

VIRGINIA SWAM & DBE CERTIFICATION PROGRAMS: IMPACTS & POLICY



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VIRGINIA SWAM & DBE CERTIFICATION PROGRAMS: IMPACTS & POLICY

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The L. Douglas Wilder School of Government and Public Affairs at Virginia Commonwealth University informs public policy through cutting-edge research and community engagement while preparing students to be tomorrow's leaders. The Wilder School's Center for Public Policy conducts research, translates VCU faculty research into policy briefs for state and local leaders, and provides leadership development, education and training for state and local governments, nonprofit organizations and businesses across Virginia and beyond.

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The Center for Urban and Regional Analysis (CURA) is the economic and policy research center of the L. Douglas Wilder School of Government & Public Affairs at Virginia Commonwealth University. The Center serves stakeholders and organizations at all levels of focus, providing information systems support, program impact analysis, public policy evaluation, targeted investment models, and strategic plans to state agencies, regional and metropolitan organizations, planning districts, cities, counties and towns, as well as businesses and non-profit organizations.

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
INTRODUCTION	1
CHAPTER 1: VIRGINIA SWAM & DBE TRENDS	5
SMALL BUSINESS TRENDS	5
SWAM SPENDING	7
CHAPTER 2: PROGRAM PARTICIPANT PERSPECTIVES	9
SURVEY RESULTS	10
MAJORITY OWNER DEMOGRAPHICS	10
BUSINESS CHARACTERISTICS	11
BUSINESS PERFORMANCE	13
EMPLOYMENT	18
SUB-CONTRACTORS & SUPPLIERS	19
COMMUNITY ENGAGEMENT	22
SUCCESS STORIES AND PROGRAM FEEDBACK	23
CHAPTER 3: ECONOMIC IMPACT	25
METHODOLOGICAL NOTE	25
CALCULATING THE ECONOMIC IMPACT - DATA PREPARATION	26
ECONOMIC IMPACT RESULTS	28
ADDITIONAL CONSIDERATIONS TO THE ECONOMIC IMPACT RESULTS	30
IMPACTS ON VIRGINIA'S METROPOLITAN STATISTICAL AREAS	31
CHAPTER 4: POLICY SCENARIOS (SBA ALTERNATIVE)	33
SCENARIO-1: ADOPTING SBA ALTERNATIVE	35
SCENARIO-2: MODIFYING EXISTING SWAM	37
MINIMAL ECONOMIC IMPACT FROM THE ADOPTION OF SBA DEFINITION	38
ISSUES WITH ADOPTING THE SBA DEFINITION	38
CONCLUSION	40
REVIEW OF POLICY SCENARIO 1 [ADOPTING THE SBA FEDERAL DEFINITION]	42
REVIEW OF POLICY SCENARIO 2 [CHANGING CURRENT DEFINITION FROM 'OR' TO 'AND']	42
APPENDIX	i



Virginia's Department of Small Business and Supplier Diversity administers SWaM certification by determining whether applicants meet the program's requirements:

- A similar certification program for federally-funded contracts—rather than state-funded—follows similar but slightly different requirements. The Disadvantaged Business Enterprises (DBE) program allows small businesses and businesses owned by historically disadvantaged groups to certify and compete for federally funded projects. The DBE program follows similar rules for disadvantaged groups—it includes women-owned and minority-owned businesses. However, the definition of a small business depends on the industry in which the business operates. The DBE definition of small business places different standards in both size and gross receipts on businesses according to their NAICS classification. This definition comes from the U.S. Small Business Administration (SBA).

This report seeks to provide DSBSD with an understanding of the SWaM and DBE programs' recent trends, participant impacts, and economic impacts. It also tests whether changes to the definition of "small business" might have benefits for Virginia businesses and the economy overall. The following represent major findings:

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businesses experience growth in annual sales receipts.

- Experience in the SWaM program plays an ongoing role in helping businesses successfully bid for state contracts. Survey respondents with more than two years of experience with the program reported receiving at least some revenue from state contracts at a far higher rate than respondents with two years of experience or less.
- Of the three sub-categories of businesses studied here, small businesses appear to work with SWaM/DBE-certified sub-contractors and suppliers at a greater rate than women-owned or minority-owned businesses. This is likely due to procurement being race and gender neutral.
- SWaM-certified businesses have an annual economic impact of \$3.6 billion, including \$146 million in state and local tax revenues.
- State spending with minority-owned SWaM businesses have a higher economic multiplier (1.58) than small SWaM businesses (1.53) and women-owned SWaM businesses (1.43).
- Using the SBA definition of small business for SWaM certification would increase the pool of certified businesses by 10 percent. However, Virginia SWaM businesses would only increase by 0.55 percent. Out-of-state SWaM businesses would increase by 99.6 percent. Adoption of the SBA small business definition would increase the estimated economic impact of SWaM spending by just 0.2 percent.
- Additionally, adopting the SBA definition would require additional paper work and staff time to evaluate each of the 1,031 industry types using industry specific certification criteria, which will increase certification costs to DSBSD.
- Currently, any small business that meets the criteria of less than 250 employees “OR” less than \$10 million in gross receipts averaged over the three years are eligible for SWaM certification. Requiring SWaM businesses to meet both size “AND” revenue requirements would decrease the pool of certified businesses by 18 percent. SWaM-certified Wholesale Trade and Manufacturing sector businesses would shrink by more than 90 percent.
- Although the program has struggled to meet the absolute goal of 42 percent, the share of discretionary spending going to SWaM-certified businesses has consistently remained above 30 percent over the past 10 years. Projections suggest the program could increase its performance by adopting the SBA definition of small businesses. However, that increase would stem largely from out-of-state businesses ineligible under the current definition. In this regard, even though the program goals would be met, the economic impact of the additional spending would not be realized within the Commonwealth.



INTRODUCTION

INTRODUCTION

In 2006, then-Governor of Virginia Tim Kaine signed Executive Order 33 directing state agencies to strive to make 40 percent of purchases from small businesses. A small business in the executive order is defined as any Virginia business with 250 employees or fewer or having gross receipts of \$10 million or less (averaged over the previous three years). The definition explicitly includes women-owned and minority-owned businesses that meet the small business definition. In 2014, then-Governor Terry McAuliffe signed Executive Order 20, increasing the Commonwealth's small business spending goal to 42 percent.

The primary objective of this initiative is to advance small business goals for the state to remain competitive among its peers. The Commonwealth expects to realize the objective by spurring creativity, promoting economic justice, and encouraging procurement participation by small, women-owned, and minority-owned businesses. Although the executive order does not set special goals for women-owned and minority-owned businesses, it specifically mentions that these businesses, among others, are categorized as small business if they meet the required criteria. Women- and minority-owned business may obtain SWaM certification without meeting small business criteria.

Existing research suggests employment patterns among minority-owned business dramatically differ from those of non-minority firms. Research findings on small business employment consistently reveal a pattern in which minority-owned businesses primarily employ minority workers, while non-minority firms primarily employ non-minority workers. The disparities in workforce composition by race are largely attributed to network hiring inclination, wherein, small business firms rely on family-based networks to hire employees (Bates, 2008; Simms & Allen, 1997). For non-minority (white) small business owners, these networks primarily consist of other white workers. Likewise, family-based networks for black business owners primarily consist of other black workers.

Given the nature of network hiring, in which the availability of small business jobs are in part a function of the race of the hiring owner, expanding opportunities for minority businesses also expands minority employment opportunities. Multiple studies demonstrated that African American-owned businesses employed a predominately African American workforce (Bates, 1994; Boston & Ross, 1997; Simms & Allen, 1997). Additionally, these black-owned businesses were more likely than white-owned businesses to recruit low-income minority workers (Bates, 1994; Simms & Allen, 1997).

The Center for Women's Business Research, in partnership with the National Women's Business Council and Walmart, undertook a 2009 study to determine the economic impact of women-owned businesses nationwide. The methodology used in the study determined the economic impact of privately held firms in which women held 51 percent or more of ownership. According to research findings, 28.2 percent of all businesses, nationally, are women-owned. These businesses were found to contribute \$3 trillion annually to the US economy, or 4.2 percent of all revenue (Center for Women's Business Research, 2009). Additionally, women-owned businesses contributed 23 million jobs, or 16 percent of total US employment. These findings highlight the substantial impact of this market sector.

Similarly, a study in 2017 found that women's entrepreneurship has been on the rise in the United States for the last two decades, with an estimated 11.6 million women-owned businesses in 2017 employing nearly 9 million people and generating about \$1.7 trillion in revenues (American Express, 2017). The report also identifies women-owned businesses in Virginia as having considerably increased their economic clout and employment over the 20 year period from 1997 through 2017.

The Virginia Department of Small Business and Supplier Diversity (DSBSD) certifies Small, Women-owned, and Minority-owned (SWaM) businesses and administers the SWaM program to achieve the 42 percent goal set forth by the 2014 executive order. SWaM certification is principally limited to Virginia businesses; however, an out-of-state business that meets the required criteria can apply for SWaM certification if its home state has a reciprocal policy that allows Virginia small businesses to compete for procurement contracts in that state. DSBSD also certifies Disadvantaged Business Enterprises (DBE) in Virginia. DBE is a Federal program designed

to increase participation of small, disadvantaged businesses in projects funded by the US Department of Transportation and other federal sectors. To qualify as a DBE, a business' majority-owner (the person who owns 51 percent of the business and oversees its day-to-day operation) must be socially and economically disadvantaged. To be regarded as socially disadvantaged, the majority-owner must belong to a minority or historically disadvantaged group, including African American, Hispanic, Native American, and women business owners. Persons with disabilities and others may be determined as socially disadvantaged on a case-by-case basis. The economic disadvantage goal requires that the majority-owner's personal net worth not exceed \$1.32 million. Finally, a DBE must be certified as a small business. However, this definition of small business differs from that of the SWaM program.

The DBE program requires firms meet the small business definition set by the federal Small Business Administration (SBA). The SBA sets different size criteria—both in gross receipts and in number of employees—for different types of businesses. However, Virginia businesses that plan to participate in the procurement process with Virginia agencies that do not receive federal transportation funds do not need to get DBE certification.

Besides SWaM and DBE, DSBSD also administers certification for programs that include Employment Service Organizations (ESO), Historically Black Colleges and Universities (HBCU), Service Disabled Veterans (SDV), and Micro Businesses. Additionally, the Business Development and Outreach Services (BDOS) division of DSBSD provides consultation and resources to enable small businesses in Virginia to grow, create jobs, and strengthen the state's economy.

Virginia's small business set-aside policy currently requires that purchases below an established threshold be procured from businesses certified as "small" or "micro" businesses. The 2014 executive order expanded the small businesses set-aside from \$50,000 to \$100,000 for goods and non-professional services (and up to \$50,000 for professional services). The executive order also set-aside all state procurements under \$10,000 for qualifying micro businesses. The order defines a micro business as a certified small business with fewer than 25 employees and three-year average gross receipts less than \$3 million.

Although the state's small business set-aside is race- and gender-neutral—only small or micro business certification is required to qualify for the small business set aside—contracts with women- and minority-owned small businesses are encouraged, so long as their prices are considered fair and reasonable.

Many public policies are driven by a recognition of and desire to address societal inequities. In the case of SWaM/DBE certification program, the objective is to empower small, women- and minority-owned businesses by providing them a level playing field to compete for the Commonwealth's procurement spending among other businesses of similar sizes. The accountability of such policy rests upon how the players are selected—the credibility of the certification criteria, the achievement of specified goals, and the overall effect of the program in empowering small businesses in the Commonwealth. At the operational level, the basic accountability metric is to make sure that 42 percent of the state's discretionary procurement spending is happening through SWaM or DBE certified businesses. This keeps the target simple and the outputs easy to measure. However, the fundamental objective is much larger than simply achieving a numerical benchmark. The program's effectiveness may be understood by answering the following questions:

- Are more state contracts—and state procurement dollars—flowing to certified small, minority, and women-owned businesses as a result of the initiative?
- Has the program encouraged small business entrepreneurship and generated new employment and/or growth in wages?
- What is the program's economic impact on Virginia's economy?

In an attempt to measure the effectiveness of the SWaM/DBE certification program, DSBSD solicited professional research services from the Center for Urban and Regional Analysis (CURA) at Virginia Commonwealth University's L. Douglas Wilder School of Government and Public Affairs. CURA developed a customized methodology and economic modeling tool to evaluate and analyze the program's effects on certified businesses and its economic impact in the Commonwealth. Those findings are documented in the proceeding sections of this report.

Following a review of relevant published literature documenting findings from similar programs in other states, CURA used a combination of quantitative and qualitative methods to conduct the analysis. The results are divided into four parts.

1. **Historical trends and numbers in SWaM certification:** Using historical data on discretionary spending for the past ten years, CURA identified business certification trends by business type to analyze changes in certification and spending over time. Further, employment and spending trends for all Virginia small, women-owned, and minority-owned businesses—SWaM certified and non-certified—were obtained from the Census Bureau’s Survey of Small Businesses. These trends were compared with the employment and spending trends of certified SWaM businesses to examine if certification correlates with greater spending, employment, and wages for these businesses.
2. **SWaM participant perspectives:** CURA conducted an online census of SWaM business owners to understand the impact of certification from the perspective of program participants. A randomized sample of businesses were chosen for interviews, providing a more detailed understanding of the intangible benefits realized by SWaM-certified businesses as well as their experiences with the program and its administration.
3. **Economic impact:** CURA esimated the economic impact of the SWaM certification program using economic input-output models informed by the data and analysis conducted in the prior two sections. The models were analyzed using the state-of-the art IMPLAN Pro software.
4. **Policy alternatives:** Finally, researchers at CURA separately applied the two different small business definitions—SWaM and SBA—to a sample of Virginia businesses to measure the difference in eligibility totals under the two definitions. DSBSD currently uses a small business definition based on the criteria set forth by the Governor’s executive order for SWaM certification. However, DBE certification follows the SBA definition. CURA has evaluated the economic and administrative impacts if DSBSD were to adopt the SBA definition of small business for SWaM certification. CURA also investigated how SWaM eligibility would grow or shrink if the current small business criteria, which requires businesses meet one of two size conditions, were changed to require both size conditions.

CHAPTER 1: VIRGINIA SWaM & DBE CERTIFICATION TRENDS

As described in the introduction, the Virginia Small, Women-, and Minority-Owned (“SWaM”) procurement initiative aims to expand business opportunities for SWaM businesses by directing state agencies to seek out SWaM-certified businesses for state contracts. The Commonwealth has set a procurement spending target of 42 percent with SWaM businesses.

The Disadvantaged Business Enterprise (DBE) certification program is a Federal program aimed at helping small businesses owned by women and minorities to participate in projects with federal funding. Although the DBE initiative is a federal program, it is administered by state and local agencies. The DSBSD administers both SWaM and DBE certification in Virginia.

SMALL BUSINESS TRENDS

The average number of businesses that received SWaM Certification from FY 2000-2017 are delineated in Table 2.1. These figures represent approximate values, based on unofficial DSBSD records¹. Data for some individual years remains uncertain; however, a long-term growth trend is evident. In FY 2000-2004, the average number of SWaM-certified businesses was 232. From FY 2000 – 2009, the number of certified businesses increased and decreased with volatility. By the period of 2005-2009 the average number of certified businesses was around 8,000. This figure was more than 30 times the average total number of certified businesses from FY 2000-2004. For the next several years, the number of certified businesses experienced strong growth (9 to 14 percent annually), until it peaked at more than 20,437 in FY 2010-2014. The number of certified businesses has, in the 2015-2017 period, declined to approximately 14,890 accounting for about a 27 percent drop from the previous period.

TABLE 2.1: AVERAGE NUMBER OF SWAM-CERTIFIED BUSINESSES (FY 2000-2017)

FISCAL YEAR	TOTAL	MBE	WBE	SBE	DBE*
2000-2004	232	176	71	-	40
2005-2009	7,897	1,669	2,533	1,726	114
2010-2014**	20,437	5,150	6,575	8,712	1,299
2015-2017	14,890	4,367	3,672	6,851	1,869

*Denotes amount not included within total

** Data was not available for FY 2011, 2012, and 2013

Note: As these are average values grouped by year for totals and programs the totals will not accurately sum.

In addition to being SWaM-certified, a business is assigned to one of three main certification types: Minority Business Enterprise (MBE), Woman Business Enterprise (WBE), and Small Business Enterprise (SBE). While an individual business may qualify for multiple certification types (e.g., Small and Woman Business Enterprise), each business in this report has been assigned to only one designation based on the following hierarchy: MBE, WBE, followed by SBE. For example, a small, woman-owned business would be considered both a WBE and SBE, but would be marked as a WBE to avoid double counting.

As shown in Figure 2.1, SWaM businesses from FY 2000-2004 were comprised largely of MBEs (greater than 55 percent). Since FY 2005, the proportion of MBEs has remained steady, ranging from 23 percent to 36 percent. The proportion of WBEs between FY 2000 and FY 2014 hovered around 32 percent. The proportion of SBEs was 21 percent in the 2005-2009 period which increased about 42 percent in 2010-2014 and went further up to 46

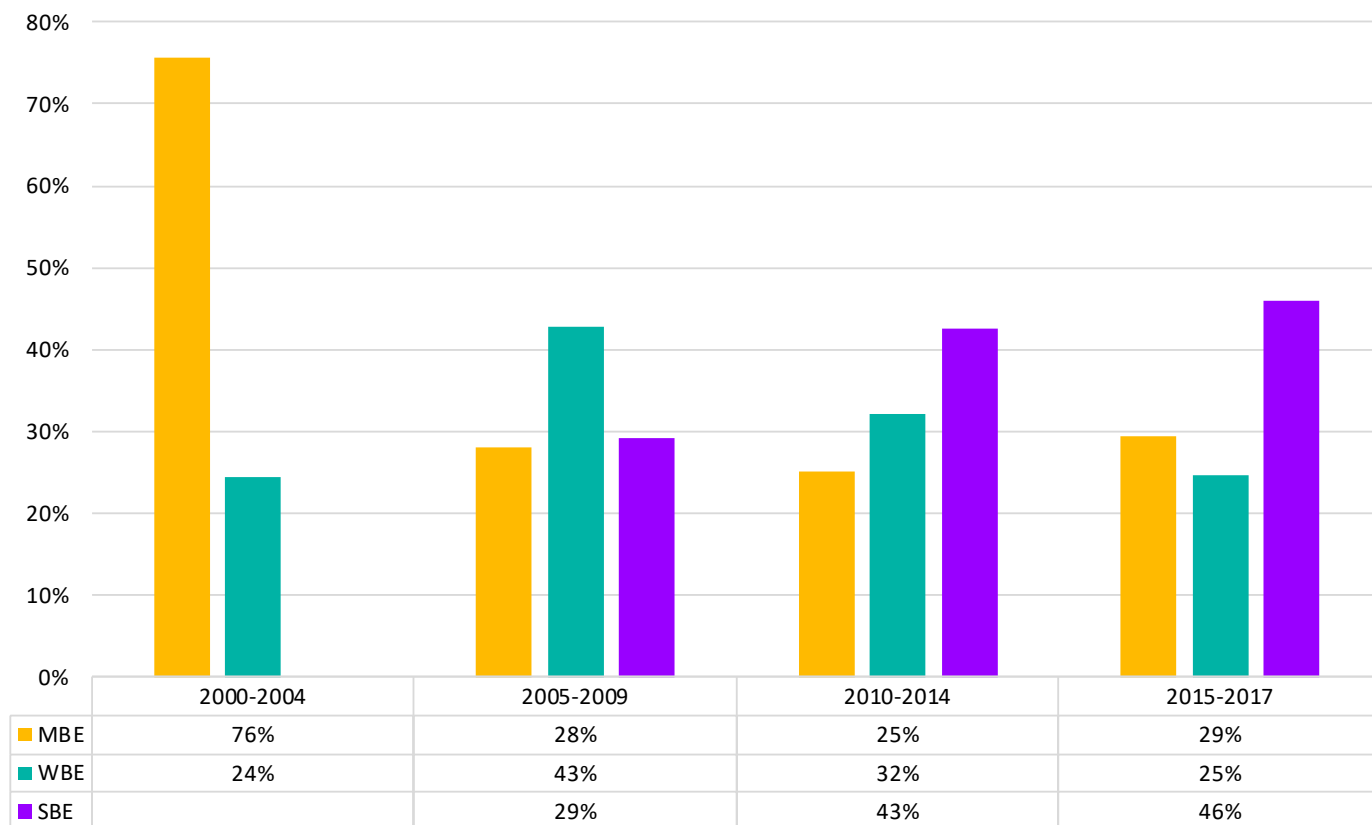
1 As DSBSD does not keep official records on the total number of certified businesses for each year, these figures were aggregated (with the assistance of DSBSD staff) from a variety of sources, including DSBSD emails and internal reports. As a result, there are some years in which data was not available (FY 2011-2013). These figures represent approximate values for the specified time periods.

percent in the 2015-2017 period. A portion of the large percentage jump between 2005-2009 and 2010-2014 can be attributed to a campaign by Virginia Commonwealth University and other large colleges and universities under the direction of former Governor Kaine to encourage existing vendors towards certification. Also, the program evolved from a minority-owned business program to a woman-owned business program, then finally to a program that included small business.

As stated previously, DSBSD certifies both SWaM and DBE certifications. The percent of SWaM businesses also possessing DBE certification has ranged from 7 percent in 2000-2014 to about 12 percent in 2015-2017. Even though there is some drop in percentage points, the real numbers have consistently increased as evidenced from the information in Table 2.1.

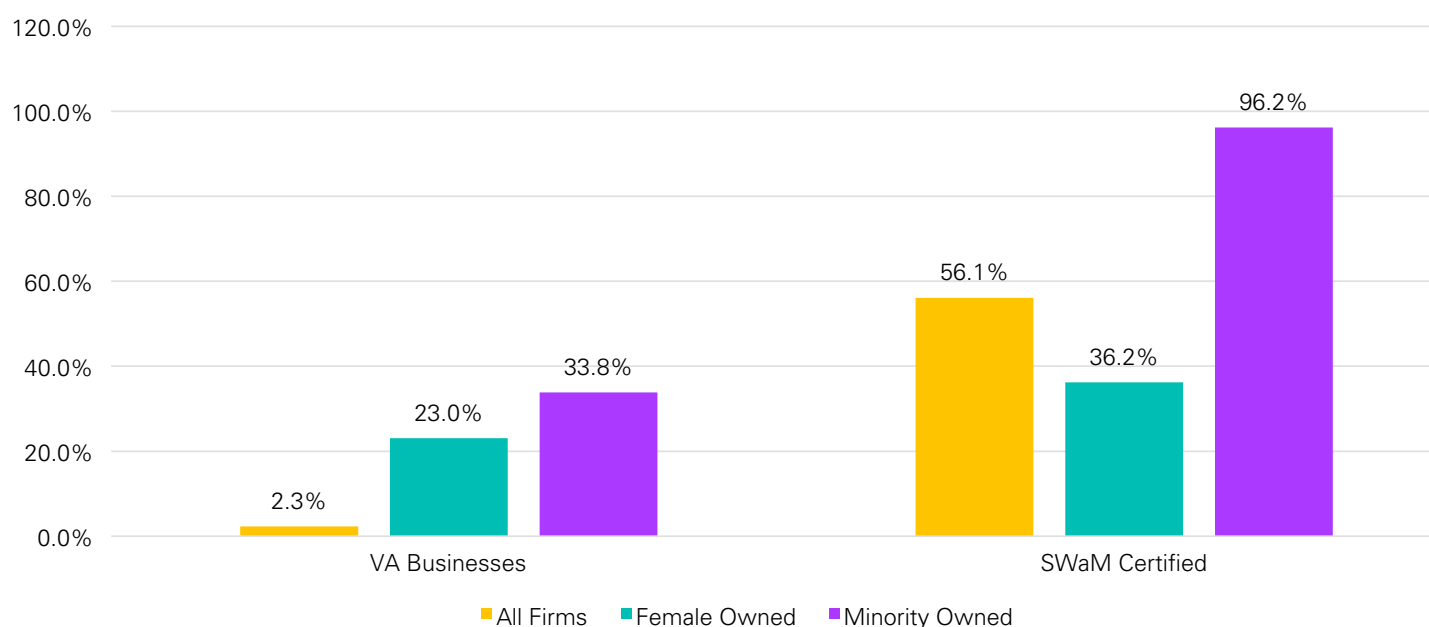
The US Census Bureau conducts a Survey of Business Owners (SBO) every five years. Data from this survey indicates the number of Virginia women-owned businesses grew by 23.0 percent and minority-owned businesses by 33.8 percent from 2007 to 2012 (see left columns in Figure 2.2)—rates far greater than the overall small business growth rate of 2.3 percent. However, SWaM-certified small businesses grew by 56.1 percent in the same period. Similarly, SWaM-certified women-owned and minority-owned businesses increased at rates greater than natural growth would suggest, increasing by 36.2 percent and 96.2 percent, respectively. In short, SWaM certification rates increased faster than business formation rates.

FIGURE 2.1: PERCENT OF SWAM BUSINESSES, BY CERTIFICATION TYPE (FY 2000-2017)



Note: Data for 2000-2004 for SBE didn't exist; as there was no small business program at that time

FIGURE 2.2: PERCENT GROWTH IN THE NUMBER OF SMALL BUSINESSES BY SWaM CERTIFICATION, 2007-2012



TRENDS

SWAM SPENDING

Discretionary spending from FY 2007 through FY 2017 is outlined in Table 2.2. These data are from official DSBSD records of total discretionary spending and disaggregated by SWaM certification type. Again, to avoid double counting, spending amounts for each business are assigned to a certification group based on the following hierarchy: MBE, WBE, and SBE. As can be seen in the table, total discretionary spending increased and decreased somewhat cyclically, with one to two years of double-digit growth followed by two to three years of minor growth (less than one percent) and/or single-digit contraction. Nonetheless, the overall trend of total discretionary spending increased.

**TABLE 2.2: ANNUAL DISCRETIONARY SPENDING (AMOUNT & ANNUAL % CHANGE),
BY SWAM CERTIFICATION TYPE (AMOUNT IN \$ MILLIONS)**

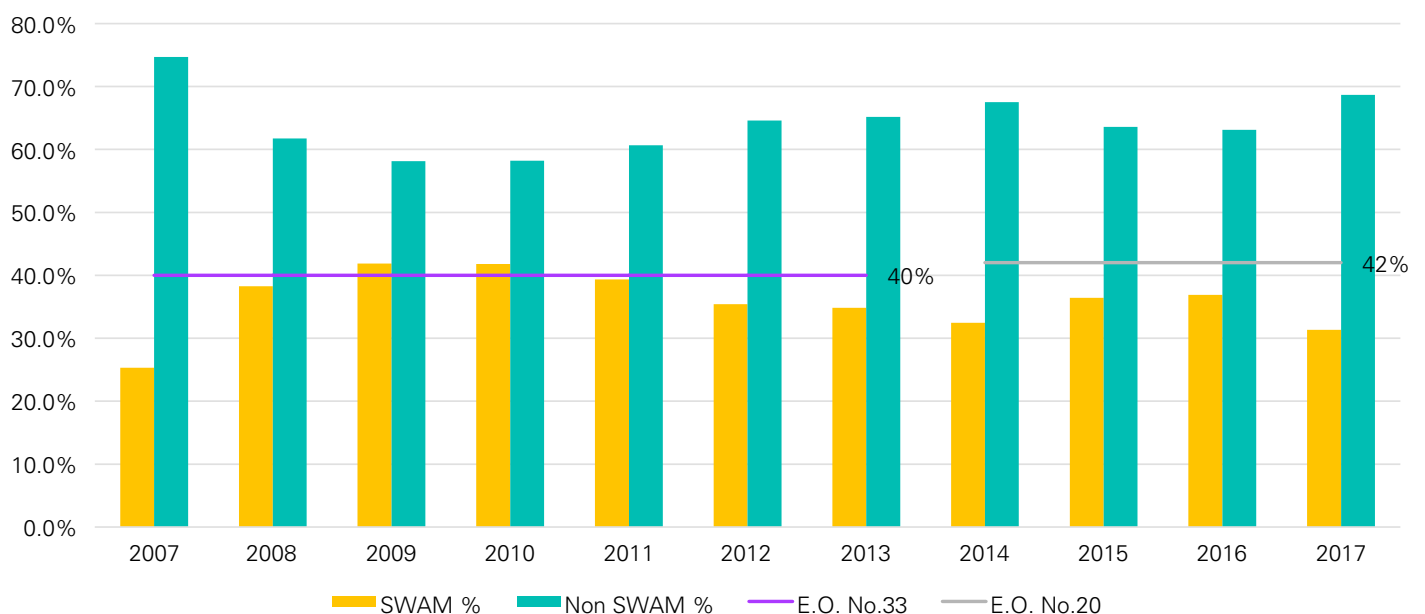
FY	TOTAL		SWAM		MBE		WBE		SBE	
	AMOUNT (\$)	% CHANGE	AMOUNT (\$)	% CHANGE	AMOUNT (\$)	% CHANGE	AMOUNT (\$)	% CHANGE	AMOUNT (\$)	% CHANGE
2007	3,973		1,005		103		116		786	
2008	4,856	22%	1,858	85%	262	154%	198	70%	1,398	78%
2009	4,920	1%	2,060	11%	268	2%	252	28%	1,540	10%
2010	4,748	-3%	1,985	-4%	319	19%	272	8%	1,393	-10%
2011	5,259	11%	2,069	4%	340	7%	308	13%	1,421	2%
2012	6,190	18%	2,192	6%	435	28%	332	8%	1,425	0%
2013	5,825	-6%	2,029	-7%	276	-37%	351	6%	1,401	-2%
2014	5,603	-4%	1,819	-10%	261	-6%	267	-24%	1,292	-8%
2015	5,630	0%	2,050	13%	313	20%	328	23%	1,410	9%
2016	6,519	16%	2,405	17%	396	27%	397	21%	1,612	14%
2017	6,616	1%	2,073	-14%	305	-23%	288	-28%	1,481	-8%

The amount of discretionary spending going towards SWaM-certified businesses increased significantly in FY 2008 by 85 percent from \$1 billion to \$1.9 billion and by 11 percent in FY 2009 to \$2.1 billion. Since then, SWaM spending has remained around \$2 billion, with the exception of FY 2014, when it decreased to \$1.8 billion, and FY 2016, when it increased to \$2.4 billion. Discretionary spending going towards MBEs showed strong growth from FY 2008 to FY 2012, averaging 42 percent annual growth. In FY 2013 and 2014, MBE spending had two consecutive years of contraction. MBE spending increased in FY 2015 and 2016 by more than 20 percent each year and decreased in 2017 by 23 percent. WBE spending has seen generally positive growth, averaging 22 percent annually, with the exception of FY 2014 and 2017, when it decreased by more than 20 percent. Except for FY 2008, SBE spending has not experienced the same strong growth as the other certification categories.

Overall, SWaM spending experienced a 106 percent growth in the same period, SBE spending (88 percent), WBE (147 percent), and MBEs have experienced the strongest growth since FY 2007, increasing by 195 percent from \$103 million to \$305 million. SWaM-certified businesses—particularly MBEs and WBEs—appear to have made significant gains in participating in state procurement as a share of total discretionary spending.

As noted in the introduction, the 2004 Executive Order No. 33 established a 40 percent goal of discretionary spending to go towards SWaM businesses from 2006 to 2013, and 2014 Executive Order No. 20 increased the target to 42 percent of discretionary spending. As seen in Figure 2.3, the 40 percent goal was achieved in FY 2009 and FY 2010, when the percent of discretionary spending awarded to SWaM businesses reached 41.9 percent and 41.8 percent, respectively. FY 2009 and 2010 marked slow growth years in which public spending was severely impacted by a global recession. In FY 2011, SWaM spending (39.3 percent) was just short of the 40 percent goal and has continued to decrease as a share of total spending. Since the signing of Executive Order No. 20 in 2014, the share of discretionary spending going to SWaM businesses has fallen short of the 42 percent goal, ranging from 31.3 percent to 36.9 percent and averaging 34.3 percent.

FIGURE 2.3: PERCENT OF DISCRETIONARY SPENDING, BY SWAM & NON-SWAM (FY 2007-20017)



To overcome the annual variations in discretionary spending, CURA compared average spending between 2007 and 2009 with average spending between 2014 and 2017. The results are presented in Figure 2.4. The data suggests total discretionary spending going to SWaM-certified businesses increased by about 13.4 percent during this period. Non-minority and non-women owned small businesses continue to receive more than two-thirds of total discretionary spending on SWaM businesses. However, the shares of spending going to minority-owned and women-owned businesses increased by about 35 percent and 51 percent the same period. Although MBEs and WBEs remain a small subset of SWaM-related discretionary spending recipients, their representation is improving.

Further analysis of discretionary spending by certification type is shown in Figure 2.5. A much larger percent of discretionary spending has gone towards SBEs than other types of SWaM businesses. The percentage ranges from 20 percent to 31 percent, with an average of 25 percent. MBEs and WBEs have similar shares of discretionary spending, ranging from 3 percent to 7 percent; however, MBEs have a slightly higher average of 5.4 percent vs 5.1 percent for WBEs. This is likely due to procurement laws in Virginia being race and gender neutral.

FIGURE 2.4: AVERAGE INCREASE IN DISCRETIONARY SPENDING IN PROCUREMENT THROUGH SWAM CERTIFIED BUSINESSES, 2007-2017

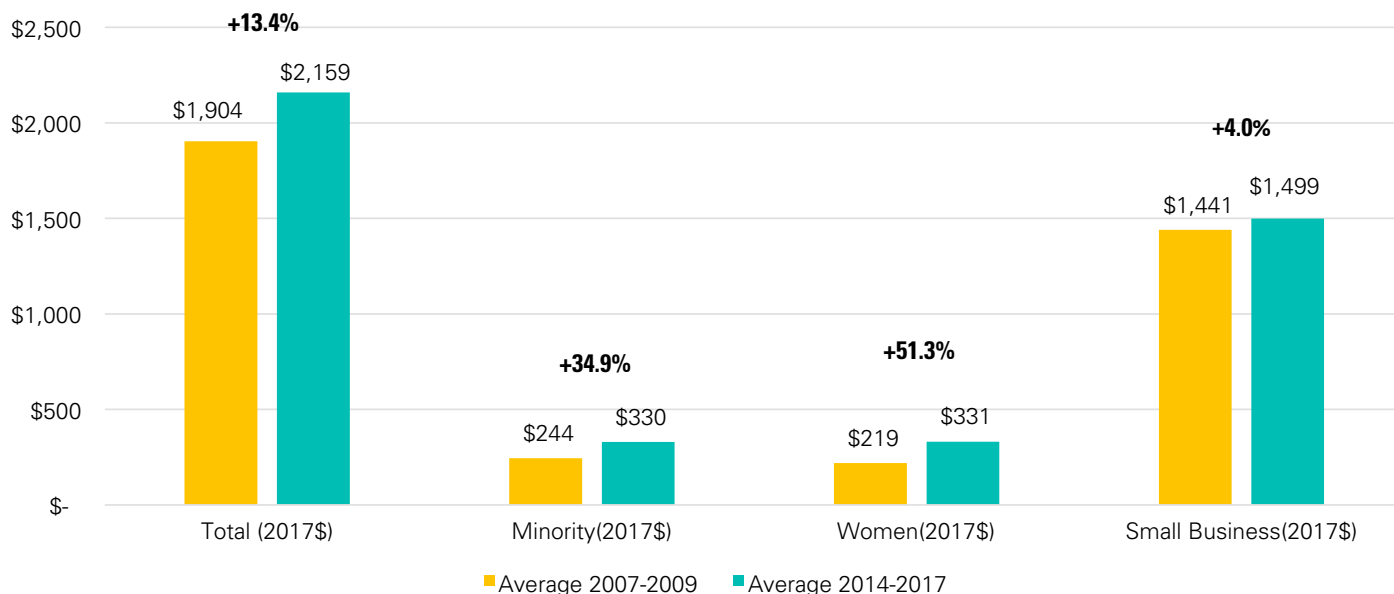
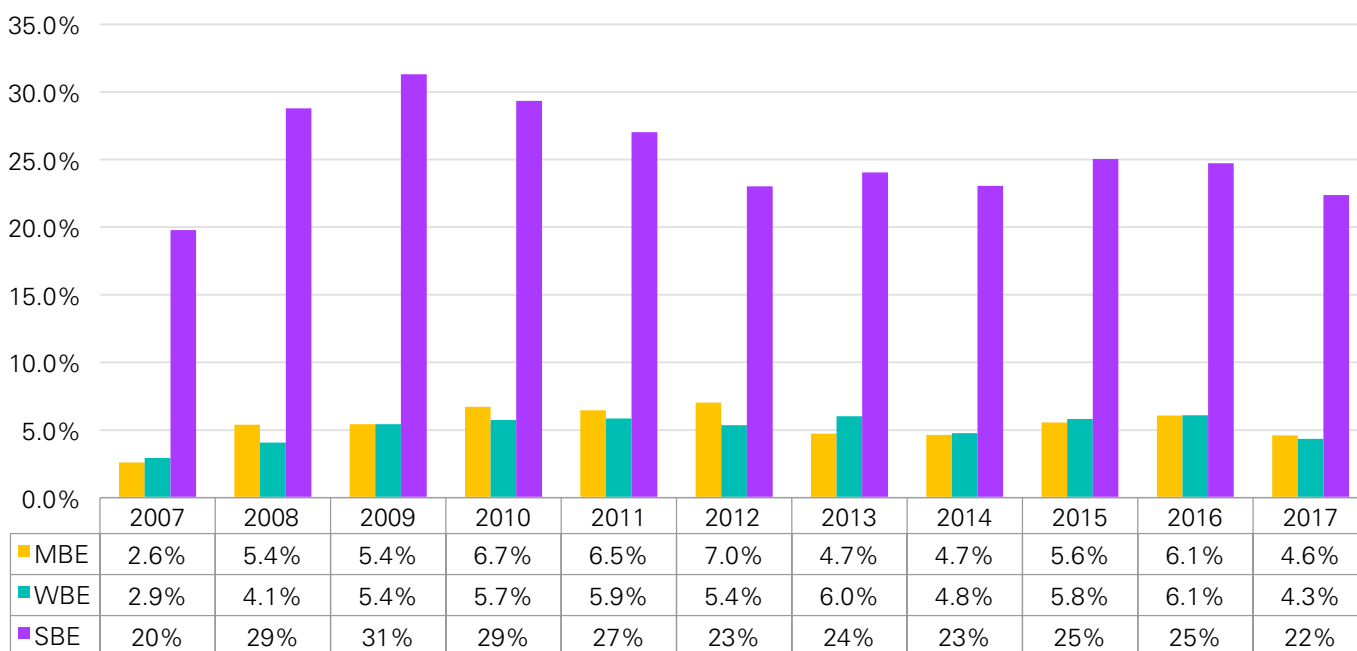


FIGURE 2.5: PERCENT OF DISCRETIONARY SPENDING, BY CERTIFICATION TYPE (FY 2007-2017)



CHAPTER 2: PROGRAM PARTICIPANT PERSPECTIVES

CURA designed and implemented a survey to gain insight from certified businesses that could not be gleaned from existing data, including trends in revenues and employment. The survey protocol began with questions about business characteristics (e.g., industry and size), followed by sections on business performance, employment, sub-contractors, suppliers, community engagement, and demographic information about the majority owner. At the end of the survey, respondents were given an opportunity to provide comments or questions regarding the survey, the SWaM/DBE program, or DSBSD in general.

From these respondents, CURA interviewed a random selection for a deeper understanding of their businesses and how they interact with and utilize the SWaM and DBE programs.

CURA administered the online survey in August and September 2017. The survey was distributed to all SWaM- and DBE-certified businesses with valid email addresses per DSBSD records as of June 2017. In total, 14,766 SWaM- and DBE-certified businesses were invited to participate. Of those, 2,033 businesses responded for a statistically significant response rate of 13.8 percent. Of these responses, 1,475 completed the survey in its entirety for a final response rate of 10.0 percent. The following discussion of survey results provides a synthesized understanding of the data. Full and detailed data tables, as well as a copy of the survey protocol, can be found in the Appendix.

SURVEY RESULTS

Descriptive statistics of the survey sample are presented in Table 3.1. Compared to the overall study population (SWaM-certified businesses as of August 2017), the respondent pool is comprised of more Virginia businesses, more women-owned businesses, fewer small-businesses, more DBEs, and has fewer employees.

TABLE 3.1: CHARACTERISTICS OF SURVEY SAMPLE

	SWAM-CERTIFIED*	RESPONDENTS
Number of businesses	13,718	1,475
Located in VA	81%	87%
Located outside VA	19%	13%
MBE	33%	34%
WBE	21%	38%
SBE	46%	28%
DBE**	14%	26%

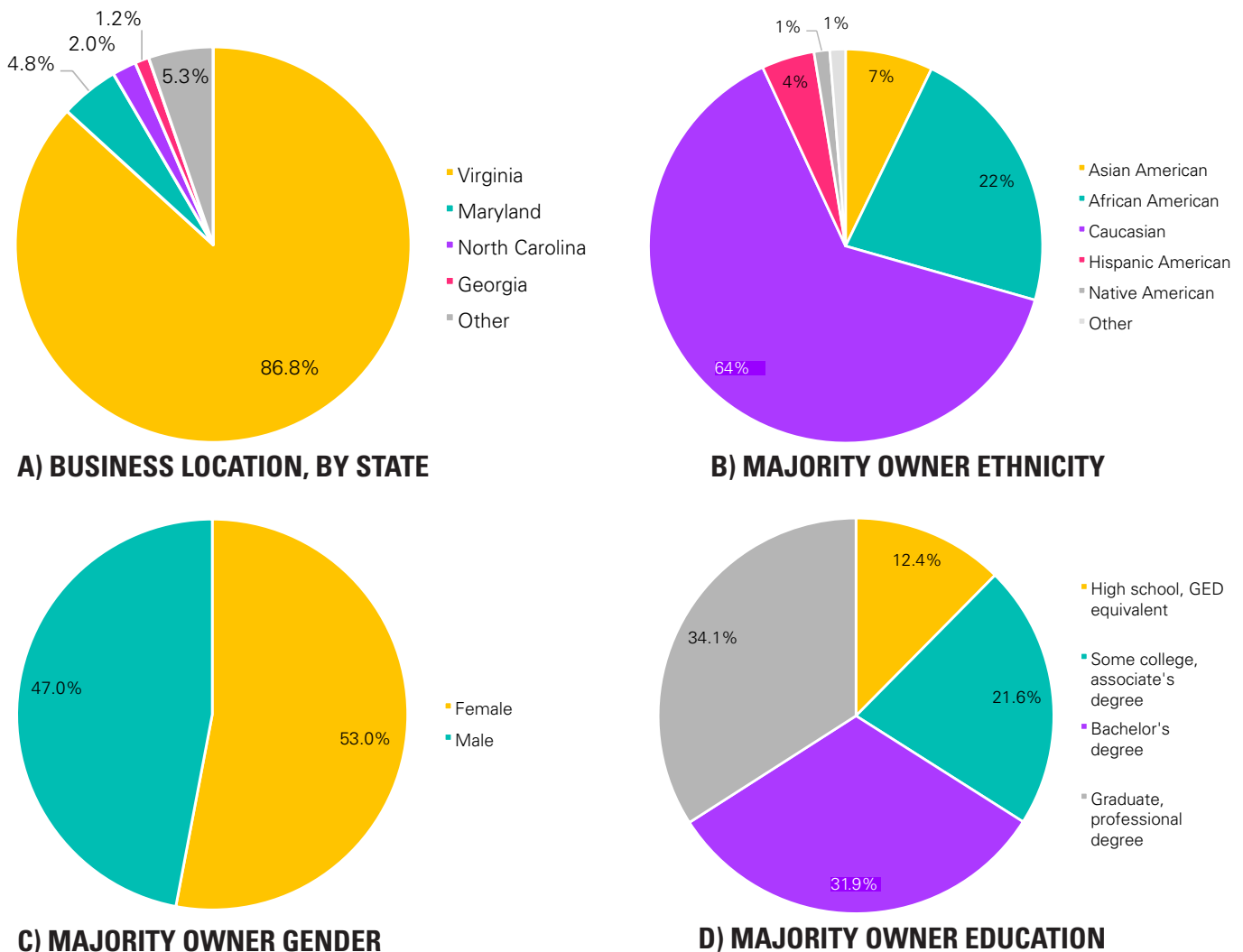
* Study population is defined as SWaM-certified businesses as of August 2017

** Denotes amount within total

MAJORITY OWNER DEMOGRAPHICS

The survey sought understanding of the demographic characteristics of majority owners of the responding businesses. In terms of race/ethnicity, 64 percent of majority owners identified as Caucasian, followed by African American (22 percent), Asian American (7 percent), and Hispanic American (4 percent) (see Figure 3.1). Most respondents identified the majority owner's gender as female. A plurality of respondents had owners with graduate/professional degrees (34 percent), followed by bachelor's degrees (32 percent), associate's degrees (22 percent), and high school/GED equivalent (12 percent).

FIGURE 3.1: MAJORITY OWNER DEMOGRAPHICS



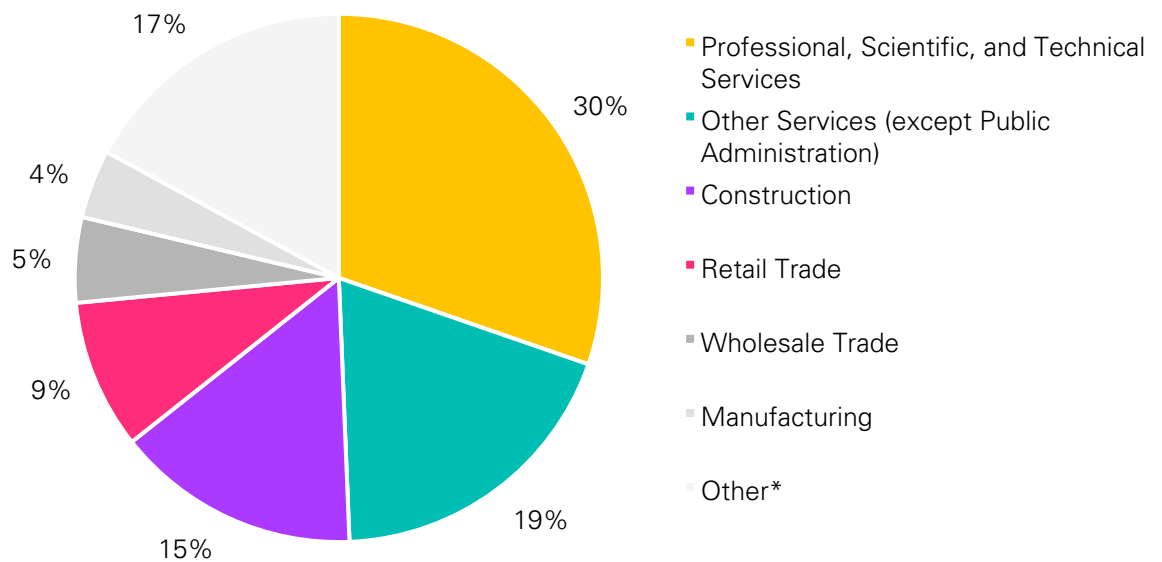
BUSINESS CHARACTERISTICS

While the SWaM certification program is largely aimed at benefiting Virginia businesses, it also allows businesses from other states to apply for certification. These other states must have small business diversity programs that do not preclude Virginia businesses from applying or participating in bids for agency contracts. Given this, a question was included in the survey to gain insight into the respondent's business location. Regarding location of the business, 87 percent of businesses surveyed indicated that they were located in Virginia (see Figure 3.1.A). For businesses located outside of VA, Maryland, North Carolina, and Georgia had the highest frequencies.

Figure 3.2 illustrates NAICS categories that best describe respondents' business sectors. As can be seen, respondents represent a diverse set of businesses. The sectors with the most significant representation are Professional, Scientific and Technical Services (30 percent), Other Services (except Public Administration) (19 percent), and Construction (15 percent). Together, these three sectors constitute more than 64 percent of the respondents. These sectors are followed by Retail Trade, Wholesale Trade, and Manufacturing. The 13 remaining NAICS sectors represent less than 3 percent of businesses each, and they have been aggregated in the "Other" category. This category constitutes 17 percent of all businesses (see Figure 3.2).

Figure 3.3 illustrates the distribution of years in which respondents were first certified. Approximately half of respondents first obtained certification in 2013 or later, indicating that many respondents have five or fewer years of experience participating in SWaM/DBE-certification programs.

FIGURE 3.2: TOP SIX NAICS CATEGORIES REPRESENTED BY SURVEY SAMPLE



The Virginia SWaM certification program recognizes the federal DBE² certification program. SWaM-certified businesses often also have DBE certification. As shown in Table 3.2, 74 percent of surveyed businesses report having only SWaM certification, while 2 percent report having only DBE certification. Factoring in businesses with dual certification, 98 percent of respondents reported having SWaM-only or SWaM and DBE certification, while 26 percent reported having DBE-only or SWaM and DBE certification. This 26 percent representation of DBE-certified businesses is higher than DBE figures for August 2017 (14 percent) as well as the historical average (10.5 percent) (see Table 3.1 and Figure 2.1).

FIGURE 3.3: YEAR OF FIRST CERTIFICATION

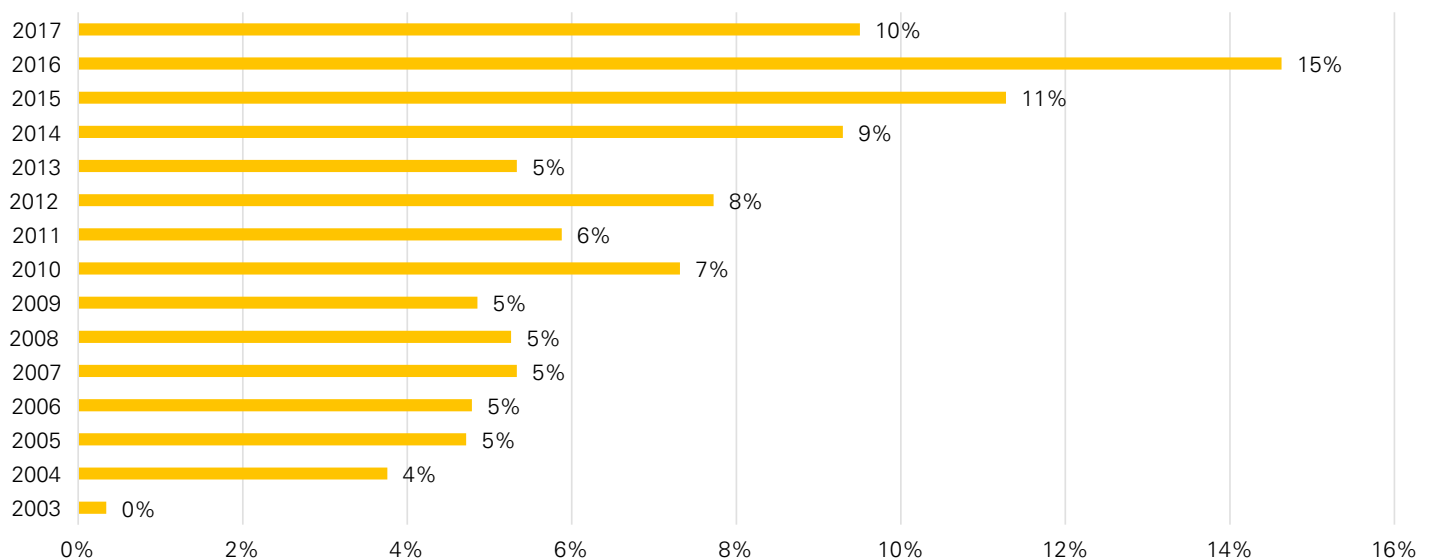


TABLE 3.2: CERTIFICATION TYPE

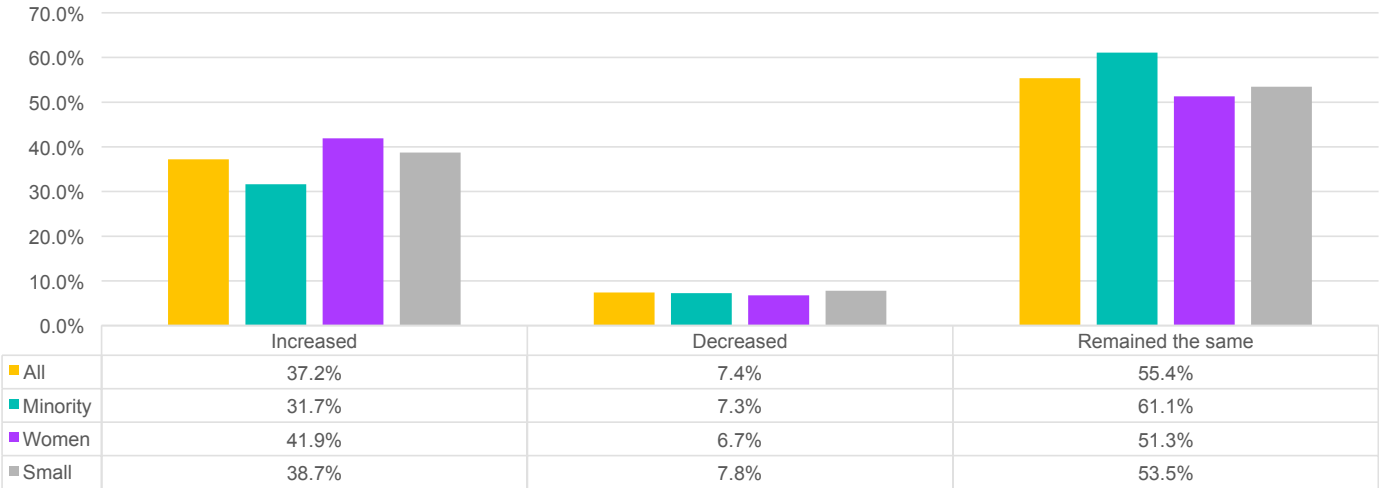
	RESPONDENTS	PERCENT
SWAM only	1,098	74 %
DBE only	26	2 %
Both	351	24 %
TOTAL	1,475	100%

² Where businesses that applied for DBE are eligible for SWaM, but they still need to apply and get evaluated as per SWaM guidelines.

BUSINESS PERFORMANCE

To understand how the SWaM certification program may have impacted business performance, the survey included several questions about annual revenues. When asked how their annual revenues changed since becoming SWaM/DBE-certified, 37 percent of respondents indicated their revenues increased, 7 percent indicated they decreased, and 55 percent said they remained the same (see Figure 3.4). Disaggregating these results by certification type, it appears that woman-owned businesses experienced more favorable revenue trends relative to minority-owned and small businesses. A higher proportion of woman-owned (42 percent) and small businesses (39 percent) observed an increase in annual revenues, compared to minority-owned businesses (32 percent). Regarding decreases in annual revenues, the differences between certification type groups are minimal; nonetheless, a slightly smaller proportion of woman-owned (6.7 percent) and minority-owned (7.3 percent) businesses experienced a decrease relative to small businesses (7.8 percent). Furthermore, a smaller percentage of businesses owned by women (51 percent) and small businesses (54 percent) observed no change in revenues relative to minority-run businesses (61 percent).

FIGURE 3.4: HOW HAVE YOUR ANNUAL REVENUES CHANGED SINCE BECOMING SWAM/DBE-CERTIFIED?, BY CERTIFICATION TYPE (N = 1475, 496, 415, 563)

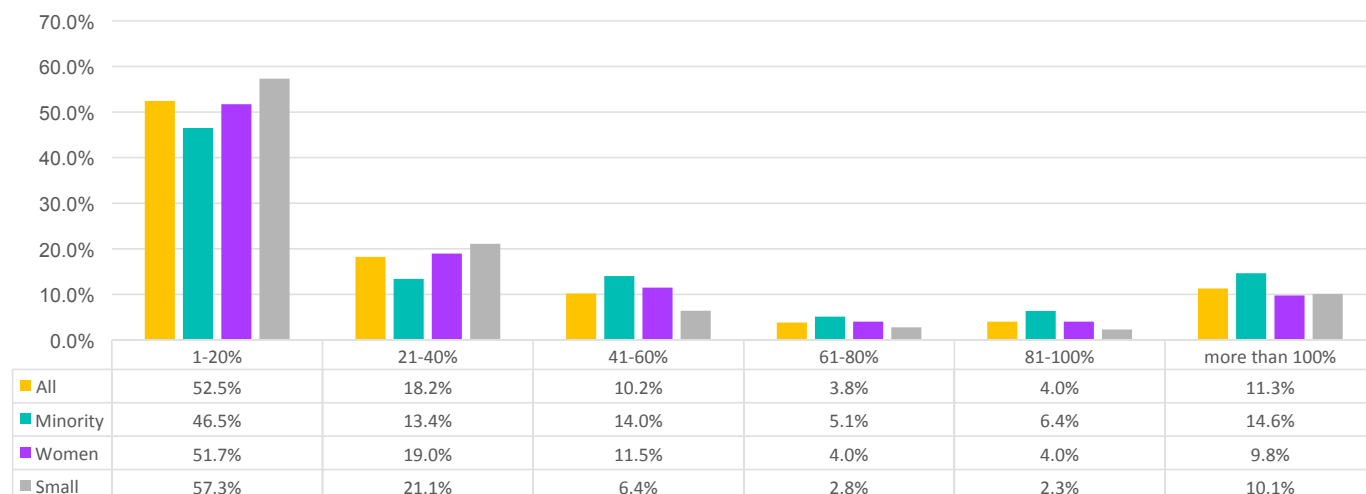


Of those respondents reporting an increase in revenues, the majority (53 percent) reported an increase of 1 to 20 percent, while a small minority (18 percent) reported an increase of 21 to 40 percent. Disaggregating these results by Minority-owned, Woman-owned, and Small, Figure 3.5 indicates that while a smaller percentage of MBEs observed an increase of 1 to 20 percent or 21 to 40 percent (47 percent and 13 percent, respectively), compared to WBEs and SBEs, more MBEs experienced larger relative gains in annual revenues, compared to their counterparts. Specifically, across the higher increase ranges (41 to 60 percent and up) a higher proportion of MBEs were consistently represented (26 percent), compared to WBEs (18 percent) and SBEs (15 percent). Again, WBEs indicated positive trends in revenue gains and were well represented in five out of six ranges relative to the other certification groups. These results suggest that while fewer MBEs reported an increase in annual revenues subsequent to certification, those MBEs experiencing gains were more likely to observe gains upward of 40 to 100 percent compared to WBEs and SBEs. In addition, woman-owned businesses appear to perform well relative to SBEs and MBEs, not only in terms of a higher percentage reporting increases, but also being well-represented across most percentage increase ranges relative to other certification groups.

**MORE THAN 10% OF SWaM
BUSINESSES DOUBLED SALES
RECEIPTS BETWEEN 2007-2012**

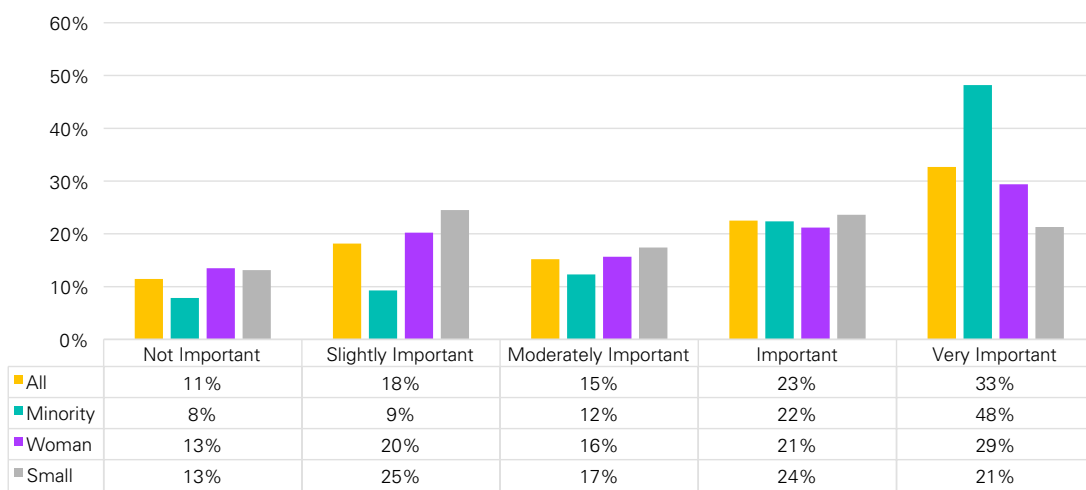


FIGURE 3.5: BY HOW MUCH HAVE YOUR ANNUAL REVENUES INCREASED SINCE BECOMING SWAM/DBE CERTIFIED?, BY CERTIFICATION TYPE (N=549, 157, 174, 219)



Of the 37 percent of certified business that experienced a revenue increase, about 47.5 percent of respondents said that their annual revenues have increased by more than 20 percent. The Census Bureau's Survey of Business Owners³ data shows that small businesses in the Commonwealth experienced a 5 percent increase in sales between the years 2007 and 2012, suggesting SWaM and DBE participants experienced annual revenue growth well in excess of the broader universe of small businesses in Virginia. The increase in the total value of sales receipts for all small businesses (SWaM and non-SWaM) is presented in Figure 3.6. Although sales receipts and revenue are separate metrics, an increase in sales receipts can be considered to directly affect an increase in revenue, assuming that business operating costs are constant across the samples.

FIGURE 3.6: PERCENT CHANGE IN SALES RECEIPTS FOR ALL SMALL BUSINESSES IN VIRGINIA BETWEEN 2007 AND 2012



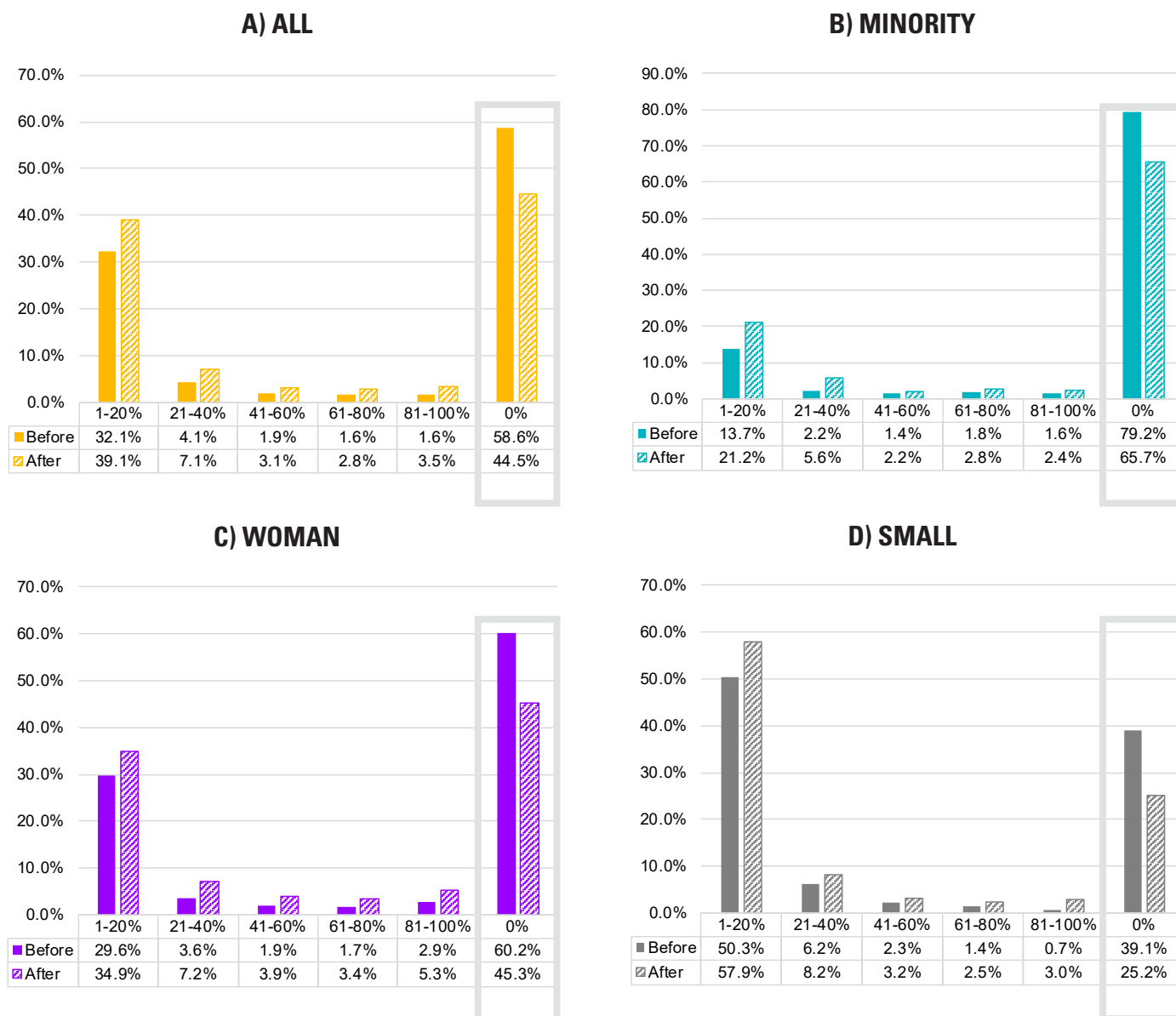
SWaM-certified women- and minority-owned business may reap the greatest gains compared to similar firms statewide. About 48 percent of SWaM certified women-owned businesses with increases in revenue reported annual revenues increased by more than 20 percent, and about 40 percent of SWaM certified minority-owned businesses reported increases had increases greater than 40 percent. Both SWaM certification categories outpaced sales receipts growth of women- and minority-owned small businesses statewide (see Figure 3.6)⁴. Honing in on the six NAICS categories with the largest representation in the sample (Professional, Scientific, and Technical Services; Other Services except Public Administration; Construction; Retail Trade; Wholesale Trade; and Manufacturing), CURA examined the change in annual revenues by industry (see Figure 3.7). Wholesale

³ The Census Bureau sales data has been measured between 2007 and 2012. About 50 percent of the survey respondents received certification before 2012. The time frames for the Census data and the survey data partially overlap with each other. This is the closest comparison available between SWaM businesses and all small businesses in Virginia.

⁴ All dollar amounts are converted to 2017 constant dollar value using the CPI inflation factor published by the Bureau of Labor Statistics.

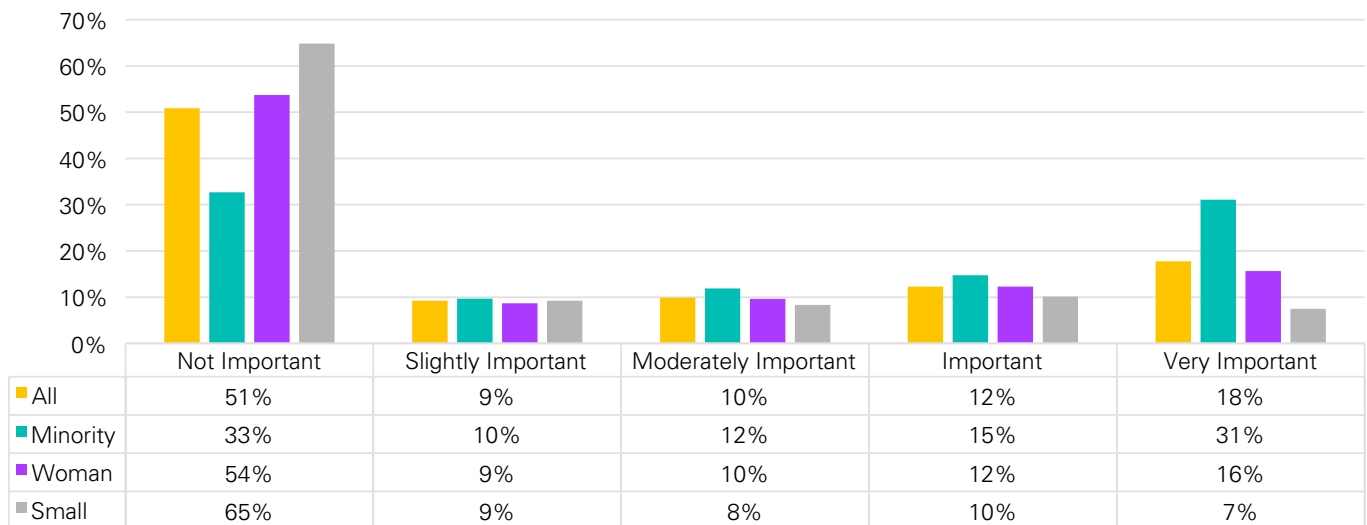
zero percent of revenue from state contracts before certification decline by roughly 14 percentage points after certification. There does not appear to be significant variation in the share of respondents reporting higher levels of state contract-based revenues after certification by certification type: all increased by similar intervals. These results suggest that while a smaller proportion of minority- and woman-owned businesses receive revenues from state contracts, the certification program benefits the different groups—in terms of relative gains to annual revenues—more or less equally.

FIGURE 3.8: CONCENTRATION OF REVENUES COMING FROM VIRGINIA AGENCY CONTRACTS PRIOR TO CERTIFICATION AND CURRENTLY BY CERTIFICATION TYPE



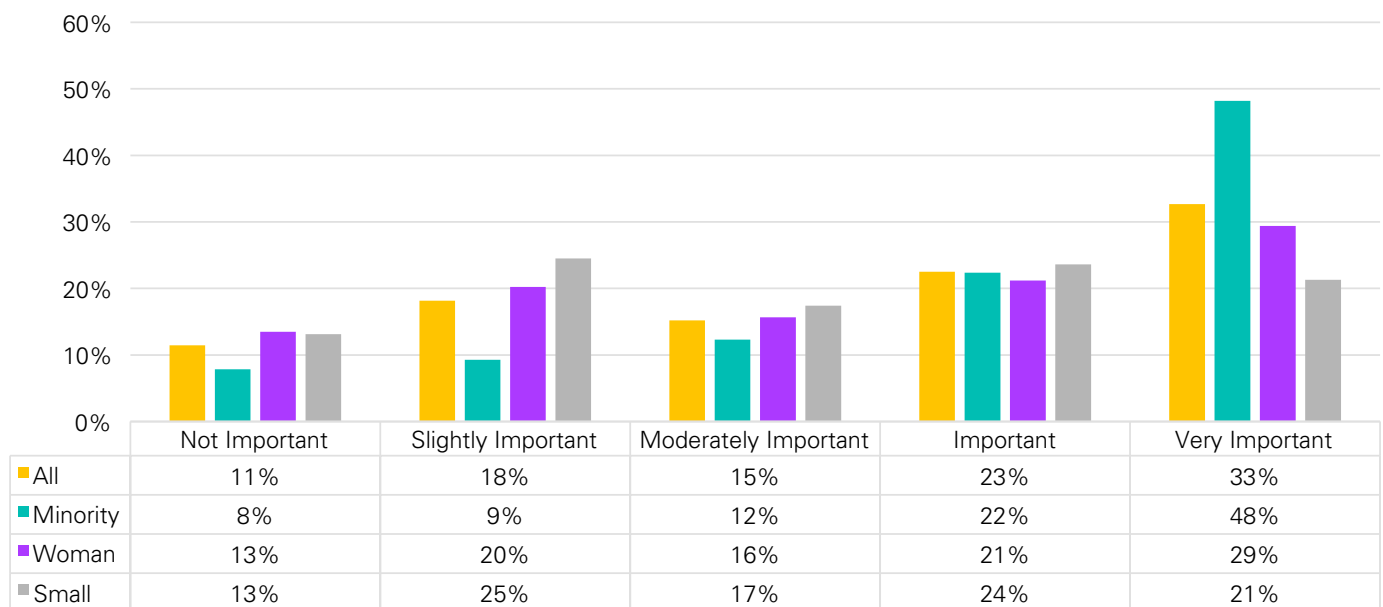
The survey also attempted to explore the extent to which businesses are dependent on SWaM/DBE certification. Survey participants were asked to rate the importance of the SWAM/DBE program as a factor in the decision to start their business. More than 50 percent of respondents indicated that it was not important, while 30 percent indicated that it was important or very important (see Figure 3.9). Minority-owned business respondents placed the greatest importance on the program, with 46 percent of respondents describing the program as important or very important. Woman-owned businesses followed with 28 percent of respondents. Small businesses placed the least importance on the program, with just 17 percent describing it as important or very important and 65 percent describing it as not important.

FIGURE 3.9: HOW IMPORTANT OF A FACTOR WAS THE SWAM/DBE PROGRAM IN YOUR DECISION TO START YOUR BUSINESS? BY CERTIFICATION TYPE (N=1,474)



When asked how important their participation in the SWaM/DBE program is to the long-term viability of their business, 33 percent of all respondents described it as very important, 23 percent described it as important, and 15 percent described it as moderately important (see Figure 3.10). Nonetheless, when asked if their business would exist if it was not participating in the SWaM/DBE program, a large majority of respondents (85 percent), indicated 'Yes.'

FIGURE 3.10: HOW IMPORTANT IS YOUR PARTICIPATION IN THE SWAM/DBE PROGRAM TO THE LONG-TERM VIABILITY OF YOUR BUSINESS? BY CERTIFICATION TYPE (N=1,474)



Once again, minority-owned business respondents tended to rate the certification program's importance much higher than other certification types. A much higher proportion of MBEs (71 percent), compared to WBEs (51 percent) and SBEs (45 percent), view their participation in the SWaM/DBE programs as very important or important to the long-term viability of their business.

EMPLOYMENT

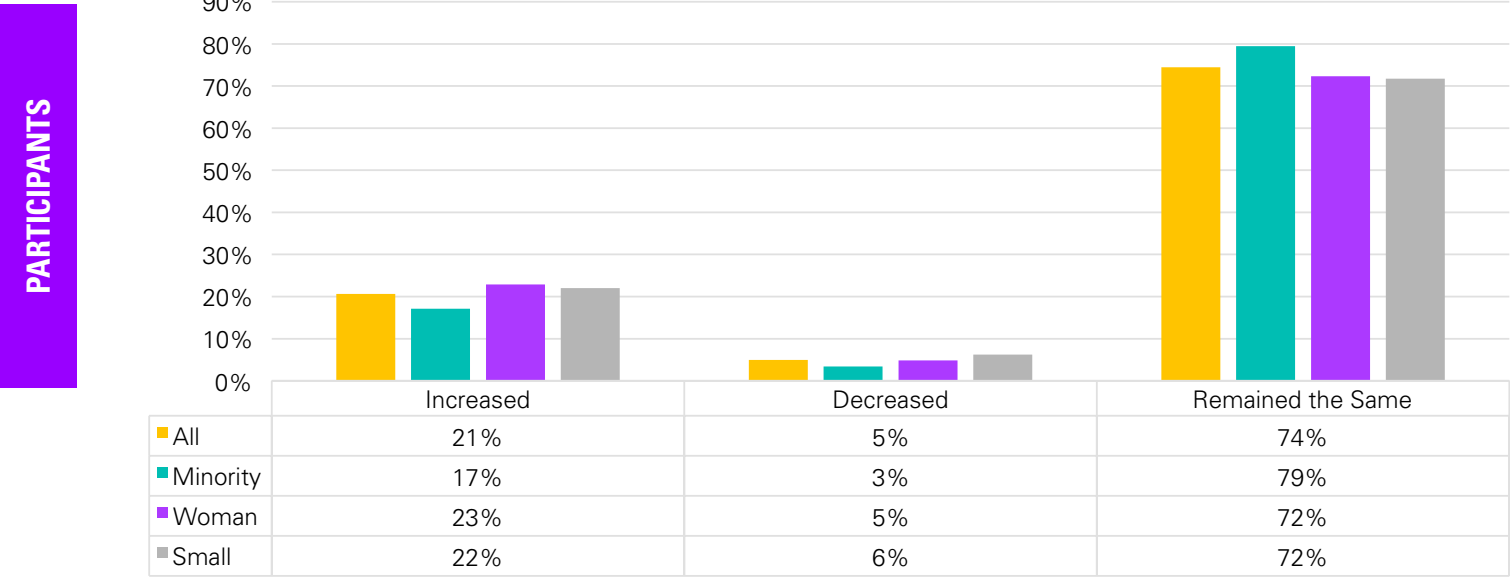
Several survey questions addressed the effects of certification on employment. Table 3.3 outlines workforce descriptive statistics, related to number of employees, full-time, part-time, and disadvantaged groups. Respondents employ, on average, 16 workers—75 percent full time and 25 percent part time. Respondents reported an average of 31 percent of employees as members of a minority group, 40 percent as women, and 4 percent as service-disabled veterans.

TABLE 3.3: WORKFORCE DESCRIPTIVE STATISTICS

	AVERAGE
Number of employees	16
Full time	75%
Part time	25%
Minority	31%
Woman	40%
Service-disabled veteran	4%

When asked how employment has changed since becoming certified, 21 percent of respondents indicated employment increased, while just 5 percent indicated that it decreased. The large majority (74 percent) indicated that employment remained unchanged. Employment trends were not significantly affected by certification type (Figure 3.11). Of respondents reporting an increase in employment, the average business grew by 14 persons. For those businesses reporting a decrease in employment, the average decrease was 8 employees.

FIGURE 3.11: HOW HAS YOUR BUSINESS’S EMPLOYMENT CHANGED SINCE BECOMING SWAM/DBE-CERTIFIED? BY CERTIFICATION TYPE (N=1,475)



When asked how the average salary of employees changed since becoming SWaM/DBE-certified, 27 percent of respondents said that it increased, while only 4 percent said that it decreased. The majority of respondents (69 percent) said the average employee salary remained unchanged (see Figure 3.12). Among those who reported an increase in average employee salary, 76 percent indicated that the average salary increased by 1 to 20 percent, and another 14 percent indicated it increased 21 to 40 percent. Responses differed by certification type (Figure 3.13). Around 35 percent of small businesses and 28 percent of woman-owned businesses reported an increase in average employee salary, but only 18 percent of minority-owned businesses reported an increase.

Many factors influence an employer’s decision to increase employee salaries, and respondents were asked to rank five factors by their impact on increased wages from 1 (most important) to 5 (least important). Minority-owned, woman-owned, and small businesses all attributed wage increases primarily to improved employee productivity. MBEs ranked improved financial standing due to SWaM certification as having a greater impact than inflation, making MBEs the only group to rank the program’s impact higher than another option. Woman-owned businesses ranked cost of living adjustments as the second most important factor, over promotions.

FIGURE 3.12: CHANGE IN AVERAGE EMPLOYEE SALARY SINCE CERTIFICATION, BY CERTIFICATION TYPE

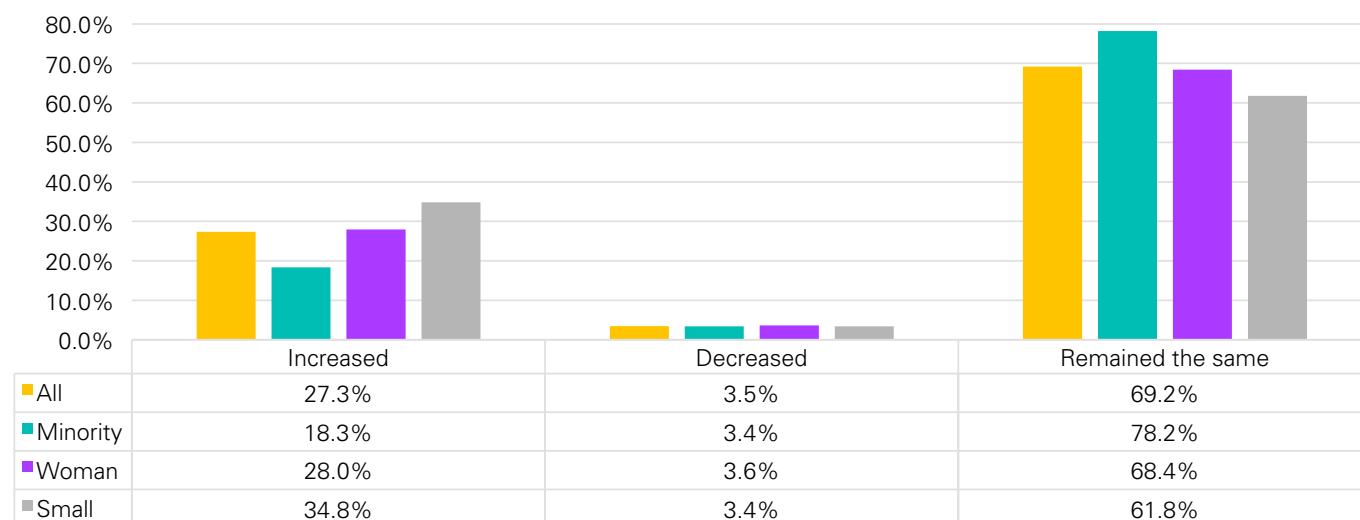
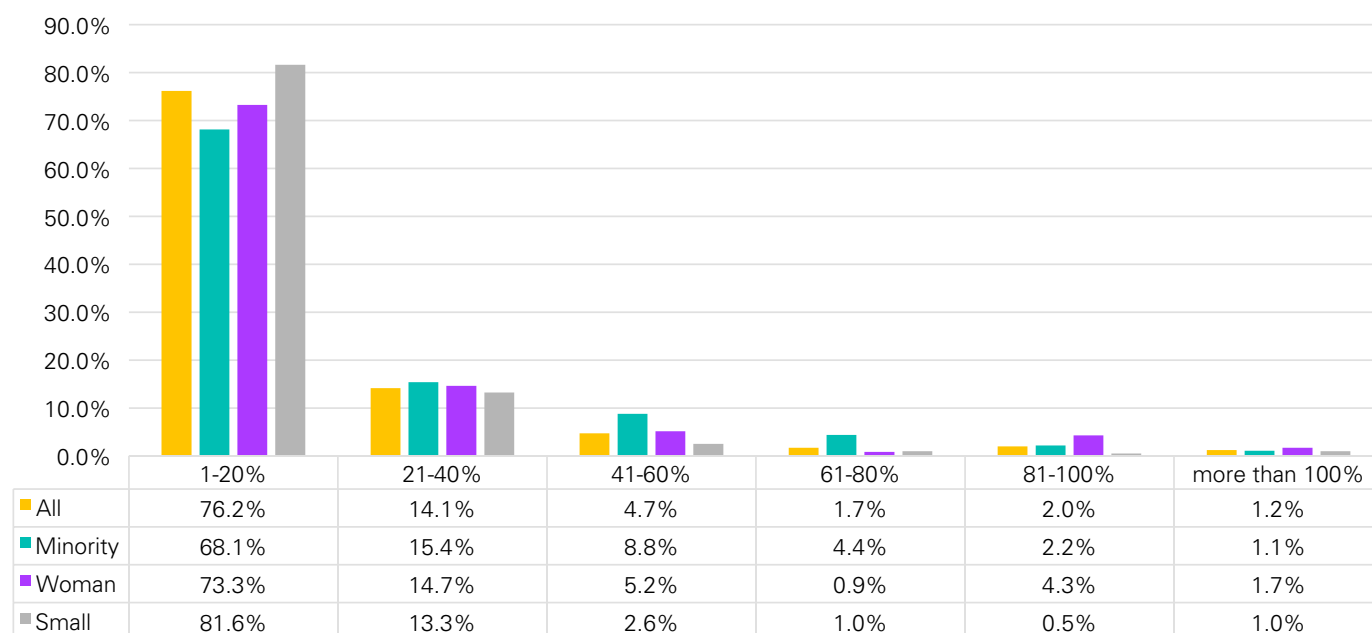


FIGURE 3.13: PERCENT CHANGE IN AVERAGE SALARY SINCE CERTIFICATION, BY CERTIFICATION TYPE



SUB-CONTRACTORS & SUPPLIERS

SWaM businesses may behave differently than the average business in working with sub-contractors and suppliers. As noted in the introduction and, in greater detail, the Appendix, published research indicates that small businesses rely on family networks in business practices, resulting in an inherent disadvantage for women, racial and ethnic minorities, and other historically disadvantaged groups.

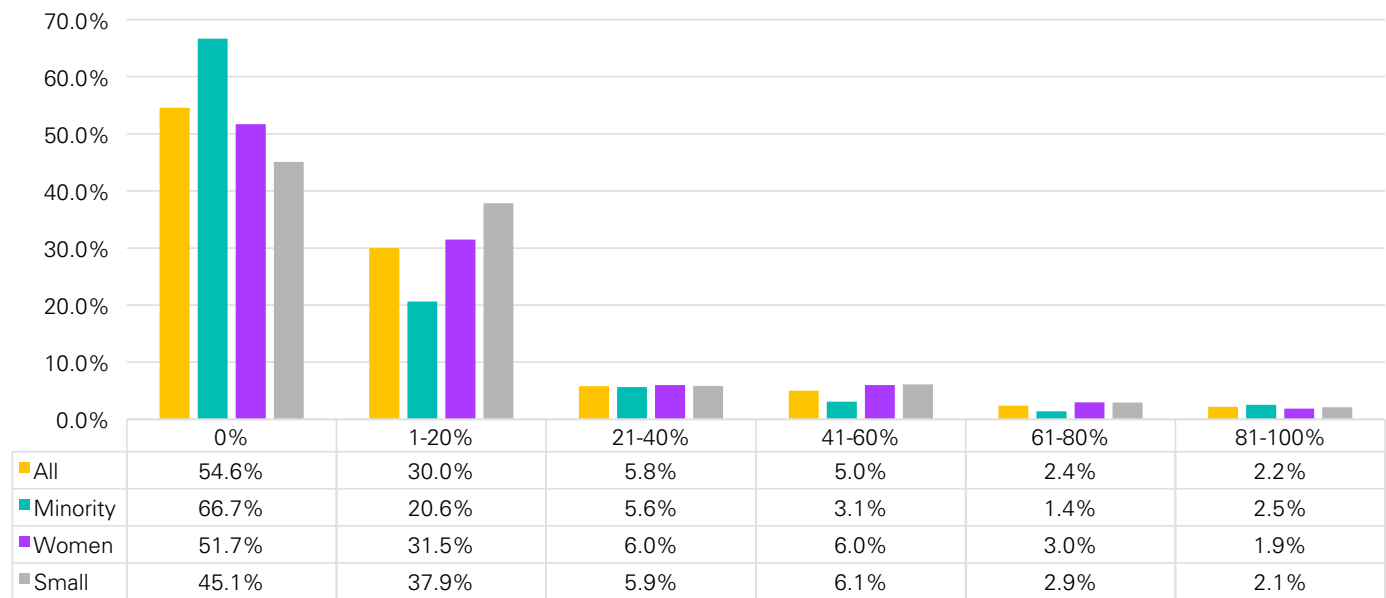
The survey probed respondents' work with sub-contractors and suppliers before and after certification. Approximately 19 percent of respondents indicated the number of sub-contractors they worked with increased since becoming certified (see Table 3.4). Of the 997 respondents that reported having sub-contractors, 46 percent indicated that they sub-contracted with other SWaM/DBE-certified businesses. A greater share of respondents, 69 percent, indicated that at least some of these sub-contractors were located within the Commonwealth of Virginia.

TABLE 3.4: SUB-CONTRACTORS

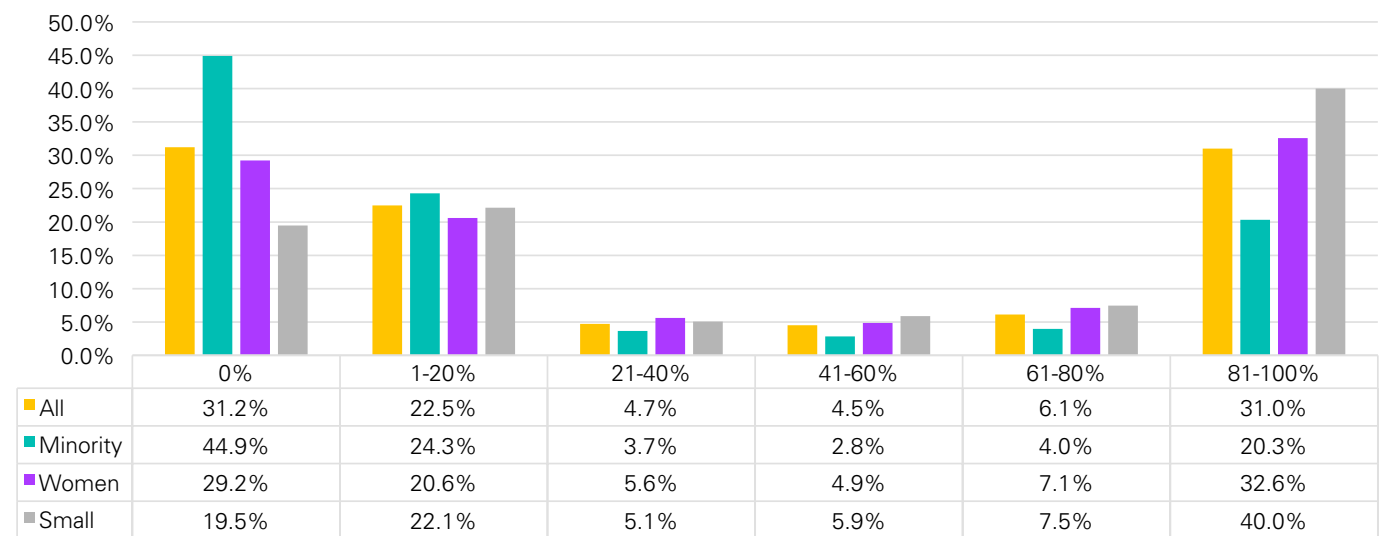
	ALL		MINORITY		WOMEN		SMALL	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
Since becoming SWaM/DBE-certified, has the number of sub-contractors you work with increased?								
Yes	278	18.8%	93	18.8%	87	21.0%	98	17.4%
No	719	48.7%	261	52.6%	180	43.4%	277	49.2%
N/A	478	32.4%	142	28.6%	148	35.7%	188	33.4%
Total	1475		496		415		563	

Disaggregating this by certification type, the results differ from what literature would suggest. Small business respondents reported working with other SWaM/DBE-certified sub-contractors at a greater rate than both woman- and minority-owned businesses (see Figure 3.14). Approximately 55 percent of SBEs, 48 percent of WBEs, and 33 percent of MBEs worked with sub-contractors that were SWaM/DBE-certified. The same pattern followed for sub-contractors within the Commonwealth, with 81 percent of SBEs, 71 percent of WBEs, and 55 percent of MBEs having Virginia based sub-contractors (see Figure 3.15).

**FIGURE 3.14: WHAT PERCENTAGE OF YOUR SUB-CONTRACTORS ARE SWAM/DBE-CERTIFIED?
BY CERTIFICATION TYPE**

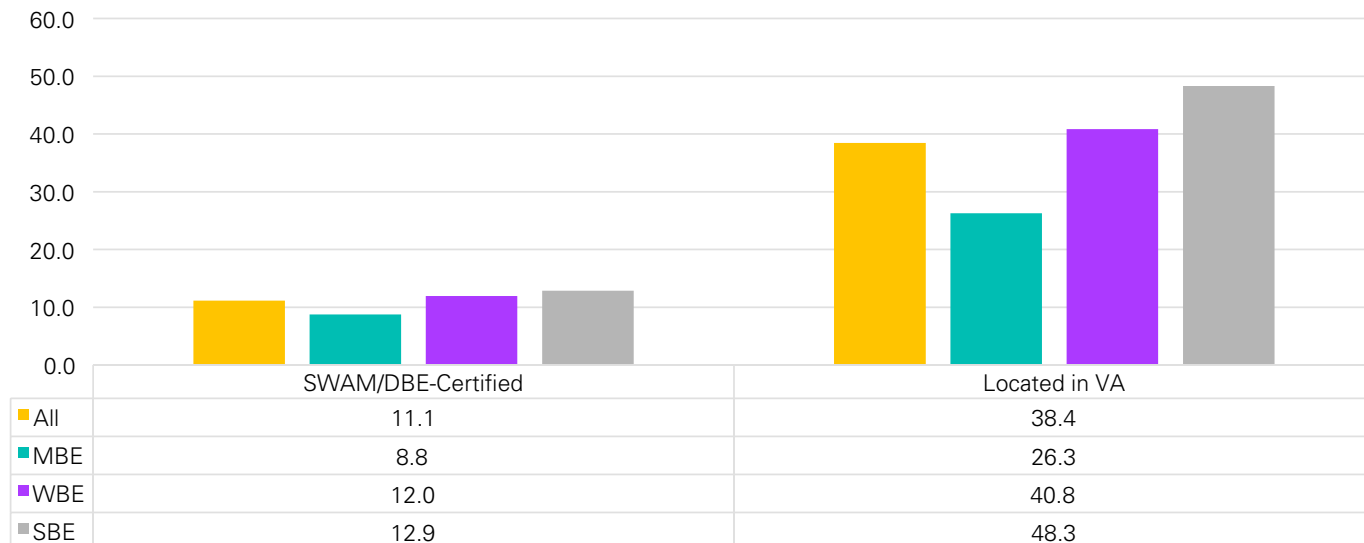


**FIGURE 3.15: WHAT PERCENTAGE OF YOUR SUB-CONTRACTORS ARE LOCATED IN VIRGINIA?
BY CERTIFICATION TYPE**



The weighted average of responses indicates that approximately 11 percent of respondent sub-contractors are SWaM/DBE certified and 38 percent are located in Virginia (Figure 3.16). For minority-owned businesses, 9 percent of sub-contractors are SWaM/DBE certified and 26 percent are located in Virginia—the lowest results of all groups. Approximately 12 percent of woman-owned businesses’ sub-contractors are SWaM/DBE-certified and 41 percent are located in Virginia. Lastly, 13 percent of SBE sub-contractors are SWaM/DBE-certified and 48 percent are located in Virginia.

FIGURE 3.16: SUB-CONTRACTORS: ESTIMATED WEIGHTED-AVERAGE* (%), BY CERTIFICATION TYPE %



* The survey respondents represented an unequal proportion of small, minority-owned, and women-owned businesses. Weighted average was calculated to accurately represent the reported sub-contractor's certification types.

A higher number of respondents reported having suppliers (1,126) than sub-contractors (997). Of respondents with suppliers, 47 percent indicated that at least some of their suppliers were SWaM/DBE-certified, with 35 percent reporting that 1 to 20 percent were certified. Nonetheless, a large majority of respondents (74 percent) reported at least a portion of suppliers were located in Virginia. The pattern of suppliers by respondent certification type follows that of sub-contractors, with 56 percent of SBEs, 50 percent of WBEs, and 34 percent of MBEs indicated a portion of their suppliers were SWaM/DBE-certified (see Figure 3.17). In terms of suppliers' location, for those having suppliers, 84 percent of small businesses, 72 percent of woman-owned businesses, and 64 percent of minority-owned businesses indicated that at least some percentage of their suppliers were located in Virginia (see Figure 3.18).

FIGURE 3.17: WHAT PERCENTAGE OF YOUR SUPPLIERS ARE SWAM/DBE-CERTIFIED? BY CERTIFICATION TYPE

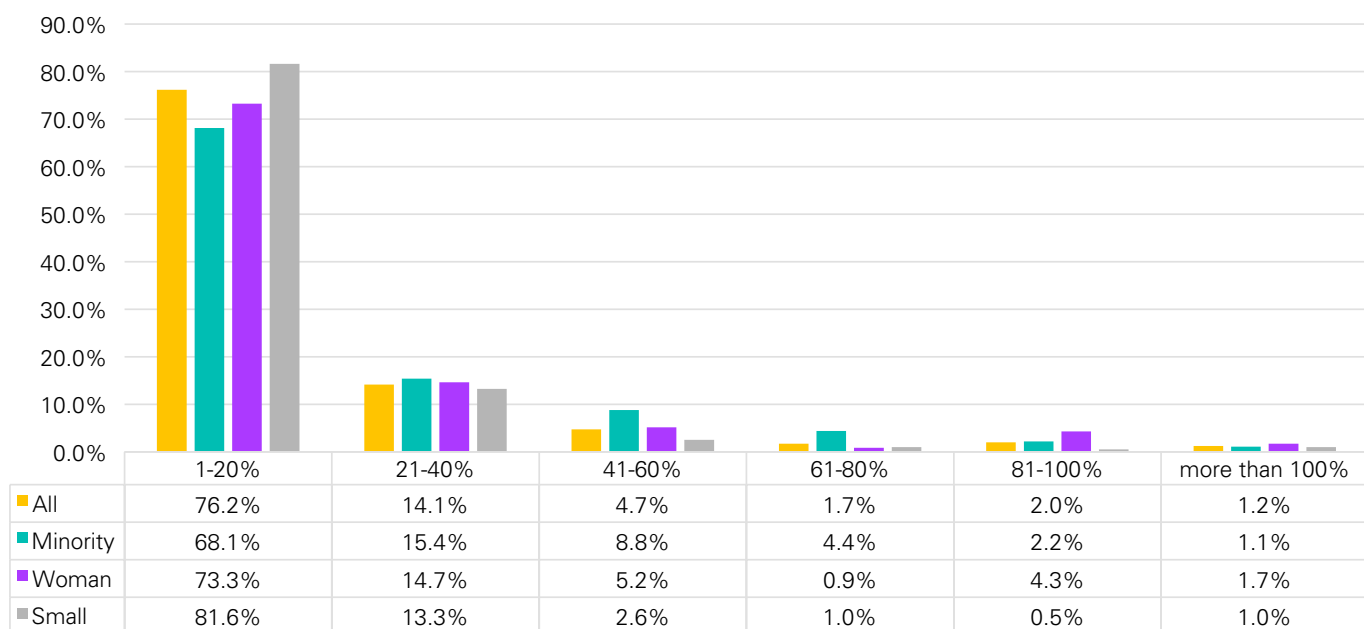
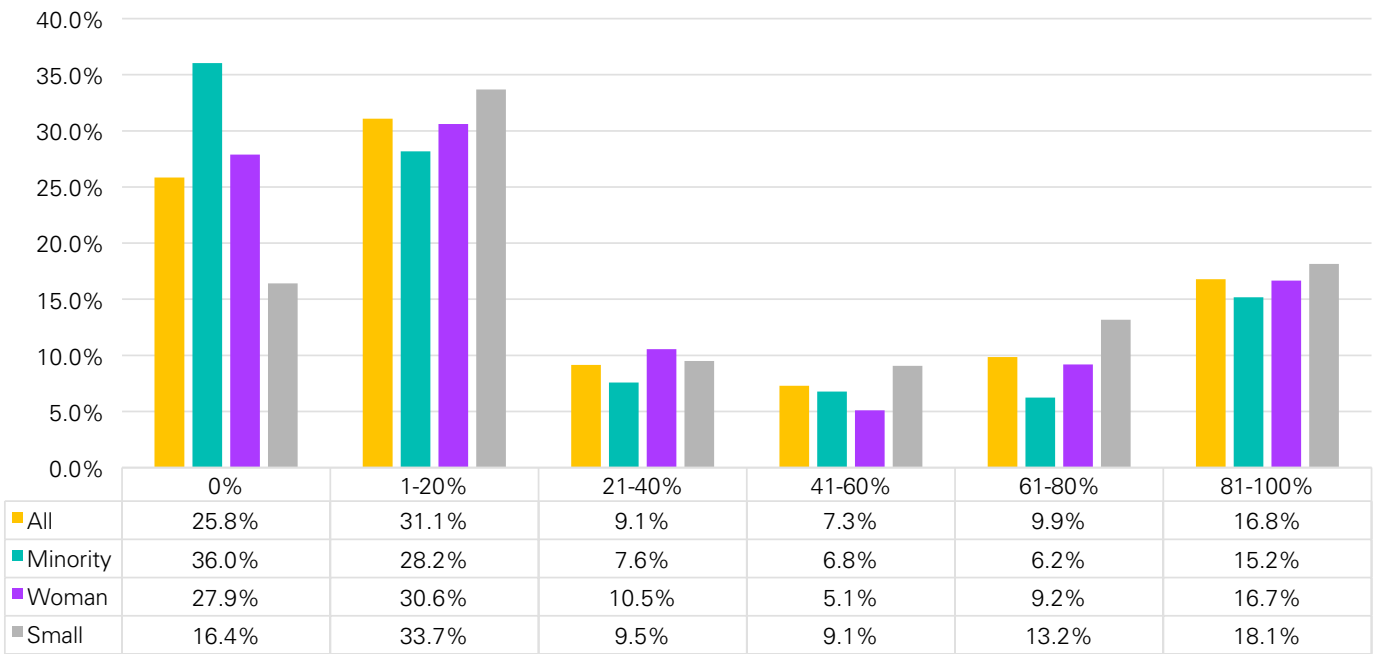
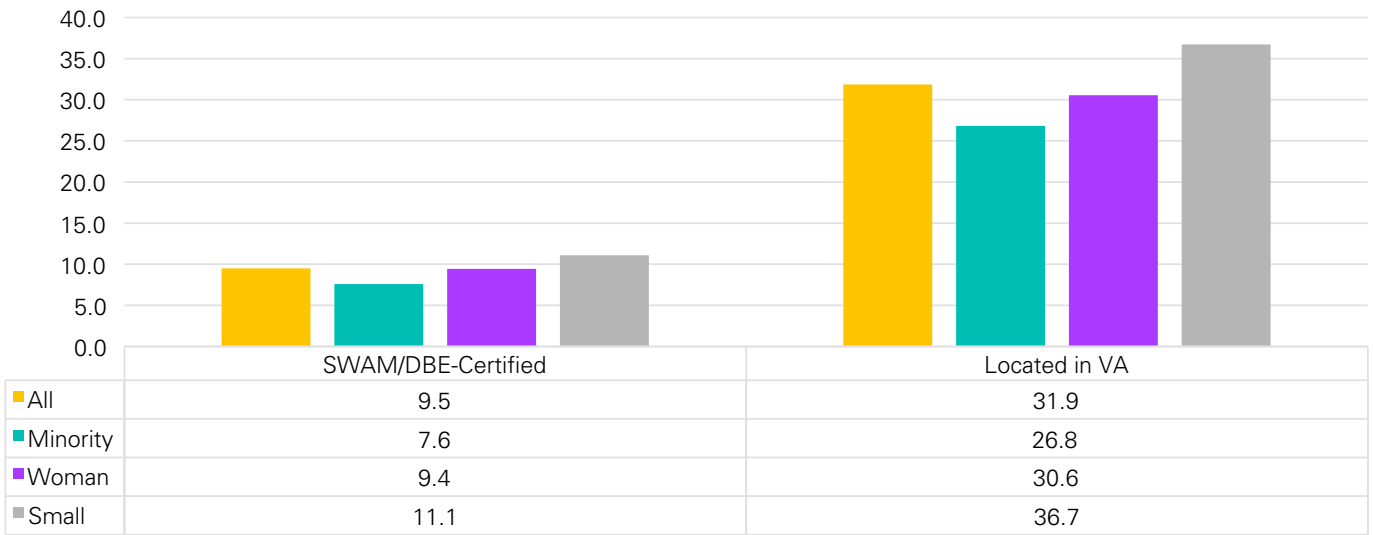


FIGURE 3.18: WHAT PERCENTAGE OF YOUR SUPPLIERS ARE LOCATED IN VIRGINIA? BY CERTIFICATION TYPE



A weighted-average of respondent suppliers indicates that 10 percent of all respondent suppliers are SWaM/ DBE-certified. For SBEs, WBEs, and MBEs, this figure was 11 percent, 9 percent, and 8 percent, respectively. Approximately 32 percent of all respondent suppliers are located in Virginia. Small businesses, woman-owned businesses, and minority-owned businesses have 37 percent, 31 percent, and 27 percent of their suppliers in Virginia, respectively (see Figure 3.19).

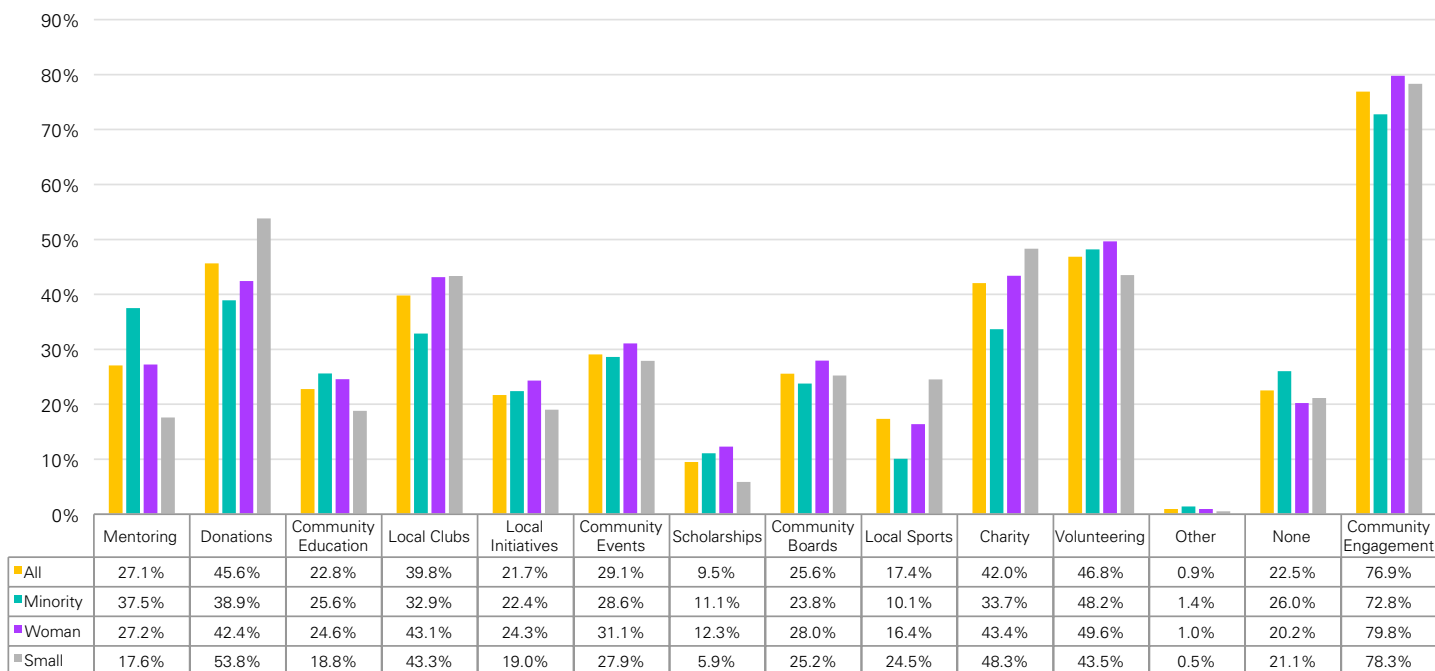
FIGURE 3.19: SUPPLIERS: ESTIMATED WEIGHTED-AVERAGE (%), BY CERTIFICATION TYPE



COMMUNITY ENGAGEMENT

To appreciate how SWaM businesses impact their communities, survey respondents were asked to indicate any types of community engagement in which their businesses or employees were involved. While there are many ways for a business to engage with its community, the most commonly cited methods of involvement among all respondents were volunteering (47 percent), donating (46 percent), supporting a local charity (42 percent), and being involved in local associations or clubs (40 percent) (see Figure 3.20). Overall, 77 percent of respondents reported involvement in at least one form of community engagement.

FIGURE 3.20: COMMUNITY ENGAGEMENT, BY CERTIFICATION TYPE



A slightly higher percentage of woman-owned businesses (80 percent) reported being involved in a form of community engagement, compared to small (78 percent) and minority-owned (73 percent) businesses. Furthermore, relative to their small and minority-owned counterparts, more WBEs are involved in volunteering, community events, community boards, local initiatives, and scholarships. Meanwhile, a higher percentage of SBEs are involved in donating, charity, local clubs, and local sports. MBEs are more involved in mentoring and community education.

SUCCESS STORIES AND PROGRAM FEEDBACK

Phone interviews with a handful of SWaM businesses allowed CURA to gain deeper insight into how businesses viewed the process of certification and its impacts. DSBSD representatives provided a list of potential success story candidates (53 in all). In an effort to provide perspectives from a diverse group of businesses, CURA sought to interview businesses from different distinct regions within Virginia, as well as businesses that were minority-owned, woman-owned, and represented diverse business sectors. Interviews took place in October and November 2017 and lasted approximately 30 minutes each.

The interview process conducted for this study allowed CURA to gauge participant views on potential changes to SWaM certification criteria. Interviewees were generally opposed to the idea of making the definition more inclusive, saying it would make competition for contracts more difficult. The goal should be, “to help the little guys,” as one participant put it.

However, the focus of these conversations was mostly centered around perceived community impacts. Interviews produced personal stories about businesses, communities, and the human impacts of some SWaM participants. The following success stories capture the various ways SWaM vendors contribute to their communities and the Commonwealth as a whole, including through tax revenues, job creation, workforce development, and community engagement.

The SWaM certification program is intended to support diversity among Virginia Agency suppliers, but the program also contributes to the economic benefit of the Commonwealth. By helping small, woman- and minority-owned businesses compete for state agency contracts, the program supports the sustained economic viability of Virginia businesses and generates business tax revenues for the Commonwealth (i.e. corporate

income tax revenue and sales tax revenue) that otherwise might go to businesses outside Virginia. For example, Bill Puckett, the president and owner of Lynchburg Camera, a retail imaging equipment and supplies store in downtown Lynchburg, said the SWaM program has been important in keeping his business afloat. Since its establishment in 1938, Lynchburg Camera has endured significant market changes. In particular, the brick and mortar establishment faces competition from internet retailers such as Amazon, B&H Photo, and Adorama. Puckett says that prospective customers increasingly have a tendency to use Lynchburg Camera as a showroom, ultimately purchasing the products from other online retailers. Fortunately, revenues generated through contracts Puckett attributes to the SWaM program have helped to make up for much of that lost business. Local factors, such as construction outside of Puckett's downtown establishment, have deterred foot traffic. Puckett says the store is thankful for continued SWaM-related business to smooth out sales revenues. With an estimated 15 percent of revenues coming from SWaM specific sales, Lynchburg Camera values the stability the SWaM program provides. The SWaM program has played an important role in keeping Lynchburg Camera in business, and the business gives back in the form of tax revenues through corporate income taxes, gross receipts taxes, and sales taxes—taxes that would otherwise be foregone if sales went to major online retailers located outside Virginia.

SWaM businesses also support job creation in the Commonwealth. Gerald Burr, Jr. is the President & CEO of Canterbury Enterprises, LLC, a general contractor for commercial and multifamily housing in Chester. The company, which has been in operation for over 13 years, has grown its workforce from 3 to 24 employees. Prior to the recession, Canterbury reached a peak of 30 employees. In addition to creating jobs, Mr. Burr has been able to increase salaries. Burr says improved access to bidding opportunities on state agency contracts played a role in the increase in salaries. Canterbury has also played an important role in working with Virginia sub-contractors. Burr estimates that his firm works with 50 to 100 sub-contractors, 75 percent of whom are SWaM/DBE-certified and all of which are located in Virginia. Canterbury encourages sub-contractors without SWaM/DBE certification to become certified in an effort to increase the overall capacity of SWaM businesses and create more opportunities for SWaM businesses. To aid in the SWaM certification process of its sub-contractors, Burr says Canterbury mentors other businesses and gives them points of contacts. Burr estimates they have encouraged 15 to 20 firms to pursue SWaM Certification.

SWaM businesses also have a positive impact on development through training programs, thus generating income tax revenue for the Commonwealth. For example, Strategy US is a minority- and woman-owned, small, micro business, owned by wife and husband, Bhavna and Jatinder Chandook. The couple operate a consulting firm specializing in information technology training for higher education institutions such as George Mason University. In addition to its training programs, the company offers reduced tuition for unemployed individuals. According to Mr. Chandook, the company has aided individuals facing homelessness. One individual found employment within two months of entering a training program and, by the end of the program, was negotiating for a raise. Chandook reports that 14 participants with reduced tuition have found jobs with an average starting salary of \$84,000. The students' prosperity often leads to a chain reaction, according to Chandook, and the individuals go on to help family members achieve economic well-being.

SWaM vendors also play an important role in community engagement. Veronica Musie runs a small catering business called Vera's Catering. Musie provides catering for small gatherings and large corporate and private events. She established her business in 2016 and became certified in 2017. As a new participant to SWaM, the company has received a few contracts, and Musie expressed confidence in acquiring more as she learns how to bid on contracts. Ms. Musie also operates a nonprofit organization for women affected by breast cancer called Alpha Breast Cancer Support Service. The organization arranges meetings, luncheons, and an annual fundraising walk to raise awareness and provide survivors with support services. Support has included providing rides to women who need to commute to receive treatment as well as financial support for groceries, rent, or child care. Musie and her two part-time employees volunteer with the organization 10-20 hours a week. A survivor herself, Musie is originally from Ethiopia. Her experience has driven her to provide support for other women so they do not have to go through the process alone.

CHAPTER 3: ECONOMIC IMPACT

This section of the report details the economic impact generated on the Commonwealth’s economy, as well as in each Metropolitan Statistical Area (MSA), through discretionary spending with small, minority-owned, or women-owned businesses. In addition to empowering SWaM businesses throughout the Commonwealth, the SWaM/DBE certification program channels spending towards thousands of Virginia businesses, which in turn generates additional impact throughout the economy through the spending of suppliers, sub-contractors, and their employees.¹

This section will also compare the economic impact, in terms of multiplier (i.e. total economic impact for each \$1.00 spent), of spending through different business ownership types, including non-SWaM businesses. The differences in the multipliers are primarily a function of the industrial structure of each group (that is, which industries or NAICS codes are represented), but they provide a useful snapshot to understand how the Commonwealth’s discretionary spending impacts its own economy.

METHODOLOGICAL NOTE

This report uses economic input-output analysis to illustrate the impact of the discretionary spending happening through SWaM-certified businesses. An input-output model measures the economic impact of an activity or entity by looking at the spending that goes into the activity, modeling the resultant economic output in dollars, and feeding those dollars into the model as an input for economically linked business sectors.

Economic linkages may be best described as an interconnected network, from suppliers and manufacturers to retailers and customers. The entire network is connected in a very specific pattern. When one industry increases or decreases production, it sends a pulse that is felt in other parts of the network, forwards and backwards. That change affects the supply and demand for materials, labor, and goods. Economic impact models, like the one created for this study, contain information on how the network of industries is structured, so the effect of a change in production in one industry can be estimated throughout the economy.

To estimate the impact of the SWaM/DBE certification program, CURA used IMPLAN Pro™ software to prepare and customize an economic model for the Commonwealth of Virginia as well as a model for each of the state’s ten MSAs. IMPLAN is a regional input-output computer modeling system used by economists to estimate the effects of spending and policy actions. In this case, IMPLAN was used to estimate the economic effects that take place as goods and services are purchased in connection with procurements towards small, women-owned and minority-owned businesses.

The IMPLAN model divides economic activity into three components—direct, indirect, and induced effects—and sums them to derive a total economic impact (See Table 3.1).

TABLE 3.1: IMPLAN IMPACT DEFINITIONS

IMPACT TERM	DEFINITION
Direct Impact	The initial expenditures, or production, made by the industry experiencing economic change
Indirect Impact	The effects on local inter-industry spending through backward linkages (which track industry purchases backward through the supply chain)
Induced Impact	The results of local spending of employee wages and salaries for both employees of the directly affected industry and the employees of the indirectly affected industries

Source: Frances Day - “Principles of Impact Analysis & IMPLAN Applications”

¹ It must be noted that the Commonwealth would have purchased those goods and services regardless of the businesses certification status. However, it is necessary to understand what the economic impact of this spending is, and how it compares—in terms of multiplier—with the rest of the discretionary spending procurements towards non certified businesses.

DIRECT EFFECTS are expenditures made to SWaM/DBE-certified businesses. This initial spending causes ripple effects (also known as “multiplier effects”) within the study area. These additional effects are called indirect and induced impacts.

INDIRECT EFFECTS are “supplier” effects. Businesses (such as professional services or general contractors) that receive money from the original purchases must also buy additional goods and services to accommodate the new demand. As purchases are made from other firms, the economy is stimulated further.

INDUCED EFFECTS are generated by changes in household expenditures. When companies receive additional business because of the direct and indirect effects, they meet the new demand by hiring additional workers or paying existing employees more to work longer hours. As a result, these employees will have more money to spend on the goods and services that they buy within the study area.

The direct, indirect, and induced effects are estimated for labor income, value added, economic impact, and employment impact. These components are defined below:

- **LABOR INCOME:** The wages and salaries paid to local employees of firms as well as an estimate of the value of benefits earned by these workers. Labor income also includes payments received as income by freelance employees.
- **ECONOMIC IMPACT:** The overall economic effects on the region, which can be viewed as the total additional output generated by rehabilitation, are equal to the value added plus intermediate expenditures. Consider the economic impact as the value of change in sales or the value of change in production.
- **EMPLOYMENT:** The number of total jobs in the study area, including full-time and part-time employees, supported by the new economic activity.

CALCULATING THE ECONOMIC IMPACT – DATA PREPARATION

Spending data was obtained from the Commonwealth of Virginia’s SpendCompass Dashboard. All discretionary spending transactions were downloaded for calendar year 2015.² The more than 1.29 million transactions were then grouped and summed by unique tax identification number to calculate the amount of discretionary spending received by each business.³ In CY 2015 (see table 3.2), we estimate that 43,596 businesses provided discretionary spending-related services and products to Virginia agencies for a total spending of \$6.17 billion. Of those businesses, 6,827 were SWaM-certified and 36,769 were not SWaM-certified (“non-SWaM”). This data suggests that in CY 2015, approximately 35 percent⁴ of certified businesses were able to leverage their certification and convert it into revenues.

TABLE 3.2: DISCRETIONARY SPENDING SUMMARY FOR CY 2015

	SWAM-CERTIFIED BUSINESSES	NON-SWAM BUSINESSES	TOTAL
Discretionary Spending	\$2,383,675,378	\$3,790,558,532	\$6,174,233,910
Number of businesses receiving Virginia procurements	6,827	36,769	43,596
Spending in Virginia	\$2,132,742,162	\$2,040,055,852	\$4,172,798,013
Leakage (Spending Out of State)	\$250,933,216	\$1,750,502,680	\$2,001,435,897

² Procurement spending on SWaM business varies from year to year. Calendar year 2015 was chosen for the economic impact analysis because it closely represented the average spending for the period 2010-2017, thus making it a ‘typical year’. The economic impact thus calculated can be considered to be close to the average annual impact resulting from the certification program.

³ For a more detailed summary of the data preparation process, see the Appendix.

⁴ We estimated the number of certified businesses for CY 2015 (19,242) by averaging the number of certified businesses for FY 2014 (21,316) and FY 2015 (17,168). $6,820/19,242 \times 100 = 35\%$

However, not all discretionary spending happens in Virginia. The spending data was therefore reduced to reflect only the spending that took place in the Commonwealth, as transactions outside Virginia are considered leakages in the economic impact model. After accounting for these leakages, both in SWaM-certified businesses, as well as in non-SWaMs, the total amount considered for this analysis was almost \$4.2 billion, of which \$2.13 billion spent through procurements with SWaM certified businesses, and \$2.04 billion spent on other Virginia businesses. It should be noted how most of the leakage happens through non-SWaM businesses, while – as expected – most of the SWaM-certified businesses receiving contracts from the Commonwealth are Virginia businesses.

In order to calculate the economic impact of this spending, the following data points were identified and/or calculated:

- At state level, total amount of discretionary spending paid to both SWaM-certified and non-SWaM businesses, by NAICS code and – just for the SWaM businesses – disaggregated by certification type
- For each Virginia MSA, total amount of discretionary spending to SWaM-certified businesses, by NAICS code and disaggregated by certification type
- For both sets of data, identification of the appropriate IMPLAN sector code for each six-digits NAICS code.

Table 3.3 shows the breakdown of the discretionary spending (both in dollar value and as a percentage of the total) to SWaM-certified businesses located in Virginia.

TABLE 3.3: TOTAL SPENDING TO SWAM BUSINESSES, BY NAICS CODE

NAICS CODE	NAICS DEFINITION	SWAM SPENDING	%SWAM SPENDING
11	Agriculture, Forestry, Fishing And Hunting	\$2,180,168	0.1 %
21	Mining, Quarrying, Oil And Gas Extraction	\$5,988,491	0.3%
22	Utilities	\$3,503,821	0.2%
23	Construction	\$1,050,572,846	49.3%
31 - 33	Manufacturing	\$68,841,534	3.2%
42	Wholesale Trade	\$167,987,440	7.9%
44 - 45	Retail Trade	\$125,543,522	5.9%
48 - 49	Transportation And Warehousing	\$109,166,783	5.1 %
51	Information	\$4,652,787	0.2%
52	Finance And Insurance	\$1,143,736	0.1 %
53	Real Estate Rental And Leasing	\$9,409,458	0.4%
54	Professional, Scientific, And Technical Services	\$326,503,251	15.3%
55	Management Of Companies And Enterprises	\$57,457	0.0%
56	Administrative And Support And Waste Management And Remediation Services	\$174,958,355	8.2%
61	Educational Services	\$1,896,358	0.1 %
62	Health Care And Social Assistance	\$11,220,148	0.5%
71	Arts, Entertainment, And Recreation	\$658,638	0.0%
72	Accommodation And Food Services	\$20,447,872	1.0%
81	Other Services (Except Public Administration)	\$20,381,626	1.0%
SWAM TOTAL \$2,105,114,291			
NON-SWAM TOTAL \$2,037,781,895			
GRAND TOTAL \$4,142,896,186			

Source: SpendCompass Dashboard, Commonwealth of Virginia

ECONOMIC IMPACT RESULTS

Tables 3.4 and 3.5 show the economic impact generated by discretionary spending procurements through SWaM-certified businesses.

In CY 2015, the \$2.13 billion in discretionary spending for goods and services provided by SWaM-certified businesses generated a total economic impact of more than \$3.6 billion, which means that each \$1.00 of discretionary spending generates a total economic impact of \$1.69. The total impact includes \$1.38 billion in Virginia employee paychecks for all affected industries, distributed to the 25,375 jobs generated directly, indirectly, and through induced spending. In addition, state and local jurisdictions see revenues of more than \$146 million. The federal government collects approximately \$315 million as a direct result of this portion of discretionary spending.

TABLE 3.4: ESTIMATED IMPACTS OF DISCRETIONARY SPENDING PROCUREMENTS WITH SWAM-CERTIFIED BUSINESSES, CY 2015

	DIRECT	INDIRECT	INDUCED	TOTAL
Economic Impact	\$2,051,853,664	\$721,783,307	\$856,485,214	\$3,630,122,184
Labor Income	\$843,786,704	\$267,615,806	\$274,278,376	\$1,385,680,886
Employment Impact (number of jobs)	15,188	4,241	5,946	25,375
Tax Impact (state and local)				\$146,348,284
Tax Impact (federal)				\$315,294,801

Source: Estimates developed on DSBSD data by the Center for Urban and Regional Analysis at VCU, using IMPLANProTM. Inflation adjustments made using the U.S. Bureau of Labor Statistics' "Consumer Price Index for All Urban Consumers".

Note: All dollar values are in 2018 Dollars

In the same calendar year, \$2.04 billion of the Commonwealth's discretionary procurements went towards the purchase of goods and services from non-certified businesses.

- \$3.6 billion in total economic activity (or impact), including almost \$1.4 billion in salaries for Virginia employees.
- More than 25,000 jobs supported by the direct and indirect impacts of discretionary spending in Virginia.
- \$146 million in state and local taxes, and \$315 million in federal revenues.

Table 3.5 details the top ten industries by employment impact. SWaM-certified businesses tend to focus on construction, retail, and non-professional services (e.g. services to buildings, employment services).

TABLE 3.5: ESTIMATED EMPLOYMENT IMPACT BY SWAM CERTIFICATION, FIRST 10 INDUSTRIES

SWAM BUSINESSES		
INDUSTRY	TOTAL EMPLOYMENT	PERCENT OF TOTAL EMPLOYMENT
Construction of new highways and streets	2658	11.2%
Maintenance and repair construction of nonresidential structures	1913	8.1%
Landscape and horticultural services	1081	4.6%
Wholesale trade	1062	4.5%
Retail - Miscellaneous store retailers	965	4.1%
Architectural, engineering, and related services	911	3.9%
Employment services	777	3.3%
Services to buildings	761	3.2%
Truck transportation	697	2.9%
All other food and drinking places	588	2.5%
All other industries	13,962	59.1%
TOTAL	25,375	100%

Source: Estimates developed on DSBSD data by the Center for Urban and Regional Analysis at VCU, using IMPLANPro™. Inflation adjustments made using the U.S. Bureau of Labor Statistics' "Consumer Price Index for All Urban Consumers".

Note: All dollar values are in 2018 Dollars

As mentioned in Chapter 1, in addition to receiving the SWaM certification, each business is assigned one or more ownership types: MBE (minority business enterprise), WBE (women's business enterprise), and SBE (small business enterprise). We assigned each business a single ownership type based on a hierarchy: MBE first, then WBE, and finally SBE. These assignments were necessary to calculate separate economic impact estimates for each category. The results are presented in table 3.6, and the differences among them are, for the most part, a reflection of the spending amounts for each ownership type.

TABLE 3.6: ESTIMATED ECONOMIC IMPACT BY OWNERSHIP TYPE (CY 2015)

	ECONOMIC IMPACT	LABOR INCOME	EMPLOYMENT IMPACT (NUMBER OF JOBS)	TAX IMPACT (STATE AND LOCAL)	TAX IMPACT (FEDERAL)
MBE	\$512,304,677	\$209,655,409	3,713	\$20,675,046	\$46,500,189
WBE	\$459,664,513	\$188,799,069	3,684	\$20,511,537	\$42,839,376
SBE	\$2,279,404,122	\$845,093,147	15,368	\$87,463,807	\$192,784,031

Source: Estimates developed on DSBSD data by the Center for Urban and Regional Analysis at VCU, using IMPLANPro™. Inflation adjustments made using the U.S. Bureau of Labor Statistics' "Consumer Price Index for All Urban Consumers".

Note: All dollar values are in 2018 Dollars

However, the multipliers presented in Table 3.7 offer a little more information on which ownership has the most relative impact.⁵ Minority-owned businesses generate the highest multiplier (1.58), while small businesses have a slighter lower multiplier (1.53), and women-owned businesses show the lowest multiplier (1.43).

⁵ As for the considerations made on the SWaM Vs non-SWaM analysis, these differences are largely due to the spending distribution among the different industrial sectors of each ownership type, rather than any specific characteristic connected to the ownership type. The multipliers for each of the SWaM sub-groups are lower than the multiplier of all combined SWaM spending because of the economic backward and forward linkages that each model includes (i.e., multipliers are unique to the economic linkages of each sub category and are not additive in nature).

TABLE 3.7: ECONOMIC MULTIPLIER FOR SMALL, WOMEN-OWNED, AND MINORITY-OWNED BUSINESSES

OWNERSHIP TYPE	ECONOMIC MULTIPLIER	DESCRIPTION
MBE	1.58	For every \$1.00 spent in MBE, there is a total impact of \$1.58
WBE	1.43	For every \$1.00 spent in WBE, there is a total impact of \$1.43
SBE	1.53	For every \$1.00 spent in SBE, there is a total impact of \$1.53

Source: Estimates developed on DSBSD data by the Center for Urban and Regional Analysis at VCU, using IMPLANProTM.

ADDITIONAL CONSIDERATIONS TO THE ECONOMIC IMPACT RESULTS

As explained earlier, the impact differences among the different type of SWaM ownership (as well as for SWaM and non-SWaM businesses) are largely due to differences in spending distribution among the different industrial sectors for each group. However, information and analysis from the survey described in Chapter 2 and a review of existing literature may offer some understanding of how other variables and circumstances have influence—marginal or otherwise—on any of the spending types (direct, indirect or induced) and, therefore, the multiplier. To this end, it is useful to consider the following:

- Literature shows that minority business owners tend to hire minority employees. Although the social and economic impact of this type of informal employment policy might escape the view of statistics and numbers, the communities where these businesses operate likely reap the benefits. Such employment practices likely increase diversity in workforce participation—one of the goals of the Virginia SWaM certification program.
- Similarly, when comparing SWaM-certified businesses with non-SWaM businesses, literature suggests that the former tend to hire and do business locally to a greater degree than their non-SWaM counterparts. Although the economic impact and the multipliers are indeed very similar, much of the difference may be attributed to industrial structures. One may assume that, should SWaM and non-SWaM businesses have identical industrial structures, SWaM businesses would tend to have a higher impact on both state and regional economies because their business networks and models favor regional and state linkages.
- Survey results of SWaM-certified businesses show that in comparison with minority-owned businesses, women-owned businesses, and small businesses rely more on local and SWaM-certified sub-contractors and suppliers. In terms of economic effects, this should translate to a higher impact generated by the discretionary spending with the businesses belonging to those two ownership types. This suggests that the difference in those multipliers might realistically be smaller than what has been calculated.
- Finally, while the economic impact model did not include spending taking place outside Virginia, it is very likely that firms from out of state that received procurements from and operate in the Commonwealth spend a portion of their operational budgets (in terms of suppliers, sub-contractors, and even employees) within the Commonwealth. This creates an additional economic impact, both at state and regional levels, that the described economic impact estimates can't capture. The estimates in this report remain conservative.

**SWaM BUSINESSES HAVE A
HIGH IMPACT ON THE STATE'S ECONOMY
DUE TO BUSINESS NETWORKS WITH
STRONG REGIONAL LINKAGES**

IMPACTS ON VIRGINIA'S METROPOLITAN STATISTICAL AREAS (MSA⁶)

The economic impact of discretionary spending with SWaM-certified businesses within each of Virginia's MSAs may be estimated using similar methods to the above state estimates. Transactions that took place during CY 2015 were grouped by unique tax identification numbers to calculate the total amount of state discretionary spending received by each business for the year. A total amount of spending for each six-digits NAICS code (industrial sector) was calculated for each of MSA based on the locations of the noted businesses. This data was then entered in customized IMPLAN models that CURA built for each MSA. Table 3.8 shows the amount of state discretionary spending with SWaM-certified businesses in each MSA.

TABLE 3.8: SUMMARY OF DISCRETIONARY SPENDING WITH SWAM-CERTIFIED BUSINESSES BY MSA

MSA	DISCRETIONARY SPENDING
Blacksburg MSA	\$25,693,551
Charlottesville MSA	\$36,053,199
Harrisonburg MSA	\$8,933,652
Bristol MSA	\$12,153,858
Lynchburg MSA	\$78,531,574
Richmond MSA	\$674,912,279
Roanoke MSA	\$68,345,662
Hampton Roads MSA	\$399,432,104
Northern Virginia MSA	\$584,733,682
Staunton MSA	\$29,286,862
Winchester MSA	\$8,662,432
TOTAL	\$1,926,738,855

Source: Virginia Department of Small Business and Supplier Diversity Note: The Bristol, Hampton Roads, Northern Virginia, and Winchester MSAs are defined as only the Virginia portions of the entire MSA.

Table 3.9 details the economic impact generated by discretionary spending taking place in each MSA.

TABLE 3.9: ESTIMATED REGIONAL IMPACTS OF SWAM SPENDING BY MSA

PLACE	ECONOMIC IMPACT	LABOR INCOME	EMPLOYMENT IMPACT (NUMBER OF JOBS)	TAX IMPACT (STATE AND LOCAL)
Blacksburg MSA	\$37,853,492	\$13,075,568	294	\$1,268,110
Charlottesville MSA	\$55,882,028	\$18,112,750	378	\$1,908,690
Harrisonburg MSA	\$13,571,971	\$4,213,387	100	\$490,958
Bristol MSA	\$17,080,199	\$5,826,484	132	\$778,265
Lynchburg MSA	\$105,033,737	\$36,564,857	864	\$5,295,800
Richmond MSA	\$1,231,697,606	\$465,931,615	8,417	\$52,366,150
Roanoke MSA	\$115,447,990	\$37,571,528	809	\$5,277,691
Hampton Roads MSA	\$43,345,481	\$14,733,486	352	\$1,816,897
Northern Virginia MSA	\$650,124,831	\$230,670,184	4,839	\$26,091,041
Staunton MSA	\$930,892,148	\$395,003,761	6,157	\$37,510,327
Winchester MSA	\$7,107,503	\$2,453,866	61	\$286,806

Source: Estimates developed on DSBSD data by the Center for Urban and Regional Analysis at VCU, using IMPLANPro™. Inflation adjustments made using the U.S. Bureau of Labor Statistics' "Consumer Price Index for All Urban Consumers". Note: All dollar values are in 2018 Dollars

6 From the OMB Glossary: [An MSA is] a geographic entity delineated by the Office of Management and Budget for use by federal statistical agencies. Metropolitan statistical areas consist of the county or counties (or equivalent entities) associated with at least one urbanized area of at least 50,000 population, plus adjacent counties having a high degree of social and economic integration with the core as measured through commuting ties.

When examining the MSA-level impacts, it is important to keep the following points in mind:

1. The values for economic impact, employment impact, labor income, and state and local tax revenue that are estimated for Virginia are greater than the combined impacts from the 11 MSAs. When examining each region of the state, any spending that takes place outside of the MSA is considered leakage from the local economy and is not considered for the regional impact analysis. In the state model, however, spending anywhere in Virginia contributes to the estimated impacts. There are more opportunities for expenditures to occur within the borders of Virginia than there are within each MSA.
2. Smaller MSAs will experience greater leakage of spending outside the MSA. Local businesses in a small MSA will likely have a greater share of suppliers outside the MSA than businesses in a larger MSA, thus creating leakages in the indirect and induced stages of spending. Therefore, the overall MSA-level impact of state discretionary spending with SWaM-certified businesses in small MSAs will be smaller.
3. Impacts are not estimated for spending that happened with businesses that are located outside established MSAs.

CHAPTER 4: POLICY SCENARIOS USING ALTERNATIVE DEFINITIONS OF SMALL BUSINESSES

The success of a business empowerment program largely depends upon its administrative effectiveness in achieving the intended objectives. This requires both simplicity and robustness in the criteria used to certify these businesses. Simple and easy certification requirements reduce transaction cost for the participating businesses, while robust methods discourage unnecessary competition from non-target businesses.

In addition to the SWaM program, DSBSD also administers certification for the Disadvantaged Business Enterprise (DBE) program in Virginia. The SWaM and DBE programs combined have grown from 3,000 certified vendors in FY2005 to 16,000 in FY2018, according to internal documents. The growth—over 400 percent—represents a significant increase in administrative responsibilities. In the same time, staffing increased from 7 to 13 employees, or about 86 percent. As a result the SWaM certification application volume has exceeded current agency resources.

Within that context, this section explores alternative criteria to define small businesses and compares the pool of SWaM certified businesses under two scenarios: one using the small business definition adopted by the federal Small Business Administration, and another using a modified version of the existing criteria.

The DBE program uses certification criteria defined by the USDOT, which uses the SBA definition of small businesses. DBE is the federal government's certification program for small and minority-owned businesses (including women-owned) seeking priority in contracts that use federal funds. To be certified for the DBE program, businesses are required to meet ownership and size criteria set by the SBA. The owner must belong to a disadvantaged group, and the size of the business must fall below a certain number of employees or gross receipts, depending on the industry (NAICS categorization is used).

According to the Virginia Administrative Code (7 Va. Admin. Code § 13-20-155), any Virginia business receiving DBE certification is eligible for the SWaM program. Additionally, the Code of Virginia gives the DSBSD Director the power to “mandate SWaM certification without any additional paperwork to any small, women-owned, or minority-owned business that has obtained certification under any federal certification program.” (Va. Code Ann. § 2.2-1606). Table 4.0 summarizes the specific eligibility requirements, the similarities, and the differences between the SWaM and DBE programs.

Both SWaM and DBE programs require businesses to meet two basic criteria: the size of the business and the race, ethnicity, or gender of the primary owner. The SWaM program has a fixed size threshold of 250 employees or \$10 million in average gross receipts (3-years). The DBE program requires that the number of employees and annual gross receipts meet specific criteria based on the NAICS classification of the business. The size criteria vary from 100 employees in wholesale-related businesses to 1,500 employees in selected mining and manufacturing-related businesses. The criteria for annual gross receipts also vary from \$0.75 million for farming-related businesses to \$38.5 million for finance, insurance, leasing, aerospace and military weapons, hazardous waste disposal, and selected sports entertainment-related businesses. SBA has a separate size and receipts requirements for 1,031 different NAICS industries.

The SWaM program does not define disadvantaged groups, as the DBE program does. Instead, it extends certification to only those businesses that are defined as micro, small, women-owned, minority-owned, ESO, HBCU, or federally certified within a program that has third party verification. DBE expands ethnicity and race criteria (social disadvantage) to include a maximum threshold for personal net worth (economic disadvantage). SWaM eligibility requirements are simpler and easier to verify. However, the expansive definition of small

business in SWaM may allow non-target businesses to realize the benefits of the program. For example, a professional firm with fewer than 50 employees can have annual turnover substantially higher than a labor intensive manufacturing firm with 500 employees. Some firms can achieve higher levels of output by keeping their employment level at the minimum and outsourcing portions of their work to sub-contractors and still maintain a small footprint. Other businesses that depend on seasonal employment might be able to minimize their averages and still meet the eligibility criteria.

The SBA definition used for DBE certification takes a more granular approach in defining small businesses by using NAICS classification. While it increases the accuracy and robustness of the eligibility calculations, it almost certainly creates additional work for the certifying agency. DSBSD has already seen a steady increase in its certification workload without an equal increase in staff.

To evaluate alternative small business classification criteria, CURA conducted a comparative estimate of the number of eligible businesses under two hypothetical scenarios:

- The SWaM program adopts SBA small business definition
- The existing SWaM definition is changed from “less than 250 employees **OR** less than \$10 million in gross receipts” to “less than 250 employees **AND** less than \$10 million in gross receipts”

TABLE 4.0: CERTIFICATION CRITERIA FOR VIRGINIA'S SWAM PROGRAM AND THE FEDERAL DBE PROGRAM

PROGRAM	VIRGINIA SWAM PROGRAM	FEDERAL DBE PROGRAM
Target Businesses	Small, women-owned, minority-owned, veteran owned, and ESO	Small, owned by a member of a disadvantaged group (women, minority, disabled, veteran)
Definition of Small Business	Business with less than 250 employees OR average annual gross receipts of \$10 million or less averaged over the previous three years	SBA definition based on size standards and gross receipts for businesses by 6-digit NAICS category. Depending on the NAICS classification, size standard varies between 100 to 1500 employees, and gross receipts vary from \$0.75 million to \$38.5 million (separate criteria have been developed for 1,031 different industry types)
Definition of Minority-Owned Business	Majority owner of the business (owns 51% stakes and controls the day to day management of the business) is a member of one of the identified minority race or ethnic groups	Majority owner of the business (owns 51% stakes and oversees the day to day management of the business) is a member of one of the identified minority race or ethnic groups
Definition of Woman-Owned Business	Majority owner of the business (owns 51 % stakes and controls the day to day management of the business) is identified as a woman	Majority owner of the business (owns 51 % stakes and oversees the day to day management of the business) is identified as a woman
Criteria for Personal Net Worth	Not Applicable	Under \$1.32 million

SCENARIO-1: ADOPTING SBA SMALL BUSINESS DEFINITION FOR THE SWAM PROGRAM

In order to maintain accuracy in comparison we used the 2007 PUMS sample data from the Survey of Business Owners (SBO) and applied both the current SWaM and SBA rules to get the results¹.

Table 4.1 presents the results of SWaM and SBA small and minority business definition on the selected sample of Virginia businesses based on the calendar year 2015 certification data. In CY 2015, 19,242 businesses qualified for SWaM certification using the existing criteria of “less than 250 employees OR gross receipts of less than \$10 million.” Applying the SBA rule increased the total pool of certified businesses by roughly 10 percent. Of the 21,205 businesses estimated to be certified under the SBA definition, 17,363 are from Virginia and 3,842 are from other states. This scenario suggests that only 45 additional businesses from Virginia will be added to the pool, whereas an additional 1,918 businesses from out-of-state will get certification—effectively doubling the number of certified out-of-state businesses. Both definitions use the same criteria for women-owned and minority-owned businesses, and there are no difference in the qualified percentages in those categories.

TABLE 4.1: NUMBER OF BUSINESSES CERTIFIED UNDER SWAM AND SBA RULES

BUSINESS LOCATION	AVERAGE PERCENT CHANGE	ESTIMATED INCREASE IN NUMBER OF ELIGIBLE BUSINESSES IF SBA DEFINITION IS ADOPTED
Virginia Businesses	0.30%	45
Out-of-State Businesses	99.60%	1,918
TOTAL	10.20%	1,963

Table A4.1 in the appendix presents, by NAICS code, the comparison of businesses qualifying under the SWaM definition and the SBA definition. The increase in number of certified businesses using SBA definition is more pronounced in the following sectors:

- Accommodation & Food
- Construction
- Professional, Scientific, and Technical Services
- Administrative and Support and Waste Management
- Health Care and Social Assistance

Businesses related to sectors such as Real Estate Rental and Leasing, Information, Finance and Insurance, and Manufacturing also see modest increases in certification when using the SBA definition. However, as mentioned earlier, most of this increase is due to out-of-state businesses. Table 4.2 on the following page presents the difference in the number of certified businesses within Virginia. Even though the overall average increases by less than a percent between the two definitions, some reshuffling of certification by business type is evident in our findings. Most notably, some of the existing businesses in the Retail Trade sector will no longer be eligible for the program, a reduction in small businesses would reduce the pool of competitors for remaining eligible businesses, such as women and minority owned businesses.

Adopting the SBA definition will substantially increase participation of businesses in Professional, Scientific, and Technical Services, and Administrative and Support Services—two of the largest sectors with a higher percentage of women-owned and minority-owned businesses. Conversely, the conversion negatively impacts businesses in the Retail Trade sector which has high percentages of women-owned and minority-owned businesses in Virginia and constitutes about nine percent of the current pool of SWaM-certified businesses. If fully adopted, the SBA definition will have modest positive impact on the participation of businesses owned by disadvantaged groups. It would considerably increase the participation of out-of-state businesses.

¹ This is the most recent public use micro-data sample that has information on the number of employees, gross receipts, and ownership by gender and ethnicity. PUMS data has the NAICS classification of the businesses at 2-digit level. However, the SBA size standards are presented at the 6-digit level. CURA team used the 2015 Quarterly Census of Employment and Wages to calculate the percentage of businesses in Virginia at 6-digit level and used that percentage to calculate the weighted averages for the SBA size requirements. The average values were used in determining business eligibility for comparison. Only the rules for small, minority-owned, and women-owned business were compared; the personal net worth criteria was not considered in this comparison. The SBA and SWaM rules applied to this sample allowed CURA to calculate the percentage of businesses that qualified under each criteria. The percentages were applied to the 2015 SBO estimate of Virginia businesses and the DSBSD's 2015 calendar year certification data to estimate the current number of businesses in each category.

TABLE 4.2: COMPARISON OF BUSINESS ELIGIBILITY USING EXISTING SWAM AND SBA SMALL BUSINESS DEFINITION (IN-STATE BUSINESSES)

		CURRENT CERTIFICATION CRITERIA		SBA CERTIFICATION CRITERIA	EST. DIFFERENCES
NAICS CODE	NAICS CODE DESCRIPTION	# OF CERTIFIED BUSINESSES	DISCRETIONARY SPENDING	EST. # OF CERTIFIED BUSINESSES (SBA CRITERIA)	Δ IN NUMBER OF BUSINESSES
11	Agriculture, Forestry, Fishing and Hunting	34	\$2,180,168	34	0
21	Mining, Quarrying, and Oil and Gas Extraction	17	\$5,988,491	17	0
22	Utilities	4	\$3,503,821	4	0
23	Construction	1373	\$1,050,572,846	1,381	8
31-33	Manufacturing	387	\$68,841,534	393	6
42	Wholesale Trade	732	\$167,987,440	732	0
44-45	Retail Trade	864	\$125,543,522	863	-1
48-49	Transportation and Warehousing	298	\$109,166,783	299	1
51	Information	121	\$4,652,787	123	2
52	Finance and Insurance	11	\$1,143,736	11	0
53	Real Estate and Rental and Leasing	79	\$9,409,458	80	1
54	Professional, Scientific, and Technical Services	831	\$326,503,251	840	9
55	Management of Companies and Enterprises	2	\$57,457	2	0
56	Administrative and Support and Waste Management and Remediation Services	653	\$174,958,355	665	12
61	Educational Services	33	\$1,896,358	33	0
62	Health Care and Social Assistance	112	\$11,220,148	113	1
71	Arts, Entertainment, and Recreation	19	\$658,638	19	0
72	Accommodation and Food Services	171	\$20,447,872	177	6
81	Other Services (except Public Administration)	463	\$20,381,626	463	0
TOTALS		6,204	\$2,105,114,291	6,249	45

Note: Table A4.1 in the appendix presents the comparison of business eligibility for both in-state and out-of-state businesses

SCENARIO-2: MODIFYING EXISTING SWAM SMALL BUSINESS CRITERIA

As discussed in Scenario 1, the SWaM program uses simple certification criteria to encourage small, minority-owned, and women-owned businesses to participate in the State's procurement contracts. As mentioned earlier, there is a possibility that the inclusiveness of the SWaM definition of "small" may extend program benefits to non-targeted businesses. Businesses that can maintain a small employee footprint by sub-contracting or keep employment averages low by hiring and firing on a seasonal basis can meet the "less than 250 employees" criteria, even if they surpass the \$10 million gross receipts threshold. The reverse is also possible. We examined changes to the certification pool using an "AND" instead of "OR" in the existing criteria. That is, requiring businesses to meet both number of employees and gross receipts criteria. Table 4.3 presents the comparison of the number of businesses under the two scenarios.

TABLE 4.3: COMPARISON OF CY 2017 BASED ON NUMBER OF QUALIFYING BUSINESSES FROM SAMPLE DATA

BUSINESS TYPE	USING EXISTING SWAM DEFINITION ("OR" RULE)	USING "AND" RULE	NUMERICAL DIFFERENCE	PERCENT DIFFERENCE
SWaM Certified Businesses in Virginia	19,242	18,084	-1,158	-6%

Adopting "AND" in place of "OR" removes an estimated 6 percent of businesses from the existing pool of certified SWaM businesses. The number of women-owned and minority-owned businesses remain the same, as the ownership rule is not affected. Table A4.2 in the Appendix presents the breakdown by NAICS classification. By changing the criteria from "OR" to "AND," about 17 percent of businesses in the Wholesale Trade sector, and about 11.5 percent of businesses in the Manufacturing sector become ineligible. The conversion from "OR" to "AND" also causes 5.6 percent Retail Trade businesses and 4.3 percent of Professional, Scientific, and Technical Services businesses to lose eligibility. An average of about three percent of businesses in the Transportation and Warehousing, and Information sectors will also become ineligible. The following business sectors are not affected by the change:

- Agriculture, Forestry, Fishing and Hunting
- Utilities
- Management of Companies and Enterprises
- Arts, Entertainment, and Recreation

By comparison, adopting "AND" in place of "OR" in the existing small business definition would result in a substantial number of Manufacturing and Wholesale Trade-related businesses becoming ineligible for the SWaM program. These two sectors represent less than 10 percent of all businesses currently certified. Similarly, adopting the "AND" rule also removes a substantial number of businesses in the Retail Trade, Professional Services, and Construction sectors. Together, they equal about 39 percent of all businesses currently certified under the SWaM program. These sectors also account for about 33 percent of women-owned and 29 percent of minority-owned businesses in the Commonwealth.

The differences between the "AND" and "OR" scenarios, for Virginia businesses organized by two-digits NAICS code, is shown in Table A.4.2 in the appendix.

MINIMAL ECONOMIC IMPACT FROM THE ADOPTION OF SBA DEFINITION

Using the results of the SBA scenario simulation, CURA built a statewide economic model with a new set of data reflecting discretionary spending that would take place through the expanded pool of SWaM-certified businesses.

In CY 2015, the number of businesses receiving discretionary spending was 6,827 – approximately 35 percent of the total businesses certified during that period. Of these 6,827 businesses, an estimated 6,218 were licensed in Virginia. Assuming that under the SBA scenario the same proportion of businesses received procurements from the Commonwealth, we would have 7,422 small, minority-owned or women-owned businesses engaged in contracts with the Commonwealth².

Obviously, such a small increase in certification numbers of only 0.5 percent from the current spending scenario—doesn't produce an appreciable difference in the economic impact estimates. As shown in Table 4.5, the economic impact metrics (employment, labor income, and total economic impact) of discretionary spending through SWaM-certified businesses using the SBA criteria are almost identical to those calculated under the current scenario. This means that the adoption of the SBA criteria wouldn't produce any significant difference in the impact of SWaM discretionary spending on the Commonwealth's economy.

ISSUES WITH ADOPTING THE SBA DEFINITION

Changing the state's definition of a small business to the federal definition used by the SBA would make the certification process more cumbersome for the small business community as well as the DSBSD staff. Because the SBA's definition is based on NAICS codes and a business's primary industry, the certification staff would have to evaluate each business's eligibility for each NAICS code that it requests.

In order to determine a business's primary industry and the NAICS codes that the business qualifies for, the SBA considers the distribution of receipts, employees, and costs of doing business among the different industries in which business operations occurred for the most recently completed fiscal year. SBA may also consider other factors, such as the distribution of patents, contract awards, and assets. Since this is not part of the current review process, it would require a business to submit more paperwork in order for DSBSD to determine the business's primary industry and proper NAICS code.

In addition, it would lengthen the processing time for SWaM applications. With more paperwork being required and having to review the business's eligibility for each NAICS code, it will take the certification officer a longer time to review all documentation and make a proper eligibility determination. Currently, the average time to review a SWaM application is 1-2 hours. Depending on the number of NAICS codes that a business is requesting, it could take the certification officer an additional 1-2 hours to review the application.

Furthermore, the size standards are usually updated by the U.S. Census Bureau every five years. Due to changes in the economy, the size limits for each NAICS code could change each time the U.S. Census Bureau completes a study. The size standards have been increased every five years since 1997. This would require DSBSD to stay aware of the changes as they occur and to constantly train staff to ensure that they are using the most updated standards.

Using the federal definition of a small business would also require a change in technology for DSBSD and other state agencies and organizations such as eVA and Cardinal. These systems currently use codes for small businesses that are not compatible with the NAICS system. In order to change to NAICS codes, these agencies would have to update their technology and systems.

Lastly, changing to the federal definition of a small business would make the SWaM program slightly larger, which would likely lead to an influx of applications to DSBSD. The current staffing level of the certification

² However, only the spending taking place in Virginia is considered. Out-of-state businesses and relative spending were not included in the analysis, and the total number of Virginia-based businesses (6,243) under this scenario is only 30 more than the current scenario. As described earlier in this chapter, the increase under the SBA scenario would be mostly in the out-of-state businesses.

division could not handle an influx in applications. This would create another backlog of applications and cause the processing times to increase significantly.

Overall, the application process would require more paperwork, more scrutiny, longer processing times, and a change in technology if the small business definition is changed to that of the federal government.

On the other hand, changing the Commonwealth's small business definition to consider gross receipts and number of employees versus gross receipts or number of employees (the AND/OR scenario), would cause little to no impact on the certification process for the small business community or DSBSD staff. Businesses would not be required to submit any additional paperwork, and the processing time frame of 60 business days would remain the same. DSBSD staff training would be necessary to ensure that certification officers are evaluating the firm based on both gross receipts and employees instead of one or the other.



CONCLUSION

CONCLUSION

The SWaM certification program has been designed and implemented to empower minorities and women and to provide small businesses with business opportunities. While the program is essentially measured on the hard metric of 42 percent of discretionary spending across all agencies going to SWaM businesses—a metric that has proven a difficult target to reach—CURA explored additional metrics and features to obtain an overall understanding of the program’s effectiveness in addressing its overarching goals.

Although the program has yet to achieve the 42 percent target, DSBSD internal data show other important and positive effects that have resulted from the programs:

- The program has encouraged women and minority participation. Certification numbers show positive participation trends since the program’s inception in 2000.
- While SWaM discretionary spending has remained relatively constant since 2009 (approximately \$2 billion), the distribution among ownership types has seen a steady increase in spending going towards both minority-owned and women-owned businesses.

In addition, the research team was able to gauge how the program is positively impacting SWaM businesses and the regions in which they operate. A survey of program participants offered a rich picture of SWaM’s impacts beyond what data and the economic impact estimates tell:

- A significant percentage of respondents (37 percent) have experienced revenue growth since becoming certified—significantly more than observed in the analysis of sales receipts for non-SwaM businesses (only 5 percent experienced an increase).
- The program is an important factor in business creation and stabilization: 40 percent of respondents deem the SWaM certification program moderately important or very important in their decision to start their business. More than 70 percent consider the program moderately to very important for the long-term viability of their business.
- In CY 2015, the \$2.13 billion in discretionary spending for goods and services provided by SWaM-certified businesses generated a total economic impact of more than \$3.6 billion, which means that each \$1.00 of discretionary spending generates a total economic impact of \$1.69.
- The program seems to show positive “trickle down” effects on the state economy and on the target populations that the program aims to serve. Between 9 and 11 percent of SWaM businesses suppliers and sub-contractors are also SWaM-certified businesses, and between 32 and 38 percent of them are located in Virginia.
- These community and economic impacts were confirmed by the business owners interviewed by the research team. Each interviewee produced a personal story about their contribution to their community and the Commonwealth’s economy through tax revenues, job creation, and workforce development.
- Finally, SWaM businesses value the communities where they operate. More than three in four survey respondents state that their company participates in at least one form of community engagement among those presented in the survey.

ADOPTING THE SBA DEFINITION WILL CERTIFY OUT OF STATE BUSINESSES AT A DETRIMENT TO THE COMMONWEALTH'S ECONOMY.

REVIEW OF POLICY SCENARIO 1 [ADOPTING SBA FEDERAL DEFINITION]

The overall in-state percentage of SWaM-eligible businesses under an SBA-based definition of small businesses would remain almost the same compared to the existing pool. However, overall makeup of businesses by industry would shift. Under the SBA definition, a significant number of additional businesses in service sectors—primarily professional services and administrative support—as well as in manufacturing sectors would become SWaM-eligible. At the same time, many businesses in wholesale and retail sectors would become ineligible. A change in definition would require additional paperwork and burden on the applicant and increased review time by DSBSD staff delaying the certification process. More businesses would be introduced into the vendor pool but 99.6 percent of newly added businesses would be from outside of Virginia. This would be detrimental to the Commonwealth's economy.

REVIEW OF POLICY SCENARIO 2 [CHANGING CURRENT DEFINITION FROM 'OR' TO 'AND']

On the other hand, analysis indicates converting the existing SWaM small business definition from employees OR gross receipts to employees AND gross receipts would significantly reduce the number of businesses eligible for the program, potentially diminishing the share of discretionary spending going to SWaM businesses. This change would have little to no impact to the application process or DSBSD staff.

APPENDIX: REFERENCES

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APPENDIX: TABLES

TABLE A2.1: NAICS CATEGORIES REPRESENTED BY SURVEY SAMPLE

NAICS CATEGORY	FREQUENCY	PERCENT
Professional, Scientific, and Technical Services	447	30.3%
Other Services (except Public Administration)	281	19.1%
Construction	221	15.0%
Retail Trade	135	9.2%
Wholesale Trade	77	5.2%
Manufacturing	62	4.2%
Educational Services	35	2.4%
Health Care and Social Assistance	35	2.4%
Transportation and Warehousing	35	2.4%
Information (i.e. publishing, journalism, telecommunication, library, etc.)	29	2.0%
Accommodation and Food Services	25	1.7%
Management of Companies and Enterprises	21	1.4%
Arts, Entertainment, and Recreation	19	1.3%
Finance and Insurance	14	0.9%
Agriculture, Forestry, Fishing and Hunting	10	0.7%
Administrative and Support and Waste Management and Remediation Services	8	0.5%
Utilities (i.e. electric, gas, water, sewage)	8	0.5%
Public Administration	6	0.4%
Real Estate Rental and Leasing	4	0.3%

TABLE A2.2: SURVEY QUESTIONS AND RESULTS - BUSINESS REVENUES

	ALL		MINORITY		WOMAN		SMALL	
	N	%	N	%	N	%	N	%
How have your annual revenues (including all revenue streams) changed since becoming SWaM/DBE-certified?								
Increased	549	37.2%	157	31.7%	174	41.9%	218	38.7%
Decreased	109	7.4%	36	7.3%	28	6.7%	44	7.8%
Remained the same	817	55.4%	303	61.1%	213	51.3%	301	53.5%
Total	1475	100.0%	496	100.0%	415	100.0%	563	100.0%
By how much have your annual revenues increased since becoming SWaM/DBE-certified?								
1-20%	288	52.5%	73	46.5%	90	51.7%	125	57.3%
21-40%	100	18.2%	21	13.4%	33	19.0%	46	21.1%
41-60%	56	10.2%	22	14.0%	20	11.5%	14	6.4%
61-80%	21	3.8%	8	5.1%	7	4.0%	6	2.8%
81-100%	22	4.0%	10	6.4%	7	4.0%	5	2.3%
more than 100%	62	11.3%	23	14.6%	17	9.8%	22	10.1%
Total	549	100.0%	157	100.0%	174	100.0%	218	100.0%
By how much have your annual revenues decreased since becoming SWaM/DBE-certified?								
1-20%	41	37.6%	6	16.7%	13	46.4%	21	47.7%
21-40%	29	26.6%	14	38.9%	7	25.0%	8	18.2%
41-60%	20	18.3%	7	19.4%	3	10.7%	10	22.7%
61-80%	11	10.1%	4	11.1%	3	10.7%	4	9.1%
81-100%	8	7.3%	5	13.9%	2	7.1%	1	2.3%
Total	109	100.0%	36	100.0%	28	100.0%	44	100.0%
Prior to becoming SWaM/DBE-certified, what percentage of your business's annual revenues came from contracts with a Commonwealth of Virginia agency?								
0%	864	58.6%	393	79.2%	250	60.2%	220	39.1%
1-20%	474	32.1%	68	13.7%	123	29.6%	283	50.3%
21-40%	61	4.1%	11	2.2%	15	3.6%	35	6.2%
41-60%	28	1.9%	7	1.4%	8	1.9%	13	2.3%
61-80%	24	1.6%	9	1.8%	7	1.7%	8	1.4%
81-100%	24	1.6%	8	1.6%	12	2.9%	4	0.7%
Total	1475	100.0%	496	100.0%	415	100.0%	563	100.0%
Currently, what percentage of your business's annual revenues comes from contracts with a Commonwealth of Virginia agency?								
0%	657	44.5%	326	65.7%	188	45.3%	142	25.2%
1-20%	576	39.1%	105	21.2%	145	34.9%	326	57.9%
21-40%	104	7.1%	28	5.6%	30	7.2%	46	8.2%
41-60%	45	3.1%	11	2.2%	16	3.9%	18	3.2%
61-80%	42	2.8%	14	2.8%	14	3.4%	14	2.5%
81-100%	51	3.5%	12	2.4%	22	5.3%	17	3.0%
Total	1475	100.0%	496	100.0%	415	100.0%	563	100.0%

TABLE A2.3: ANNUAL REVENUE TRENDS, BY NAICS CATEGORY

NAICS	N (TOTAL)	INCREASE		DECREASE		REMAIN THE SAME	
		#	% OF N	#	% OF N	#	% OF N
Mining	3	2	67%	1	33%	0	0%
Utilities (i.e. electric, gas, water, sewage)	8	5	63%	0	0%	3	38%
Administrative and Support and Waste Management and Remediation Services	8	4	50%	0	0%	4	50%
Real Estate Rental and Leasing	4	2	50%	0	0%	2	50%
Wholesale Trade	77	35	45%	4	5%	38	49%
Accommodation and Food Services	25	11	44%	0	0%	14	56%
Retail Trade	135	58	43%	16	12%	61	45%
Management of Companies and Enterprises	21	9	43%	3	14%	9	43%
Construction	221	93	42%	14	6%		52%
Manufacturing	62	23	37%	4	6%	35	56%
Professional, Scientific, and Technical Services	447	162	36%	33	7%		56%
Finance and Insurance	14	5	36%	0	0%	9	64%
Other Services (except Public Administration)	281	97	35%	17	6%		59%
Transportation and Warehousing	35	11	31%	3	9%	21	60%
Agriculture, Forestry, Fishing and Hunting	10	3	30%	0	0%	7	70%
Educational Services	35	10	29%	0	0%	25	71%
Information (i.e. publishing, journalism, telecommunication, library, etc.)	29	8	28%	1	3%	20	69%
Health Care and Social Assistance	35	9	26%	9	26%	17	49%
Arts, Entertainment, and Recreation	19	2	11%	2	11%	15	79%
Public Administration	6	0	0%	2	33%	4	67%
Total	1,475						

TABLE A2.4: IMPORTANCE OF SWAM/DBE CERTIFICATION TO BUSINESS

SCALE	ALL		MINORITY		WOMAN		SMALL	
	#	%	#	%	#	%	#	%
How important of a factor was the SWaM/DBE Program in your decision to start your business?								
Not Important	750	50.8%	162	32.7%	223	53.7%	365	64.8%
Slightly Important	136	9.2%	48	9.7%	36	8.7%	52	9.2%
Moderately Important	146	9.9%	59	11.9%	40	9.6%	47	8.3%
Important	181	12.3%	73	14.7%	51	12.3%	57	10.1%
Very Important	262	17.8%	154	31.0%	65	15.7%	42	7.5%
Total	1,475		496	1	415	1	563	1
How important is your participation in the SWaM/DBE program to the long-term viability of your business?								
Not Important	169	11.5%	39	7.9%	56	13.5%	74	13.1%
Slightly Important	268	18.2%	46	9.3%	84	20.2%	138	24.5%
Moderately Important	224	15.2%	61	12.3%	65	15.7%	98	17.4%
Important	332	22.5%	111	22.4%	88	21.2%	133	23.6%
Very Important	482	32.7%	239	48.2%	122	29.4%	120	21.3%
Total	1,475	1	496	1	415	1	563	1
Would your business exist if it was not participating in the SWaM/DBE program?								
Yes	1255	85.1%	392	79.0%	356	85.8%	506	89.9%
No	64	4.3%	27	5.4%	21	5.1%	16	2.8%
Not sure	156	10.6%	77	15.5%	38	9.2%	41	7.3%
Total	1,475	1	496	1	415	1	563	1

TABLE A2.5: EMPLOYMENT AND SALARY TRENDS, BY CERTIFICATION TYPE

	ALL		MINORITY		WOMAN		SMALL	
	#	%	#	%	#	%	#	%
How has your business's employment changed since becoming SWaM/DBE-certified?								
Increased	304	21%	85	17.1%	95	22.9%	124	22.0%
Decreased	73	5%	17	3.4%	20	4.8%	35	6.2%
Remained the same	1,098	74%	394	79.4%	300	72.3%	404	71.8%
Total	1,475	100%	496	100%	415	100%	563	100%
How has the average salary of your employees changed since becoming SWaM/DBE-certified?								
Increased	403	27.3%	91	18.3%	116	28.0%	196	34.8%
Decreased	51	3.5%	17	3.4%	15	3.6%	19	3.4%
Remained the same	1,021	69.2%	388	78.2%	284	68.4%	348	61.8%
Total	1,475	100%	496	100%	415	100%	563	100%
By how much has the average salary of your employees increased since becoming SWaM/DBE-certified?								
1-20%	307	76.2%	62	68.1%	85	73.3%	160	81.6%
21-40%	57	14.1%	14	15.4%	17	14.7%	26	13.3%
41-60%	19	4.7%	8	8.8%	6	5.2%	5	2.6%
61-80%	7	1.7%	4	4.4%	1	0.9%	2	1.0%
81-100%	8	2.0%	2	2.2%	5	4.3%	1	0.5%
More than 100%	5	1.2%	1	1.1%	2	1.7%	2	1.0%
Total	403	100%	91	100%	116	100%	196	100%

A2.6: SURVEY QUESTIONS AND RESULTS - SUB-CONTRACTORS

	ALL		MINORITY		WOMEN		SMALL	
	N	%	N	%	N	%	N	%
Since becoming SWaM/DBE-certified, has the number of sub-contractors you work with increased?								
Yes	278	18.8%	93	18.8%	87	21.0%	98	17.4%
No	719	48.7%	261	52.6%	180	43.4%	277	49.2%
N/A	478	32.4%	142	28.6%	148	35.7%	188	33.4%
Total	1475	100%	496	100%	415	100%	563	100%
What percentage of all your sub-contractors are SWaM/DBE-certified?								
0%	544	54.6%	236	66.7%	138	51.7%	169	45.1%
1-20%	299	30.0%	73	20.6%	84	31.5%	142	37.9%
21-40%	58	5.8%	20	5.6%	16	6.0%	22	5.9%
41-60%	50	5.0%	11	3.1%	16	6.0%	23	6.1%
61-80%	24	2.4%	5	1.4%	8	3.0%	11	2.9%
81-100%	22	2.2%	9	2.5%	5	1.9%	8	2.1%
Total	997	100%	354	100%	267	100%	375	100%
What percentage of the sub-contractors you work with are located within the Commonwealth of Virginia?								
0%	311	31.2%	159	44.9%	78	29.2%	73	19.5%
1-20%	224	22.5%	86	24.3%	55	20.6%	83	22.1%
21-40%	47	4.7%	13	3.7%	15	5.6%	19	5.1%
41-60%	45	4.5%	10	2.8%	13	4.9%	22	5.9%
61-80%	61	6.1%	14	4.0%	19	7.1%	28	7.5%
81-100%	309	31.0%	72	20.3%	87	32.6%	150	40.0%
Total	997	100%	354	100%	267	100%	375	100%

A2.7: SURVEY QUESTIONS AND RESULTS - SUPPLIERS

	ALL		MINORITY		WOMAN		SMALL	
	N	%	N	%	N	%	N	%
What percentage of your business's suppliers are SWaM/DBE-certified?								
0%	594	52.8%	243	66.0%	148	50.3%	203	43.8%
1-20%	388	34.5%	87	23.6%	109	37.1%	192	41.4%
21-40%	75	6.7%	18	4.9%	22	7.5%	35	7.5%
41-60%	39	3.5%	11	3.0%	7	2.4%	21	4.5%
61-80%	17	1.5%	2	0.5%	6	2.0%	9	1.9%
81-100%	13	1.2%	7	1.9%	2	0.7%	4	0.9%
N/A		0.0%		0.0%		0.0%		0.0%
Total	1126	1	368	1	294	1	464	100.0%
What percentage of your business's suppliers are located within the Commonwealth of Virginia?								
0%	291	25.8%	133	36.0%	82.0	27.9%	76.0	16.4%
1-20%	350	31.1%	104	28.2%	90.0	30.6%	156.0	33.7%
21-40%	103	9.1%	28	7.6%	31.0	10.5%	44.0	9.5%
41-60%	82	7.3%	25	6.8%	15.0	5.1%	42.0	9.1%
61-80%	111	9.9%	23	6.2%	27.0	9.2%	61.0	13.2%
81-100%	189	16.8%	56	15.2%	49	16.7%	84	18.1%
N/A		0.0%		0.0%		0.0%		0.0%
Total	1126	1	369	1	294	1	463	1

TABLE A2.8: SURVEY QUESTION AND RESULTS - COMMUNITY ENGAGEMENT

	ALL		MINORITY		WOMAN		SMALL	
	N	%	N	%	N	%	N	%
Mentoring	399	27.1%	186	37.5%	113	27.2%	99	17.6%
Donations	673	45.6%	193	38.9%	176	42.4%	303	53.8%
Community Education	336	22.8%	127	25.6%	102	24.6%	106	18.8%
Local Clubs	587	39.8%	163	32.9%	179	43.1%	244	43.3%
Local Initiatives	320	21.7%	111	22.4%	101	24.3%	107	19.0%
Community Events	429	29.1%	142	28.6%	129	31.1%	157	27.9%
Scholarships	140	9.5%	55	11.1%	51	12.3%	33	5.9%
Community Boards	377	25.6%	118	23.8%	116	28.0%	142	25.2%
Local Sports	256	17.4%	50	10.1%	68	16.4%	138	24.5%
Charity	620	42.0%	167	33.7%	180	43.4%	272	48.3%
Volunteering	691	46.8%	239	48.2%	206	49.6%	245	43.5%
Other	14	0.9%	7	1.4%	4	1.0%	3	0.5%
None	332	22.5%	129	26.0%	84	20.2%	119	21.1%
Community Engagement	1134	76.9%	361	72.8%	331	79.8%	441	78.3%
Total N*	1475		496		415		563	

Note: * Respondents could select more than one type of community engagement; thus 'N' values do not equal Total N, nor do % values total 100%

TABLE A2.9: SURVEY QUESTION AND RESULTS - LOCATION OF BUSINESS (STATE)

STATE	FREQUENCY	PERCENT
Virginia	1,280	86.8%
Maryland	71	4.8%
North Carolina	29	2.0%
Georgia	17	1.2%
Pennsylvania	12	0.8%
New Jersey	9	0.6%
South Carolina	7	0.5%
Texas	7	0.5%
Missouri	6	0.4%
New York	6	0.4%
Massachusetts	4	0.3%
District of Columbia	3	0.2%
Illinois	3	0.2%
Indiana	3	0.2%
Michigan	3	0.2%
Ohio	3	0.2%
Washington	3	0.2%
Nevada	2	0.1%
Wisconsin	2	0.1%
California	1	0.1%
Deleware	1	0.1%
Kentucky	1	0.1%
Nebraska	1	0.1%
South Dakota	1	0.1%
Total	1,475	100.0%

TABLE A4.1: COMPARISON OF BUSINESS ELIGIBILITY USING EXISTING SWAM AND SBA SMALL BUSINESS DEFINITION (IN-STATE AND OUT-OF-STATE BUSINESSES)

NAICS SECTORS	NAICS SECTORS DEFINITION	CURRENT CERTIFIED SWAM BUSINESSES	NUMBER OF BUSINESSES WHEN SBA RULES ARE APPLIED	NUMERICAL DIFFERENCE	PERCENT CHANGE
11	Agriculture, Forestry, Fishing and Hunting	105	116	11	10.2%
21	Mining, Quarrying, Oil and Gas Extraction	53	59	6	12.2%
22	Utilities	12	14	1	9.9%
23	Construction	4249	4671	422	9.9%
31-33	Manufacturing	1198	1335	138	11.5%
42	Wholesale Trade	2265	2463	197	8.7%
44-45	Retail Trade	2674	2934	260	9.7%
48-49	Transportation and Warehousing	922	1016	94	10.2%
51	Information	374	414	39	10.5%
52	Finance and Insurance	34	37	3	10.1%
53	Real Estate Rental and Leasing	244	271	26	10.8%
54	Professional, Scientific, and Technical Services	2572	2842	270	10.5%
55	Management of Companies and Enterprises	6	7	1	12.4%
56	Administrative and Support and Waste Management and Remediation Services	2021	2256	235	11.6%
61	Educational Services	102	113	10	10.2%
62	Health Care and Social Assistance	347	382	35	10.2%
71	Arts, Entertainment, and Recreation	59	65	6	9.9%
72	Accommodation and Food Services	529	589	59	11.2%
81	Other Services (except Public Administration)	1433	1575	142	9.9%

TABLE A4.2: COMPARISON OF BUSINESS ELIGIBILITY USING “OR” AND “AND” SCENARIO FOR THE EXISTING SWAM SMALL BUSINESS DEFINITION. (NOTE: DSBSD CURRENTLY USES THE “OR” CRITERIA)

NAICS SECTORS	NAICS SECTORS DEFINITION	PERCENT CHANGE
11	Agriculture, Forestry, Fishing and Hunting	-0.4%
21	Mining, Quarrying, Oil and Gas Extraction	-12.6%
22	Utilities	-3.0%
23	Construction	-5.8%
31-33	Manufacturing	-11.5%
42	Wholesale Trade	-16.8%
44-45	Retail Trade	-5.6%
48-49	Transportation and Warehousing	-2.5%
51	Information	-2.8%
52	Finance and Insurance	-1.9%
53	Real Estate Rental and Leasing	-1.6%
54	Professional, Scientific, and Technical Services	-4.3%
55	Management of Companies and Enterprises	-5.4%
56	Administrative and Support and Waste Management and Remediation Services	-3.0%
61	Educational Services	-0.9%
62	Health Care and Social Assistance	-1.6%
71	Arts, Entertainment, and Recreation	-0.4%
72	Accommodation and Food Services	-2.0%
81	Other Services (except Public Administration)	-0.5%

TABLE A4.3: PERCENT DISTRIBUTION OF WOMEN-OWNED AND MINORITY-OWNED BUSINESSES BY NAICS

NAICS SECTORS	SECTOR DESCRIPTION	PERCENT WOMEN-OWNED	PERCENT MINORITY-OWNED
54	Professional, Scientific, and Technical Services	17.5%	14.7%
44-45	Retail Trade	15.6%	13.9%
81	Other Services (except Public Administration)	11.1%	11.8%
62	Health Care and Social Assistance	10.3%	9.0%
53	Real Estate Rental and Leasing	7.8%	5.2%
56	Administrative and Support and Waste Management and Remediation Services	7.6%	6.5%
23	Construction	4.2%	6.6%
71	Arts, Entertainment, and Recreation	4.2%	3.0%
61	Educational Services	3.4%	2.5%
52	Finance and Insurance	3.3%	4.2%
31-33	Manufacturing	3.1%	2.3%
42	Wholesale Trade	3.1%	3.2%
48-49	Transportation and Warehousing	2.8%	8.6%
72	Accommodation and Food Services	2.6%	4.8%
51	Information	2.2%	3.0%
11	Agriculture, Forestry, Fishing and Hunting	0.6%	0.4%
55	Management of Companies and Enterprises	0.2%	0.2%
22	Utilities	0.1%	0.2%
21	Mining, Quarrying, Oil and Gas Extraction	0.1%	0.1%

APPENDIX: SURVEY



Virginia Small Business and Supplier Diversity Survey

Introduction

The Virginia Department of Small Business and Supplier Diversity (SBSD) has requested the Center for Urban and Regional Analysis (CURA) at Virginia Commonwealth University (VCU) to conduct an economic impact study of the Small, Women-owned, and Minority-owned (SWaM) as well as the Disadvantaged Business Enterprise (DBE) certification programs on participating businesses. As a part of the research, CURA will administer the following online survey.

The survey, which will take approximately 10 minutes to complete, contains questions pertaining to your business's performance, employment, sub-contractors, suppliers, and community engagement. All information collected will be kept strictly confidential. Responses will be analyzed and reported only in aggregate (totals). No individuals or companies will be identified in the published results. Any information that could identify you or your business will be stored separately and will not be associated to your email or your business name.

Your participation in this survey is important as it will inform SBSD's future policy and programming.



Virginia Small Business and Supplier Diversity Survey

General

* 1. Business name

* 2. Which of the following best describes your business sector?



Virginia Small Business and Supplier Diversity Survey

General

* 3. In what year was your business established?

* 4. In what year did your business first become SWaM/DBE-certified?



Virginia Small Business and Supplier Diversity Survey

General

* 5. What is your business's SWaM certification number?

* 6. Is your business certified as SWaM, DBE, or both?

- ☐ SWaM
- ☐ DBE
- ☐ both SWaM/DBE



Virginia Small Business and Supplier Diversity Survey

General

* 7. How many employees do you currently have?

Full-time

Part-time



Virginia Small Business and Supplier Diversity Survey

Business

* 8. How have your annual revenues (including all revenue streams) changed since becoming SWaM/DBE-certified?

- ☐ Increased
- ☐ Decreased
- ☐ Remained the same



Virginia Small Business and Supplier Diversity Survey

Business

* 9. By how much have your annual revenues increased since becoming SWaM/DBE-certified?

- ☐ 1-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%
- ☐ more than 100%



Virginia Small Business and Supplier Diversity Survey

Business

* 10. By how much have your annual revenues decreased since becoming SWaM/DBE-certified?

- ☐ 1-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%



Virginia Small Business and Supplier Diversity Survey

Business

* 11. Prior to becoming SWaM/DBE-certified, what percentage of your business's annual revenues came from contracts with a Commonwealth of Virginia agency?

- ☐ 0%
- ☐ 1-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

* 12. Currently, what percentage of your business's annual revenues comes from contracts with a Commonwealth of Virginia agency?

- ☐ 0%
- ☐ 1-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%



Virginia Small Business and Supplier Diversity Survey

Business

* 13. How important of a factor was the SWaM/DBE program in your decision to start your business?

- ☐ Very Important
- ☐ Important
- ☐ Moderately Important
- ☐ Slightly Important
- ☐ Not Important

* 14. How important is your participation in the SWaM/DBE program to the long-term viability of your business?

- ☐ Very Important
- ☐ Important
- ☐ Moderately Important
- ☐ Slightly Important
- ☐ Not Important

* 15. Would your business exist if it was not participating in the SWaM/DBE program?

- ☐ Yes
- ☐ No
- ☐ Not sure



Virginia Small Business and Supplier Diversity Survey

Employment

* 16. How has your business's employment changed since becoming SWaM/DBE-certified?

- ☐ Increased
- ☐ Decreased
- ☐ Remained the same



Virginia Small Business and Supplier Diversity Survey

Employment

* 17. By how many people has employment increased since becoming SWaM/DBE-certified?

* 18. What percentage of the employees identified in the previous question fall under the following employment categories?

Total must equal 100; e.g. Full-time 65, Part-time 35

Full-time

Part-time



Virginia Small Business and Supplier Diversity Survey

Employment

* 19. By how many people has employment decreased since becoming SWaM/DBE-certified?



Virginia Small Business and Supplier Diversity Survey

Employment

* 20. How many of your total employees fall under the following categories?

Please answer in terms of number of employees; also, please consider that some employees may fall under multiple categories.

Minority (e.g. Asian,
African American,
Hispanic, Eskimo/Aluet,
Native American)

Woman

Service disabled veteran



Virginia Small Business and Supplier Diversity Survey

Employment

* 21. How has the average salary of your employees changed since becoming SWaM/DBE-certified?

- ☐ Increased
- ☐ Decreased
- ☐ Remained the same



Virginia Small Business and Supplier Diversity Survey

Employment

* 22. By how much has the average salary of your employees increased since becoming SWaM/DBE-certified?

- ☐ 1-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%
- ☐ more than 100%

* 23. Please rank the following factors in terms of impact on increased wages from 1 to 5 (with 1 being most important and 5 being least important) without repeating any numbers.

	<input type="text"/> Inflation
	<input type="text"/> Increase in the cost of living
	<input type="text"/> Increase in employee productivity
	<input type="text"/> Promotion
	<input type="text"/> Improved financial standing of company due to SWaM/DBE certification



Virginia Small Business and Supplier Diversity Survey

Sub-Contractors

The following section contains questions regarding your business's sub-contractors. A sub-contractor is a person or business firm contracted to do part of another business's work.

* 24. Since becoming SWaM/DBE-certified, has the number of sub-contractors you work with increased?

- ☐ Yes
- ☐ No
- ☐ Not applicable (my business does not work with sub-contractors)



Virginia Small Business and Supplier Diversity Survey

Sub-Contractors

* 25. What percentage of all your sub-contractors are SWaM/DBE-certified?

- ☐ 0%
- ☐ 1-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%



Virginia Small Business and Supplier Diversity Survey

Sub-Contractors

* 26. What percentage of the sub-contractors you work with are located within the Commonwealth of Virginia?

- ☐ 0%
- ☐ 1-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%



Virginia Small Business and Supplier Diversity Survey

Suppliers

**The following section contains questions about your company's suppliers. A supplier is a person or entity that provides something needed such as a product or service.
e.g. A company that provides microprocessors to a major computer business.**

* 27. What percentage of your business's suppliers are SWaM/DBE-certified?

- ☐ 0%
- ☐ 1-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%
- ☐ Not applicable (my business does not have suppliers)



Virginia Small Business and Supplier Diversity Survey

Suppliers

* 28. What percentage of your business's suppliers are located within the Commonwealth of Virginia?

- ☐ 0%
- ☐ 1-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%



Virginia Small Business and Supplier Diversity Survey

Community Engagement

* 29. Is your business or its employees involved in any of the following? (select all that apply)

- ☐ Business/ entrepreneurship mentoring
- ☐ Donations
- ☐ Community education
- ☐ Local associations or clubs
- ☐ Local initiatives
- ☐ Participating in, sponsoring, planning or hosting community events
- ☐ Scholarship fund
- ☐ Serving on community boards
- ☐ Sponsoring a local sports team
- ☐ Supporting a local charity
- ☐ Volunteering
- ☐ None of the above
- ☐ Other (please specify)



Virginia Small Business and Supplier Diversity Survey

Demographic

* 30. In which ZIP Code is your business located?e.g. 23284

* 31. What is the majority owner's race/ethnicity?

- ☐ Asian American
- ☐ African American
- ☐ Caucasian
- ☐ Hispanic American
- ☐ Eskimo and/or Aleut
- ☐ Native American
- ☐ Other (please specify)

* 32. What is the majority owner's gender?

- ☐ Male
- ☐ Female

* 33. What is the majority owner's highest level of education?

- ☐ High school, GED equivalent
- ☐ Some college, associate's degree
- ☐ Bachelor's degree
- ☐ Graduate, professional degree



Virginia Small Business and Supplier Diversity Survey

Comments

34. Feel free to provide any comments or questions you may have regarding this survey, the SWaM/DBE program, or SBSD in general.