

Effects of the 8(a) Program in Increasing the Utilization of Small Disadvantaged Businesses in Federal Government Contracting



SADAF ASRAR
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Agenda

- **Background**
- **Research Objectives**
- **Summary of Findings**
- **Research Methods**
- **Findings**
- **Recommendations**
- **Questions**



Overview of the 8(a) Program

- The 8(a) Business Development Program was established by Congress to improve the capacity of small businesses owned and operated by socially and economically disadvantaged members of society to compete effectively in the U.S. economy.
- To help provide a level playing field, businesses enrolled in the program can:
 - Compete for set-aside and sole source contracts;
 - Receive support from a business opportunity specialist to aide them in navigating the federal contracting process;
 - Form partnerships with more established businesses through the SBA's mentor-protégé program; and
 - Receive management and technical assistance, including business training, counseling, marketing assistance, and high-level executive development.

Research Objective

- Commissioned by the U.S. Small Business Administration, the purpose of this study is to conduct a rigorous program evaluation to assess the performance of the 8(a) program by:
 - Examining the market for goods and services supplied by 8(a) businesses and those demanded by federal agencies; and
 - Identifying factors that predict whether 8(a) businesses are successful in winning prime federal contracts during and after their time in the 8(a) program.

Research Questions

- 1. Is there a relationship between the types of industries contracted to and agencies that award 8(a) contracts? What other factors predict whether federal agencies award 8(a) contracts?***
- 2. Are there any factors that predict federal contract awards for 8(a) firms (such as firm size, location, industry, age, prior contract awards, etc.)?***
- 3. What year of the program do 8(a) firms win their first federal government contract? Do they obtain federal contracts at a faster rate than non-8(a) firms?***
- 4. Do 8(a) firms win more federal contracts in the development stage or the transitional stage of the 8(a) program?***
- 5. When firms graduate from the 8(a) program, do they continue to win federal contracts?***
- 6. What is the success rate 1, 2, 3, 4, or 5 years after graduation from the 8(a) program?***

Summary of Key Findings: Demand Side

- There is overlap between goods and services demanded by federal agencies and those supplied by 8(a) businesses.
 - A change in spending by federal agencies in the industry sectors in which 8(a) businesses mostly operate would largely not affect contracting dollars to 8(a) businesses.
- Majority of prime contracting dollars are obligated to 8(a) businesses through 8(a) set-aside and sole source vehicles.
- Increased spending through certain IDVs may lead to an increased spending on 8(a) businesses.

Summary of Key Findings: Supply Side

- Business characteristics associated with 8(a) businesses obtaining a contract include having additional SBA socioeconomic program designations, accepting government credit cards, and being part of a joint venture.
- Prior prime federal contracting experience, obtaining 8(a) set-aside and sole source contracts, and having a higher percentage of overall revenue from prime federal contracts have a positive relationship with the value of prime contracts 8(a) businesses receive.

Summary of Key Findings: Supply Side

- Businesses that join the 8(a) program are **51 percentage points** more likely to obtain a prime federal contract in the first 4 years of joining the program compared to non-8(a) businesses.
 - 8(a) businesses obtain contracts at a much faster rate than non-8(a) businesses.
 - The median time for businesses to win their first prime federal contract after they joined the 8(a) program is approximately **22 months**.

Summary of Key Findings: Supply Side

- As 8(a) businesses progress from the developmental stage (first 4 years) of the program to the transitional stage (final 5 years), they obtain contracts of higher value.
- Once they graduate from the 8(a) program, businesses:
 - Are likely to experience a decrease in the value of prime contracts they obtain; but
 - Are likely to experience an increase in their overall revenue in each of the first 5 years after they graduate.

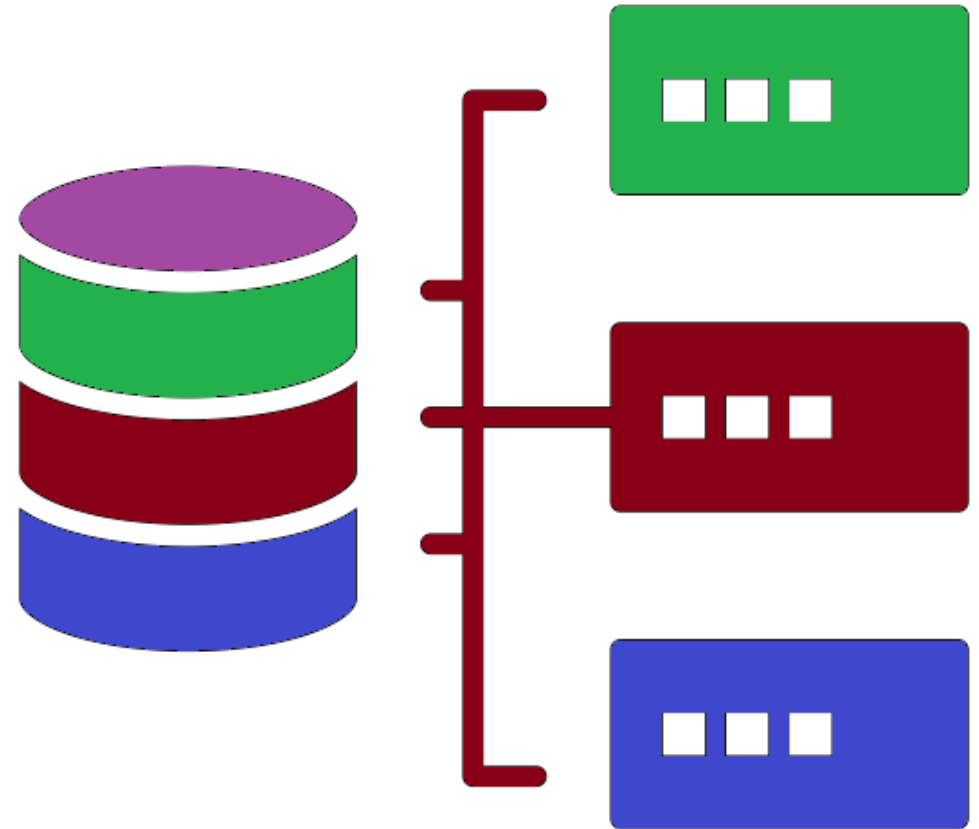
Data Sources

Source

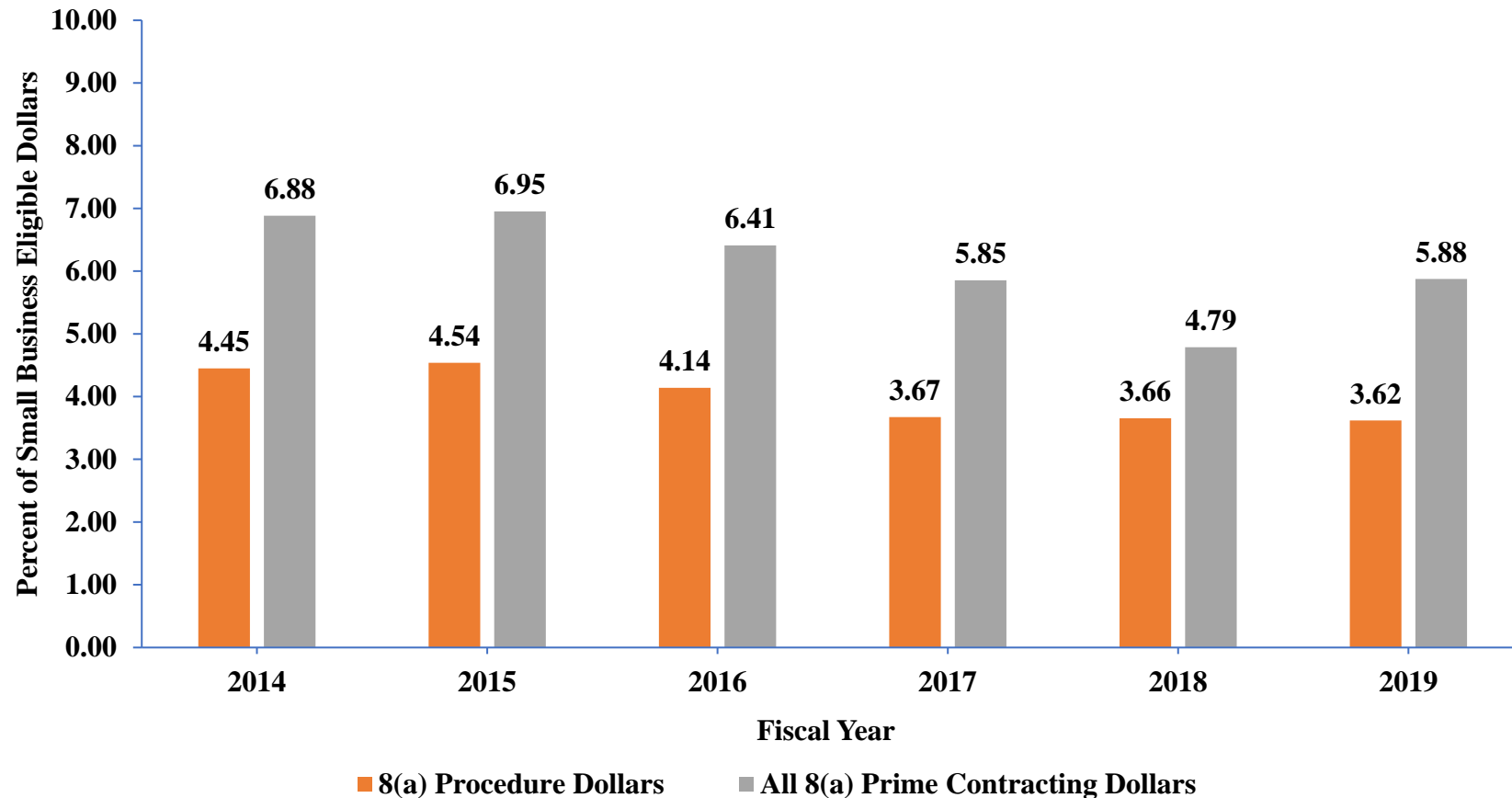
Federal Procurement Data System – Next Generation (FPDS-NG), FY2013 - FY2019

System for Award Management (SAM), FY2014 - FY2019

8(a) Program Portfolio, FY2014 – FY2019



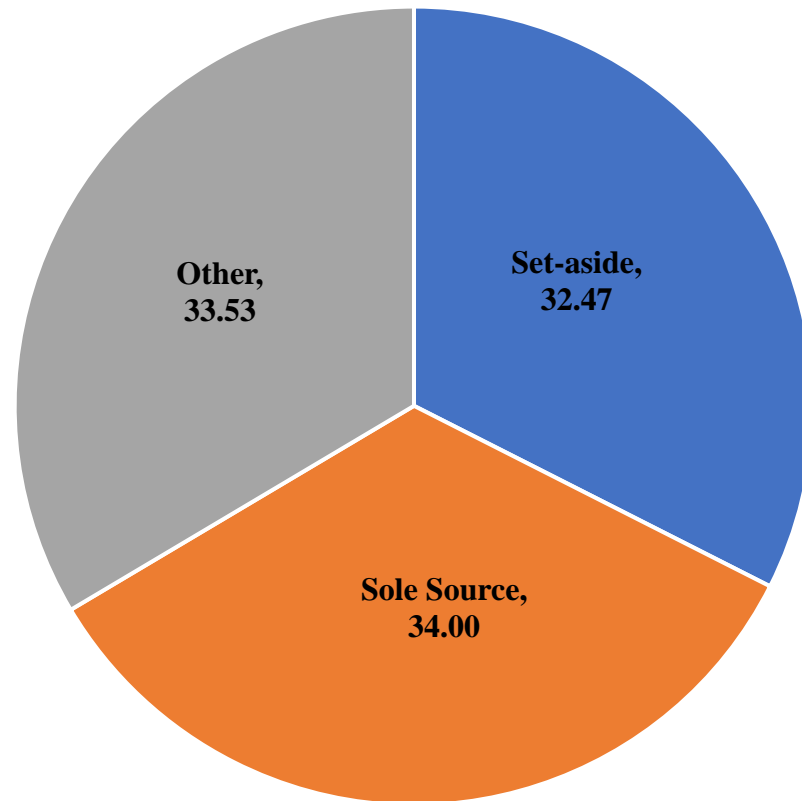
Government-wide Spending on 8(a) Businesses: FY2014 – FY2019



Finding:

- Percent of 8(a) procedure dollars increased between FY2014 and FY2015, but decreased each year for FY2015 to FY2019.
- All 8(a) dollars had a similar trend except it increased between FY2018 and FY2019.

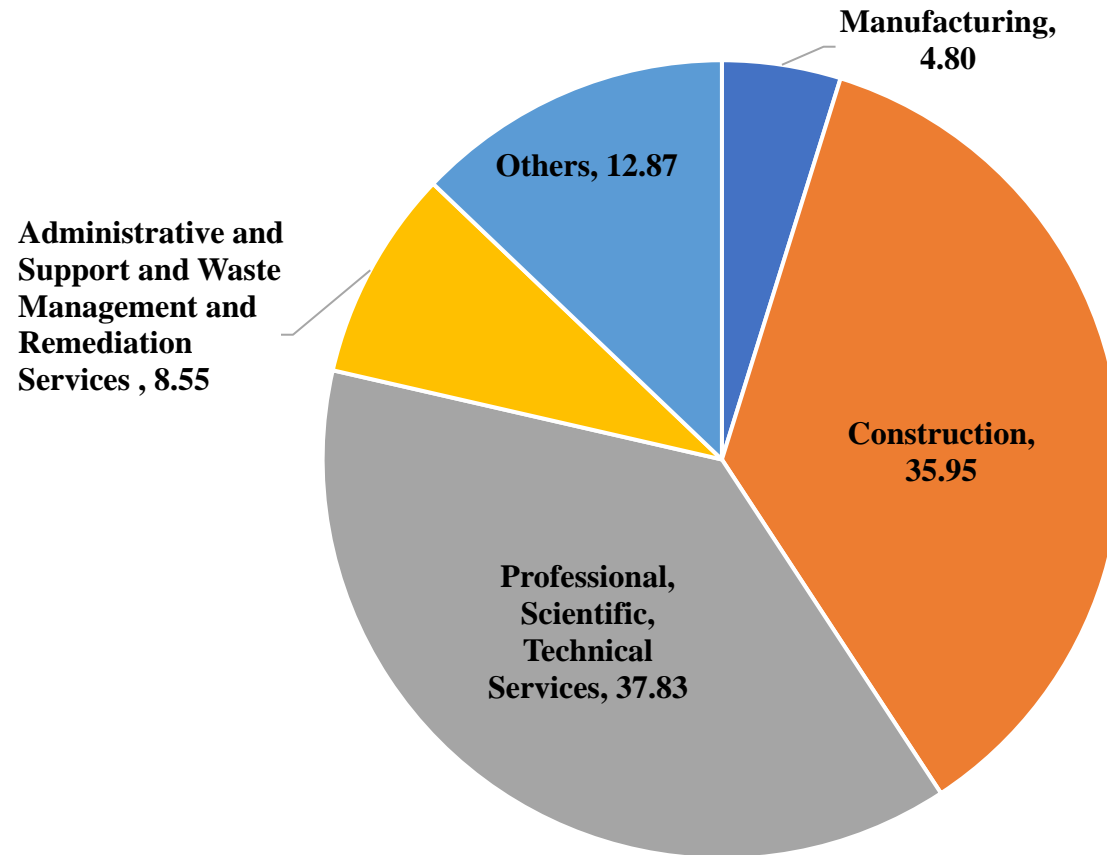
Percent of 8(a) Dollars Obligated Through 8(a) Specific Vehicles by Federal Agencies: FY2014-2019



Finding:

- 32 percent of all 8(a) dollars are obligated through 8(a) set-aside vehicles, 34 percent through 8(a) sole source vehicles, and the remaining 34 through non-8(a) vehicles.

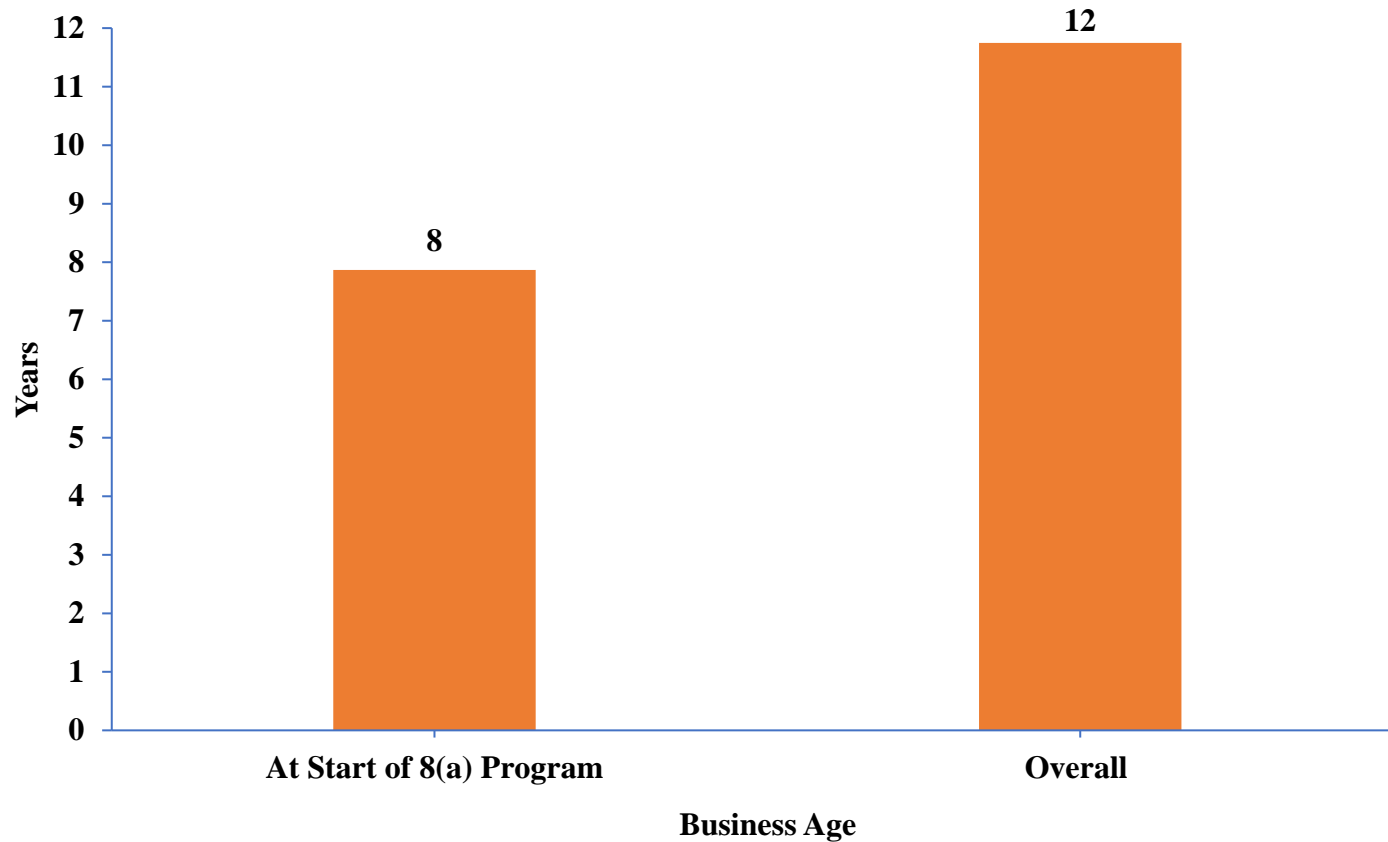
Percent of 8(a) Dollars Obligated by Industry by Federal Agencies: FY2014-2019



Finding:

- Federal agencies spend approximately 74 percent of all 8(a) dollars in the Professional Scientific, Technical Services and the Construction industry sectors.

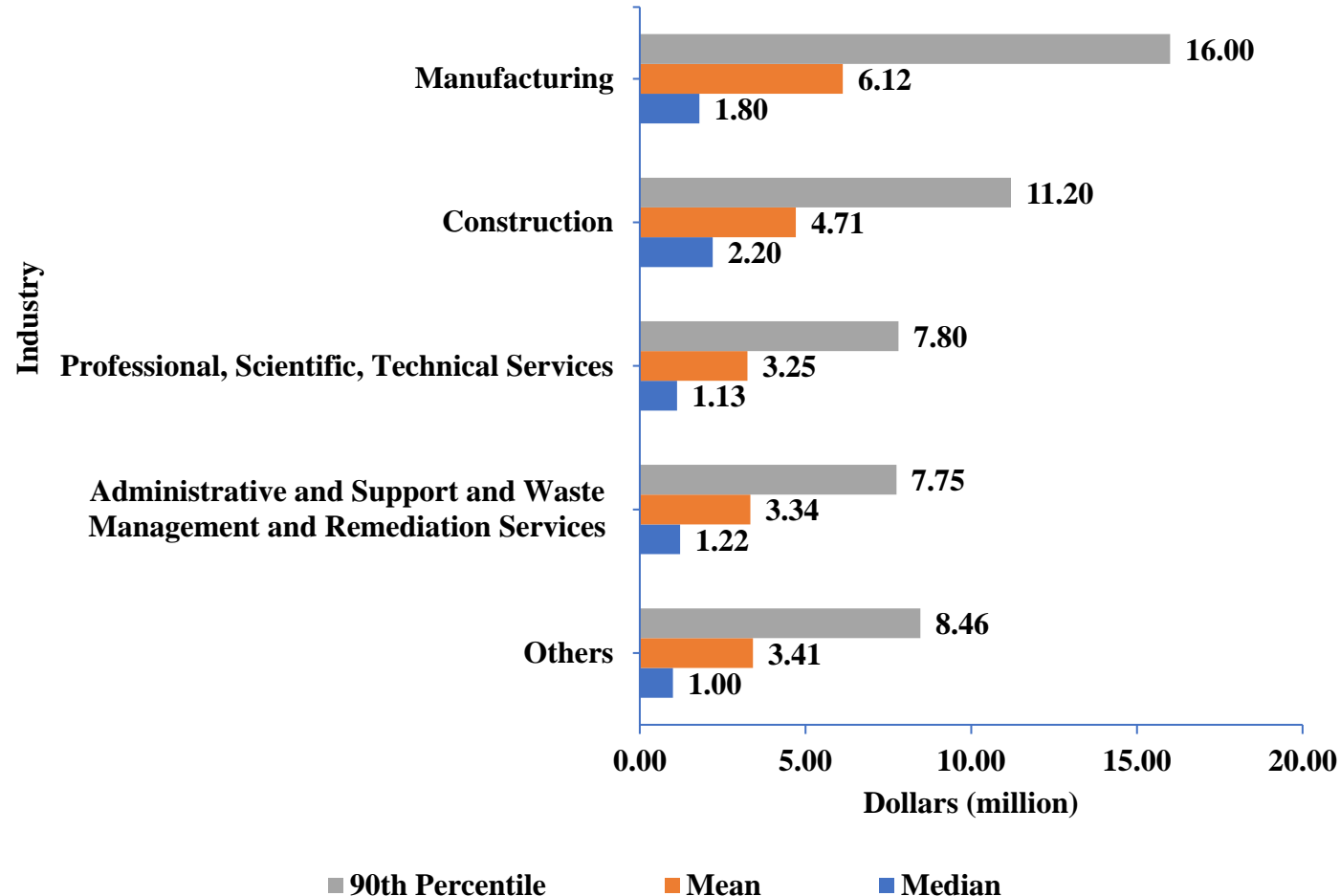
Age of 8(a) Businesses



Finding:

- 8(a) businesses on average have been operating for 12 years.
- The average age of the businesses when they join the 8(a) program is almost 8 years.

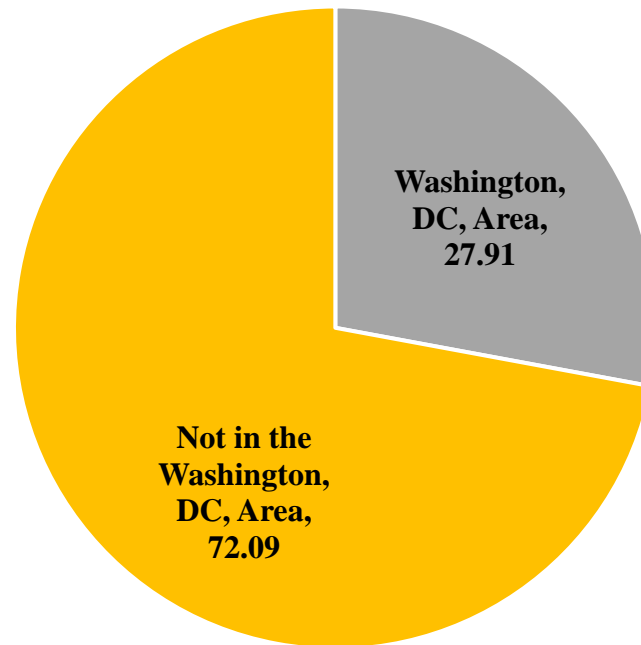
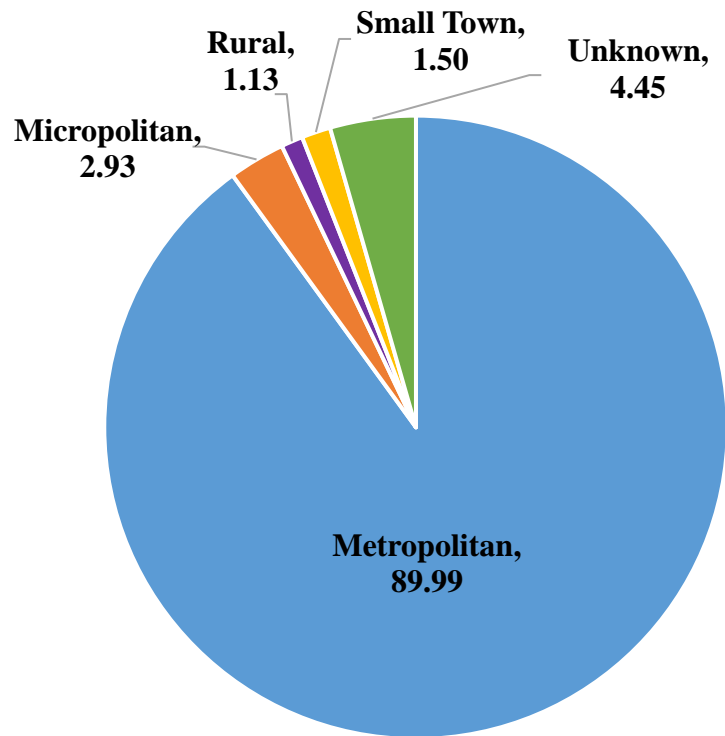
Average Annual Revenue of 8(a) Businesses by Industry



Finding:

- The revenues of 8(a) businesses are highly skewed with an annual average value of \$3.7 million, median value of \$1.4 million, and a range of up to \$100 million.

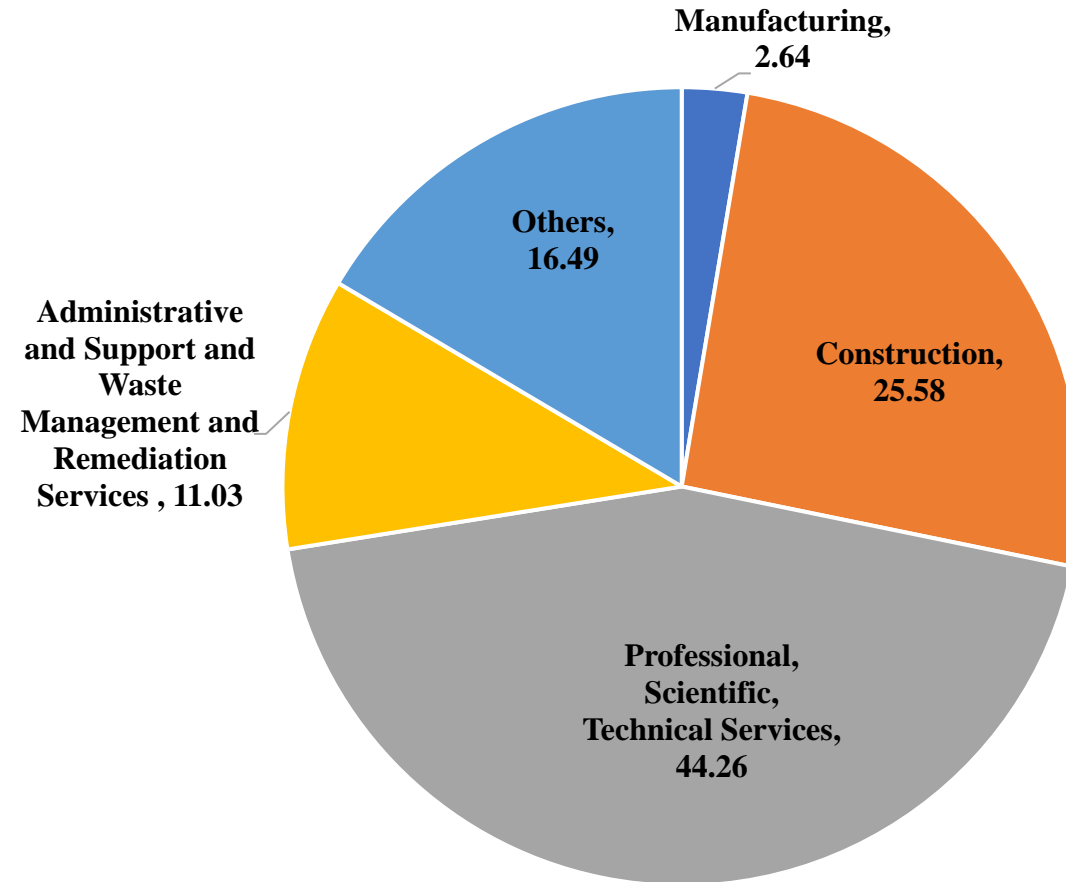
8(a) Businesses by Location



Finding:

- Almost 90 percent of the 8(a) businesses are located in metropolitan areas.
- Approximately 28 percent are located in the Washington, D.C., metropolitan area.

Percent of 8(a) Businesses By Industry



Finding:

- Approximately 70 percent of all 8(a) businesses belong to the Professional Scientific, Technical Services or the Construction sectors.

Research Question 1

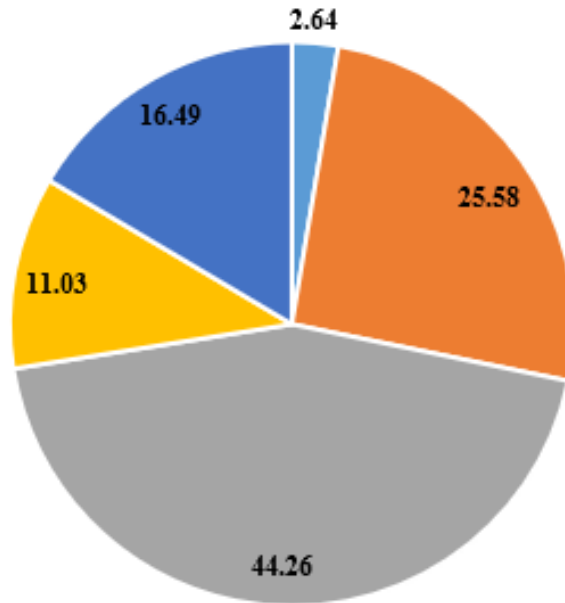
Is there a relationship between the types of industries contracted to and agencies that award 8(a) contracts? What other factors predict whether federal agencies award 8(a) contracts?

RQ1: Methodological Approach

Overview	A retrospective study with repeated measures analysis using contract data from FY 2014-2019 to understand the contracting experience of federal agencies with 8(a) Businesses (the demand side)
Unit of analysis	Federal agencies – fiscal year
Dependent variable	Percent of small business eligible contract dollars obligated to 8(a) businesses
Predictors	Independent variables that capture federal agency characteristics and procurement practices
Analytical Approach	Bi-variate relationship of predictors with the dependent variable
	Multivariate analysis to estimate the coefficients for each predictor with the dependent variable controlling for time

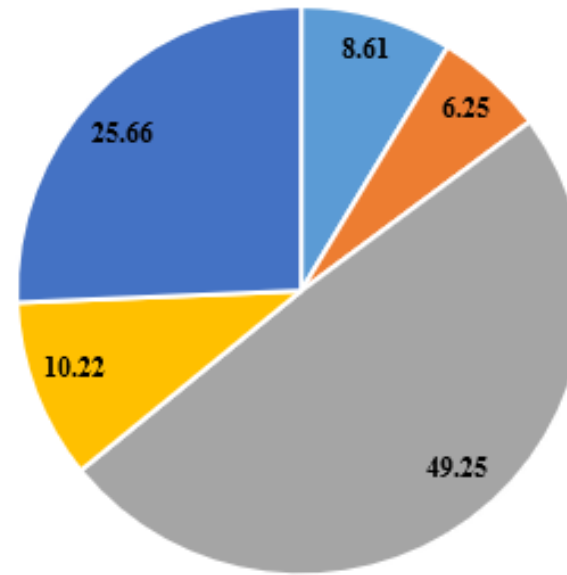
RQ1: Findings – Overlap of Industries

8(a) Businesses



- Manufacturing
- Construction
- Professional, Scientific, Technical Services
- Administrative and Support and Waste Management and Remediation Services
- Others

Federal Agencies



Findings:

- There is overlap between goods and services demanded by federal agencies and those supplied by 8(a) businesses.
- A change in spending in these industry sectors would not affect contracting dollars to 8(a) businesses except for those in Manufacturing.
- An increase in federal agency spending in Manufacturing is associated with a small decrease in prime dollars to 8(a) businesses.

RQ1: Findings – Contract Vehicles

- Federal agency spending through certain IDVs had a positive association with 8(a) contracting dollars.
 - An increase in federal agency spending through BOAs had a strong positive relationship with 8(a) spending.
 - An increase in spending through FSS and GWACs also had a positive, but less strong, relationship with 8(a) spending.
- Spending through 8(a) set-aside and sole source vehicles had a very strong positive relationship with overall 8(a) spending.
- An increase in spending through VOSB set-aside and sole source vehicles had a negative relationship with 8(a) spending suggesting a crowding out effect.

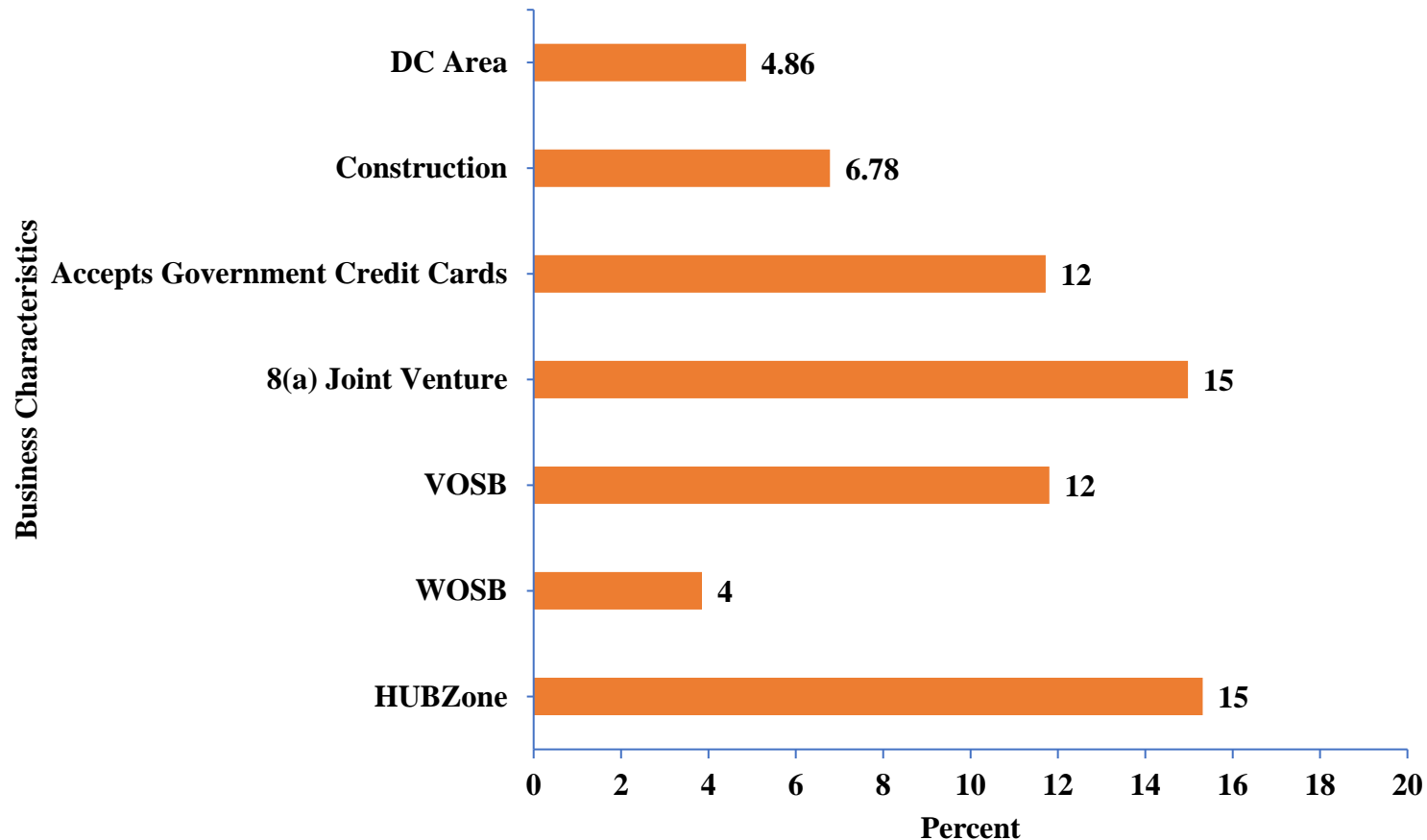
Research Question 2

Are there any factors that predict federal contract awards for 8(a) firms (such as firm size, location, industry, age, prior contract awards, etc.)?

RQ2: Methodological Approach

Overview	A retrospective study with repeated measures analysis using contract data from FY 2014-2019 to understand the 8(a) businesses' experience competing for and acquiring contracts with federal agencies (the supply side)
Unit of analysis	8(a) certified businesses – fiscal year
Dependent variable	Whether or not the 8(a) businesses receive any federal prime contracting dollars, and if so, the total value of the prime contracting dollars
Predictors	Independent variables that capture business characteristics and prior prime contracting experiences of 8(a) businesses
Analytical Approach	Bi-variate relationship of predictors with the dependent variable Multivariate analysis to first estimate the coefficients for each predictor on whether the 8(a) businesses receives any prime contracting dollars, and then estimate coefficients for the predictors on the total amount of dollars received for only those 8(a) businesses that received any prime contracting dollars

RQ2: Findings – Obtaining Prime Contracts



Findings:

- 8(a) businesses with multiple SBA socioeconomic program designations or in joint ventures have a higher likelihood of obtaining prime contracts.
- Business location in the Washington, D.C., area, operating in the Construction sector*, and accepting government credit cards as payment are also likely to increase the chances of winning prime contracts

*Compared to the Manufacturing sector

RQ2: Findings – Value of Prime Contracts

Of the businesses that were successful in obtaining a prime federal contract:

- Those that had more prime contracting experience (obtained more than one prime contract) are likely to have contracts worth \$643,540 more than 8(a) business with just a single prime contract.
- Those that had a higher percentage of their revenue from prime federal contracts were likely to receive more prime contracting dollars.
 - An increase in the percentage of the overall revenue from prime contracts by 1 percentage point is associated with a \$41,633 increase in total prime contracting dollars.

RQ2: Findings – Value of Prime Contracts

Number of awards obtained through 8(a) set-aside and sole source vehicles also have a strong relationship with the value of prime federal contracts.

- Obtaining an additional 8(a) set-aside contract was associated with a \$106,267 increase in the value of the businesses' prime federal revenue.
- Obtaining an additional sole source contract was associated with a \$172,757 increase in their prime federal revenue.

RQ2: Findings – Value of Prime Contracts

Certain factors had a negative relationship with the value of the prime contracts.

- 8(a) businesses that were also WOSBs were found to have prime contracts worth \$413,312 less than 8(a) businesses that were not WOSBs.
- Businesses in the 8(a) program located in the Washington, D.C., area had on average \$3.2 million smaller federal revenue than those located elsewhere.
- 8(a) businesses in industry sectors other than Construction had federal revenues between \$1.5 to \$2 million less compared to those in the Manufacturing sector.

Research Question 3

What year of the program do 8(a) firms win their first federal government contract? Do they obtain federal contracts at a faster rate than non-8(a) firms?

RQ3: Methodological Approach:

Overview	Bivariate and multivariate analysis using a quasi-experimental design to evaluate the relationship between joining the 8(a) program and receiving federal prime contract awards
Unit of analysis	Small disadvantaged businesses
Dependent variable	Whether or not the small disadvantaged business was awarded a prime federal contract and the time to receive the first contract award
Predictors	Independent variables designed to capture business characteristics, portfolio of prime federal contracts, and joining the 8(a) program
Analytical Approach	Bi-variate relationship of predictors with the dependent variables Quasi-experimental research design to compare the contract outcomes of 8(a) and similar non-8(a) small disadvantaged businesses in terms of whether joining the 8(a) program has an impact on businesses' ability to obtain a federal contract (as well as the rate of receiving the contract awards

RQ3: Findings

- Businesses that joined the 8(a) program are 51 percentage points more likely to obtain a federal contract than those that did not join.
- 8(a) businesses obtain prime federal contracts at a rate 5.43 times as fast as similar businesses not in the 8(a) program.
 - The median time it takes businesses to obtain their first contract after joining the 8(a) program is 687.96 days or approximately 22 months.

Research Question 4

Do 8(a) firms win more federal contracts in the development stage or the transitional stage of the 8(a) program?

RQ4: Methodological Approach

Overview	A pre- post- estimation model to inform the relationship between the stage of the 8(a) program and obtaining federal prime contract awards
Unit of analysis	8(a) certified businesses – fiscal year
Dependent variable	Federal prime contract dollars
Predictors	Independent variables that capture business characteristics and prior prime federal contracting experiences of 8(a) businesses
Analytical Approach	Bi-variate relationship of predictors with the dependent variable Multivariate analysis used to assess outcomes of 8(a) participants in stage 1 vs stage 2 of the 8(a) program to determine whether the stage of training has an influence on the value of prime federal contracts obtained

RQ4: Findings

- Businesses in the transitional stage (stage 2) of the 8(a) program are on average likely to receive \$536,060 more in prime federal contracting dollars than those in the developmental stage (stage 1) of the program.
- Stage 2 businesses with non-8(a) contracts are likely to have on average \$897,202 higher prime federal revenue than stage 1 businesses that only have contracts awarded through 8(a)-specific vehicles.
- For stage 2 businesses, each additional 8(a) set-aside contract award is associated with a \$229,162 increase in their prime federal revenue compared to businesses in stage 1 of the 8(a) program.

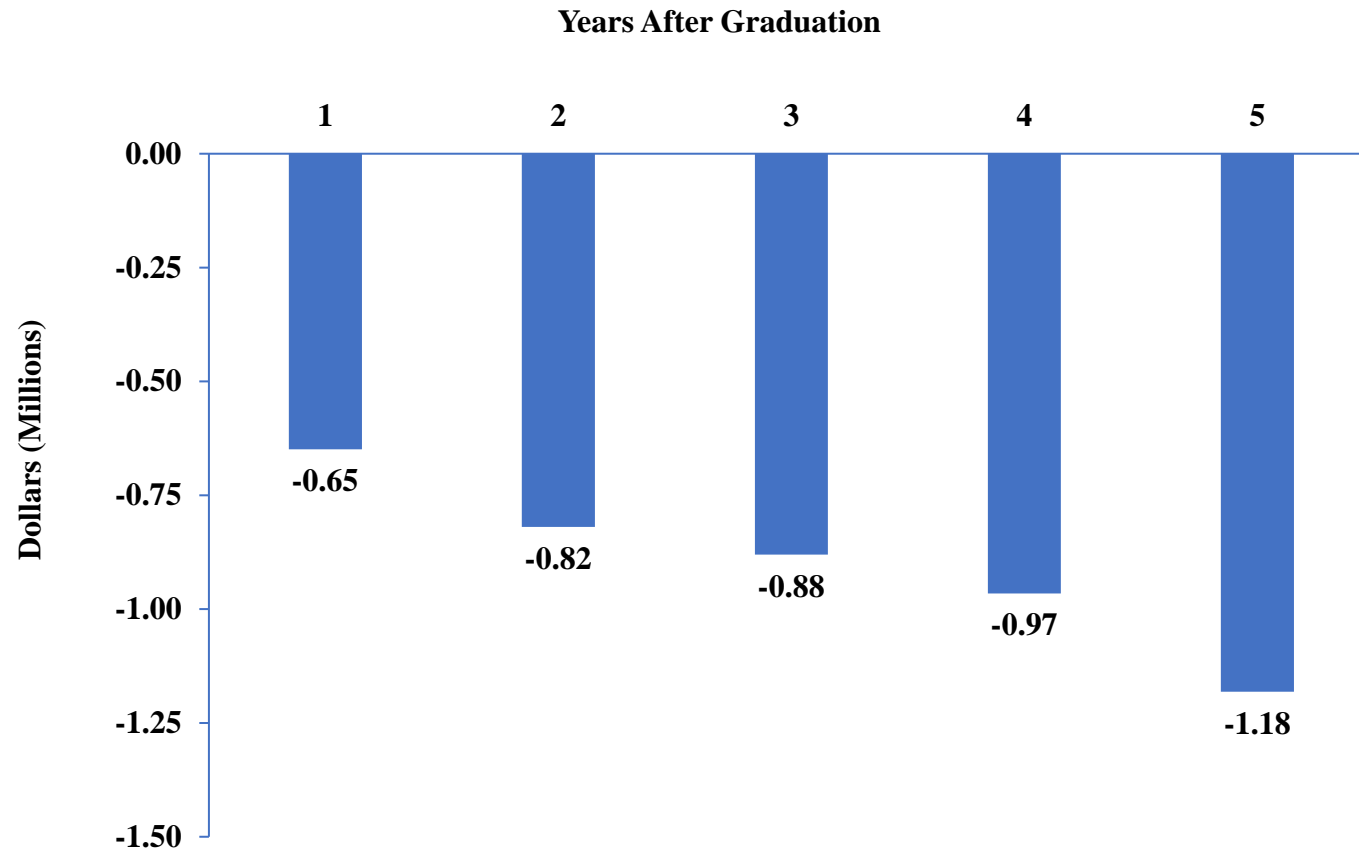
Research Question 5

When firms graduate from the 8(a) program, do they continue to win federal contracts?

RQ5: Methodological Approach

Overview	Panel data analysis with a polychotomous post-treatment variable to assess the success of 8(a) businesses' ability to obtain prime federal contracts after graduating from the 8(a) program
Unit of analysis	8(a) certified businesses – fiscal year
Dependent variable	Federal prime contract dollars
Predictors	Independent variables that capture business characteristics and prior prime contracting experiences of 8(a) businesses
Analytical Approach	Bi-variate relationship of predictors with the dependent variable Multivariate analysis used to assess whether 8(a) businesses continue to obtain prime federal contracts in years 1-5 after graduating from the program compared to 8(a) businesses still in the program

RQ5: Findings – Overall Trend of Prime Federal Contracting Dollars Obtained after Graduation



Findings:

- Businesses are likely to experience a decrease in prime federal contracting dollars in each of the first 5 years after graduating from the 8(a) program.

RQ5: Findings –Trend of Prime Federal Contracting Dollars Obtained after Graduation Disaggregated by Groups

Group	Years After Graduation				
	1	2	3	4	5
<i>One</i>	0	0	0	0	0
<i>Two</i>	↔	↔	↔	↔	↔
<i>Three</i>	-\$68,906	-\$110,973	-\$81,509	-\$91,352	-\$151,101
<i>Four</i>	↔	↔	↔	↔	↔

NOTE: The symbol “↔” denotes that there is no statistically significant difference from businesses still in the 8(a) program. Businesses are grouped based on the decile of prime federal contracting dollars they have obtained.

Findings:

- The decline in prime federal dollars in each of the first 5 years after graduation observed for 8(a) businesses overall are driven by businesses that ranked in the bottom 25 percent (group 1) and those between 51 and 75 percent (group 3) in prime federal revenue.

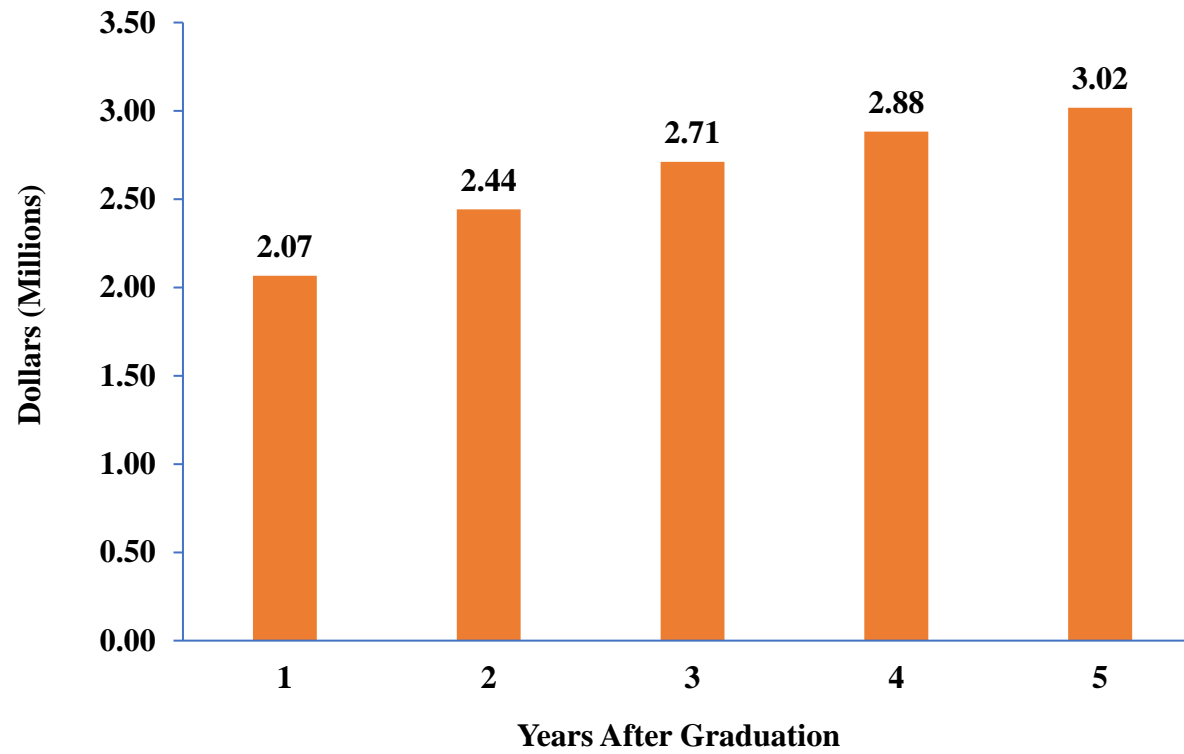
Research Question 6

What is the success rate 1, 2, 3, 4, or 5 years after graduation from the 8(a) program?

RQ6: Methodological Approach

Overview	Panel data analysis with a polychotomous post-treatment variable to assess the success rate of 8(a) businesses' after graduating from the 8(a) program
Unit of analysis	8(a) certified businesses – fiscal year
Dependent variable	Federal prime contract dollars
Predictors	Independent variables that capture business characteristics and prior prime contracting experiences of 8(a) businesses
Analytical Approach	Bi-variate relationship of predictors with the dependent variable Multivariate analysis used to assess the businesses success rate, measured in terms of overall annual revenue, of 8(a) businesses in years 1-5 after graduating from the program compared to 8(a) businesses still in the program

RQ6: Findings –Trend of Overall Annual Revenue After Graduation



Findings:

- Businesses are likely to experience a steady increase in overall revenue in each of the first 5 years after graduating from the 8(a) program.

RQ6: Findings –Trend of Overall Annual Revenue After Graduation Disaggregated by Groups

Group	Years After Graduation				
	1	2	3	4	5
<i>One</i>	↔	↔	↔	↔	-\$38,845
<i>Two</i>	\$149,837	\$178,333	\$138,995	\$135,891	\$87,107
<i>Three</i>	\$584,943	\$788,782	\$793,108	\$797,838	\$862,132
<i>Four</i>	\$4,750,317	\$5,632,428	\$6,524,221	\$6,838,703	\$7,602,963

NOTE: The symbol “↔” denotes that there is no statistically significant difference from businesses still in the 8(a) program. Businesses are grouped based on the decile of their overall annual revenue.

Findings:

- The steady increase in overall revenue of businesses in each of the first 5 years after graduation compared to those still in the 8(a) program were likely driven by 8(a) businesses that rank in the top 50 percent in overall revenue (groups 3 and 4)

Recommendations

To increase the chances of obtaining a prime federal contract, the SBA could:

1. Encourage 8(a) businesses to join additional socioeconomic programs like VOSB, WOSB, and HUBZone if they qualify.
2. Encourage 8(a) businesses to consider forming a joint venture with an established business with a solid track record of obtaining prime federal contracts.
3. Encourage 8(a) businesses to be willing to accept government credit cards as a form of payment.

Recommendations

To increase their chances of receiving contracts of higher value during their time in the 8(a) program, the SBA could:

1. Encourage businesses to respond to Requests for Information (RFIs) and Sources Sought Notices (SSNs) to increase their chances of receiving contracts obligated through 8(a) set-aside and sole source vehicles.
2. Advise businesses to primarily focus on pursuing prime federal contracts.
3. Advise businesses to compete for IDVs, particularly BOAs.

Recommendations

To have continued success after businesses graduate from the 8(a) program, the SBA could:

1. Encourage businesses in stage 2 to increase the portion of non-8(a) specific contracts in their portfolio. The SBA could closely monitor this ratio for businesses in stage 2 of the 8(a) program and direct them to resources at the SBA and other agencies to increase their chances of winning non-8(a) contracts.
2. Encourage businesses to diversify their portfolio beyond prime federal contracts and pursue subcontracting opportunities with recipients of other-than-small prime contracts, as well as pursuing nongovernment or commercial contracts.

Recommendations

To improve its ability to better understand the longer-term outcomes of the 8(a) program, the SBA could:

1. Consider developing a framework to automate and track in real time the performance of businesses after they graduate from the 8(a) program using the methodology used to answer Research Questions 5 and 6.
2. Conduct additional research to understand why business perform the way they do after they graduate from the 8(a).



Thanks!

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