

# GENA M. MAJOR

## Summary

### CONTINUOUS IMPROVEMENT OFFICER | PROBLEM SOLVER

Shainin Red X Master | ASQ Six Sigma Black Belt | Project Management Professional

Accomplished executive leader with career roots in the automotive industry and progressively responsible professional experience in developing and implementing safety and quality assurance programs. Public and private transportation-related organizations include General Motors, General Electric, Georgia State Road and Tollway Authority, and the Metropolitan Atlanta Rapid Transit Authority (MARTA). Earned MBA from the University of Michigan with concentrations in Operations Management and Organizational Behavior. Earned B.S. in Electrical Engineering from Kettering University (f/k/a General Motors Institute). Multi-certified, including Shainin Red X Master Statistical Engineer, ASQ Six Sigma Black Belt, Project Management Professional, and Transit Safety and Security Professional.

### Problem Solving Tools

Lean Six Sigma | Value Stream Mapping | 5 Whys | Voice of Customer | FMEAs | Kaizen | Statistical Process Control | Project Management | Business Intelligence Dashboards | Balanced Scorecard | Performance Monitoring | Process Audits | Fishbone Cause & Effect Diagrams | Theory of Constraints | Conflict Resolution | Team Building | Process Management | Define, Measure, Analyze, Improve, and Control (DMAIC)

## PROFESSIONAL WORK EXPERIENCE

**Metropolitan Atlanta Rapid Transit Authority (MARTA) | Atlanta, GA**

8/2016 - Present

### Deputy Chief of Safety & Quality Assurance (04/2021 – Present)

Promoted by CEO as part of a departmental restructure in order to recognize the important key wins achieved in the role as Assistant General Manager and to elevate the visibility of safety and quality assurance throughout the Authority. Responsibilities and key duties were expanded as outlined under the Assistant General Manager position which was eliminated.

### CRITICAL ACCOMPLISHMENTS

- **Implemented safety investigations problem solving initiative** resulting in an improvement from 12% to 93% of MARTA's investigations being adopted by the Georgia Department of Transportation. Comprehensive initiative involved creation and development of Accident Investigation Procedure, problem solving training and the establishment of a Tiger Team for corrective actions.
- **Co-Partner in MARTA's achievement of the 2021 Gold Sustainability Award** by the American Public Transportation Association (APTA). Incorporation of sustainability efforts reduced water use by 40 percent, greenhouse gas emissions by 27 percent, energy use by 14 percent, and waste by 13 percent, over a seven-year period (*WSP, MARTA Take Top Honors in APTA Sustainability Program*).
- **Successfully closed out implementation of Zonar technology** initiative to automate pre-trip inspections of buses and improve maintenance and mean distance between failures (MBDF) by utilizing predictive analytics. Previous pre-trip inspections were done manually using a handwritten mileage card.
- **Nominated and confirmed to the Atlanta Track Club's Board of Directors**. Atlanta Track Club (ATC) is the 2<sup>nd</sup> largest track club in the country. Service as a Board Director focuses on improving the partnership between MARTA and ATC to improve the health and well-being of the communities in which both serve.
- **Appointment by CEO to MARTA's Non-Represented Pension Committee**. Trustee's responsibilities include full administration of the defined and deferred compensation plans in the capacity of fiduciaries, providing oversight of the plan investments to ensure that the assets are managed effectively and the participants investment options are reasonably priced and appropriate for an employer sponsored program.
- **Bloom Where You're Planted**: Featured in Career Spotlight interview and Q&A session hosted by Human Resources promoting internal career growth and progression for retention of employees.

### Assistant General Manager of Safety & Quality Assurance (11/2019 – 04/2021)

Responsible for the oversight of all safety and quality assurance activities at MARTA, with emphasis on safe delivery of services, workforce safety, environmental safety and risk management programs. Oversight includes statutory compliance, coordination and integration with MARTA's system safety programs and directly related operational and engineered projects and programs. Ensure that all safety and QA programs and initiatives are effective, efficient, and compliant with all applicable federal, state, and local laws and regulations and directly aligned with MARTA's Strategic Plan and associated goals and objectives. Direct report to the General Manager/CEO including serving as a member of

## GENA M. MAJOR

---

the Executive Management Team and working collaboratively with all departments to integrate safety and quality assurance programs in alignment with the MARTA's overall business plans.

**OVERSIGHT | KEY DUTIES:** Serves as the Chief Safety Officer for the Authority | Directs the development, administration, implementation and integration of system-wide safety plans (including those mandated by FTA) | Develops and implements Authority wide environmental safety and quality assurance programs to include safety policies, plans, and procedures; ensuring that such programs are in compliance with applicable federal, state and local laws/regulations | Develops and implements proactive strategies, practices and resource allocation methodologies to ensure safety of MARTA's workforce, customers and general public.

### KEY WINS

- **Led the Authority in achieving ISO 9001:2015** of its Quality Management System (QMS) making MARTA the first transit agency in the country to obtain ISO certifications in Quality Management, Asset Management, and Environmental Management (*DSQA Earns ISO 9001 Certification for Quality Management System*).
- **Served as COVID-19 Team Lead** and primary point of contact in the execution of the Authority's response to the pandemic. Led daily executive management calls and establishment of MARTA's public facing [COVID-19 dashboard](#) on personnel and ridership impact. Invited by FTA to present on MARTA's well executed response centered on the development and execution of our Pandemic Plan (*Operating in a COVID-19 Environment*).
- **Development and approval of MARTA's new Agency Safety Plan**, required under federal code 49 CFR 673, and publicly recognized as a template and example for other rail transit agencies across the county by the Federal Transit Administration (*New MARTA Safety Plan to Boost Risk Mitigation, Employee Involvement*).
- **Worked with CEO to establish and execute Consultant Conversion Program** saving the Authority over \$1.1 MM annually. Eliminated long-term over reliance of consultants by working with their parent companies to offer staff positions as full-time employees (FTE's). Most of the consultant employees had been with MARTA for over 10 years.

### Director of Quality Assurance (8/2016 – 11/2019)

Improve operations and capital improvement program performance by directing a 33-person professional and administrative team to enact process improvement initiatives, including a continuous quality improvement program, quality evaluation, inspections, and testing via developing and implementing quality assurance practices and procedures for the Department of Safety and Quality Assurance (DSQA). Oversee safety and quality assurance activities at MARTA, with emphasis on the safe delivery of services, workforce safety, environmental safety, and risk management programs through adherence to the System Safety Program Plan (SSPP). Serve as the AGM of Safety and Quality Assurance in the absence of the AGM to direct and manage the operation and function of MARTA's DSQA.

Enhance customer satisfaction by directing the effective application of MARTA's quality management system, ensuring conformity to customer and applicable regulatory requirements for multimodal systems, including heavy rail, light rail, buses, and paratransit systems.

**BUSINESS ACUMEN | RESULTS DRIVEN:** Assess organizational improvements by directing measurement system development, including tracking and reporting performance via defining Key Performance Indicators (KPIs) and metrics. Develop and implement program goals, objectives, and policies while providing risk management. Participate in the strategic planning process to integrate safety and quality improvements with MARTA's overall business plans.

- **Reduce costs by using cost control measures.** Forecast future spending by tracking and monitoring historical spending trends using Business Intelligence (BI) analytics. Develop, submit for approval, implement, administer, and manage DSQA's \$7.8 million annual operating and \$5 million capital budgets. Develop and implement proactive strategies, practices, and resource allocation methodologies to ensure the safety of MARTA's workforce, customers, and the general public by forecasting staff, equipment, material, and supply funding needs. Achieve proper Capital Improvement Program (CIP) project coverage and oversight by assessing project need phases through the 5 project management phases (initiation, planning, implementation, monitoring and control, and closure) and maintaining a shared resource allocation matrix. Support strategic planning and deployment initiatives while leading team to establish and monitor customer and supplier relations.
- **Ensure the following of policies and procedures** by directing MARTA's asset management, documentation control, and configuration management processes via operational audits and implementation of QMS and International Standards Organization (ISO) 9001:2015 certification application. Implement Safety Management Systems (SMS) to capture, manage, and analyze discrete data sets in order to trend and predict safety risks, thereby minimizing the impact to MARTA's employees, patrons, and surrounding entities when incidents do occur.
- **Ensure effective and efficient safety and Quality Assurance (QA) program** initiatives compliant with all applicable federal, state, local laws and regulations directly aligned with MARTA's Strategic Plan and associated goals and objectives. Develop and implement Authority-wide environmental safety and quality assurance programs, including safety policies, plans, and procedures

## GENA M. MAJOR

---

### QUALITY MANAGEMENT | SAFETY MANAGEMENT | ENVIRONMENTAL MANAGEMENT | EMERGENCY MANAGEMENT

- **Manage and implement safety, quality, emergency management, and environmental management programs.** Manage the development, implementation, sustainability, and maintenance of a Quality Control Program (QCP), Quality Assurance Program Plan (QAPP), Quality Management System (QMS), and MARTA Test Program Plan (MTPP). Establish measurable verification of the integrity of operational stock, equipment, and systems by using a total quality management approach.
- **Ensure the safety of employees, patrons, and the public** by ensuring proper training of staff on safety policies and procedures and the staff follows procedures, along with responding to employee safety and health concerns. Use extensive knowledge of local, state, and federal laws. Ensure monitoring of work carried out by MARTA employees, consultants, contractors, and subcontractors to ensure conformance with established safety and quality standards. Oversee the development of emergency response programs and coordination with emergency response agencies.
- **Ensure conformance to environmental certifications**, including the Environmental Management System (EMS) ISO 14001 Certification while using knowledge of the policies and guidelines of the Environmental Protection Agency. Manage the department's pursuit of the Quality Assurance/QMS ISO 9001 Certification.

### BUILDING COALITIONS | ORAL AND WRITTEN COMMUNICATIONS

- **Serve as an internal consultant to the Authority.** Represent the Authority to federal agencies, local groups and organizations, professional associations, and other similar groups. Make recommendations and presentations to the Board of Directors. Work collaboratively with all departments to integrate safety and quality assurance programs with MARTA's overall business plans. Ensure coordination and cooperation between Safety and Quality Assurance and all other MARTA Departments and work units.
- **Provide coordination to various groups/committees** whose primary focus is safety-related matters. Demonstrate excellent written and oral communication skills while providing quality-related information, white papers, and reports to the MARTA Board, executive staff, and federal, state, and local authorities; presenting at national-level conferences; and serving as a facilitator and featured presenter at departmental meetings.

### LEADING PEOPLE

- **Plan, prioritize, and assign** work to staff, including holding weekly roundtable discussion meetings on activities and tracking action items. Evaluate performance, providing feedback for improvement. Coach staff during one-on-one sessions on impactful communication and presentation styles. Ensure staff feels comfortable to share and discuss project issues by maintaining a true open-door policy.
- **Motivate staff** at monthly meetings through team building exercises. Encourage staff professional development through budgeting for professional certifications and memberships in professional organizations. Improve employee effectiveness by coaching staff on how to administer non-punitive disciplinary actions which improve behavior. Improve employee health by leading fitness challenges and participating in the annual Kaiser Permanente Run/Walk.

### GENERAL LEADERSHIP

- **Recognized for excellence as the DSQA Employee of the Year in 2018.**

### BUSINESS ACUMEN | LEADING CHANGE

- **Improved safety, increased service efficiency, and eliminated duplication of effort** by creating a 6-person Continuous Improvement Business Unit which developed collaborative KPI dashboards across multiple MARTA business units, including Chief of Staff / Chief Executive Officer (CEO), operations, and construction management.
  - **Gained buy-in for vision to create the business unit** by proposing vision to senior management to combine business analyst staff from several units into one and for an existing staff member to get managerial pay.
  - **Reduced bus collisions 7%** by implementing the use of BI and performance metrics to trend safety improvements, using Tableau Business Intelligence and Microsoft Power Business Intelligence.
    - **Garnered approval to use Tableau software and dedicate resources, including hiring a quality assurance engineer**, by working with the Chief of Staff to demonstrate and bring visibility to the technology via developing a dashboard for CEO-related strategic goals.
  - **Positioned department to effectively manage and monitor CIPs** by developing KPIs via creating a 5-person tiger team to brainstorm a list of activities and potential metrics and beginning the pilot program to increase accountability of contract work and improve quality and safety.
  - **Based on program success**, manager and staff members were invited to present *Safety Culture: A Key Component of an Agency's Successful SMS* at the 2019 American Public Transportation Association (APTA) conference.
- **Avoided departmental budget cuts for all 3 fiscal year tenure in position during a period of 10% cuts Authority-wide** by proactively taking over and successfully developing and submitting business cases after the department had experienced significant budget reductions in the previous 2 years.
  - **Developed business cases** by reviewing previous submissions, interviewing managers on their budget needs, and developing justifications.

## GENA M. MAJOR

---

- **Resolved 6 audit findings and 11 recommendations from the Office of Quality Assurance triennial audit just 3 months after taking over position 2 months ahead of the deadline** by establishing an audit team, reviewing the audit checklist, and beginning the effort to improve known deficiency areas prior to findings being issued and corrective actions formulized.
  - **Improved office operations** by using the audit as an opportunity to highlight areas to be addressed through an action plan.

### RESULTS DRIVEN

- **Improved bus inspection efficiency and enabled the department to trend bus data** by overcoming Amalgamated Transit Union (ATU) objections to using Zonar technology for pre-trip bus inspections.
  - **Restarted the project which had been halted after purchasing technology in 2013, prior to tenure in position** by negotiating with ATU leadership to set up a pilot program with a commitment the project would not be implemented if the technology worsened the process.
  - **Gained approval from CEO for full-scale implementation** based on results after a year of piloting and evaluation.

### QUALITY AND SAFETY MANAGEMENT

- **Drove increase of Supplier Quality Rating from 84% to 94% in just one year** by establishing a methodology to track and evaluate critical safety component quality from key suppliers based on developing a process based on previous issues, including product quality, on-time delivery, documentation, and responsiveness.
- **Demonstrated improvement in maintenance facilities against established criteria** by overseeing the drafting of the Facility Report Card, including validating the questions and the facilities' abilities to adhere to requirements.
- **Improved bus ride-along inspections from 94% to 97% pass rate** by overseeing all four disciplines of execution (4DX) process improvement initiatives.

### LEADING PEOPLE

- **Addressed a critical staff shortage** by enabling the department to hire 3 professional consultants for difficult to fill positions after leading effort with a project manager to develop a budget and scope of work identifying the services needed leading the General Consulting Professional Services (GCPS) program to accept DSQA into the program.
- **Improved teamwork and morale** by leading, organizing, and facilitating annual departmental retreats to review the past year's departmental performance, celebrate team member achievements with awards, and establish departmental goals and objectives for the next year.
- **Empowered staff to increase their skills**, including providing Root Cause Analysis, Project Management, Contract Management, Origami, Power BI, and advanced Tableau training, inspiring 2 staff members to receive Six Sigma certifications and 2 staff to obtain PMP training, develop portfolios, and sit for the certification exam.

### BUILDING COALITIONS | COMMUNICATION

- **Increased visibility of DSQA services and branding** by implementing monthly Authority-wide Quality and Safety Bulletin development and issuance via creating a process which included scheduling distribution, assigning individual staff to develop their own bulletin topics, garnering approval from the AGM, and reviewing with the leadership team.

## DeKalb County Government Audit Oversight Committee (AOC) | Decatur, GA

1/2016 – 5/2019

**Past Chairperson (1/2019 - Present) | Chairperson (1/2018 - 12/2018) | Vice-Chairperson (1/2016 - 12/2017)**

Interviewed with and then appointed to a 3-year term as one of 5 members of the 5-person AOC by the DeKalb County CEO after Georgia House Bill 599 created the committee to reduce inefficiencies, find fraud, and expose waste in 2015 ensuring the independence of the county's internal audit function. Field candidates for the Office of Independent Internal Audit (OIIA). Provide liaison to DeKalb Board of Commissioners to discuss controls, systems, risks, and the external audit firm performance.

- **Saved the county over \$11 million in tangible savings to date, restoring the trust of the citizens of DeKalb in their county government**, by providing the leadership for effective controls and increased efficiencies.
- **Enabled resolution of high-visibility DeKalb water billing issue** by working with the Chief Auditor to hire an audit firm, developing a final report with 22 recommendations, and implementing performance-based metrics to track improvements, including replacing thousands of water meters and centralizing billing operations.
- **Established the first-ever organizational model and budget for the Office of Internal Audit** by collaborating with committee members to evaluate other organization models (including the City of Atlanta's AOC) to estimate number and type of positions, salary requirements, and training, office space, and supply needs.
  - **Overcame political obstacles and created job descriptions, including for the Chief Audit Executive (CAE)** by working with the county's human resources department.
  - **Successfully onboarded the CAE** by advertising effectively for the position, conducting a nationwide search, vetting 8 candidates through interviews, and recommending 2 members to the DeKalb Board of Commissioners.
- **Demonstrated exemplary leadership performance as a committee member:**
  - **Nominated and served as Vice-Chairperson for the first 2 years on the committee.**
  - **Served as the Chairperson from 1/2018 until 12/2018 based on superior leadership.**

## GENA M. MAJOR

---

- o **Asked to extend the term on the board beyond the initial 3-year appointment based on performance.**
- **Kept the legislatively mandated staggered yearly AOC membership** by facilitating onboarding of new members through advertising for positions and recommending candidates to the legislative bodies for final selection.

Georgia State Road and Tollway Authority | Atlanta, GA

7/2008 - 8/2016

### Director of Continuous Improvement (4/2013 - 8/2016)

Improved and reported performance of the I-85 High Occupancy Toll (HOT) lane to the Federal Highway Administration (FHWA) by leading a 5-person team, including 2 quality analysts, a data warehouse architect, a quality administrator, and a quality intern, along with supervising a 13-person cross-functional business intelligence team.

**QUALITY MANAGEMENT | CONTINUOUS IMPROVEMENT:** Improved agency's ability to significantly meet customer expectations, reduce costs, increase efficiency, and drive leadership by facilitating and managing process improvements. Implemented quality improvement cycles and enabled the Authority to meet financial and customer service goals by incorporating the Authority's goals and objectives into the development of quality improvement programs, along with using Kaizen, Six Sigma, Theory of Constraints (TOC), and other quality improvement tools.

Developed proactive data strategies and reactive root cause analyses by leading a team while using advanced team facilitation techniques. Assembled pertinent data, reports, and other information from internal and external sources. Assessed the current status and developed alternatives for the Authority processes and procedures by coordinating the collection of pertinent information through industry review, data analysis, and interviewing appropriate staff. Streamlined and increased process and procedure efficiency and consistency by evaluating trends based on data analysis, identifying variances, and recommending the need to change processes, procedures, and standards based on best practices.

**BUSINESS ACUMEN | LEADING CHANGE:** Created unified Authority-wide processes by leading, driving, and supporting change. Developed, maintained, and audited consistent KPIs, dashboards, and reports by working with the leadership team. Drove the organization's operational, financial, and customer-based decisions by leading key initiatives from implementation to resolution, including leading the enterprise-wide Tableau BI dashboard implementation, which allowed deep-dive analytics of the KPIs. Coordinated selection and proper application of the appropriate analytical tools.

Ensured consistent program objectives by monitoring and correcting deficiencies in program practices. Measured adherence to established agency goals, objectives, and standards by developing appropriate methodology and documentation. Developed and maintained process maps by meeting with individual leaders and the entire leadership team. Monitored tasks, objectives, scopes, limitations, and resource requirements. Ensured accurate reporting by leading an audit team. Corrected non-compliant and deficient areas by making appropriate recommendations. Explained and supported results and findings by coordinating the development and maintenance of appropriate working papers, charts, tables, graphs, and calculation and interview material records.

**REPORTING | DOCUMENTATION:** Prepared and edited monitoring reports. Developed and compiled detailed written reports based on the thorough analysis of data and findings. Created easy to understand periodic and ad hoc reports, which included charts and graphs by directing the compilation of pertinent statistical data.

**PROJECT MANAGEMENT:** Managed and provided guidance on projects supporting key initiatives by establishing project and study scope, goals, and objectives, along with identifying outcome criteria and measurements. Ensured effective project completion by incorporating appropriate research techniques, ensuring accurate information collection, reviewing all statistics, and facilitating the discussion of reports, recommendations, and alternatives with management. Documented projects by developing and maintaining proper records.

**BUILDING COALITIONS:** Ensured safety and quality regulatory compliance for toll roads under 23 United States Code (U.S.C.) 166 by working with the FHWA. Developed and maintained knowledge of issues, trends, and challenges by participating in meetings. Garnered approval of recommendations by coordinating review presentations for senior leadership and advising the Chief Operating Officer (COO) and leadership team on the interpretation of data evaluation results and implementations. Alerted the COO on findings substantially out of line with expected or past results.

Delivered more efficient services and resources by collaborating with other functional areas. Encouraged coordination, communication, and cooperation among various units by obtaining input from appropriate staff. Established and maintained effective relationships with staff in other divisions. Addressed concerns, programmatic needs, and system needs and requirements by attending inter- and intra-divisional meetings.

- **Met evolving demands through shared infrastructure, operations, and costs** by developing an innovative Consumer Credits Program for the newly integrated State Road and Tollway Authority (SRTA) and the George Regional Transportation Authority (GRTA).
  - o **Demonstrated the ability to help commuters think about transportation in a more-integrated way, reduce congestion along the heavily-traveled I-85, and reduce Single Occupancy Vehicle (SOV) usage of express lanes during peak hours** by developing a pilot program offering toll credits for reducing number of peak period commutes, attracting carpools to express lanes, and taking GRTA Xpress bus routes.

## GENA M. MAJOR

---

- **Earned several national-level awards for success in implementing the program, including** the International Bridge, Tunnel and Turnpike Association (IBTTA) President's Award, the American Public Transportation Association (APTA) Innovation Award, and the Project Management Institute (PMI) Government Project of the Year.
- **Developed an easy and efficient method to house historical information** by creating a BI portal using Tableau visualization software to track GA-400 and I-85 toll road Key Performance Indicators (KPIs).
- **Obtained 100% of strategic objectives** tied to the Authority's goals and objectives for its 5-year plan by developing and leading the Authority Strategic Plan initiative and Balanced Scorecard implementation via a department-wide collaborative effort.
- **Recognized by the Atlanta Business Chronicle for successfully implementing the I-85 HOT lane project** by developing, monitoring, and publishing the Critical to Quality (CTQ) performance metrics for the *Lead with Data* marketing strategy.
- **Drove tolling operations to "Best in Class" performance** by implementing Lean quality methods for customer service, internal audit reconciliations, transactional costs, and interoperability.
- **Maintained federally mandated 45 miles per hour (mph) speeds for the I-85 HOT lanes during peak periods** by implementing Statistical Process Control (SPC) quality measures via using dynamic pricing and customer incentive programs which encouraged transit and other options during peak rush hour periods.

### Process Improvement Manager (7/2008 - 4/2013)

Maintained efficiency and quality through using Business Process Improvement techniques by leading, mentoring and guiding a 4-person team, including 2 quality analysts, a quality administrator, and an intern.

**BUILDING COALITIONS:** Ensured safety and quality regulatory compliance for toll roads under 23 U.S.C. 166 by working with the FHWA. Developed and monitored the Authority's strategic plan by collaborating with all departments across the Authority.

**DATA DEVELOPMENT | ANALYSIS | REPORTING:** Contributed to the annual report published by the Authority by putting together all the data. Kept historical and current metrics by creating and maintaining a data warehouse. Reported performance to FHWA by publishing progress towards meeting yearly goals quarterly and submitting yearly performance reports to FHWA.

- **Reduced Georgia 400 toll violation rate from 15.7% to 4% and increased toll revenue collections \$1.8 million/year** by identifying and reducing the number of false violations for valid customers through root-cause analysis.
  - **Lowered violations** by leading a campaign to replace faulty transponders found during the root cause analysis.
  - **Received the Governor's Customer Service Award** based on the success of the process improvement initiative.
- **Cut operational costs \$3 million/year based on lower transactional costs, violation process efficiency improvements, and improved customer self-help** by using Lean Six Sigma quality and root cause analysis methodologies.
- **Increased transparency of actual I-85 HOT lane performance against performance targets while overseeing all data reporting and high-performance metrics** by creating statistical analyses which leading news agencies, including the Atlanta Journal Constitution, Associated Press, and Toll Roads News vetted successfully.
  - **Showed congestion improvement** by disseminating daily, weekly, and monthly performance metric data for average ridership, average vehicle occupancy, and both HOT lane and general-purpose lane average speeds.

### Georgia Piedmont Technical College | Clarkston, GA

6/2005 - 12/2009

#### Instructor, Mathematics (6/2005 - 12/2009)

Increased undergraduate student knowledge as a member of the faculty for a grant-funded experimental learning program model project focused on improvement and increased participation of underrepresented minorities, particularly women, in scientific and technological careers at a commuter college. Maintained an online platform for students to work on mathematics problems and interact with the instructor.

- **Reduced student failure/withdrawal rate 52% and reached 6,425 students, more than double the 3,000-student goal, \$261,000 under the \$300,000 grant targeted spend after the course gained popularity for increased enrollment from word of mouth** by encouraging student participation through maintaining office hours right before and after class and supporting students to use the computer technology given to each student to work problems.

### General Motors (GM)

1/1994 - 6/2004

#### Senior Manufacturing Engineer / Dynamic Vehicle Testing | Doraville, GA (7/2002 - 6/2004)

Supervised the entire final minivan assembly testing process in a Dynamic Vehicle Testing Booth which simulated on road conditions, including ensuring the booths operated properly and tests occurred in a timely fashion to prevent production backups. Enabled corrective actions by tracking and communicating test failures to the appropriate stakeholders

**LEADING PEOPLE:** Ensured operator safety through following proper practices.

## GENA M. MAJOR

---

- **Improved the Final assembly Direct Run Rate from 98.2% to 98.7% within one year, exceeding the 98.5% goal**, by using Red X statistical engineering and Six Sigma quality assurance methodologies to problem-solve failures.
- **Exceeded 98.5% first-time pass rate** by fixing problems found through tracking failures and booth maintenance.
- **Achieved the first Statistical Engineering Master Certification** in the general assembly engineering department.

### **Senior Quality Engineer / Vehicle Assembly Engineering | Doraville, GA (8/1998 - 7/2002)**

Minimized process variation and reduced Cost of Poor Quality (COPQ) by eliminating root-causes of warranty complaints for J.D. Power Voice of the Customer (VOC) projects via statistical engineering and Six Sigma methodologies, including Statistical Process Control (SPC) and Shainin Pre-Control. Received the department's first-ever Statistical Engineering Master Certification.

- **Guided 2 employees to achieve Apprentice/Green Belt and Journeyman/Black Belt certifications** by providing coaching and training on data calculations and analysis, determining probable next steps, communicating with stakeholders, implementing corrective actions, writing final reports, and submitting certification applications.
- **Saved \$1.7 million yearly minivan manufacturing costs as the team leader and plant winner of GM's pinnacle People Make Quality Happen Award** by leading a cross-functional quality engineer, supervisor, and operator team to do conduct root cause analysis while using Red X problem-solving methodologies via using Kaizen method for continuous incremental improvements.

### **Program Build Coordinator | General Motors Technical Center | Warren, MI (5/1996 - 8/1998)**

Managed a prototype build of pre-production vehicles, including developing program forecasts and scheduling. Prioritized capital spending by developing business cases while using PERT and Gantt Charts.

- **Enabled department to achieve 100% on-time schedule for prototype shipments** by tracking progress using project management skills.
- **Motivated team to maintain on-time performance by showing progress using visual management techniques.**

### **Senior Supervisor Engineering Shop | General Motors Technical Center | Warren, MI (1/1994 - 5/1996)**

Managed assembly of body-in-white prototype vehicles by supervising and ensuring the safety of a team of 34 skilled model makers, setting build schedules through work-cell loading, maintaining adherence to the build specifications, conducting quality weld audits, piloting a U-shaped work cell, and implementing lean manufacturing initiatives.

- **Improved the quality of General Motors manufactured vehicles** by conducting competitive analysis and benchmarking on other leading manufacturers' vehicles.

## **General Electric (GE) Company**

6/1990 - 1/1994

### **Technical Project Manager, GE Plastics Division | Southfield, MI (6/1992 - 1/1994)**

Provided technical guidance to Chrysler Corporation on interior plastic application manufacturing. Enabled the successful introduction of self-directed work teams as a key member of the pilot program.

- **Maintained over \$1.5 million ABS resin and growth sales targets** by developing a strategic plan and maintaining relationships through dedicated and responsive customer support.

### **Manufacturing Management Program Member | King of Prussia, PA / Louisville, KY (6/1990 - 6/1992)**

Developed manufacturing and leadership skills through various engineering and supervisory assignments in the GE Aerospace and GE Appliances divisions.

## **General Motors (GM)**

9/1984 - 6/1990

### **High School and College Co-Op Student**

Various rotational assignments in both manufacturing and engineering. Completed 5<sup>th</sup> year thesis: "**Advancements in Programmable Logic Controller Technology: A Comparative Study**"

## **EDUCATION**

### **Master of Business Administration (MBA)**

Concentration in Operations Management and Organizational Behavior  
University of Michigan | Ann Arbor, MI

6/1997

### **Bachelor of Science in Electrical Engineering (BSEE)**

Kettering University | Flint, MI

6/1990

## GENA M. MAJOR

---

### TRAINING

<b>Fundamentals of Bus Collision Investigation</b>   Transportation Safety Institute	8/2019
<b>Public Transportation Agency Safety Plan (PTASP) Final Rule Series</b>   Federal Transit Administration	7/2019
<b>Women's Leadership Academy</b>   Dale Carnegie	5/2019
<b>Safety Management Systems (SMS) Principles for Transit</b>   Transportation Safety Institute	5/2018
<b>Curbing Transit Employee Distracted Driving</b>   U.S. Department of Transportation	1/2018
<b>Leadership Academy</b>   International Bridge, Tunnel and Turnpike Association (IBTTA)	2/2014

### CERTIFICATIONS

<b>Certified Statistical Engineering Master (CSEM/CMBB)</b>   General Motors University (GMU)	12/2003 - Present
<b>Certified Six Sigma Black Belt (CSSBB)</b>   American Society for Quality (ASQ)	5/2008 - Present
<b>Project Management Professional (PMP)</b>   Project Management Institute (PMI)	2/2009 - Present
<b>Transit Safety and Security Professional (TSSP)</b>   Transportation Safety Institute (TSI)	02/2021 - Present
<b>Project Management Professional (PMP)</b>   State of Georgia (Renewable only if working for the state)	2/2015 - 2/2018
<b>Qualified Mathematics Instructor</b>   Georgia Professional Standards Commission (PSC)	3/2008 - Present
<b>Wayside Level II/Dedicated Lookout Certified</b>   MARTA	9/2016 - Present

### AWARDS

<b>Employee of the Year</b>   Department of Safety and Quality Assurance (DSQA)	2018
<b>Innovation Award, Commuter Credits Program</b>   American Public Transportation Association (APTA)	10/2017
<b>President's Award, Commuter Credits Program</b>   International Bridge, Tunnel and Turnpike Association (IBTTA)	7/2017
<b>Government Project of the Year</b>   Project Management Institute (PMI)	6/2013

### MEMBERSHIPS

<b>Board of Directors</b>   Atlanta Track Club	1/2021 – Present
<b>Trustee</b>   MARTA Pension Board	11/2020 - Present
<b>Past Chairperson</b>   DeKalb County Audit Oversight Committee	1/2016 – 5/2019
<b>Member</b>   American Society for Quality (ASQ)	3/2008 - Present
<b>Member</b>   Project Management Institute (PMI)	2/2009 - Present
<b>Member</b>   Women's Transportation Seminar (WTS)	6/2014 - Present
<b>Member</b>   Atlanta Track Club (ATC)	1/2013 - Present
<b>Member</b>   City Schools of Decatur Parent Teacher Student Association (PTSA)	8/2010 – 5/2019
<b>Member</b>   Georgia Real Estate Investors Association (GaREIA)	7/2005 – 12/2018
<b>Member</b>   International Bridge, Tunnel and Turnpike Association (IBTTA)	7/2008 – 12/2016

### PRESENTATIONS & PAPERS

<b>Quality Conversations Using the OBREAU Tripod</b>   2019 American Society for Quality (ASQ) World Conference	5/2019
<b>Using Project Management to Implement A Public Access Defibrillation Safety Program</b>   2019 APTA Rail Conference Abstract Acceptance	4/2019
<b>Can We Move Forward?</b>   History of Zonar Technology for Bus Pre-Trip Inspections	4/2019
<b>Building a Safety-First Culture with Business Intelligence</b>   2019 APTA Rail Conference Abstract Acceptance	3/2019
<b>Detection through Inspection</b>   2019 APTA Rail Conference Abstract Submission	12/2018