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SALISBURY-WICOMICO 2.0

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Abstract

Salisbury-Wicomico 2.0 is about jobs.

Well-paying local jobs. Specifically, well-paying local jobs related to **Science, Technology, Engineering, and Mathematics (STEM)**.

STEM jobs are among the best-paying jobs in America, and the demand for people is high. That's because STEM jobs aren't just for geeks and gamers. STEM jobs include designing Beat headphones, creating movie special effects, and making everything from refrigerators to race cars better and faster.

The problem is that our local schools are hard at work teaching our children STEM, but what happens after graduation? Some of the best STEM jobs are here in Maryland, but not on the Eastern Shore. **Something is wrong when our best and brightest must look for their future across the bridge, and not here at home.**

The plan is simple: **Bring high-paying STEM jobs here to Wicomico County and fill those jobs with locals.** However, we have never had or needed a "tech class" in our County, and the only STEM that comes to mind when non-locals think of the "Slower-Lower" are the products of our farms. We need to change this, and here are a few ways to do that quickly and cheaply:

1. Recognize Local K Through 12 STEM Achievement
2. Recognize Local STEM Supporters
3. Maintain and Expand Our Organized STEM Leagues
4. Help Expedite STEM Scholarships and Internships
5. Incentivize Adult STEM Learning
6. Attract and Recruit STEM Retirees to Our Area
7. Attract STEM Events to Our Area
8. Help Expedite Funding Requests for Local STEM Projects
9. Research Local STEM Companies and Find out What They Need
10. Research What Other Towns Are Doing to Attract STEM Companies
11. Pick Up the Phone and Pitch!

I originally presented this paper to the Mayor of Salisbury and the City Council on February 26, 2018, and the Wicomico County Executive and the County Council on March 6, 2018. Since then, a few things have changed, but one thing has not: **We want these jobs. We NEED these jobs. We are ready for these jobs!** We have the power grid, we have the fiber optic lines, we have the space, we are less expensive than the West, and we are the "Crossroads of Delmarva." **WE CAN DO THIS!**



NCSA'S BLUE WATERS PROJECT PROVIDES \$1.08
BILLION DIRECT RETURN TO ILLINOIS' ECONOMY



U.S. needs more STEM jobs to compete:
Study

The New York Times

*Amazon Plans Second Headquarters,
Opening a Bidding War Among Cities*

The Washington Post

Northrop Grumman to buy aerospace
manufacturer Orbital ATK

Chicago Tribune

Apple banks on tax break to
build 2nd campus, hire 20,000

Introduction

***"Hi, we're the Salisbury-Wicomico!
We've got the power; we've got the
bandwidth; we've got the space; we're
cheap; and if you tell me what you
need people-wise, I will find a local to
fill that job."***

To attract an industry, a city needs to know what that industry needs, and it needs to determine if it can meet the industry's demands. For companies specializing in Information Technology (IT) and Science, Technology, Engineering, and Mathematics (STEM), these demands include an adequate power supply; good connectivity; available space; reasonable costs; and a suitable labor force. If any of these demands are not met, these companies will usually look elsewhere.

In response to recent developments in the tech industry, I examined if Salisbury and Wicomico County can support the needs of a large IT company. I discovered that while we cannot do so at this time, the city and the county can do so in the near future, provided we commit ourselves to resolving certain deficiencies over the next several years, especially in regard to people.

Does We Need Jobs?

While Salisbury's unemployment rate has dropped from double-digits in 2013 to approximately 6% today, it is still above the national average (U.S. BLS, 2018; U.S. Census Bureau, 2018; MD DOC, 2017). More workers, especially those holding high-paying tech jobs, benefit local small businesses; increase the area's tax base; and more. In this paper, I will show that this excess labor supply, as well as other factors, make Salisbury almost "turn-key" ready for the tech industry.

Background

Last September, when Amazon publicly announced that it was searching for a location for a "second" headquarters, promising 50,000 jobs and \$5 billion in investment, cities from the United States, Canada, and Mexico went into public-relation frenzies to attract the company (Wingfield, 2017). While Calgary created a giant sign stating they would fight a bear for the company, and Tucson sent a giant cactus to Amazon's main headquarters in Seattle, most bids involved large tax breaks and offering open spaces. However, many cities, such as Toronto, understood that Amazon was not looking for a place to build a super-sized fulfillment center. Amazon was searching for a robust IT community with the

infrastructure to support its crown jewel, Amazon Web Services (AWS). AWS is the world's largest cloud service provider, and accounts for much of Amazon's profits:

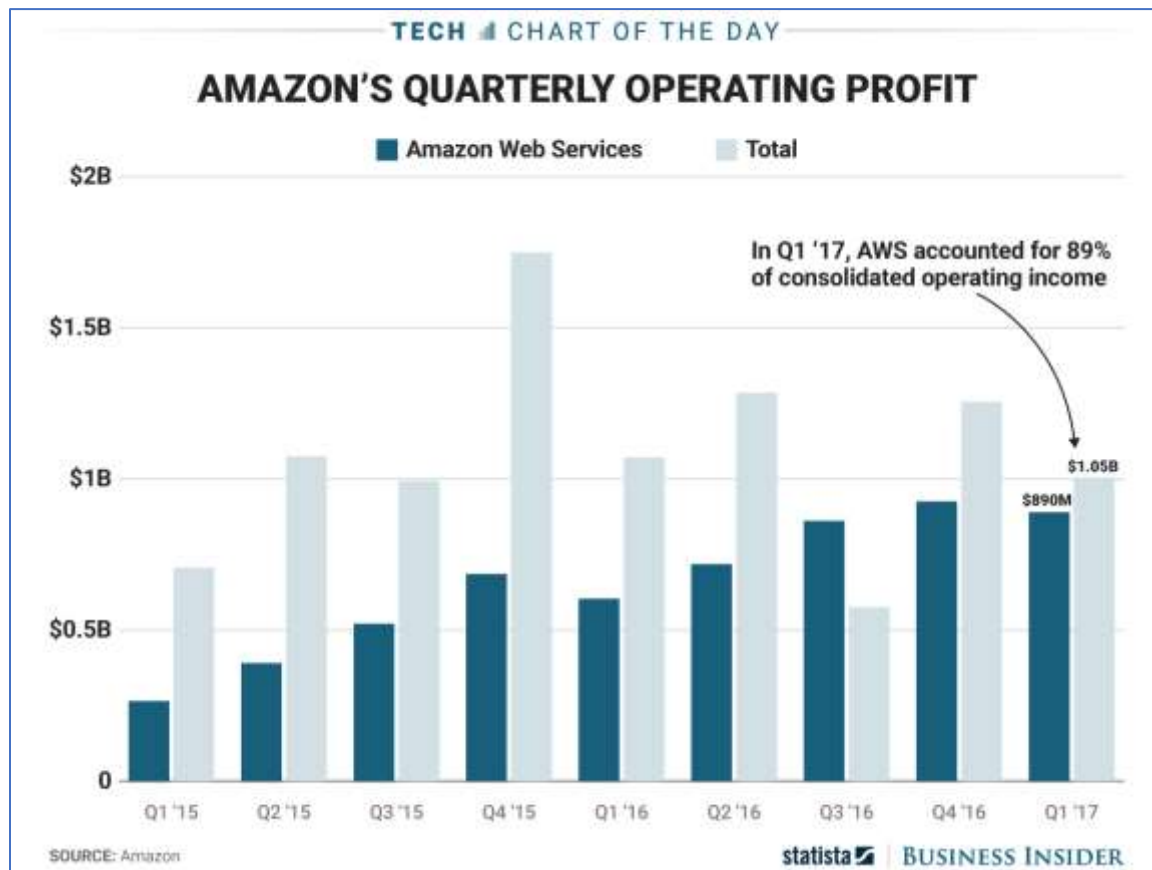


Figure 1. Amazon without AWS (Dunn, 2017)

Toronto's Response to Amazon's Request for Proposal (RFP)

Toronto's Response to Amazon's RFP is elegant; long at almost 200 pages; and focused on highlighting the Canadian city's STEM credentials. Toronto touts the fact that over 183,000 of its citizens have degrees in mathematics, computer, and information science, second only to New York City. In addition, Toronto's home province of Ontario has promised to "futureproof" their talent pipeline, and increase the number of STEM graduates by 25% over the next five years. Check out the proposal at https://s3.ca-central-1.amazonaws.com/torontoglobal/TorontoRegionResponseToAmazonHQ2RFP_PD.pdf

Therefore, it is no surprise that one of the deciding factors in choosing the 20 finalists appeared to be information technology; 10 of the top 15 STEM cities in North America are on the list (Greenwood, 2017). Areas with strong IT communities also made the cut, such as Raleigh's Research Triangle Park, and the Dulles Tech Corridor of Northern Virginia, Washington D.C., and Montgomery County:

Table 1. Breakdown of Higher Education Degrees in Major North American Cities (Greenwood, 2017)

Metro	Business, Management, and Public Administration	Mathematics, Computer, and Information Sciences	Architecture, Engineering, and Related Technologies
New York	1,094,617	278,171	787,633
Toronto	788,580	183,505	634,080
Chicago	532,371	114,983	378,467
Montreal	436,630	88,965	357,255
Washington, DC	364,911	141,287	304,290
Dallas	391,280	82,531	255,418
Philadelphia	321,972	69,584	247,357
San Francisco	263,879	97,387	265,148
Atlanta	340,576	73,581	208,838
Boston	281,149	78,343	261,527
Vancouver	246,785	50,975	213,560
Seattle	171,556	70,780	194,921
Denver	177,052	39,750	123,561
Pittsburgh	123,174	26,394	104,536
Charlotte	133,288	23,373	81,352
Source: National Household Survey (2011), U.S. Census Bureau (2013). Cities in bold font are Amazon's HQ2 finalists. Other finalists not listed include Austin, TX; Columbus, OH; Indianapolis, IN; Los Angeles, CA; Miami, FL; Montgomery County, MD; Nashville, TN; Newark, NJ; Northern Virginia; and Raleigh, NC (Amazon, 2018)			

Another STEM-related event that will significantly impact our area occurred in June 2018, when Northrop Grumman acquired Orbital ATK, creating Northrop Grumman Innovation Systems (Northrop Grumman, 2018). Orbital ATK, itself a merger of Orbital Sciences Corporation and Alliant Techsystems, has been launching Minotaur and Antares rockets from the Mid-Atlantic Regional Spaceport (MARS) at Wallops Island since 2006. As to the question if the MARS is shutting down because of the sale, it is more likely activity at the MARS will increase rather than decrease, due to the combination of Orbital ATK's NASA contracts and Northrop Grumman's defense contracts. In addition, there are only several places in the United States to launch a commercial payload greater

than one ton: Cape Canaveral in Florida; Kodiak, Alaska; Vandenberg Air Force base in California, and the Eastern Shore's own Wallops Island:

Table 2. Active Spaceports with Orbital Capability

Launch Site	Operators	State	Use	Launches supported
California Spaceport & Vandenberg Air Force Base	Spaceport Systems International & US Air Force	CA	Commercial & Government	Orbital & Suborbital
Cape Canaveral Spaceport, Cape Canaveral Air Force Station & Kennedy Space Center	Space Florida, US Air Force & NASA	FL	Commercial & Government	Orbital & Suborbital
Mid-Atlantic Regional Spaceport & Wallops Flight Facility	Virginia Commercial Space Flight Authority & NASA	VA	Commercial & Government	Orbital & Suborbital
Pacific Missile Range Facility	US Navy	HI	Government	Orbital
Pacific Spaceport Complex Alaska	Alaska Aerospace Corporation	AK	Commercial	Orbital & Suborbital

Finally, other large IT and STEM companies, such as Apple, are expanding and searching for new locations as well (Liedtke, 2018). The question is: **Can Salisbury and Wicomico County meet the demands of large IT and STEM companies?**

We've Got the Power

A large data center or supercomputer cluster typically demands about 20 megawatts (MW) of electrical power, which can amount to 172,800 megawatt hours (MWh) each year. Lucky for us, the two largest electric utilities on the Eastern Shore, Delmarva Power & Light, and the Choptank Electric Cooperative, distributed approximately 8,339,670 MWh in 2016, and met peak demands exceeding 4,000 MW:

Table 3. Energy Use on the Eastern Shore (US EIA 2016)

Year	Utility Name	Peak Demand Summer (MW)	Peak Demand Winter (MW)	Total Disposition (MWh)
2016	Delmarva Power	4,068.0	3,412.0	7,283,072
	Choptank Electric	256.5	241.3	1,056,598
2015	Delmarva Power	3,810.0	4,068.0	7,206,381
	Choptank Electric	235.4	304.7	1,076,204
2014	Delmarva Power	3,848.0	3,834.0	6,938,954
	Choptank Electric	235.0	284.0	1,058,589

In addition, while many high voltage lines in Wicomico County can carry up to 138 kilovolts (kV), the Pennsylvania-New Jersey-Maryland (PJM) Interconnection, which controls delivery of power throughout Maryland, expects to upgrade these lines to 230kV lines within the next 15 years through their Regional Transmission Expansion Planning (RTEP) (Maryland DNR, 2014):

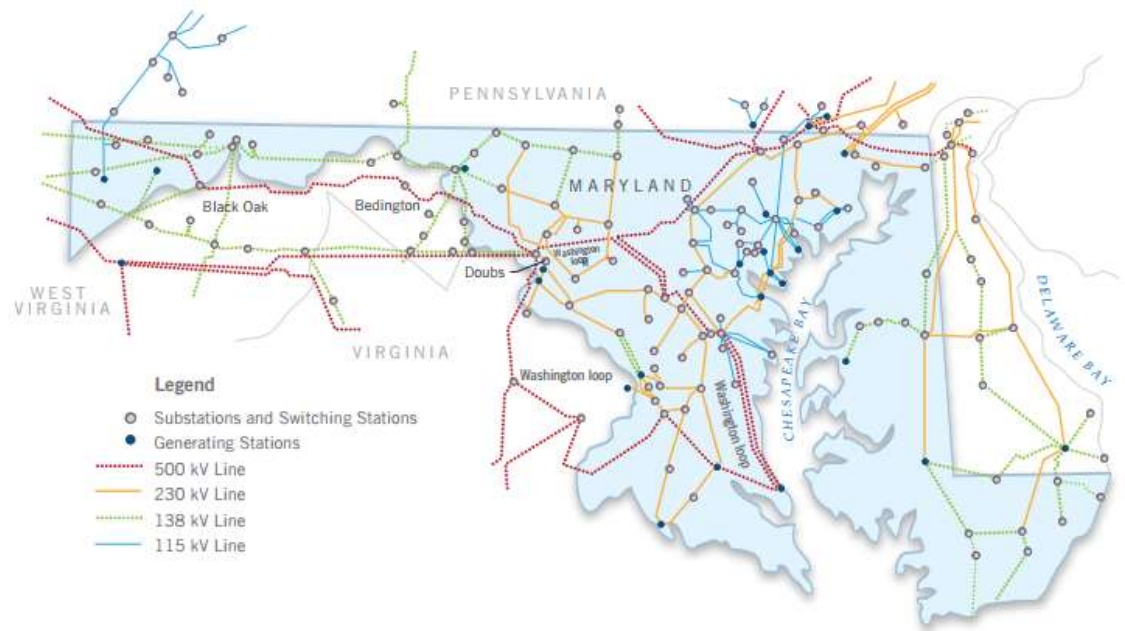


Figure 2. Transmission line map (Maryland DNR, 2014)

Can You Hear Me Now?

Each year since 1990, the demand for connectivity by businesses, large and small, has increased exponentially, due to electronic mail; point-of-sale (POS) systems; cloud-based security systems; Internet marketing; etc. However, while many companies only transmit a few megabytes (MB) of data each day, most STEM and IT companies routinely send and receive large amounts of data every minute, and the largest tech companies need a pipeline that can handle transmission rates of over one gigabit per second (Gbps). The capacity of these pipelines is known as bandwidth, and thanks to the Maryland Broadband Cooperative (MDBC), we can meet the connectivity demands of these companies. The MDBC offers data transmission rates of up to 100 Gbps (the best bandwidth commercially available), on lines that connect the I-95 corridor to Wallops Island, through Salisbury (MDBC, 2017):



Figure 3. MDBC Coverage Map

Space Available

One reason Amazon started looking for places outside of Seattle was space. Tech areas, such as Seattle and Silicon Valley, are running out of room, and housing prices in these areas are increasing the cost of living beyond the ability of some companies to compensate their employees:

Table 4. Cost of Living. National Average = 100. (Sperling's, 2018; Data USA, 2018)

City	Overall Score	Housing Score	Food Score	Utilities Score
Salisbury	94.3	74	111.5	104.6
Dulles Town Center, VA	137.6	207.2	113.9	106.8
Rockville, MD	150.7	247.5	115.1	117.2
Washington, D.C.	158.5	274	110.4	105.8
Seattle, WA	176.5	314.5	110.2	94
San Jose, CA	222.2	454.6	120.4	127.5

While these companies are willing to pay top dollar for the best, they are also watching their bottom line. One way these companies can reduce costs is by outsourcing. However, IT and STEM development are not simple manufacturing jobs, and due to security and intellectual property laws, much of this work must remain in the United States. Luckily, not only is the cost of living in Salisbury and Wicomico County below the national average, but we have plenty of commercial space available. Besides the 166,000 square-foot former Labinal Power Systems building on Glen Avenue, there are over a dozen properties in the county with over 10,000 square-feet of space available, ready to reopen almost immediately:

Salisbury-Wicomico 2.0

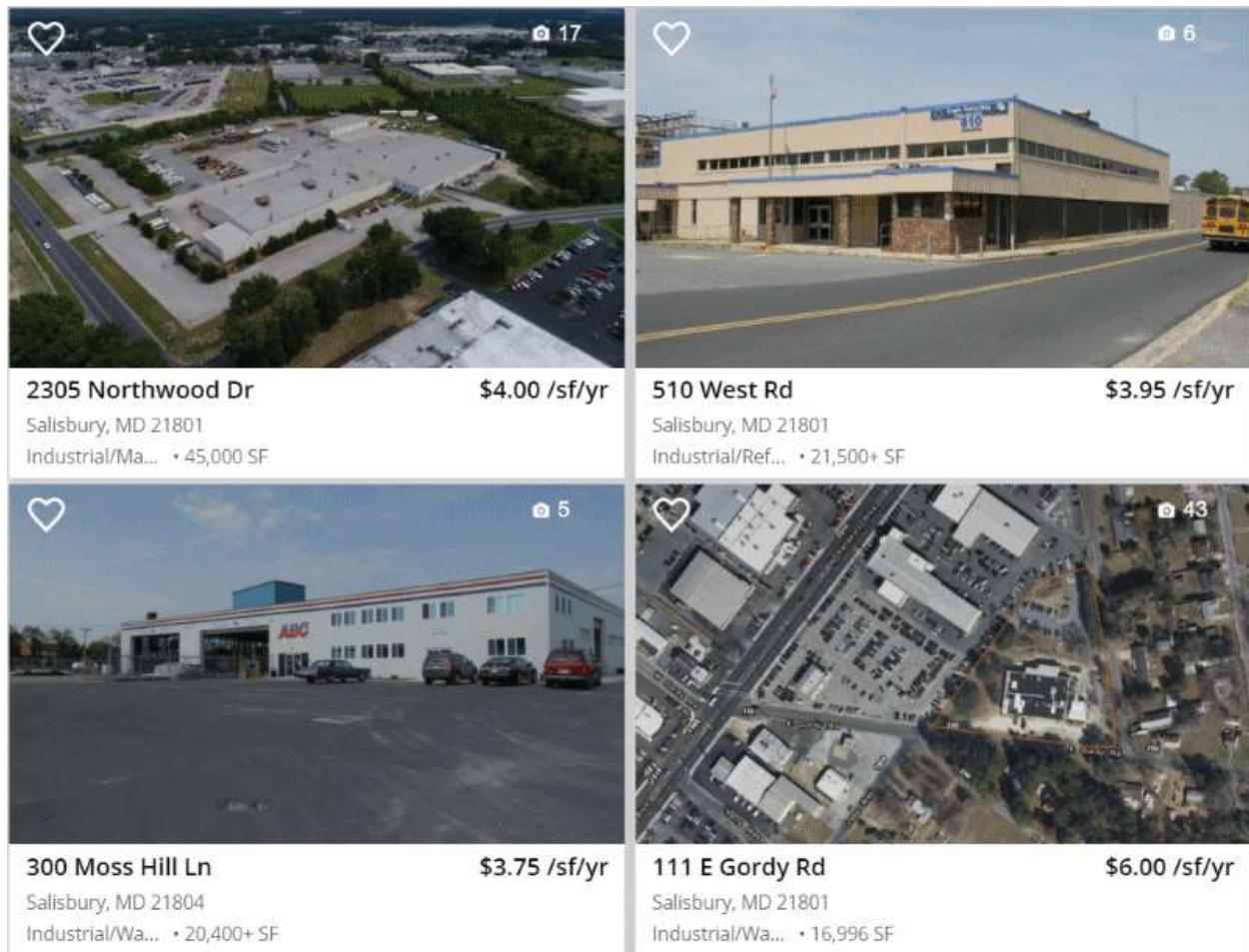


Figure 4. Examples of Available Office and Industrial Spaces in Salisbury over 10,000 sq. ft.

In addition, the commitment to economic development and "reducing barriers to further investment" (Day, 2012), by city and county leaders, means that new and relocating IT and STEM companies should be able to get started right away.

Teachers Teaching

Our teachers are working hard to get our next generation ready for the future through initiatives like the NextGen STEM Academy and Parkside High School's Project Lead The Way (Raygor, 2018), and students are responding. A great example is Joshua McKelvey, two-time winner of the SkillsUSA gold medal in Electronics Technology, as well as a Parkside's Career and Technology Education (CTE) student and member of the Tigers Robotics team. Plus, some of CTE programs, such as the Information Technology Program, have articulation agreements with our own Wor-Wic Community College, which allows students to earn college credit in high school (WCPS, 2015). Finally, there is a high rate of return on investment from exposing the next generation to STEM. For example, the graduation rate for CTE students was 99.18% in 2016, compared to 82.59% for Wicomico County's overall (MSDE, 2017).

So, what is the problem?

Table 5. WCPS CTE Program Quality Index Data (Ashby, 2018)

Criteria	Wicomico County CTE	State of Maryland CTE
Percentage of CTE students who have successfully completed a recognized technical skills or industry assessment or credential:	85.71%	79.52%
Percentage of CTE concentrators who are identified as graduates by ESSA standards:	100.00%	98.90%
Percentage of CTE completers who are identified as employed, attending college, or in the military two quarters after graduation:	80.52%	76.23

Help Wanted

When it comes to IT, we do not have the people; we do not attract the people; and we do not retain the people. These statements are not meant to be disparaging; our area has just never focused on IT or STEM. However, each of these claims deserve discussion:

- **We do not have the people:** Unlike Maryland's I-95 corridor, we do not have a large "tech class," comprised of professionals working in IT or STEM fields. Our major industries are government; health care; education; and manufacturing:

Table 6. Major Employers in Wicomico County (MD DLLR, 2017 & MD DOC, 2017)

Company	Employees	Product or Service	Industry
Local Government	4,944	Government services	Government
Peninsula Regional Medical Center (PRMC)	2,900	Medical services	Health care
State Government	2,710	Government services	Government
Salisbury University (SU)	1,790	Higher education	Education
Perdue Farms	1,500	HQ / poultry processing	Manufacturing
Walmart / Sam's Club	750	Consumer goods	Retail trade
Jubilant Cadista Pharmaceuticals	540	Generic pharmaceutical preparations	Manufacturing
Wor-Wic Community College	450	Higher education	Education
Genesis HealthCare / Salisbury Rehabilitation and Nursing Center	340	Nursing care	Health care
Delmarva Power & Light (DP&L)	300	Energy products & services	Utilities
Federal Government	280	Government services	Government
K&L Microwave	265	Electronics assembly	Manufacturing
Dove Pointe	250	Services for persons with disabilities	Other services
SHORE UP!	250	Community development & social services	Other services

Company	Employees	Product or Service	Industry
Three Lower Counties (TLC)	250	Social Services	Health care
Barrett Business Services Inc. (BBSI)	250	Staffing services	Administrative services

In addition, while we have excellent STEM programs at all levels of education (e.g., NexGen Academy, Parkside CTE, etc.), once interested students graduate high school, many go elsewhere to continue their education. Our local colleges and universities only offer general degrees in computer science, as opposed to other schools in the University of Maryland system, which offer hundreds of IT courses, as well as dozens of degrees in disciplines ranging from bioinformatics to systems engineering. This does not mean the quality of instruction of our schools is better or worse than schools across the bridge; it just means that there is more demand for graduates in those fields along the I-95 corridor. However, it also means that local graduates may be hard-pressed to compete for specialized work within the IT and STEM industries, especially for jobs that require a post-graduate degree:

Table 7. Comparison of IT Offerings by Local and USM Schools

School	IT Offerings (2017)
Salisbury University (SU)	Mathematics with Concentration in Computer Science (BS)
University of Maryland Baltimore County (UMBC)	Bioinformatics and Computational Biology (BS), Biotechnology (MS), Business Technology Administration (BA), Computer Engineering (BS, MS, PhD), Computer Science (BS, MS, PhD), Cybersecurity (MS), Data Science (MS), Geographic Information Systems (MS), Health Information Technology (MS), Human-Centered Computing (MS, PhD), Information Systems (BS, MS, PhD), Instructional Systems Development (MA), Systems Engineering (MS)
University of Maryland Eastern Shore (UMES)	Computer Science (BS), Computer Science with Business Focus (BS), Applied Computer Science (MS)

School	IT Offerings (2017)
University of Maryland University College (UMUC)	Biotechnology: Bioinformatics (MS), Cloud Computing Architecture (MS), Computer Networks and Cybersecurity (BS), Computer Science (BS), Cybersecurity Management and Policy (BS, MS), Cybersecurity Technology (MS), Data Analytics (MS), Digital Media and Web Technology (BS), Information Systems Management (BS), IT: Database Systems Technology (MS), IT: Homeland Security Management (MS), IT: Informatics (MS), IT: Information Assurance (MS), IT: Project Management (MS), IT: Software Engineering (MS), IT: Systems Engineering (MS), IT: Telecommunications Management (MS), Management: Information Systems and Services (MS), Software Development and Security (BS)
Wor-Wic Community College	Computer & Network Support Technology Concentration (AAS), Web Development Concentration (AAS)

- We do not attract or retain people:** As shown by Table 5, there is little demand for large numbers of IT professionals in our area. In addition, local STEM-intensive employers find it hard to keep the specialists they have. I recall a conversation with a former Wallops Island human-resources assistant, who stated that many IT recruits, unable to adapt to the "Slower-Lower" lifestyle, look for employment across the bridge once they gain a year of experience. Another Wallops Island employee discussed the "boom" of techs looking for work following the end of the Space Shuttle program, and the "bust," once Space X and other companies started hiring these specialists to work at other locations.

Solutions and Recommendations

While an obvious proposal would be to demand our local schools, college, and universities offer more IT courses and degrees, the development and approval process for those classes will take time, and adding courses is not enough. The lack of work and the lack of a "tech class" means that we cannot retain graduates, regardless of the number of classes the schools provide, allowing our "brain drain" to continue, which benefits other towns.

However, there are steps that we can take to "grow" and "futureproof" our talent pipeline, which in turn can attract jobs, and create the demand for more courses:

- Recognize K through 12 STEM Excellence** - "MOTIVATE them. REWARD them. HONOR them." is the motto of the President's Education Awards Program (DoEd, 2018). Recognizing STEM excellence, like Virginia is doing with their STEM Phenom award, encourages students to pursue STEM and demonstrates the local government's commitment to STEM development (SMV, 2011). We can do the same: Each month, the city and county councils can recognize students, teachers, and mentors who promote local STEM development through achievement or encouragement. The councils can enter the names of those students into the minutes, and at the end of the year, our top leaders can present a Mayor's Award or Executive's Cup to our best and brightest; the winners can state that they were recognized for STEM excellence by their local officials on resumes and college applications.
- Recognize STEM Supporters** - We can recognize local businesses that contribute money or materials to STEM activities, such as those that contributed to the WCBOE STEM Lego League tournament (WCPS, 2017). By encouraging this kind of support, we can increase the frequency of these events, such as Microsoft's STEM lessons (<https://www.microsoft.com/en-us/education/education-workshop/default.aspx>). Participating businesses can advertise their support by displaying stickers or logos, such as "Proud Supporter of SBY-WICO 2.0 2018", which will also act as a brand and a marketing statement for the city and county.
- Maintain and Expand Our Organized STEM Leagues** - Did you know that in 2014, Empower Wicomico competed against eight other teams in MIT's



Zero Robotics International Space Station Finals and won (MD, 2014)? Did you know that every year, members of our TEC Tigers' team design and build robots to appear in competitions throughout the United States (WCBOE, 2018)? Did you know that these incredible kids are exactly what STEM companies are looking for today? Did you know that these programs are always starved for funds, and many, such as Empower Wicomico, end up disappearing? Extracurricular STEM programs allow students to learn and apply the skills local STEM industries, such as NASA and Northrop Grumman, are looking for and maintains the pipeline that will attract other STEM companies. Also, with computing occupations making up nearly 45% of STEM employment in 2015 (US BLS, 2017), not only do we need to maintain the programs we have, but we need to add coding competitions and cybersecurity hackathons, which can take advantage of existing resources, such as the computer lab at the Wicomico County Public Library.

- **Expedite Scholarships and Internships** - There are hundreds of STEM scholarships and internships available to high school and college students (Paul, 2018a). For example, the U.S. Department of Defense offers dozens of STEM-related programs, internships, and scholarships for all levels of education (<http://www.dodstem.us/stem-programs/>), and SU has a list at http://www.salisbury.edu/henson/stem/Internships_Scholarships_Fellowships.html. Many of these internships require endorsements and references; the city and county can assist in providing these to local applicants. In addition, the city and county can establish their own scholarships, similar to the Wicomico Economic Impact Scholarship (WEIS), but focused on encouraging students to pursue IT and STEM associate degrees or certifications (Wor-Wic, 2016).
- **Incentivize Gale Courses** - Gale Courses (<https://education.gale.com/l-sali50380/>) are online, instructor-led courses that cover multiple subjects, including multimedia design; computer programming; and network and security. Through a contract with Cengage, these courses, which can cost thousands of dollars at schools across the bridge, are offered for free by the Wicomico County Public Library (Cengage, 2018). We can encourage participation in these courses by offering incentives. At the high school level, we can allow students to get credit for completing IT-related Gale Courses on their own time. For adults interested in IT, we can offer reduced rent, like the terms of tenancy at the Rivers Edge Apartments and Studio for the Arts (Salisbury Independent, 2015), provided they are actively pursuing an IT certification. We can also develop "buddy" support systems, like the environment provided by SU's Living Learning Communities (<http://www.salisbury.edu/housing/LLC/>), to encourage course completion (Paul, 2018b). By the way, completing all the courses and exams in the CompTIA track (A+, Network+, and Security+) may take up to two years. However, these certifications are in demand, and enough qualified technicians can attract tech companies.

Table 8. Top IT Entry-Level Certifications (Global Knowledge, 2018)

Certification	Average Salary (2017)
CompTIA A+ Technician (Gale Course available)	\$77,053
CompTIA Network+ (Gale Course available)	\$79,435
Cisco Certified Network Associate (CCNA)	\$80,873
CompTIA Security+ (Gale Course available)	\$87,666
Microsoft Certified Solutions Associate (MCSA) - Windows Server	\$89,941
Information Technology Infrastructure Library (ITIL) v3 Foundation	\$93,638
Citrix Certified Associate - Virtualization (CCA-V)	\$96,231
Citrix Certified Associate - Networking (CCA-N)	\$98,583
Systems Security Certified Practitioner (SSCP)	\$103,910
Amazon Web Services (AWS) Certified Solutions Architect - Associate	\$119,085

- Attract Military Retirees** - Some of the world's top aerospace and engineering; cybersecurity; and medical systems are being used or developed at military bases throughout Maryland, as well as Dover Air Force Base, Northern Virginia and Norfolk. Many service members departing those bases have intimate knowledge of these systems. In addition, many of these military retirees will leave the service with active security clearances, as well as pensions and benefits. Finally, the federal government and the state of Maryland offer tax incentives to employers hiring veterans (VA, 2018 & MD DOC, 2018). This combination of experience, clearances, and benefits make military retirees, especially those from Delaware; Maryland; and Virginia, very attractive to high-tech companies. However, certain regulations, such as the recently-reinstated Department of Defense's 180-day "revolving door" rule, may cause some of these veterans to depart the area (Salomon, 2017). We can attend the monthly transition briefs at nearby bases (<https://www.dodtap.mil/>), and ask these service members to consider relocating to Salisbury and Wicomico County instead, promoting our area's low cost of living; proximity to the above bases; and other charms. If we can get enough of them to stay, we can create a labor pool that attracts high-tech companies to our area.

The Author's Opinion of the Eastern Shore

I retired from the U.S. Marine Corps in 2009, and drove cross-country to relocate to the Eastern Shore. I had been visiting Salisbury since 1992, and the combination of friends; low cost of living; and beautiful beaches, made the decision to move here easy. What I had not counted on was being able to use so many of my benefits while living here, from flying to Europe from Dover AFB; to purchasing a home; to pursuing my Master's degree; and more. While I could go across the bridge and make over \$100,000 a year as a software engineer, I prefer the "Slower-Lower" to the hectic Beltway. I know that many of my peers would find the Shore attractive as well, especially those with families.

- **Attract STEM Events** - Every year, hundreds of STEM and IT-related conferences, expos, and summits are held throughout the United States (e.g., USA Science and Engineering Festival at <https://usasciencefestival.org/>, etc.). We can reach out to organizers of these conventions and ask them to consider using the Civic Center and other local facilities to host their events. Some, such as the Maryland STEM Festival (<https://marylandstemfestival.org/host/>), actively search for hosts within the state. These events will allow locals to show off what they can do, as well as attract STEM enthusiasts and companies searching for talent, which provides a great opportunity for our leaders to attract STEM jobs to our area.
- **Help Expedite Funding Requests for Local STEM Projects** - The National Science Foundation's (NSF) 2018 budget is over \$6 billion and they expect to hand out over 8000 new research grants (<https://www.nsf.gov/about/budget/fy2018/index.jsp>). SU has applied and received funding from the NSF before (Salisbury University, 2018), but the NSF grants money to all types of organizations, from individuals; to K-12 programs; to small businesses...as long as it is related to STEM (<https://www.nsf.gov/funding/>). While nothing that we have suggested so far requires a large amount of funds, we can look for opportunities to expand local STEM work and research, and request funding from the NSF, and other sources, to support these endeavors.
- **Research Local STEM Companies and Find out What They Need** - Technology advances every day, and companies are always looking for qualified people to take advantage of these advancements. By researching job sites, or by examining a local company's career page, or by just calling their HR department up and asking them, we can find out what these companies, such as NASA or Northrop Grumman, need. We can then match local talent, both young and old, who can fill those



needs. We can network these locals together and bring them up to speed, if necessary, using local resources (e.g., Gale Courses, Wor-Wic, SCORE, etc.).

- **Research What Other Towns Are Doing to Attract STEM Companies** - As we stated earlier, when Amazon announced that it was searching for HQ2, over 238 cities throughout North America submitted bids. Those bids, such as the Toronto RFP we spoke about, contain a wealth of information on what we can do to attract STEM companies. Our local government, along with organizations such as Salisbury-Wicomico Economic Development (SWED), Inc., the Greater Salisbury Committee (GSC), and the Salisbury Area Chamber of Commerce (SACC), can use this information to create our own "bid," which we can present to STEM companies and organizations.

Finally, the most important action Salisbury and Wicomico County can take is to ***Pick Up the Phone and Pitch!***

***"Hi, we're the Salisbury-Wicomico!
We've got the power; we've got the
bandwidth; we've got the space; we're
cheap; and if you tell me what you
need people-wise, I will find a local to
fill that job."***

STEM companies spend a lot of money looking for talent, sometimes flying dozens of candidates in from around the country for a single position. However, that does not mean these companies are not looking after their bottom line. If we offer them a pipeline of potential STEM-savvy employees, as well as a location that will cost less in payroll and overhead than across the bridge, CEOs will pay attention. An advocacy group can implement the suggestions listed earlier, such as soliciting small business STEM support; attending military transition briefs; attracting conferences and conventions; etc. The group can also track metrics as well, such as the number of students recognized by the council; status of Gale Course students, etc. In addition, the advocates can surveil tech companies, and be ready to approach them if an opportunity arises to bring their business to the Shore. The team, which should include representatives from utility companies; the MDBC; veteran service officers; as well as local officials, educators, and business leaders, should meet on a regular basis, to set goals and to ensure progress is being made.

2014's Eastern Shore Global Entrepreneurship Week Revisited

The suggestions above are not exhaustive. We expect the advocacy group will reach out to local STEM leaders, such as David Harner and Gretchen Boggs of the WCBOE, and SU STEM Coordinator Kristen Paul for more recommendations. In addition, other people have spoken in support of attracting technology companies and jobs to the Eastern Shore. One of these advocates is Dr. Memo Diriker, founding director of SU's Business Economic and Community Outreach Network (BEACON). Check out his speech, "Eastern Shore: Becoming a High Tech/High Impact Region," at the Salisbury Area Chamber of Commerce Hall on Nov 18, 2014, at <https://soundcloud.com/hotdesksmd/eastern-shore-global-entrepreneurship-week-2014-a>

Lastly, the city and county must identify what they are willing to offer companies interested in Salisbury and Wicomico County, such as tax breaks, etc. Offering too little or nothing at all may cause these companies to look elsewhere. Reasonable incentives, coupled with our IT infrastructure and cost of living, can make it easy for companies to say, "Yes," to the Shore.

Conclusion

Building Salisbury-Wicomico 2.0 will take time, as well as significant effort and cooperation. However, it can be done. The largest and most expensive pieces, such as the power grid; fiber lines; and buildings, are already in place. The only thing needed is a focused effort, like the one that has made Third Friday and other local endeavors so successful. If we come together to support this initiative in the same way, there is no doubt that within several years' time, the vision of a high-tech Eastern Shore will become a reality.

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