

Volume 7 Number 6 1 DECEMBER 2022

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# BREAKING THE MOLD: POSITIONING TASUS TO WIN THE TALENT WAR<sup>1</sup>

"How can we be more effective at recruiting associates, given the low unemployment rate and increased competition from new manufacturers moving into Northwest Alabama?"

At 9:30 pm on a hot Sunday night in August 2018, Denny Tester, TASUS Operations Manager, had his usual phone call with his production manager to verify priorities for the week's production before third shift arrived at 11:00 pm. The next morning, when Denny arrived at the plant, the week seemed to be off to a productive start. His regular 7:00 am stand-up meeting with the Technical Processing Team indicated that the plant was on track to meet their goals.

Still, staffing issues loomed large in Tester's mind as he anticipated needing to hire more highly specialized personnel in the near future and replace a key technical staff member who had submitted his letter of resignation the previous Thursday. That associate said he regretted leaving, but this was necessary for personal reasons. Denny needed to share this information with his team later that day. It highlighted a question Tester had mulled over for the past few months and during the weekend: "How can we be more effective at recruiting associates, given the low unemployment rate and increased competition from new manufacturers moving into Northwest Alabama?"

Tester scheduled a meeting with Human Resource Manager Kristen McCaney, to strategize how TASUS could differentiate itself from competitors in the war for qualified talent in the Northwest Alabama area.

**Editor: T. Grandon Gill** 

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## **Manufacturing Growth in Northwest Alabama**

TASUS, a company headquartered in Japan, produced plastic parts used in automobiles. The 2012 decision to locate this plant in rural North Alabama was based on a desire to be close to automotive customers and tier-one suppliers and to take advantage of an abundance of local labor.

In January 2017 the state of Alabama announced a new economic development growth plan. *Accelerate Alabama 2.0* aimed to amplify the success of the state's earlier strategic plan, launched in 2012, according to Greg Canfield, Secretary of the Alabama Department of Commerce (Underwood, 2017). Canfield stated:

"Our goal with Accelerate 2.0 is to create a framework for sustainable growth and steer Alabama towards technology-focused, skill-based jobs that result in lasting opportunities for our citizens. ... The plan ... emphasizes important strategic goals as key economic development drivers for the state. Among them:

- Align workforce skills with needs
- Foster entrepreneurship and innovation
- Build R&D capacity
- Ensure sites and infrastructure are available" (Underwood, 2017).

It seemed to Tester that only a few years ago university graduates in Northwest Alabama had little choice but to move away from the area, due to the paucity of skilled positions in the local area. That was changing, as new manufacturers and other businesses moved into the area. For example, in January 2015, Polaris, a manufacturer of off-road vehicles, snowmobiles, and motorcycles, announced its intention to build an advanced manufacturing plant in Huntsville, Alabama which was scheduled to be operational by Q2 2016, and employ 1700 – 2000 people (Underwood, 2015). By May 2018, Polaris was running a fully staffed first-shift, was ramping up to a full second-shift, and had a third-shift on the horizon.

Also in January, Toyota Motor (a key customer of TASUS) and Mazda Motor Manufacturing established a joint-venture to build a large manufacturing plant to produce both Mazda and Toyota vehicles in Huntsville, Alabama (Stefanich, K., 2018). It was expected to be operational by 2021 and employ about 4000 workers (Underwood, 2018a).

In early May 2018 GE Aviation opened a new manufacturing facility in Huntsville, with 90 employees (Underwood, 2018b). That workforce was expected to double in the next year, topping out at 300 employees when in full production (Underwood, 2018b).

These were just a few of the manufacturing jobs announcements that made many Alabamans optimistic about their future yet gave Denny Tester cause for concern since more companies competed to attract the same skilled job candidates. The recent influx of other manufacturers in the area, along with low unemployment, created a hiring and retention challenge. The

unemployment rate in the region was 4.7% (SEDA, 2017), and nationwide unemployment fluctuated between 4.1% and 4.5% (Bureau of Labor Statistics, 2018).

#### **Automotive Industry**

Tier-1 automotive suppliers produced subassemblies that were sold to OEMs (Original Equipment Manufacturers) on a just-in-time, just-in-sequence, fashion. "Just-in-time" meant that a supplier would deliver just what was needed when it was needed. "Just-in-sequence" meant that a supplier would deliver the products in the order in which they were needed. The OEM would not hold inventory of subassemblies, so it was imperative that the supplier provide the exact subassemblies in the exact quantity, exactly when they were needed. Otherwise, the OEM would have to shut down the assembly line, at great opportunity cost (delayed or lost sales, as well as incurred actual shutdown and startup expenses). In order to meet just-in-time requirements, most tier-1 suppliers were located directly on-site with the OEM or within 5 miles. A graphic of the relationship between the OEM and suppliers can be found in Exhibit 1.

Automotive OEMs provided four forecasts via EDI (Electronic Data Interchange). An initial 8-week forecast made it possible to do material acquisition planning. The 8-day and 4-day forecasts reflected greater precision, and the final 48-hour (2 day) forecast reflected the final definitive order. Tier-1 suppliers typically held a 3-day bank of subassemblies as safety stock.

Tier-2 automotive supplies provided subassembly components to Tier-1 suppliers. Tier-1 suppliers gave their Tier-2 suppliers the same forecast visibility that the OEM provided the Tier-1 suppliers. Tier-2 suppliers usually held a 2-day bank of subassemblies as safety stock.

Tier-3 suppliers provided raw materials to Tier-2 suppliers. For example, TASUS purchased raw plastic resin pellets from Tier-3 suppliers. The price of this raw material was extremely volatile, as it was directly impacted by the price of oil.

# **Alabama Economic Development**

In 2017 the Shoals Economic Development Authority (SEDA) estimated the civilian labor force in the Florence-Muscle Shoals MSA (Metropolitan Statistical Area) at 64,048. SEDA reported that the labor force was comprised of five Alabama counties as well as one county in Mississippi, and two in Tennessee (SEDA, 2017). A foreign trade zone (#83) was established in Huntsville in 2015 for the Toyota plant (McGilvray, 2015). The TASUS Florence plant was an example of a thriving automotive company in Alabama that relied on the labor force in the MSA area. However, recruitment of talent from outside that area was becoming more important.

The Alabama Economic Development Guide (Potts, 2018) described automotive manufacturing as a thriving industry. Besides Toyota Motors, Honda, Hyundai, and Mercedes-Benz had operations throughout the state, along with their suppliers.

#### TASUS Florence Plant, a Tier-Two Automotive Supplier

TASUS's Florence plant, a tier-two supplier, produced plastic parts for vehicle interiors and exteriors, as well as some automotive engine parts. The focus of the Florence plant was on front and rear light fixtures as well as other plastic automotive components. According to *IBIS World* (Masterson, 2017), the plastics industry generated \$99.8 billion in revenues and \$6.3 billion in profits in 2017, with automotive industry demand driving almost 27% of revenue. Recent estimates predicted that automobile industry revenues (and consequently relevant revenues of their suppliers) would decline slightly (by 0.2%) annually through 2022 (Peters, 2017). Thus, TASUS managers sought ways to reduce production costs and improve product quality, while adapting to frequently changing customer requirements.

TASUS was a subsidiary of Tsuchiya Company, Ltd., which was based in Nagoya, Japan. Tsuchiya's North American headquarters was in Bloomington, Indiana. Its three production facilities were in Georgetown, Texas, Florence, Alabama (TASUS), and Hamilton, Ontario (TASUS Facilities, 2018).

The plant's primary customers were Nissan, Toyota, and North American Lighting (Delinski 2013). Tsuchiya partnered with SEDA and the State of Alabama to develop its operations in Alabama. SEDA earmarked \$385,000 in funding for the project, to cover expenses such as temporary facility relocation, utilities setup, and property acquisition. The State of Alabama contributed \$200,000 towards the temporary facility relocation while Tsuchiya covered the remaining startup expenses, which amounted to nearly \$19 million in total (Delinski, 2013). A "Ground Awakening" ceremony was held in September 2012. Representatives traveled from Tsuchiya headquarters in Nagoya, as well as from Texas, Indiana, and Alabama, to celebrate the facility's launch (Wiggins, 2014). For the ceremony finale, a camellia tree was planted. This was symbolically important since this variety originated in Japan and the camellia was the Alabama state flower. Through this ceremony, Tsuchiya emphasized its corporate social responsibility values, including environmental responsibility and organizational citizenship.

TASUS broke ground to build the Florence plant in 2012 on a 12.5-acre plot of land which included a 104,000 square foot building ("TASUS Facilities", 2018). The plant was situated in Lauderdale County, Alabama. TASUS chose this location in order to be close to its customer base and tier-one automotive suppliers (Walker, 2018). According to U.S. Census data, as of July 1, 2016, the population included 92,538 residents, 25.2% of the population was under 18 years of age, and 19.1% were 65 years or older, thereby leaving 40.994 eligible workers. Furthermore, U.S. Census data indicated the average commute time to work for workers living in Lauderdale County was 24.7 minutes (U.S. Census, 2018). The U.S. Census data revealed that 84.9% of residents possessed a high school diploma while 21.7% of residents attained a bachelor's degree or higher education level (U.S. Census, 2018).

#### **TASUS Culture**

A visitor once told Denny Tester that the culture at TASUS was evident as soon as she stepped through the front door. Visitors were greeted by cheerful associates and a family atmosphere prevailed. Their business philosophy communicated their robust commitment to quality, yet

management believed that it was their devotion to creating solid relationships with customers and employees that made them an industry leader (TASUS About Us, n.d.). Their philosophy was expressed by CEO Melanie Walker:

Our Customers and Our Employees are...

- *The most important people in our business*
- Not dependent upon us, we are dependent upon them
- Not an interruption to our work day, they are the purpose of it
- Not outsiders to our business, they are the most important part of it
- People who bring us their needs—it is our job to satisfy those needs and to do so profitably for them (TASUS About us, n.d.)

To quote Kristen, HR Manager, "Our philosophy at TASUS is to never grow over a strategic number of employees so as to not lose that family-like atmosphere." The purchase of the large acreage was made to allow room to build an additional plant when market demand exceeded the capacity of the current plant. Managers concentrated on developing positive working relationships with employees. Employees, in turn, were empowered to search for ways to improve productivity and firm performance. Denny Tester stated, "Our culture is one where the employees tell us what needs to be fixed and this cultivates a culture of empowering, recognition, and respect."

A spirit of "kaizen" (continuous improvement) also pervaded TASUS (Exhibit 2). Production workers were organized into floor teams, and management empowered them to be responsible for their processes. Teams met regularly to discuss potential improvements, and during those meetings, management sat on the sidelines, so as to allow team members to discuss and analyze solutions. Managers were available to provide support during meetings, but they rarely spoke, so that workers would understand that their insights were highly valued and appreciated. The function and structure of these teams is reflected in Exhibit 3.

TASUS was committed to the education and training of all associates, and training extended as well to customers (Exhibit 4). Similar to Toyota Processing Systems (TPS), TASUS articulated 14 principles under two pillars: *Respect for People* and *Continuous Improvement* (Exhibit 5).

The TASUS Way also extended to their environmental policy, which stated:

TASUS is committed to be a good corporate citizen and to comply with legislative, regulatory, customer and other requirements. We will...

- Be an environmentally responsible neighbor in the community, act to correct conditions that impact the environment
- Commit to a prevention of pollution program and achieve our environmental objectives

- Re-evaluate environmental objectives and targets each year based on the previous year's results and trends
- Never be satisfied with the status quo and work to continually improve
- Ensure employee awareness of our policy and objectives and include employees as an integral part of the process (TASUS About Us -Environment, n.d.)

## **TASUS Florence Plant Organization**

The TASUS Florence, Alabama plant opened in September of 2013 at a temporary location with three associates from the Indiana plant: a Plant Manager, Production Manager, and Customer Service Representative. The rest of the associates were hired locally. By the end of the first year 36 associates were on board. That number increased to 53 associates in 2014, 108 employees by year-end 2015, 156 by year-end 2016, and 187 by December 2017. The plant experienced growing pains during those years of rapid growth. They received a lot of new business from their current customers as well as from four new customers. This new business required a clear capital investment plan, including a hiring plan to support both the direct and indirect labor that was needed to keep pace with the growth rate. They needed to train new team members for the jobs they would do, and also train those employees who were being promoted as an earned benefit of this growth.

All this training took place in the context of a changing work environment. The utility infrastructure was upgraded. The plant layout was rearranged to accommodate new equipment. Warehouse storage systems were upgraded to handle incoming raw materials and finished product. The fire suppression system was also upgraded, to meet warehousing requirements. New equipment had to be qualified before it was approved for production, and a Production Part Approval Process (PPAP) had to be completed for each new part number.

During this period, no time was lost due to accidents, and the plant met all of its commitments to its customers. However, managers observed some slippage in associates' use of TPS principles, and also noticed some repeating process issues and a rise in defective products reaching customers. After a hard look in the mirror, managers decided that the teams were not getting to the root causes of the problem. A "reset" was needed. This reset initiative, begun in 2018, was guided by TPS lean principles. With good leadership and a new focus, the TASUS plant began to resolve many issues that were hurting their operational efficiency.

In 2018 the TASUS Florence plant operated three full shifts. First Shift worked 7 am - 3 pm, Second Shift worked 3 pm - 11 pm, and Third Shift from 11 pm - 7 am.

Job titles and descriptions were standardized between the plants, but the salary structure conformed to regional norms. Positions currently in high demand in Northwest Alabama included:

- Plastic Injection Experienced Process Engineers and Processors
- Automation Engineering and Automation Technicians
- Coordinate Measure Machine Technicians

- Tool Journeymen/Tool and Die Makers/Tooling Engineers
- Mechanical Engineers
- Industrial Engineers
- Maintenance Engineers
- Electrical Engineers
- Quality Engineers

All of these positions required experience, with most requiring a 2 or 4-year degree. In Tester's opinion, there would soon be a high demand for consultants skilled in team building, gauge analysis, problem-solving techniques, business management techniques, and other expertise.

Tester felt that the worst potential consequences of employee turnover could occur if the plant could not find and retain the right mix of associates. Unexpected resignations could leave the plant vulnerable in terms of its ability to handle the required production volume or to produce efficiently and at high quality. If critical skills were missing, it could take longer to assess and resolve manufacturing problems, which in turn could potentially result in increased downtime and delays in delivering products. In the worst-case scenario, they would have to turn down business. Given their customers' just-in-time delivery requirements, TASUS leaders certainly wanted to avoid all of these scenarios.

## **Employment at TASUS**

Salaries were typically lower in Northwest Alabama compared with salaries in the rest of Alabama (Exhibit 7) as well as compared with other states in the U.S. (Exhibit 8 and Exhibit 9). TASUS continuously reviewed salaries in the area to ensure they were competitive. Tester was confident that TASUS paid competitive wages and salaries, yet it seemed that a bidding game was at hand with competitors in talent attraction wars to recruit the most desirable employees. Rising wages could increase the company's operating expenses and decrease its profits.

For salaried positions, TASUS actively recruited outside the area, using professional placement agencies. TASUS paid the recruiter fees and new-hires' relocation costs, based on a two- or three-year retention agreement (a signed contract between TASUS and the associate that specified the terms of the payback agreement). Terms were individually negotiated, but were typically based on payback of 75% if the associate left before the end of the first year of employment, 50% if they left before the end of the second year, and 25% before the end of the third year, with no required payback if an employee left after three years with TASUS. However, these negotiated agreements were not very helpful when it came to associates with great skills or great track records; some associates who chose to leave TASUS were able to convince their new employers to pay their TASUS resignation penalties.

TASUS developed talent natively by investing in onsite training and also by sending employees to training programs at sister plants. This on-the-job training focusing on specific skills needed for their positions, successfully developed associates' skills, but at a price; once trained, it had been their experience that the associate was more likely to be poached by a competitor.

TASUS utilized a job applicant tracking system from Newton Software, Inc. to manage internal and external job postings and applications, in conjunction with its website. As stated on the TASUS web site Glassdoor profile, TASUS provided competitive salaries and traditional benefits, in line with standard industry benefits. About 40% of its employees were non-exempt associates who were paid hourly wages. About 60% of TASUS employees were exempt associates who were paid regionally competitive salaries based on education and experience.

U.S. health care costs were rising, but employers paid much of the cost. TASUS offered employees several medical insurance choices, with varying levels of coverage and premiums. Like competing employers, TASUS covered a portion of employees' medical insurance. While they didn't offer the best premium rates in the area, Tester believed their rates were competitive given the number of employees at that location. TASUS also offered dental and vision coverage. It did not offer an employee stock ownership plan.

TASUS encouraged its associates to advance their knowledge and expertise. The company offered a tuition reimbursement program; after one year on the job, any employee could be fully reimbursed for an approved course (the classes or program of study had to be directly applicable to the employee's position and career path at TASUS). TASUS provided tuition reimbursement for undergraduate course tuition with the understanding that the associate would remain employed at TASUS for a minimum of one year after completion of the course or degree program. The associate was required to earn a minimum grade of "C"; if not, the associate was required to repay the tuition assistance payment. Few employees took advantage of the tuition reimbursement plan, to Tester's surprise, since it was far more generous than other plans offered by local manufacturers.

TASUS provided first-time home buyers benefit of up to \$1,000 as well as an adoption benefit of up to \$2,000, both unique benefits in the Northwest Alabama area. Additionally, they provided paid bereavement days off for immediate family, generous paid time off benefits, and awards for perfect attendance.

Developmental annual reviews (not tied to pay increase decisions), were conducted for both hourly and salaried employees. New hires were evaluated after 30, 60 and 90 days of work. Usually, in September, the firm provided an annual cost-of-living pay increase (tied to the inflation rate, and subject to other economic conditions). Merit and skill set pay raises were also awarded.

In addition to monetary compensation, TASUS provided service anniversary rewards and good performance and behavior rewards. Several times a year, employees were treated to hot dog/hamburger cookouts. The firm also provided an Easter Egg Extravaganza, Summer Family Picnic, Christmas Party, and an annual steak dinner.

TASUS had a monthly communication meeting with all associates to keep them apprised of the current state of the business, how TASUS was performing, upcoming events, and recognition.

#### **Educational Partnerships**

TASUS collaborated with Muscle Shoals High School Career Academy via the Pathfinder program. This initiative functioned as a work-based learning program in which high school students were placed in part-time paid positions at TASUS and students earned high school credits. TASUS recognized that high school students who received technical training were potential future employees (Muscle Shoals Career Academy, n. d.). TASUS has participated in this program since 2014. During this time 14 students had worked at TASUS and joined the company as full-time employees after graduating from high school.

By providing this learning opportunity, TASUS was able to "test drive" prospective employees, and the students obtained real-world experience to aid in their future career planning. The organization that facilitated this connection was Lyons HR (Muscle Shoals Career Academy, n.d.). According to the Muscle Shoals High School Career Academy website, the high school also partnered with other manufacturers, including G&G Steel, MS Metal Solutions, Navistar, and North American Lighting.

TASUS also partnered with a local community college, Northwest Shoals Community College (NWSCC), to establish a program to train students for Injected Molding work (Wiggins, 2014). Through this partnership with TASUS and other injected molding companies in the area, NWSCC established a short-term certificate in Injection Molding Technology (26 credit hours including co-op) and an Applied Science Associates Degree in Injection Molding Technology (76 credit hours including co-op). The degree program began with six students in spring 2014 (Wiggins, 2014). Current offering from the NWSCC Catalog included *Industrial Systems Technology and Injection Molding Technology*:

Industrial Systems Technology students train to control robots and other automated systems through the use of programmable logic controllers (PLCs). Students also have the opportunity to use advanced injection molding equipment and learn techniques to create components used worldwide. Once students complete the program, they have the skills necessary to install, maintain, and repair a wide range of mechanical drive components as well as advanced electrical and hydraulic manufacturing systems.

NWSCC also offered an *Applied Engineering and Machining* (Machine Shop) degree program, on two campuses. The NWSCC Catalog described it:

In Applied Engineering and Machining (Machine Shop), you will gain the skills to invent, design, create, and build the high-tech precision parts and tools used worldwide in everyday products. Students learn to use advanced computer-controlled technology to manufacture precise steel, aluminum, and plastic components. Machine Shop graduates enter the workforce proficient in programming and controlling industrial CNC machines to produce products from engineering blueprints and specifications.

In fall 2016 the University of North Alabama established a degree program in Engineering Technologies. A news item stated: "The new offering is all part of an effort to foster a homegrown workforce in the Tennessee Valley in which aspiring engineers who are born here can go to school here, and get hired here" (Tolson, 2017). According to Dr. Peter Rim, Director/Department Chair of Engineering Technologies, the program accepted about 30 students per year; the first 10 students were expected to graduate in 2018. The UNA Catalog described this program (see also Exhibit 6):

The Engineering Technology degree provides a fundamental background in general science as well as a comprehensive background in traditional industrial technologies, evolving technologies, and a focused study in electrical and mechanical engineering technology or chemical engineering technology. The program is designed to prepare graduates for positions in emerging technologies, industrial operations, and general management that require a strong knowledge in engineering principles as they relate to fabrication. Emerging technologies include green energy, robotics, and other programming driven electro-mechanical devices. Graduates benefit from the combination of an engineering based theoretical and practical application education with an appropriately supplemented background for later advancement into management positions. Typical entry-level positions include, Process Engineer, Design Engineer, Project Engineer, Production Scheduler, Maintenance Engineer, and Applications Engineer. Students in the program develop knowledge and competencies in the focus area of Engineering Technology consisting of the studies including electrical and mechanical power systems, material and manufacturing methods, management of the industrial and chemical processes and organizations, effective oral and written communication, and the application of physical science and mathematics principles necessary to understand and solve global technological and economic challenges.

#### The Decision

While Tester had initially focused on employee hiring and retention as a strictly regional problem, Kristen McCaney helped him see this was a nationwide issue. In turn, this changed his focus from local recruitment challenges to the larger challenge of reinventing the workforce planning strategy. While McCaney and Tester had a lot to discuss in their meeting. Tester felt they should start with a basic question: "How can we be more effective at recruiting associates, given the low unemployment rate and increased competition from new manufacturers moving into Northwest Alabama?"

#### References

- Bureau of Labor Statistics (2018). Labor Force Statistics from Current Population Survey. https://data.bls.gov/timeseries/lns14000000
- Delinski, B. (2013). TASUS moving swiftly. In Times Daily. http://www.timesdaily.com/news/local/tasus-moving-swiftly/article\_a7a9923e-e5f0-11e2-
- Masterson, R. (2017). IBIS World Industry Report 32619: Plastics products miscellaneous manufacturing in the U.S. *IBS World*.
  - http://clients1.ibisworld.com.ezproxy.lib.usf.edu/reports/us/industry/default.aspx?entid=520
- McGilvray, A. (2015). Foreign-Trade Zone (FTZ) 83-Huntsville, Alabama; Notification of proposed production activity, Toyota Motor Manufacturing Alabama, Inc., *In Federal Register*. https://www.federalregister.gov/documents/2015/05/13/2015-11571/foreign-trade-zone-ftz-83-huntsville-alabama-notification-of-proposed-production-activity-toyota
- Muscle Shoals Career Academy. (n.d.) Pathfinder Alabama.

https://www.mscs.k12.al.us/Page/456

b07a-10604b9f7e7c.html

Northwest Shoals Community College. (n.d.). Programs of Study.

https://www.nwscc.edu/program-of-study/career-technical

Peters, I. (2017). IBIS world industry report 33611a: Car and automobile manufacturing in the U.S. IBIS World.

http://clients1.ibisworld.com.ezproxy.lib.usf.edu/reports/us/industry/default.aspx?entid=816 Potts, T.J. (2018). Statewide economic overview.

http://www.madeinalabama.com/assets/2017/10/2018-Economic-Development-Guide.pdf

SEDA. (2017). Workforce profile. http://www.seda-shoals.com/workforce

Stefanich, K., Booth, E. (2018). Mazda, Toyota Select Alabama for new U.S. Auto Manufacturing Plant.

http://corporatenews.pressroom.toyota.com/releases/mazda+toyota+announce+alabama+us+auto+manufacturing+plant.htm

TASUS About Us. (n.d.). About Us. http://www.TASUS.com/about-us/

TASUS About Us. - Environmental (n.d.) About Us - Environmental. http://www.tasus.com/about-us/environment/

TASUS Facilities. (n.d.) Facilities. http://www.tasus.com/facilities/

TASUS Kaizen Culture. (n.d.) Kaizen Culture. <a href="http://www.tasus.com/kaizen-culture/">http://www.tasus.com/kaizen-culture/</a>

TASUS Teams. (n.d.) Teams. http://www.tasus.com/teams/

TASUS TPS. (n.d.) TPS. http://www.tasus.com/tps/

TASUS Training. (n.d.) Training. http://www.tasus.com/training/

Tolson, A.G. (2017). Redstone Rocket. New UNA major aims to meet engineering needs. http://www.theredstonerocket.com/special\_reports/article\_fce2c7da-f7ac-11e6-89ac-eb14b63217c5.html

UNA Catalog. (n.d.) Department of Engineering Technology.

https://www.una.edu/engineering technology/docs/Catalog. Degree Req% 2018-19.pdf

Underwood, Jerry. (2015). Polaris plans Alabama manufacturing facility with up to 2,000 jobs. http://www.madeinalabama.com/2015/01/polaris-plans-alabama-manufacturing-facility/

Underwood, Jerry. (2017). Accelerate Alabama 2.0 updates state's strategic growth plan. http://www.madeinalabama.com/2017/01/accelerate-alabama-2-0/

Underwood, Jerry. (2018a). Toyota-Mazda selects Alabama for \$1.6 billion auto plant with 4,000 jobs. http://www.madeinalabama.com/2018/01/toyota-mazda/

Underwood, Jerry. (2018b). GE Aviation opens Alabama factory complex to produce unique materials. http://www.madeinalabama.com/2018/05/ge-aviation-opens-alabama-factory-complex-to-produce-unique-materials/

U.S. Bureau of Labor Statistics. (2017). County Employment & Wages in Alabama, Second Ouarter

2017. https://www.bls.gov/regions/southeast/news-release/CountyEmploymentAndWages\_Alabama.

U.S. Census Data Alabama Quick Facts (2018). https://www.census.gov/quickfacts/fact/table/AL/PST045217

Walker, M. (2018). "From the President". http://www.TASUS.com/about-us/

Wiggins, S. (2012). "Ground Awakening in the Shoals – Put Another One in the Win Column". In Quad Cities Daily. http://quadcitiesdaily.com/?p=40167

Wiggins, S. (2014). QCD News. Northwest Shoals Community College cuts the ribbon on Injected Molding Tech Program. http://quadcitiesdaily.com/?p=193259

# **Acknowledgements**

I would like to express my appreciation to Denny Tester and Kristen McCaney for their assistance in the data collection for this article.

# **Biography**



Diane Kutz is an Assistant Professor in Management and Marketing department at the University of North Alabama. She holds a doctorate in Management from the University of South Florida, an M.B.A. from the University of North Alabama, and a BA from the University of South Florida. She holds industry certifications in Project Management, as a Project Management Professional (PMP®), Accounting as a Certified Managerial Accountant (CMA®), and in Strategy, Certified in Strategy and Competitive Advantage (CSCA®). Her principal research areas are project management, virtual teams, leadership, and psychological capital.