business procurement program on the national economy based on a conservative economic forecast are:

- output is $310.7 billion,
- Gross Domestic Product (value-added) is $184.9 billion,
- personal income is $97.7 billion, and
- A total of 1,333,679 jobs were created and retained.

All reported economic effects of the contract dollars obligated through the SBA programs are on top of the purchase of goods and services that supported the functions of the Federal Government. Dollars obligated through each SBA program and set-aside also have positive economic effects on the national economy. The relative effect of the output-to-contract dollars obligated ratio is consistent across set-asides, with contract dollars obligated through SBA set-asides spending generating double the output in the economy.

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[1] The study does not consider the cost of the administering the SBA programs and set-asides.

Introduction

The Small Business program is the Small Business Administration's (SBA's) initiative to help provide a level playing field for small businesses (SB). The Federal Government limits competition-specific contracts to small businesses. These small business contracts helped small businesses procure $145.8 billion (dollars obligated) during Fiscal Year (FY) 2021.[2]

The SBA has contracted Optimal Solutions Group, LLC (Optimal) to estimate the economic effects of the contract dollars obligated through the SBA small business procurement programs in FY 2021 (October 1, 2020, to September 30, 2021) using an economic input-output model. The study reports the effects on employment, output (sales), value-added (gross domestic product), and personal income. The study computed the economic effects for five set-aside programs: Small Business Set-Aside program (SB Set-Aside), HUBZone program (HUBZone), Service-Disabled Veteran-Owned Small Business Contracting program (SDVOSB), Women-Owned Small Business Contracting Program (WOSB), and the 8(a) Business Development Program (8a). The economic effects discussed in this report are limited to the dollars obligated to small business through the SBA small business program and set-asides.[3] This study does not measure the counterfactual scenario of the economic effects in the absence of the contract dollars obligated through the SBA program.

Data and Methodological Approach

The Optimal Team calculated the economic effects of the contract dollars obligated through the SBA small business procurement programs in FY 2021 using econometric modeling techniques from Regional Economic Models, Inc. (REMI), an economic forecast modeling tool.

Data

The data for the study came from the FY 2021 data in the Federal Procurement Data System - Next Generation (FPDS-NG). We used the FPDS-NG database to access the dollars obligated through prime federal contracts by federal government agencies to small businesses. Each contract or contract modification was designated as small business action by the federal agency's contracting officer. Optimal used the following FPDS-NG variables available in this dataset, which map directly to the total small business groups discussed above:

- **Women Owned Small Business Dollars** - WOSB_DOLLARS – An aggregation of Dollars Obligated when the 'Contracting Officer's Selection of Business Size' is equal to "Small Business" AND the vendor's business type is Women Owned, Women Owned Small Business, Joint Venture Women Owned Small Business, Economically Disadvantaged Women Owned Small Business, or Economically Disadvantaged Joint Venture Women Owned Small Business.
- **Certified HUBZone Small Business Dollars** - CER_HUBZONE_SB_DOLLARS – An aggregation of Dollars Obligated when the 'Contracting Officer's Selection of Business Size' is equal to

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[2] Figures based on Optimal's calculations from contract actions reported in FPDS-NG.
[3] Other small business procurements such as a state's small business programs or small business minority enterprises are not included.

"Small Business" AND the vendor's business type is Certified HUBZone or HUBZone Joint Venture.

- **8(a) Business Development Program Dollars** - EIGHT_A_PROCEDURE_DOLLARS – An aggregation of Dollars Obligated when the 'Contracting Officer's Selection of Business Size' is equal to "Small Business" AND the set-aside is: 8(a) Sole Source, 8(a) with HUB Zone, 8(a) Competed.
- **Small Business Set-Aside** - SB_SET_ASIDE_#_DOLLARS – An aggregation of Dollars Obligated when the 'Contracting Officer's Selection of Business Size' is equal to "Small Business" AND the set-aside is SBA, SBP, and RSB (SB_SET_ASIDE_TOTAL_DOLLARS, SB_SET_ASIDE_PART_DOLLARS, or RESERVED_SB_DOLLARS).
- **Service-Disabled Veteran Owned Small Business Dollars** - SRDVOB_DOLLARS - An aggregation of Dollars Obligated when the 'Contracting Officer's Selection of Business Size' is equal to "Small Business" AND the vendor's business type is Service-Disabled Veteran Owned.
- **Small Business Dollars** - SMALL_BUSINESS_DOLLARS - An aggregation of Dollars Obligated when the 'Contracting Officer's Business Size Selection' is equal to "Small Business."

Optimal used a programming language (e.g., Python) to convert this data into a tabular format to perform thorough quality checks and produce the final analytical files in Microsoft Excel. The Optimal Team prepared one analytical file for the total small business contracts and one for each of the five programs and set-asides discussed in this report. Key criteria to measure small business dollars to each group are:

- A small business is defined by meeting the criteria in FPDS that 'Contracting Officer's Selection of Business Size' is equal to "Small Business."
- Each dollar obligated is assigned to only one program and set-aside.

To identify the industries in which the contract dollars obligated were allocated, Optimal used the North American Industry Classification System (NAICS) codes in the contract information located in the FPDS-NG records. Contract-level data were collapsed across 98 three-digit NAICS codes. In some instances, the primary NAICS codes are not indicated in the FPDS-NG records, a net total of $13 million. These dollars were excluded from the economic effect analysis.

Each contract or contract modification was mapped to the set-aside designated by the contracting officer regardless of other potential SBA certifications for the small business. For example, a small business could have an 8(a) and a WOSB certification. However, if the contract was set-aside as a WOSB, the monies of that contract are only reflected in the WOSB set-aside, and those monies will only have an economic effect on the WOSB calculations.

After calculating the total dollars obligated to the small business in the SBA small business and set-asides programs, the Optimal Team identified the geographic location of contract performance from FPDS-NG. In some instances, location was not indicated in the FPDS-NG records.[4] The lack of location information does not limit the study since REMI incorporates all information available to produce the results. See pages 4 and 5 below for a discussion of how geography data enters the model.

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[4] This issue applied to a total of $3.5 billion.

Excluding dollars obligated without NAICS codes ($13 million) and other programs ($306 million) not under the study,[5] the total amount of dollars obligated used in the analysis for the SBA small business program was $145.4 billion. The dollars excluded do not limit the representativeness of the results.

Using Economic Forecast Models in REMI

The Optimal Team used an economic forecast model from REMI to estimate the effects of the contract dollars obligated through the SBA small business procurement program on the national economy. REMI defines its product as: "The model consists of thousands of simultaneous equations with a structure that is relatively straightforward. The exact number of equations used varies depending on the extent of industry, demographic, demand, and other detail in the specific model being used. The overall structure of the model can be summarized in five major blocks: (1) Output and Demand, (2) Labor and Capital Demand, (3) Population and Labor Supply, (4) Compensation, Prices, and Costs, and (5) Market Shares."[6]

The REMI model, unlike other economic impact models, incorporates feedback loops (simultaneous equations) when estimating economic effects. These loops re-run the equations in the model as it incorporates feedback on changing economic conditions due to the addition of jobs and/or dollars to the study region. The use of the feedback loops allows REMI to be more dynamic as it goes through the iterations of solving for the estimates of economic effects. **Figure 1** below visually displays the model linkages, including the feedback loops used for solving the simultaneous equations.[7]

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[5] The SBA suggested excluding the Native American Affairs Outreach Program (FPDS codes: IE, ISBEE, BI) and the Veteran-Owned Small Business (FPDS codes: VSA, VSS) set-asides for the purpose of the study. These programs amount to $306 million obligated. Thus, these programs are not part of the study. The $13 million is immaterial relative to the $145.4 billion and do not bias the study results.
[6] REMI Model Equations are discussed in the following link: https://bit.ly/3W9wMzF.
[7] For further details on REMI model linkages, visit https://bit.ly/3W9wMzF.

Figure 1: REMI Model Linkages, Including the Feedback Loops Used for Solving the Simultaneous Equations

REMI Model Linkages (Excluding Economic Geography Linkages)
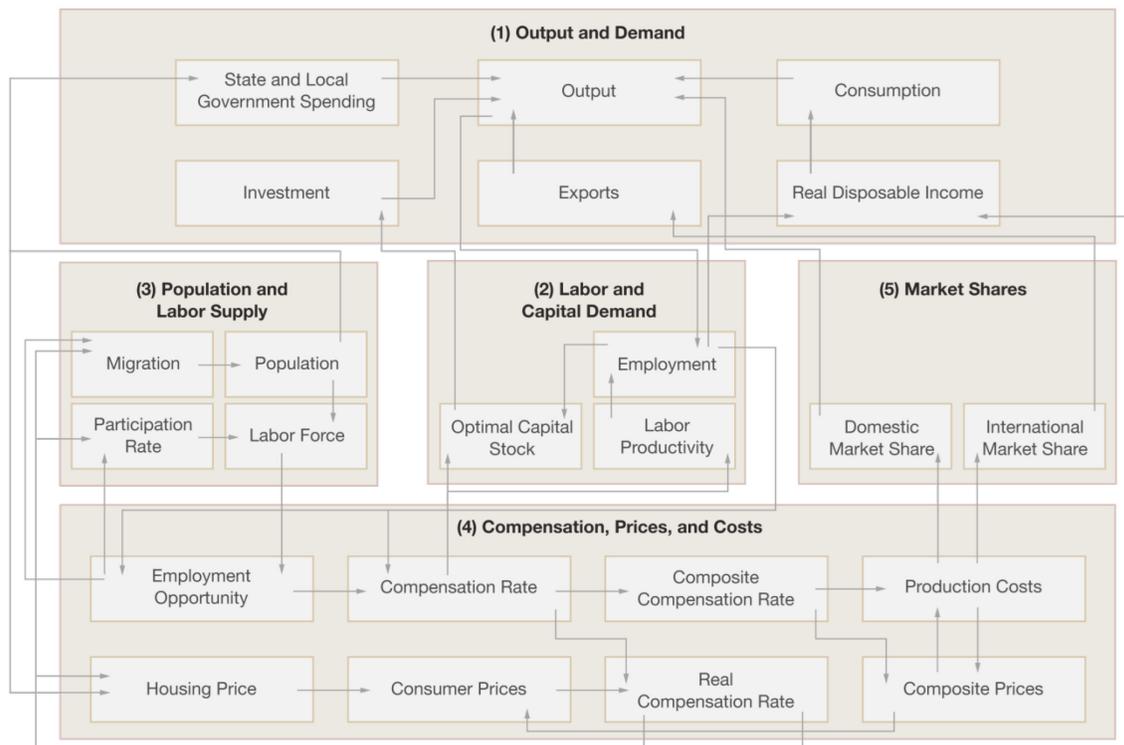
One characteristic of the REMI model is that it calculates economic impacts dynamically rather than through a static input-output model. Part of the dynamic aspect of this process is that the model is affected by demand and trade flows, which are affected by regional conditions like labor availability and labor costs.[8]

The REMI model requires that the forecast models have at least two geographic regions when estimating economic impacts so that tradeoffs between regions can be included in the creation of impact estimates. The designation of regions is necessary but in this study was somewhat arbitrary. "Most policy variables will require you to at least specify the regions it should affect and the unit type of the values."[9] In this analysis, the two regions identified were east and west of the Mississippi River. While other regions may have been identified and incorporated in the model, this set of regions allowed for easy and comprehensible e aggregations of the SBA for use in the model.[10] In the Optimal Team's

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[8] Technical documentation of the REMI model is available at https://bit.ly/3WbBooK.

[9] For more details see page 38 of the REMI User Guide available here: https://bit.ly/3YxYE22.

[10] Most recently, the REMI model structure has been developed to include "new economic geography" assumptions. Economic geography theory explains regional and urban economies in terms of competing factors

prior work products with NIST/MEP, the same regions were applied to economic effect estimates. In both the NIST work as well as this current study, the results are reported at the national level.

The data used in this study allowed, at least for the most part, dollars to be allocated into the east and west regions. Some of the obligated dollars could not be correctly placed in either defined region. The REMI model allowed the two regions to be combined into a single input for each industry-based NAICS code for which there are data. The model then allocated the spending to the included regions by the size of the NAICS industry for each region. The region allocation of the contract monies is a function of the location of work performance stated in FDPS. For modeling purposes, the Optimal Team allocated the contract dollars obligated to one of three regions: east or west of the Mississippi River, and a non-specified category for those with missing address fields.

When applying the total dollars obligated associated with the SBA small business procurement and set-asides by NAICS as an input in REMI, there are two modeling choices for most types of businesses: "industry" and "firm" variables. Each option has unique and distinctive conditions and outcomes for calculating economic effects. In most instances, economic impact analyses report one or the other option. We summarized these options below: [11]

- The "industry" variables assume that some (or all) of the goods or services are "exported" out of the study region. Economic impact estimates using industry variables are affected by the changes in regional conditions based on the feedback loops in the model.
- Firm variables assume there is competition for business and resources, in which case while one firm in the study region may benefit from increased sales or employment, another may lose (a crowding-out effect). The firm variable approach reduces the economic impact given that some of the production is shifted from one firm to another.

For the analysis of the economic effects from the contract dollars obligated through service industries (both professional and personal industries), as it is the predominant case of the SBA small business procurement program and set-asides,[12] dollars obligated flowing into the national economy are likely

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of dispersion and agglomeration. Producers and consumers are assumed to benefit from access to variety, which tends to concentrate production and the location of households. However, land is a finite resource, and high land prices and congestion tend to disperse economic activity.

Economic geography is incorporated in the model in two basic indexes. The first is the commodity access index, which predicts how productivity will be enhanced and costs reduced when firms increase access to intermediate inputs. This index is also used in the migration equation to incorporate the beneficial effect for consumers of having more access to consumer goods, which is factored into their migration decisions. The second index is the labor access index, which captures the favorable effect on labor productivity and thus labor costs when local firms have access to a wide variety of potential employees and can select employees whose skills best suit their needs. For additional information on the REMI model equations and the new economic geography, see https://bit.ly/3WbBooK.

[11] Model equations for industry-based variables are on Page 21 of https://bit.ly/3WbBooK. These are the equations that use a more traditional input-output approach to modeling economic impacts.

[12] Forty percent ($58.8 billion) of all FY 2021 SBA small business procurement spending was obligated to NAICS Code 541 Professional, Scientific, and Technical Services.

to heavily "crowd out" businesses in the services sector.[13] The Optimal Team did not apply the firm policy variable methodology for service-producing industries. Using the firm variable approach for modeling all services industries will lead to such high levels of crowding out that the estimates will seem too low relative to the SBA small business procurement program spending levels. The calculation in REMI for firm sales discounts the estimated net-new business operations principally by the share of demand that is produced locally, in this case, the nation. The firm policy variable approach assumes most demand for services is satisfied within the nation, limiting growth for new production without significant crowding-out of existing business operations.

The Optimal Team believes the firm policy variable approach dramatically understates the economic effects of the SBA grants received by service-producing sectors. A sensitivity analysis of employment effects in Professional, Scientific, and Technical Services showed significant crowding out when using the firm variables, compared to industry variables. In the case of SBA, the Optimal Team ran all inputs in REMI for both industry and firm-types of variables. As with MEP, it was believed that the industry-only inputs yielded numbers that were too high. When the estimates were created using firm-only variables, the numbers were very low and likely would not be accepted by the SBA. In a separate sensitivity analysis, running 100 jobs in NAICS 336, auto assembly and auto parts, the industry variable yielded nearly 700 jobs, while the firm variable yielded 100 jobs. Similarly, when using NAICS 54, Professional, Scientific, and Technical Services, the same 100 jobs yielded around 300 jobs for industry and 19 jobs for firm.

Since the federally obligated dollars flowing into a region are new monies to existing firms, it was believed by the Optimal Team that the industry variables without crowding created a better set of impact estimates than those created using firm variables with heavy crowding out. In this context, a firm variables model may not be appropriate for the analysis of the contract dollars obligated through the SBA small business procurement programs. In discussions with SBA economists, they proposed a "hybrid" approach. In this case, it was suggested that a mix of industry and firm variables might be a reasonable solution to provide a sensible and conservative set of impact estimates. Conversely, using only firm-based variables led to what the Optimal Team believed to be underestimates of obligated dollars on the national economy. To provide more reasonable estimates that better represented the obligated SBA dollars on the national economy, firm-based variables were used for the goods-producing industries, retail and wholesale trade, and the transportation and warehousing sectors. All other inputs or obligated dollars, which included professional and business services as well as personal services, were modeled as industry variables. Expenditures for agriculture and government were modeled in their own variables within the REMI model as they are not included in the inputs for either industry-based or firm-based sales.

The estimates using industry-based variables are less sensitive to the "crowding out" aspects found in the firm-based inputs. The industry variables model removes the constraint on the local resources and may lead to more realistic estimates of the effect of the SBA small business procurements and set-aside dollars flowing into the national economy. The obligated dollars in the Business and Personal Services

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[13] The model equations are on page 57 for the firm-based variables of https://bit.ly/3WbBooK. For these, REMI looks at market share to estimate economic impacts. A different methodology is used for industry-based variables. Goods-producing industries tend to have physical inputs while service-intensive industries tend to have inputs related to human capital. This is the nature of tangible goods versus intangible services. See https://bit.ly/3BMaJqu and https://bit.ly/3Vawd7e.

sectors are new dollars flowing into the study regions. These dollars are going to existing establishments but are not likely displacing sales to other establishments or businesses in the study region and so less crowding out will occur. While the industry variables model removes the constraint on the local resources, using only industry variables for the goods-producing industries likely overestimates the impacts of the SBA small business procurement program. In a national economy, firms in this industry compete with other firms for resources. In this case, while the industry variables are useful for the services sector, firm variables are better when estimating the impacts of the goods-producing industries.

Modeling the Economic Effect of Dollars Obligated to Small Businesses

Every economic impact study is unique based on the economic context, the variables included, and the place(s) that are part of the study. The broad array of industries at the national level within the SBA study is unique. In the creation of most economic impacts, a more targeted set of industries or a more targeted study area is used.

The context applicable to the dollars obligated through the SBA small business procurement program is distinct from other economic impact studies for at least two reasons. First, there is a full range of industries (98 three-digit NAICS) from goods-producing industries and to professional and personal services (i.e., final demand) industries affected by the contract dollars obligated through the SBA small business procurement program and set-asides, whereas other studies focus on targeted industries. Second, a large share of spending on the small business procurement program goes to industries in the business and personal services sectors. The business and personal services sectors tend, unlike the goods-producing sectors, to require fewer additional purchases of goods and services to produce their products. For FY 2021 dollars obligated, 40.5 percent ($58.8 billion) of SBA small business procurement spending was for NAICS Code 541 Professional, Scientific, and Technical Services.

With this information, the Optimal Team prepared three economic forecast models that could reflect the mix of goods-producing industries and professional and personal services (final demand) industries under study among the 98 industries as measured by three-digit NAICS. The models are organized in terms of the restrictions on the model and the level of crowding out as described below:

1. The Optimistic Model represents an unconstrained approach where all 98 NAICS codes are treated as industry variables. The industry variables received $145.4 billion. This model assumes that an increase in revenue of one establishment does not affect or reduce the revenue of another firm. In this case, there is no crowding out, so this assumption implies there are no offsetting economic impacts. This scenario assumes that all products are exported out of the study region and the outputs are final demand. However, the above assumption is unlikely as it applies to the macro economy. The findings produced by this model are likely overestimated and are reported as the potential largest economic effect estimated of the contract dollars obligated through the SBA procurement programs.
2. An Intermediate Hybrid Model treats 33 three-digit NAICS codes linked to goods-producing (NAICS Codes 339 and under: primary sectors and manufacturing) industries as firm variables and the rest (65) as industry variables. NAICS codes treated as firms received $58.2 billion whereas NAICS codes treated as industries received $87.1 billion. In this case, there is some crowding out due to the goods-producing industries that are treated as firm variables.

3. The Conservative Hybrid Model also uses a mixed approach. However, in this scenario, 59 three-digit NAICS codes are treated as firms (NAICS Codes 493 and under: primary sectors, manufacturing, trade, and transportation). The remaining 39 three-digit NAICS, professional and technical services industries, are treated as industry variables. NAICS codes treated as firms received $65.5 billion, whereas NAICS codes treated as industries received $79.9 billion in SBA small business procurement program and set-asides monies. As with the Intermediate Hybrid Model, there is crowding out within the goods-producing industries. The findings produced by this model are reported as the potential smallest economic effect estimated of the contract dollars obligated through the SBA procurement programs.

The Optimal Team used the above specifications for each model to calculate the corresponding economic effects of the contract dollars obligated through the small business procurement program on four economic outcome metrics. These economic effects of the contract dollars obligated through the small business procurement program are measured in terms of:

- employment
- output (sales)
- Gross domestic product (GDP) or value-added
- personal income

These measures are discussed in more detail below.

Employment: The estimated number of jobs created or retained by the contract dollars obligated through the small business procurement program. These jobs are simply "jobs" as counted by the U.S. Bureau of Economic Analysis and can be either full- or part-time positions. These jobs are distributed across several industries. In any given industry, a "job" may represent a summation of positions across several industries in which each industry has less than one complete position. For example, the study may report one "job," but the spending patterns in the study may generate positions in three industries. However, each industry may require only one-third of a person. In this case, the three industries that each employ one-third of a person to meet demand would sum to one "job" in the REMI model. The report has an additional estimate, creation of private non-farm employment, for comparability with other economic impact reports.

Output: Output includes both GDP and expenditures on intermediate inputs. In that way, it is considered double counting but is an essential statistical tool to understand the interrelationships between industries. Output is principally a measure of an industry's sales or receipts. For the purposes of all models, the sales and receipts are aggregated at the national level.

Gross domestic product (GDP) or value-added: GDP is an economic measure of the value of goods and services produced within a country. It is the broadest measure of economic activity within a country. It consists of compensation of employees, taxes on production and imports (less subsidies), and gross operating surpluses. It measures the value that labor and capital contribute to production.

Personal income: Income is the goods and services produced by citizens and residents of a country (i.e., gross national product) minus the consumption of fixed capital (i.e., depreciation).

Findings

In this section, we discuss the distribution of the FY 2021 spending on the SBA small business procurement program, each set-aside, and the economic effects of the contract dollars obligated through the small business procurement program on the six measures defined above. The discussion focuses first on the entire SBA small business procurement program and then on the set-asides.

In FY 2021, the Federal Government obligated $145.4 billion to small businesses in the SBA small business procurement program. Out of the total procurement amount, there were $13 million associated with NAICS codes not identified in FPDS-NG —a variable critical to model economic impact in REMI. Thus, the analyses of the dollars obligated subtracted this small amount from the total small business dollars to estimate the economic effect of the SBA small business procurement program and each set-aside.

SBA Small Business Procurement Program: Contract Dollars Obligated

The following figures and tables show the distribution of the spending on the SBA small business procurement program by NAICS code, and by program and set-aside.

Figure 2 presents the top 20 NAICS codes by total dollars. The NAICS codes in Figure 2 represent 91 percent ($131.5 billion) of the SBA small business procurement program. Close to 40 percent ($58.8 billion) of all SBA small business dollars obligated were made to NAICS Code 541 Professional, Scientific, and Technical services.

Figure 2: Distribution of Dollars Obligated by NAICS Code (Top 20 NAICS by Dollars Obligated)

NAICS Code	Dollars Obligated	Percent of Dollars Obligated
541 - Professional, Scientific, and Technical Services	$58,842.8	40.5
236 - Commercial and Institutional Building Construction	$11,603.3	8.0
561 - Administrative and Support Services	$9,127.6	6.3
325 - Chemical Manufacturing	$8,578.8	5.9
336 - Transportation Equipment Manufacturing	$6,247.7	4.3
334 - Computer and Electronic Product Manufacturing	$4,672.8	3.2
237 - Other Heavy and Civil Engineering Construction	$4,439.7	3.1
339 - Miscellaneous Manufacturing	$3,657.9	2.5
311 - Food Manufacturing	$3,325.4	2.3
423 - Merchant Wholesalers, Durable Goods	$3,103.0	2.1
562 - Materials Recovery Facilities	$2,395.9	1.6
238 - Plumbing, Heating, and Air-Conditioning Contractors	$2,238.8	1.5
332 - Fabricated Metal Product Manufacturing	$2,149.5	1.5
331 - Primary Metal Manufacturing	$2,007.7	1.4
333 - Machinery Manufacturing	$1,991.4	1.4
611 - Colleges, Universities, and Professional Schools	$1,722.2	1.2
324 - Petroleum and Coal Product Manufacturing	$1,572.6	1.1
621 - All Other Outpatient Care Centers	$1,368.2	0.9
481 - Air Transportation	$1,258.8	0.9
511 - Publishing Industries (except Internet)	$1,164.1	0.8

Note: Dollars are in millions.

SBA Small Business Procurement Program: Economic Effects

The above discussion of dollars obligated by NAICS is important because the NAICS distribution (final demand industries vs. goods-producing industries) affects the economic effects calculation. As stated above, resources used in final demand industries have distinct implications for employment, value-added, and output (sales). As modeled in REMI for this study, professional services industries (industry variables):

- Do not generate the same demand for intermediate goods and services when compared with goods-producing industries (e.g., NAICS Code 336 - Transportation Equipment Manufacturing).
- Have less crowding out among small businesses contracting with the federal government.

Figure 3 illustrates the range of economic effects of the contract dollars obligated through the small business procurement program and the consequences of the choices of each forecast model discussed above. This table shows from the most optimistic to the most conservative effects on the national economy of the $145.4 billion obligated through the small business procurement program.

Figure 3: Estimated Economic Outputs by the Contract Dollars Obligated through the Small Business Procurement Program by Forecast Model

Forecast Model	Total Employment	Private Non Farm Employment	Output	GDP (value added)	Personal Income
Optimistic Model – All NAICS codes are treated as industry variables.	2,023,581	1,942,566	$507.8	$288.8	$148.3
Intermediate Hybrid Model - Goods-producing industries are treated as firm variables. All other NAICS are treated as industry variables.	1,387,595	1,333,431	$323.9	$192.3	$101.2
Conservative Hybrid Model – Professional and personal services NAICS are treated as industry variables. All other NAICS codes are treated as firm variables.	1,333,679	1,281,556	$310.7	$184.9	$97.7

Note: Private Non-Farm Employment is a subset of the total employment measure. Dollars are in billions.

The Optimistic Model, in which all 98 NAICS are treated as industries, finds that the contract dollars obligated through the small business procurement program resulted in 2,023,581 jobs, of which 1,942,566 were private non-farm employment jobs, and $288.8 billion in GDP (value-added) to the U.S. economy. According to the Conservative Hybrid Model, where professional and personal services are treated as industry variables, the contract dollars obligated through the small business procurement program resulted in 1,333,679 jobs and $184.9 billion in value-added to the U.S. economy. The Intermediate Hybrid Model presents a higher blend of final demand industries than the Conservative Hybrid Model and the economic effect of the contract dollars obligated through the small business procurement program lies between the Optimistic and Conservative Hybrid models discussed above.

Figure 4 below illustrates additional metrics based on the total spending through the SBA small business procurement program and the economic effects of contract dollars obligated through the small business procurement program in Figure 3. Across the three models, the ratio of GDP (value-added dollars) to the spending on the SBA small business procurement program ranges from 1.3 to 2.0; that is, the contract dollars obligated through the small business procurement program create at least 30 percent of the return in value-added in the national economy. All of these are indicators that contract dollars obligated through the small business procurement program generate positive economic activity.

Figure 4: Ratio of Estimated Economic Outputs by Forecast Model

Forecast Model	Ratio Output to Total Program Spending	Ratio GDP to Total Program Spending
Optimistic Model – All NAICS codes are treated as industry variables.	1 to 3.5	1 to 2.0
Intermediate Hybrid Model - Goods-producing industries are treated as firm variables. All other NAICS are treated as industry variables.	1 to 2.2	1 to 1.3
Conservative Hybrid Model – Professional and personal services NAICS are treated as industry variables. All other NAICS codes are treated as firm variables.	1 to 2.1	1 to 1.3

SBA Small Business Set-Asides: Contract Dollars Obligated

To reflect the mix of industries affected by the SBA program and reduce the risk of overestimating the effects of a nationwide program, Optimal used the Conservative Model to calculate the economic effects of the dollars obligated through each small business procurement program and set-aside. As mentioned above, the Conservative Model treats 59 three-digit NAICS codes as firm variables. The remaining 39 three-digit NAICS are treated as industry variables (final demand industries).

Figure 5 below shows the distribution of the total dollars awarded to small businesses across SBA procurement programs and each set-aside. As discussed in the previous section, businesses in the SBA small business procurement programs were awarded $145.4 billion in contracts. These small businesses participated in five SBA set-aside programs under the scope of this study for a total of $86.5 billion obligated in set-asides. Additionally, close to $58. 9 billion obligated to small businesses were not categorized as set-aside dollars. Of that amount, $53.1 billion were contract dollars obligated as "Not-Set Aside," which implies that these are dollars obligated in full and open competition, and the type of set-aside was not specified for the remaining $5.8 billion of allocated contracts. For purposes of the calculation of the economic effect from the set-asides, we concentrated on the $86.5 billion linked to the SBA program and set-asides.

Figure 5: Distribution of Dollars Obligated to Small Businesses by SBA Program and Set-Aside

Program	Dollars Obligated	Percent of Total	Percent of Total Set Asides
Women-Owned Small Business Contracting Program	$1,289.0	0.9	1.5
HUBZone Program	$2,539.1	1.7	2.9
Service-Disabled Veteran Owned Small Business	$11,317.5	7.8	13.1
Small Business Set-Aside	$51,679.2	35.5	59.7
8(a) Business Development Program	$19,738.7	13.6	22.8
Subtotal dollars obligated to program and set-asides	$86,563.5	59.5	100.0
Set-aside value was blank *	$5,762.3	4.0	
No Set-Aside	$53,132.9	36.5	
Subtotal dollars obligated to non-set-asides	$58,895.3	40.5	
Total dollars obligated to all small businesses	$145,458.7	100.0	

Note: Dollars are in millions.
*It is possible that contracts in which the set-aside program values were blank were contracts that are not in the SBA's small business programs or set-asides, or a result of a clerical error/omission. It is not possible to estimate which program they were associated with.

As shown in the figure above, the small business set-aside (total, partial, or reserved) awarded 35.5 percent of all federal obligated dollars to small businesses ($19.7 billion out of the $86.5 billion), the largest total proportion allocated out of all the set-asides. Following that set-aside is the 8(a)Business Development Program, which had dollars obligated for 13.6 percent of all federal obligated dollars to small businesses. The Service-Disabled Veterans Owned program received 7.8 percent of the FY 2021 federal contracting dollars for set-asides. The HUBZone program and Women-Owned Small Business Program combined received approximately 3 percent of all program and set-aside obligated dollars.

The allocation of spending on specific industries is likely to have an influence on the overall and set-aside economic effects. Goods-producing industries are more impactful on the intermediate industries demand than other industries. Professional and personal services industries are more impactful on the consumption of goods and services from individuals active in the direct and intermediate industries than goods-producing industries. These industries are also likely to have a distinct effect on the portfolio of jobs created or retained. **Figure 6** shows the dollar obligated by NAICS Code and SBA set-aside and **Figure 7** shows the percent of the dollars obligated by NAICS Code and SBA set-aside.

Figure 6: Distribution of Dollars by NAICS Code and Set-Asides (Top 20 NAICS by Dollars Obligated)

NAICS Codes	WOSB	HUBZone Program	SDVOSB	SB Set Aside	8(a)	Total
541 - Professional, Scientific, and Technical Services	$781.4	$1,356.4	$5,834.2	$22,940.6	$9,559.2	$40,471.8
236 - Commercial and Institutional Building Construction	$112.9	$564.4	$2,306.1	$3,805.5	$2,669.5	$9,458.4
561 - Administrative and Support Services	$104.1	$171.3	$821.4	$2,957.7	$3,049.3	$7,103.7
237 - Other Heavy and Civil Engineering Construction	$34.0	$134.8	$272.8	$2,170.5	$673.4	$3,285.5
336 - Transportation Equipment Manufacturing	$0.7	$58.2	$45.8	$2,363.3	$478.5	$2,946.5
423 - Merchant Wholesalers, Durable Goods	$0.4	$3.4	$3.6	$2,063.5	$30.3	$2,101.2
238 - Plumbing, Heating, and Air-Conditioning Contractors	$36.9	$23.3	$59.2	$1,453.9	$469.3	$2,042.7
562 - Materials Recovery Facilities	$1.3	$1.8	$281.5	$1,594.0	$103.8	$1,982.4
339 - Miscellaneous Manufacturing	$68.1	$65.5	$319.6	$775.1	$706.7	$1,935.1
334 - Computer and Electronic Product Manufacturing	$7.9	$5.4	$123.3	$1,307.7	$184.4	$1,628.7
311 - Food Manufacturing	$44.2	$37.9	$197.9	$749.8	$330.1	$1,359.9
611 - Colleges, Universities, and Professional Schools	$0.5	$9.6	$18.6	$1,283.8	$0.7	$1,313.2
622 - Hospitals	$32.2	$0.0	$30.3	$832.3	$65.5	$960.4
332 - Fabricated Metal Product Manufacturing	$22.6	$5.1	$41.1	$682.8	$28.7	$780.3
324 - Petroleum and coal products manufacturing	$2.6	$35.2	$20.3	$688.1	$0.0	$746.2
333 - Machinery Manufacturing	$2.6	$1.6	$48.7	$664.8	$16.5	$734.2
517 - Telecommunications	$0.0	$0.0	$0.3	$697.8	$0.0	$698.2
621 - All Other Outpatient Care Centers	$8.9	$1.7	$117.4	$315.9	$198.2	$642.0
315 - Apparel manufacturing	$0.4	$27.7	$6.3	$520.1	$14.5	$569.1
481 - Air Transportation	$0.4	$0.0	$0.0	$488.8	$0.6	$489.8

Note: Dollars are in millions. Values represent all dollars obligated to each NAICS code except No-NAICS, Non-Set-Asides and Blank values.

Figure 7: Percent Distribution of Dollars by NAICS Code and Set-Asides (Top 20 NAICS by Dollars Obligated)

NAICS Codes	WOSB	HUBZone Program	SDVOSB	SB Set Aside	8(a)	Total
541 - Professional, Scientific, and Technical Services	60.6	53.4	51.6	44.4	48.4	46.8
236 - Commercial and Institutional Building Construction	8.8	22.2	20.4	7.4	13.5	10.9
561 - Administrative and Support Services	8.1	6.7	7.3	5.7	15.4	8.2
237 - Other Heavy and Civil Engineering Construction	2.6	5.3	2.4	4.2	3.4	3.8
336 - Transportation Equipment Manufacturing	0.1	2.3	0.4	4.6	2.4	3.4
423 - Merchant Wholesalers, Durable Goods	0.0	0.1	0.0	4.0	0.2	2.4
238 - Plumbing, Heating, and Air-Conditioning Contractors	2.9	0.9	0.5	2.8	2.4	2.4
562 - Materials Recovery Facilities	0.1	0.1	2.5	3.1	0.5	2.3
339 - Miscellaneous Manufacturing	5.3	2.6	2.8	1.5	3.6	2.2
334 - Computer and Electronic Product Manufacturing	0.6	0.2	1.1	2.5	0.9	1.9
311 - Food Manufacturing	3.4	1.5	1.7	1.5	1.7	1.6
611 - Colleges, Universities, and Professional Schools	0.0	0.4	0.2	2.5	0.0	1.5
622 - Hospitals	2.5	0.0	0.3	1.6	0.3	1.1
332 - Fabricated Metal Product Manufacturing	1.8	0.2	0.4	1.3	0.1	0.9
324 - Petroleum and coal products manufacturing	0.2	1.4	0.2	1.3	0.0	0.9
333 - Machinery Manufacturing	0.2	0.1	0.4	1.3	0.1	0.8
517 - Telecommunications	0.0	0.0	0.0	1.4	0.0	0.8
621 - All Other Outpatient Care Centers	0.7	0.1	1.0	0.6	1.0	0.7
315 - Apparel manufacturing	0.0	1.1	0.1	1.0	0.1	0.7
481 - Air Transportation	0.0	0.0	0.0	0.9	0.0	0.6

Note: Values represent all dollars obligated to each NAICS code except No-NAICS, Non-Set-Asides and Blank values.

A few distinct patterns can be observed:

- NAICS Code 541 has most of the set-aside dollars obligated ($40.5 billion, 46.8 percent of all SBA set-aside dollars obligated). Spending on NAICS 541 across set-asides ranges from 44.4 percent of the Small Business Set-Aside (Total or Partial) program to 60.6 percent for the Women-Owned Small Business Program. This NAICS Code is a final demand industry and is modeled as an industry variable.
- The second largest NAICS Code 236 (Commercial and Institutional Building Construction) had 10.9 percent of total spending on set-asides and ranged from 7.4 percent for the Small Business Set-Aside to 22.2 percent for the HUBZone program. This industry is modeled as a firm variable.
- The third largest industry, NAICS Code 561 (Administrative and Support Services), had 8.2 percent of total set-aside spending. This is a final demand industry and is modeled as an industry variable.

The combined spending on the top three industries shown represents 75 percent or more of the spending on each of the set-asides except for the Small Business Set-Aside (with 58 percent).

The distinctions made above about whether a NAICS code is treated as either an industry or a firm variable are important in terms of the potential effect of generating intermediate demand of goods-producing industries (NAICS treated as firms) or immediate consumption by service industries. See **Appendix A** for the full list of all set-asides and their corresponding dollar distributions across industries.

SBA Small Business Set-Asides: Economic Effects

The study also estimated the economic effects by the contract dollars obligated through the small business procurement program and set-asides (drill-down effects). Contract dollars obligated through the SBA set-asides had a positive effect across all outcomes. For illustration purposes, we discuss job creation and retention first.

Figure 8 shows that the dollars obligated through small business set-aside (with a spending of $51.6 billion) contributed the most jobs out of all set-asides to the U.S. economy, with 497,075 jobs, of which 477,478 were in the private non-farm sector. The second-largest set-aside with dollars obligated, the 8(a) Business Development Program (with $19.7 billion), had the second-largest contribution to jobs created or retained, with 227,115 jobs.

Figure 8: Jobs Created or Retained by Contract Dollars Obligated through Each SBA Program and Set-Aside – Total Employment and Private Non-Farm Employment

Employment	Women Owned Small Business	HUBZone Program	Service Disabled Veteran Owned Small Business	Small Business Set Aside	8(a) Business Development Program
Contract Dollars Obligated	$1,289.0	$2,539.1	$11,317.5	$51,679.2	$19,738.7
Total Employment	15,997	25,380	116,009	497,075	227,115
Private Non-Farm Employment	15,382	24,384	111,533	477,478	218,616

Note: Dollars in millions. Private non-farm employment is a subset of the total employment measure.

Figure 9 provides an estimate of the economic effect of the contract dollars obligated through each program and set-aside has had on the national economy in terms of their contribution to the additional GDP (value-added), output, and personal income.

Figure 9: Economic Effects by Contract Dollars Obligated through SBA Set-Aside Programs

	Women Owned Small Business	HUBZone Program	Service Disabled Veteran Owned Small Business	SB Set Aside (Total and Partial)	8(a) Business Development Program
Contract Dollars Obligated	$1,289.0	$2,539.1	$11,317.5	$51,679.2	$19,738.7
Gross Output	$3,647.0	$5,880.0	$26,519.0	$116,562.0	$50,780.0
Gross Domestic Product (Value Added)	$2,194.0	$3,542.0	$15,977.0	$69,421.0	$30,420.0
Personal Income	$1,178.0	$1,905.0	$8,549.0	$36,764.0	$16,183.0

Note: Dollars are in millions.

As discussed earlier, the magnitudes of the economic effects are a function of the size of the total dollars obligated, but they are also a function of the industries in which that spending took place. Both industry and firm variables have positive features for generating economic effects. There is likely no crowding-out effect in professional and services industries. Industries treated as firms (of goods-producing industries) may generate intermediate demand and more economic activity than professional and services industries.

Figure 10 below describes the relative ratio between both the GDP and the output to the total value of dollars obligated to each set-aside. By the contract dollars obligated through the small business procurement program, and in addition to the purchase of goods and services from small businesses, the Federal Government was able to generate intermediate and indirect output with a value of twice or more of the purchase of goods and services. This can be observed from the output-to-contract dollars obligated ratio.

Figure 10: Contract Dollars Obligated and Relative Ratio

Contract Dollars Obligated and Relative Ratio	Women Owned Small Business	HUBZone Program	Service Disabled Veteran Owned Small Business	Small Business Set Aside	8(a) Business Development Program
Contract Dollars Obligated	$1,289.0	$2,539.1	$11,317.5	$51,679.2	$19,738.7
Output	$3,647.0	$25,380.0	$26,519.9	$116,562.0	$50,780.0
Output Ratio to Contract Dollars Obligated	1 to 2.8	1 to 2.3	1 to 2.3	1 to 2.3	1 to 2.6

Note: Dollars are in millions.

The small business set-aside has the lowest ratio of the value-added to the total dollars obligated to business in this set-aside. This may be a direct result of the industry composition of the dollars obligated in this program. Figure 8 and Appendix A show that the small business set-aside has the lowest allocation to industry variables. For example, in NAICS Code 541 (Professional, Scientific, and Technical Services professional and personal services) and NACIS Code 561 (Administrative and Support Services), both the largest industry variables have only 50.1 percent of the entire spending in this set-aside while any of the other set-asides has more than 58 percent.

Summary of the Key Findings

The study by Optimal Solutions Group, LLC finds that the contract dollars obligated through the small business procurement program in FY 2021 generated a positive economic effect on the program as a whole and for each of the SBA programs and set-asides. The magnitudes and the relative effect of the contract dollars obligated through the small business procurement program are a function of the NAICS codes in which the federal spending took place. Goods-producing industries may generate intermediate demand and more economic activity than professional and services industries. However, as modeled, there is no crowding-out effect in professional and services industries. The results here support the argument that the SBA small business procurement spending has primarily concentrated (47 percent globally) on professional and technical services (NAICS Code 541).

The analysis found the following economic effects of the contract dollars obligated through the small business procurement program on the national economy: $310.7 billion in output, $184.9 billion in GDP (value-added), and $97.7 billion in personal income. All reported economic effects are on top of the

purchase of goods and services that supported the functions of the Federal Government. The economic effects of the contract dollars obligated through the small business procurement program also have positive effects on the creation and retention of jobs in the United States, with 1,333,679 jobs in the economy.

The economic effects of the contract dollars obligated through the small business procurement program have similar positive results when inspecting the contract dollars obligated through each of the SBA programs and set-asides. The magnitudes of the effects are primarily a function of the dollars obligated on each set-aside. The relative output-to-contract dollars obligated ratios are consistent across set-asides, with contract dollars obligated through SBA set-asides generating double of the output in the economy.

Appendix A. SBA Small Business Set-Aside by NAICS (Amount and Percent of Set-aside)

NAICS Code	WOSB	Percent of WOSB total allotted to NAICS	HUBZone Program	Percent HUBZone total allotted to NAICS	SDVOSB	Percent of SDVOSB total allotted to NAICS	Small Business Set Aside	Percent of SB set aside total allotted to NAICS	8(a) Program	Percent of 8(a) Program total allotted to NAICS
111 - Crop Production	$0.1	0.0	-	0.0	$0.3	0.0	$6.3	0.0	$0.0	0.0
112 - Animal Production	$0.1	0.0	-	0.0	-	0.0	$6.1	0.0	$0.0	0.0
113 - Forestry and Logging	-	0.0	-	0.0	-	0.0	$5.2	0.0	$0.3	0.0
114 - Fishing, Hunting and Trapping	-	0.0	-	0.0	-	0.0	$3.2	0.0	$0.0	0.0
115 - Support activities for agriculture and forestry	$1.4	0.1	$2.0	0.1	$0.2	0.0	$232.8	0.5	$25.3	0.1
211 - Oil and Gas Extraction	-	0.0	-	0.0	-	0.0	$0.1	0.0	$3.3	0.0
212 - Mining (except oil and gas)	-	0.0	$0.4	0.0	$2.2	0.0	$27.4	0.1	$2.6	0.0
213 - Support activities for mining	$0.1	0.0	-	0.0	-	0.0	$3.4	0.0	$0.2	0.0
221 – Utilities	$0.1	0.0	$0.6	0.0	$5.0	0.0	$29.9	0.1	$3.5	0.0
233 - Building, Development, and General Contracting	-	0.0	-	0.0	-	0.0	$0.0	0.0	$0.0	0.0
235 - Special Trade Contractors	-	0.0	-	0.0	-	0.0	$0.0	0.0	$0.0	0.0
236 - Commercial and Institutional Building Construction	$112.9	8.8	$1,356.4	53.4	$2,306.1	20.4	$3,805.5	7.4	$2,669.5	13.5
237 - Other Heavy and Civil Engineering Construction	$34.0	2.6	$564.4	22.2	$272.8	2.4	$2,170.5	4.2	$673.4	3.4
238 - Plumbing, Heating, and Air-Conditioning Contractors	$68.1	5.3	$171.3	6.7	$319.6	2.8	$775.1	1.5	$706.7	3.6
311 - Food Manufacturing	$0.5	0.0	$134.8	5.3	$18.6	0.2	$1,283.8	2.5	$0.7	0.0
312 - Beverage and tobacco product manufacturing	-	0.0	-	0.0	$0.1	0.0	$3.6	0.0	$0.0	0.0
313 - Textile mills	-	0.0	-	0.0	-	0.0	$36.1	0.1	$13.8	0.1
314 - Textile product mills	$0.3	0.0	$0.8	0.0	$9.1	0.1	$58.8	0.1	$0.1	0.0
315 - Apparel manufacturing	$0.4	0.0	$27.7	1.1	$6.3	0.1	$520.1	1.0	$14.5	0.1
316 - Leather and allied product manufacturing	-	0.0	-	0.0	$0.5	0.0	$48.2	0.1	$0.9	0.0
321 - Wood product manufacturing	$0.1	0.0	-	0.0	$3.3	0.0	$52.9	0.1	$15.5	0.1
322 - Paper manufacturing	$0.1	0.0	$0.9	0.0	$0.3	0.0	$32.6	0.1	$2.9	0.0

NAICS Code	WOSB	Percent of WOSB total allotted to NAICS	HUBZone Program	Percent HUBZone total allotted to NAICS	SDVOSB	Percent of SDVOSB total allotted to NAICS	Small Business Set Aside	Percent of SB set aside total allotted to NAICS	8(a) Program	Percent of 8(a) Program total allotted to NAICS
323 - Printing and related support activities	-	0.0	-	0.0	$0.1	0.0	$10.6	0.0	$1.3	0.0
324 - Petroleum and coal products manufacturing	-	0.0	$65.5	2.6	$0.3	0.0	$697.8	1.4	$0.0	0.0
325 - Chemical Manufacturing	$0.6	0.0	$58.2	2.3	$28.7	0.3	$153.4	0.3	$1.3	0.0
326 - Plastics and Rubber Products Manufacturing	-	0.0	$0.1	0.0	$5.8	0.1	$66.7	0.1	$10.2	0.1
327 - Nonmetallic mineral product manufacturing	-	0.0	-	0.0	$28.4	0.3	$58.4	0.1	$0.5	0.0
331 - Primary metal manufacturing	-	0.0	$37.9	1.5	$1.0	0.0	$15.6	0.0	$0.7	0.0
332 - Fabricated metal product manufacturing	$22.6	1.8	$35.2	1.4	$41.1	0.4	$682.8	1.3	$28.7	0.1
333 - Machinery Manufacturing	$2.6	0.2	$23.3	0.9	$48.7	0.4	$664.8	1.3	$16.5	0.1
334 - Computer and Electronic Product Manufacturing	$7.9	0.6	$9.6	0.4	$123.3	1.1	$1,307.7	2.5	$184.4	0.9
335 - Electrical Equipment, Appliance, and Component Manufacturing	$0.8	0.1	$1.1	0.0	$14.0	0.1	$183.3	0.4	$34.7	0.2
336 - Transportation Equipment Manufacturing	$0.7	0.1	$5.4	0.2	$45.8	0.4	$2,363.3	4.6	$478.5	2.4
337 - Furniture and Related Product Manufacturing	$0.2	0.0	$1.4	0.1	$182.5	1.6	$152.6	0.3	$102.2	0.5
339 - Miscellaneous Manufacturing	$1.3	0.1	$5.1	0.2	$281.5	2.5	$1,594.0	3.1	$103.8	0.5
422 - Wholesale Trade, Non-durable goods	-	0.0		0.0		0.0	$0.0	0.0	$0.0	0.0
423 - Merchant Wholesalers, Durable Goods	0.4	0.0	$3.5	0.1	$3.6	0.0	$2,063.5	4.0	$30.3	0.2
424 - Farm Supplies Merchant Wholesalers	-	0.0		0.0	$0.2	0.0	$76.6	0.1	$0.0	0.0
425 - Wholesale trade	-	0.0	-	0.0	-	0.0	$0.1	0.0	$0.0	0.0
441 - Motor Vehicle and Parts Dealers	-	0.0	-	0.0	$0.3	0.0	$5.1	0.0	$0.3	0.0
442 - Furniture and Home Furnishings Stores	-	0.0	-	0.0	$0.2	0.0	$0.3	0.0	$0.0	0.0
443 - Electronics and Appliance Stores	-	0.0	$3.1	0.1	$2.6	0.0	$61.7	0.1	$0.0	0.0

NAICS Code	WOSB	Percent of WOSB total allotted to NAICS	HUBZone Program	Percent HUBZone total allotted to NAICS	SDVOSB	Percent of SDVOSB total allotted to NAICS	Small Business Set Aside	Percent of SB set aside total allotted to NAICS	8(a) Program	Percent of 8(a) Program total allotted to NAICS
444 - Retail trade	-	0.0	-	0.0	$0.6	0.0	$11.1	0.0	$0.0	0.0
445 - Retail trade	-	0.0	-	0.0	-	0.0	$0.0	0.0	$0.0	0.0
446 - Health and Personal Care Stores	-	0.0	-	0.0	$2.0	0.0	$1.6	0.0	$0.0	0.0
448 - Clothing and Clothing Accessories Stores	-	0.0	-	0.0	-	0.0	$15.6	0.0	$0.0	0.0
451 - Sporting Goods, Hobby, Book, and Music Stores	-	0.0	-	0.0	-	0.0	$1.1	0.0	$0.0	0.0
452 - General Merchandise Stores	-	0.0	-	0.0	-	0.0	$0.0	0.0	$0.0	0.0
453 - Miscellaneous Store Retailers	-	0.0	-	0.0	-	0.0	$1.4	0.0	$0.0	0.0
454 – Non-store Retailers	-	0.0	-	0.0	-	0.0	$1.1	0.0	$0.0	0.0
481 - Air transportation	$0.4	0.0	-	0.0	-	0.0	$488.8	0.9	$0.6	0.0
482 - Rail transportation	-	0.0	-	0.0	-	0.0	$0.0	0.0	$0.0	0.0
483 - Water transportation	-	0.0	$0.3	0.0	$0.1	0.0	$319.1	0.6	$0.3	0.0
484 - Truck Transportation	$2.7	0.2	$0.4	0.0	$0.9	0.0	$23.4	0.0	$16.8	0.1
485 - Transit and ground passenger transportation	0.1	0.0	-	0.0	$75.4	0.7	$68.0	0.1	$25.7	0.1
486 - Pipeline transportation	-	0.0	-	0.0	-	0.0	$0.1	0.0	$0.0	0.0
487 - Scenic and sightseeing transportation	-	0.0	-	0.0	-	0.0	$0.0	0.0	$0.0	0.0
488 - Support activities for transportation	$0.1	0.0	$3.7	0.1	$42.1	0.4	$252.1	0.5	$166.9	0.8
491 - Postal Service	-	0.0	-	0.0	-	0.0	$0.9	0.0	$3.4	0.0
492 - Couriers and messengers	-	0.0	-	0.0	$20.1	0.2	$14.5	0.0	$3.4	0.0
493 - General Warehousing and Storage	$2.1	0.2	$3.7	0.1	$22.8	0.2	$118.5	0.2	$113.0	0.6
511 - Publishing Industries (except internet)	$0.8	0.1	$3.4	0.1	$3.4	0.0	$168.0	0.3	$36.5	0.2
512 - Motion Picture and Sound Recording Industries	$0.3	0.0	-	0.0	$0.5	0.0	$15.7	0.0	$12.4	0.1
515 - Broadcasting (except Internet)	-	0.0	$0.1	0.0	$0.1	0.0	$7.2	0.0	$3.4	0.0
516 - Internet Publishing and Broadcasting	-	0.0	-	0.0		0.0	$0.0	0.0	$59.6	0.3
517 - Telecommunications	$2.6	0.2	$1.9	0.1	$20.3	0.2	$688.1	1.3	$0.0	0.0

NAICS Code	WOSB	Percent of WOSB total allotted to NAICS	HUBZone Program	Percent HUBZone total allotted to NAICS	SDVOSB	Percent of SDVOSB total allotted to NAICS	Small Business Set Aside	Percent of SB set aside total allotted to NAICS	8(a) Program	Percent of 8(a) Program total allotted to NAICS
518 - Data Processing, Hosting and Related Services	$5.8	0.4	$2.3	0.1	$20.5	0.2	$233.0	0.5	$224.2	1.1
519 - Other Information Services	$2.6	0.2	-	0.0	$1.4	0.0	$43.5	0.1	$41.6	0.2
522 - Credit Intermediation and Related Activities	-	0.0	-	0.0	$(0.4)	0.0	$0.9	0.0	$2.1	0.0
523 - Securities, Commodity Contracts, and Other Financial Investments and Related Activities	-	0.0	-	0.0	-	0.0	$6.1	0.0	$3.0	0.0
524 - Insurance Carriers and Related Activities	-	0.0	-	0.0	$140.9	1.2	$3.9	0.0	$18.3	0.1
525 - Funds, Trusts, and Other Financial Vehicles	-	0.0	-	0.0	$0.1	0.0	$0.0	0.0	$2.2	0.0
531 - Real Estate	$(10.0)	-0.8	$0.6	0.0	$17.3	0.2	$(182.1)	-0.4	$28.2	0.1
532 - Rental and Leasing Services	$5.2	0.4	$3.4	0.1	$11.8	0.1	$90.9	0.2	$15.6	0.1
533 - Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	-	0.0	-	0.0	-	0.0	$0.4	0.0	$0.0	0.0
541 - Professional, Scientific, and Technical Services	$781.4	60.6	$1.8	0.1	$5,834.2	51.6	$22,940.6	44.4	$9,559.2	48.4
561 - Administrative and Support Services	$104.1	8.1	$1.7	0.1	$821.4	7.3	$2,957.7	5.7	$3,049.3	15.4
562 - Materials Recovery Facilities	$36.9	2.9	$1.6	0.1	$59.2	0.5	$1,453.9	2.8	$469.3	2.4
611 - Colleges, Universities, and Professional Schools	$44.2	3.4	-	0.0	$197.9	1.7	$749.8	1.5	$330.1	1.7
621 - All Other Outpatient Care Centers	$8.9	0.7	-	0.0	$117.4	1.0	$315.9	0.6	$198.2	1.0
622 - Hospitals	$32.2	2.5	-	0.0	$30.3	0.3	$832.3	1.6	$65.5	0.3
623 - Nursing and Residential Care Facilities	-	0.0	-	0.0	$0.3	0.0	$4.3	0.0	$2.5	0.0
624 - Social Assistance	-	0.0	$0.5	0.0	$32.6	0.3	$38.2	0.1	$48.4	0.2
711 - Performing Arts, Spectator Sports, and Related Industries	$0.1	0.0	-	0.0	$12.2	0.1	$30.3	0.1	$5.9	0.0
712 - Museums, Historical Sites, and Similar Institutions	-	0.0	-	0.0	-	0.0	$15.8	0.0	$5.0	0.0

NAICS Code	WOSB	Percent of WOSB total allotted to NAICS	HUBZone Program	Percent HUBZone total allotted to NAICS	SDVOSB	Percent of SDVOSB total allotted to NAICS	Small Business Set Aside	Percent of SB set aside total allotted to NAICS	8(a) Program	Percent of 8(a) Program total allotted to NAICS
713 - Amusement, Gambling, and Recreation Industries	-	0.0	-	0.0	$0.3	0.0	$5.9	0.0	$0.5	0.0
721 - Accommodation	$1.5	0.1	$0.1	0.0	$(0.8)	0.0	$112.1	0.2	$3.7	0.0
722 - Food Services and Drinking Places	$2.9	0.2	$2.8	0.1	$3.9	0.0	$216.8	0.4	$17.4	0.1
811 - Repair and Maintenance	$6.2	0.5	$0.7	0.0	$41.9	0.4	$292.1	0.6	$73.8	0.4
812 - Personal and Laundry Services	$2.0	0.2	$0.9	0.0	$32.3	0.3	$48.8	0.1	$4.1	0.0
813 - Religious, Grantmaking, Civic, Professional, and Similar Organizations	$0.4	0.0	$0.2	0.0	$0.6	0.0	$0.0	0.0	$1.0	0.0
814 - Private Households	-	0.0	-	0.0	-	0.0	$8.5	0.0	$0.0	0.0
921 - Executive, Legislative, and Other General Government Support	-	0.0	-	0.0	-	0.0	$2.2	0.0	$0.5	0.0
922 - Justice, Public Order, and Safety Activities	-	0.0	$0.1	0.0	$0.1	0.0	$0.5	0.0	$0.2	0.0
923 - Administration of Human Resource Programs	-	0.0	-	0.0	$1.6	0.0	$0.4	0.0	$0.0	0.0
924 - Administration of Environmental Quality Programs	-	0.0	-	0.0	-	0.0	$0.1	0.0	$0.0	0.0
925 - Administration of Housing Programs, Urban Planning, and Community Development	-	0.0	-	0.0	-	0.0	$0.1	0.0	$0.0	0.0
926 - Administration of Economic Programs	-	0.0	-	0.0	-	0.0	$0.3	0.0	$0.1	0.0
927 - Space Research and Technology	-	0.0	-	0.0	-	0.0	$0.0	0.0	$0.0	0.0
928 - National Security and International Affairs	-	0.0	-	0.0	-	0.0	$0.0	0.0	$0.0	0.0
Total amount to each set-aside	$1,289.0	100.0	$2,539.1	100.0	$11,317.5	100.0	$51,679.2	100.0	$19,738.7	100.0

Note: Table excludes No NAICS codes, no set-asides, and blanks. Values in parentheses are negative values.