

# FORKLIFT SIMULATION

Virginia Department of Juvenile Justice  
Yvonne B. Miller High School & Postsecondary Programs  
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North Chesterfield, VA 23235

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Presentation by:  
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# Bon Air Juvenile Correctional Center

- Bon Air Juvenile Correctional Center is Virginia's maximum-security facility for committed juveniles and is located in the heart of Chesterfield County, Virginia
- The Division of Education currently has 110 employees to include teachers, Instructional Assistants, school security officers (SSOs) and other support staff
- Bon Air JCC also staffs Juvenile Correctional Specialists (JCS), a Behavioral Services Unit (BSU), Counseling staff, Health services staff, Food services staff, and a host of facility administrators that provides wraparound services to committed juveniles
- Yvonne B. Miller High School & Postsecondary Programs is a fully functional school within the facility that provides opportunity for students to complete a High School Diploma or GED and secure various types of credentials and certifications in preparation for entry into the workforce.



# Forklift Simulation Program



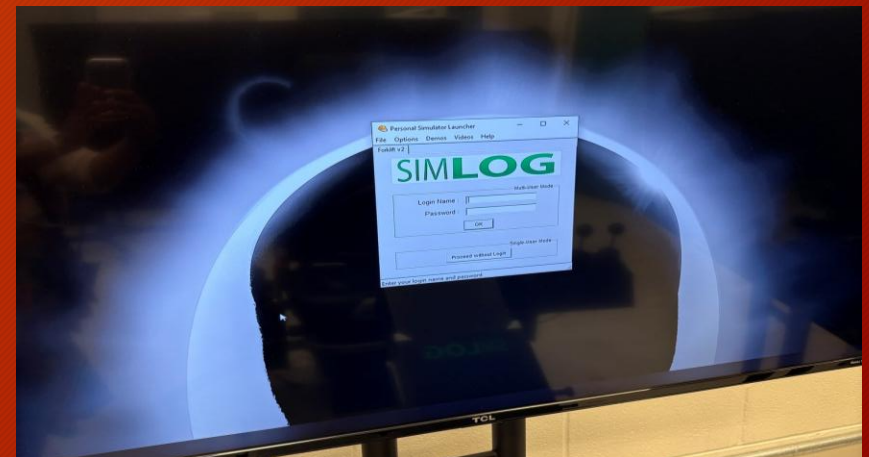
- Forklift simulation classes was established in 2018 within the Postsecondary program to expand student access to jobs and careers within retail, warehouse, manufacturing, automotive, and industrial trades
- Viable options for students in need of access to second-chance opportunities and jobs that were less cumbersome to penetrate became a necessity.
- The Director of Postsecondary Education worked in collaboration with Academic and Career Coordinator and the Information Technology Resource Technician (ITRT) for implementation and introduction of Forklift simulator classes.
- Instructor training and certification was completed under partnership with the Community College Workforce Alliance (CCWA) at Reynolds Community College

# Why a Forklift Simulation Class?

- It forces open access within career pathways in:
  - Trades & Construction
  - Automotive Industry
  - Maintenance & Operations
  - Manufacturing
  - Production
- Careers within these pathway are relatively easy to penetrate.
  - Certification provides even more access.
  - Supports individual ability to respond to a variation of job needs and tasks
  - Encourages safe materials handling and movement



# Forklift Simulation Class at Yvonne B. Miller

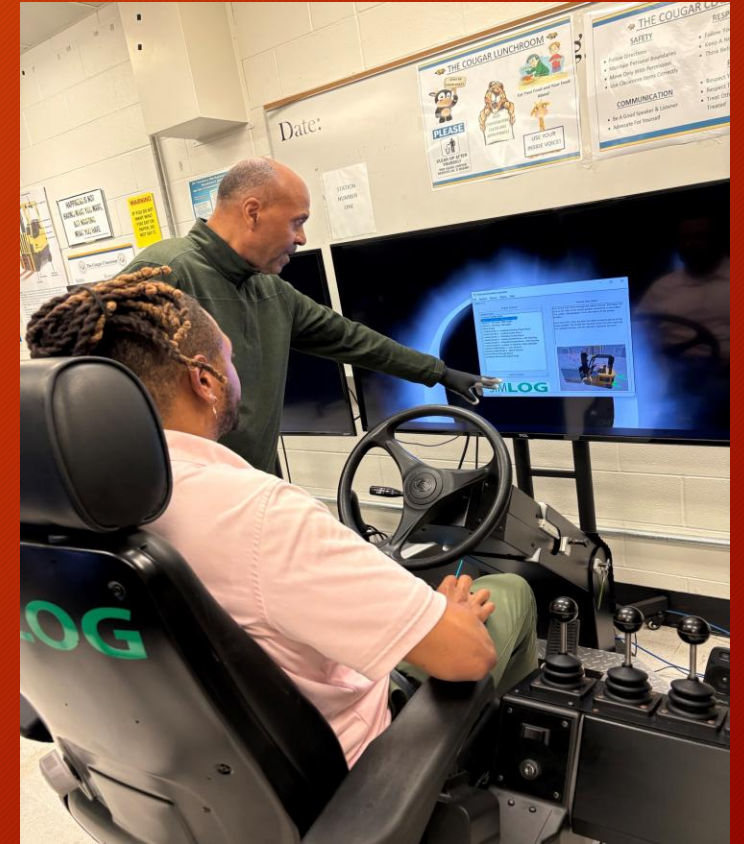


# Forklift Simulation Class at Yvonne B. Miller



## The SIMLOG product:

- Four simulator operator chair stations
- Software  
Forklift Personal Simulator (V.2)
- Hardware-Each simulator station has:
  - 3 Front displays
  - 1 Back display
  - 4 Levers
  - 1 Industrial steering wheel
  - 3 Industrial foot pedals



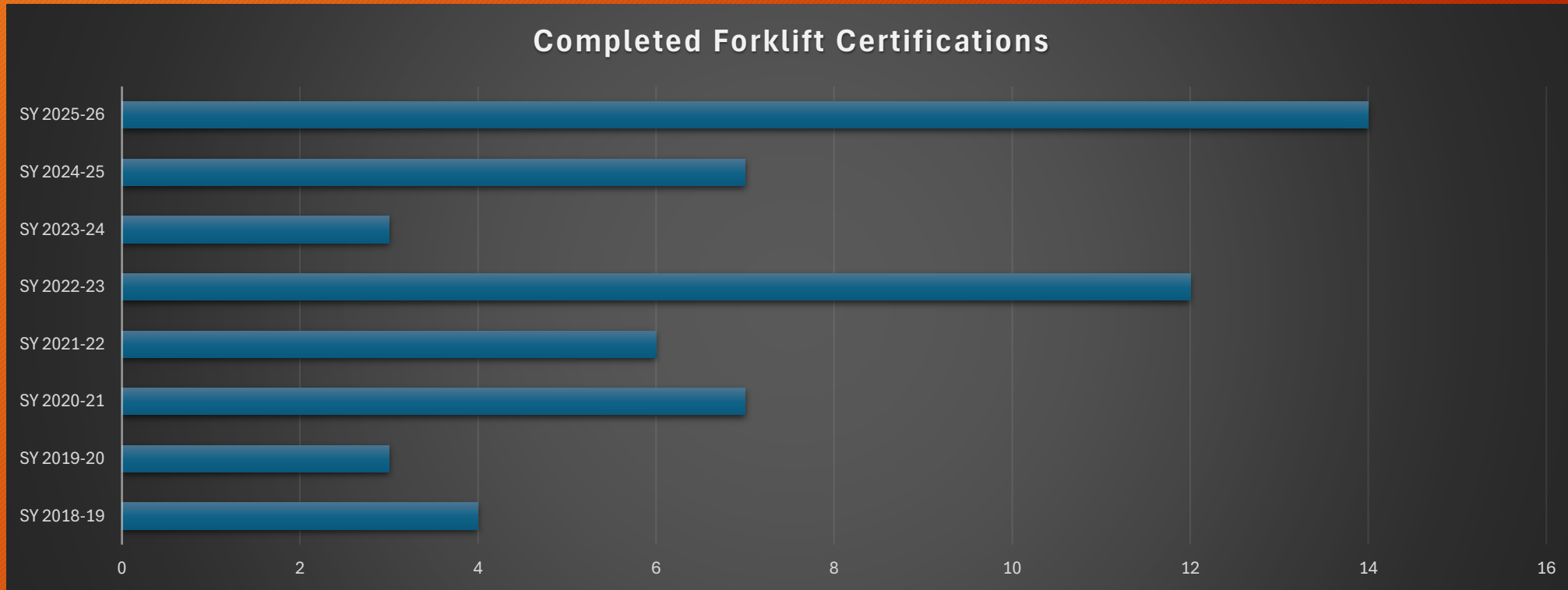
# Forklift Simulation Class at Yvonne B. Miller



## The Forklift Simulator Program:

- Nine-week training program that follows the teaching modules within the simulator software
  - 4 class sections per nine weeks
  - 2-hour long class sessions
  - Typically, four different class opportunities within our school year
- Certification testing through Community College Workforce Alliance (CCWA) is scheduled once students complete the modules

# Forklift Simulation Class at Yvonne B. Miller (YBM) Through The Years...



# A Typical (YBM) Yvonne B. Miller Student

- Postsecondary only program that aligns to Virginia regulations for hazardous occupations
- 18 years of age or older
- Many have experienced challenges or disruptions within their educational journey and are looking for viable work options that will provide gainful and sustainable employment
- Gravitation towards and preference given to short-term educational requirements and minimal time investment

\*\*40% of our student population receive special education services



# YBM and CCWA

- Once students complete the 9-week simulation course, they undergo an approval process to be able to go off campus for forklift testing at CCWA.
- CCWA provides a 4-hour training and refresher course
- Students must pass the written exam before testing on the forklift

Once in forklift exam mode, students must be able to:

- Demonstrate all safety steps as learned
- Identify levers and parts of the forklift upon command
- Demonstrate appropriate control of forklift
- Demonstrate basic maneuvering functions
- Demonstrate the ability to lift palates and materials appropriately
- Demonstrate the ability to relocate palates and materials appropriately and safely



# Initial Implementation Investment

- Based on budget reports, the cost of implementation in 2018 was \$242,043.00
- Funding was secured through the general funds budget that is allocated to the Division of Education every fiscal year. General funds consists of monies granted by federal, state and local government.
- The purchase of all Simlog equipment and software was done through a third-party vendor, Amtek Corporation.
- Long-standing partnership also resides with Amtek corporation for the maintenance and servicing of the forklift simulators and its associated hardware and software.

# Future Programming Plans

Incremental planning taking place to eventually expand the forklift simulator program to Utility & Heavy Construction or Heavy Machinery.

- Class structure would change from a 9-week course to an 18-week course
- At least 2 additional simulator chairs would be added
- The software platform would be expanded to include the other heavy machinery equipment:
  - Bulldozer
  - Backhoe
  - Skid-steer



Challenges & barriers to overcome:

- Appropriate space capacity
- Conducive learning environment/space
- Equipment/Software Upgrades
- Cost of Upgrades
- Teacher Training