

NAPE

National Alliance for Partnerships in Equity

The Equity Professionals



PATHWAYS TO CONSTRUCTION TRADES (PACT)

THURSDAY, APRIL 19, 2012



Fund for the Improvement of Post-Secondary Education (FIPSE)



MILWAUKEE AREA TECHNICAL COLLEGE SCHOOL OF TECHNOLOGY AND APPLIED SCIENCE

PRESENTERS:

Mona Schroeder-Beers, PaCT Manager

Bev Sroka, Lead Instructor and Carpentry Instructor

Claudia Vasquez– Math and Language Arts Instructor

Topics for Today's Discussion



- **Design of the Pathways to Construction Trades (PaCT) Project**
- **Contextualized Curriculum**
- **Training of Cohorts 1, 2, 3, 4**
- **Challenges**
- **Evaluation Results and Outcomes**

Design of Pathways to Construction Trades (PaCT)



PaCT is a project designed to bridge construction trades employment through **Contextualized Training** targeted for academic disadvantaged & limited English speaking dislocated workers

Project Design



This Project will provide participants with:

- **English as a Second Language/Basic Education with linguistic & academic barriers into post-secondary**
- **Contextualized construction trades curriculum**
- **Exploration of multiple career options in construction through engaged occupational training**
- **Obtain skills development in the construction trades**
- **Obtain a skills certificate & post-secondary credit in construction trades**
- **Career pathways to assist them in their career goals**

Need for Project



- [Mike Rowe](#) addresses the Senate
- Shortage of Trained Construction Trade Workers in:
 - Welding
 - Pipefitting
 - Electrical
 - Plumbing
 - Carpentry*
 - HVAC (Heating, Ventilation, Air Conditioning)

* Wisconsin State employment project for 2002-2016 notes Carpentry as Second highest need for jobs

Need for Project cont:



- Numbers of qualified construction workers are insufficient to replenish the aging workforce – (retirements)
- Differing levels of impact for different trades, severe training needed such as in Electrical & Carpentry
- Construction industry reports 95,000 replacement workers needed, along with another 90,000 new workers

Goals & Objectives



- **Provide Training to 120-150 Dislocated Workers**
 - Contextualization of math & communication curriculum
 - Provide applied course content as vehicle to enhance ‘basic skills’
 - Hands on applications to construction trades
- **80% of Participant will Successfully Complete PaCT Training Program**
 - Pre and post testing to identify deficiency and mastery of competencies
 - Successful mastery of basic skills competences in math and communications

Goals & Objectives Cont.



- **100% of Participants will Select a Career Pathway in the Construction Trades or a Related Field**
 - Provide remediation for transition
 - 75% of the Participants will enroll and/or will find employment in the construction trades
 - MAWIB-HIRE will coordinate employment referrals
 - Wisconsin Job Service/Job Centers placement
- **Replication of project as National Model**
 - Disseminate to report to all stakeholders

Partners



- **Milwaukee HIRE Center**
- **Milwaukee County Labor Council**
- **Wisconsin Job Service**
- **AFL-CIO Education & Labor Center**
- **Wisconsin Regional Training Partnership**
- **Milwaukee Area Workforce Investment Board**
- **Milwaukee Area Technical College**
- **PaCT Advisory Board**

Funding Sources



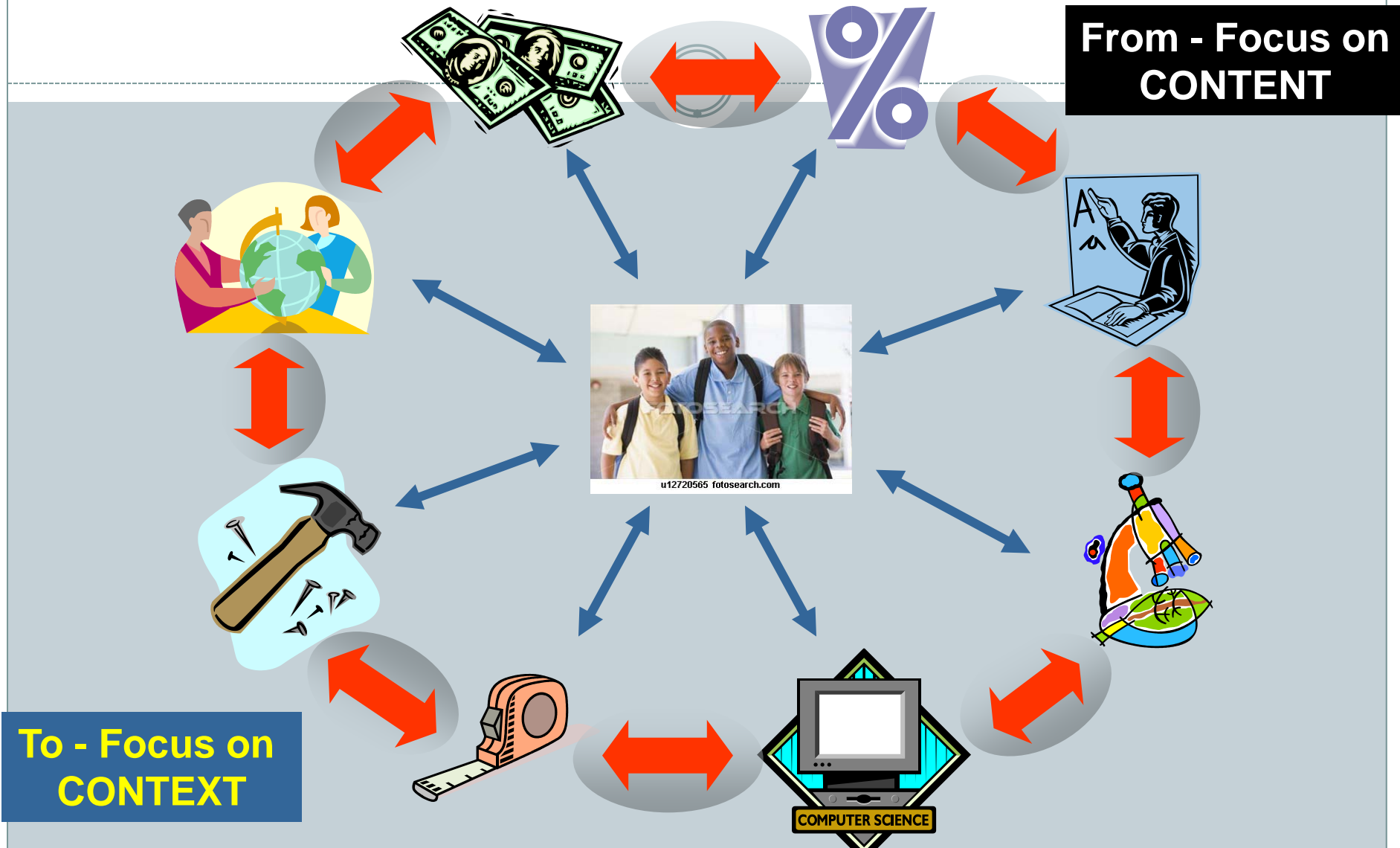
- **Department of Education, Fund for the Improvement of Post-Secondary Education**
- **Milwaukee Area Workforce Investment Board**
- **Trade Adjustment & Re-Adjustment Act Funds**
- **Milwaukee Area Technical College**

Sustainability



- Partnering agencies will continue to utilize local and new funding to offer a short-term training option for dislocated workers
- The project will also be extensively disseminated & technical assistance will be provided by MATC for agencies intending to duplicate PaCT
- New Training Site

Contextualized Teaching and Learning



Focus on the Relationships of the Content elements to encourage Application of concepts and facilitate Student Learning

What is meant by Contextualized?



Contextualized Learning

Learning by doing causes us to make connections and understand relationships that yield meaning, and when we see meaning, we acquire and retain knowledge and skills

CTL System - Key Components



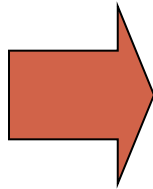
1. Collaborating
2. Making connections that hold meaning
3. Nurturing the individual
4. Self-regulated learning
5. Reaching high standards
6. Doing significant work
7. Critical and creative thinking
8. Using authentic assessment

Relating Prior Practical Knowledge to Decimal Fractions



Dollar Bill

- \$1.00
- 75 cents
- 50 cents
- 25 cents



Quarter Coin

- 4 quarters
- 3 quarters
- 2 quarters
- 1 quarter

One Inch

- 1"
- $\frac{3}{4}$ "
- $\frac{1}{2}$ "
- $\frac{1}{4}$ "

Check Writing

- 00/100
- 75/100
- 50/100
- 25/100

PaCT Curriculum for English Speaking Cohort

(420 hours)



- 32 hours of OSHA/First Aid
- 180 hours of PaCT Construction (hands on lab work)
- 56 hours of PaCT Fundamentals of Construction
- 32 hours of PaCT Blueprint Reading
- 8 hours of Lead Renovation Repair/Paint
- 16 hours of PaCT Masonry
- 40 hours of PaCT Contextual Math
- 64 hours of PaCT Contextual Language Arts

PaCT Curriculum for Language Cohort Groups

(511 hours)



- **32 hours of OSHA/First Aid**
- **180 hours of PaCT Construction (hands on lab work)**
- **56 hours of PaCT Fundamentals of Construction**
- **32 hours of PaCT Blueprint Reading**
- **16 hours of PaCT Masonry**
- **77.5 hours of PaCT Contextual Math & LA**
- **117.5 hours of PaCT ESL**

Training of Cohorts 1, 2, 3, 4

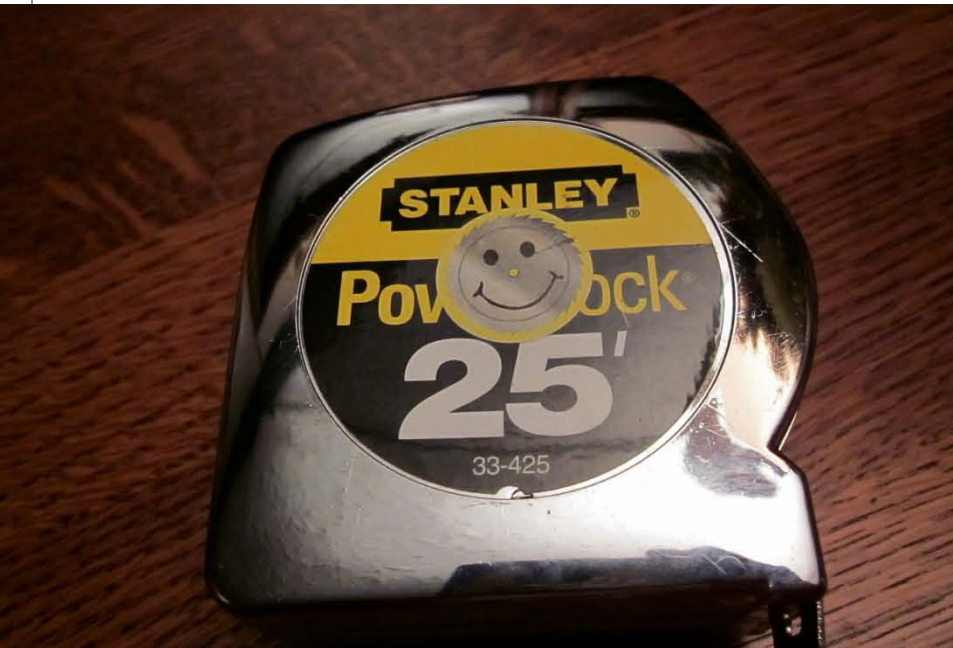


- **Cohort 1**
 - 14 of 16 students completed
 - 1 student entered the workforce before training ended
- **Cohort 2**
 - 11 of 14 students completed
 - Spanish language group – All classes delivered in Spanish
 - 4 student entered the workforce before training ended
- **Cohort 3**
 - 9 of 11 students completed
 - 1 student entered the workforce before training ended
- **Cohort 4**
 - 9 of 10 students completed
 - 1 student entered the workforce before training ended

Projects and Classes



- Sawhorse
- Birdhouse
- Honing skills
 - Bird
 - Toolbox
 - Frame
 - Temporary wall
- House Module
- Electrical Unit
- Stairs
- Scaffolding
- Masonry
- Lead Abatement



TAPE MEASURE





Apply Skills

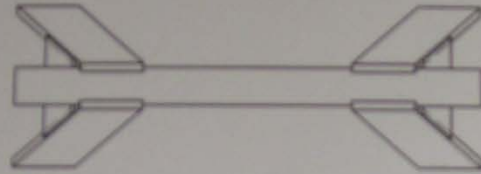
Read Blueprints

Learn Tools

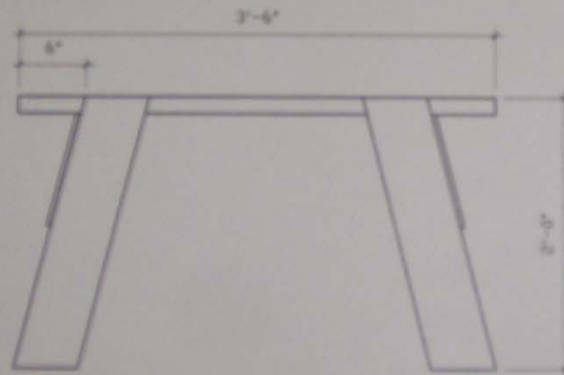
Build Confidence

First Project: Sawhorse

Using Hand tools



PLAN



SIDE ELEVATION



END ELEVATION

SCALE: 1" = 1'-0"

SAWHORSE

AUGUST 30, 2010

MATC CARPENTRY PROGRAM



FRAMING SQUARE





HANDSAW





CHISEL





HAMMER



Nails

Sizes

- 6-D

Types

- Box Nail

Coatings

- Galvanized





TEAMWORK



Second Project: Picture Frame



MITER

SAW





Combination Square

- 45 Degree Angle
- 90 Degree Angle
- Measure Accurately
- Square Frame



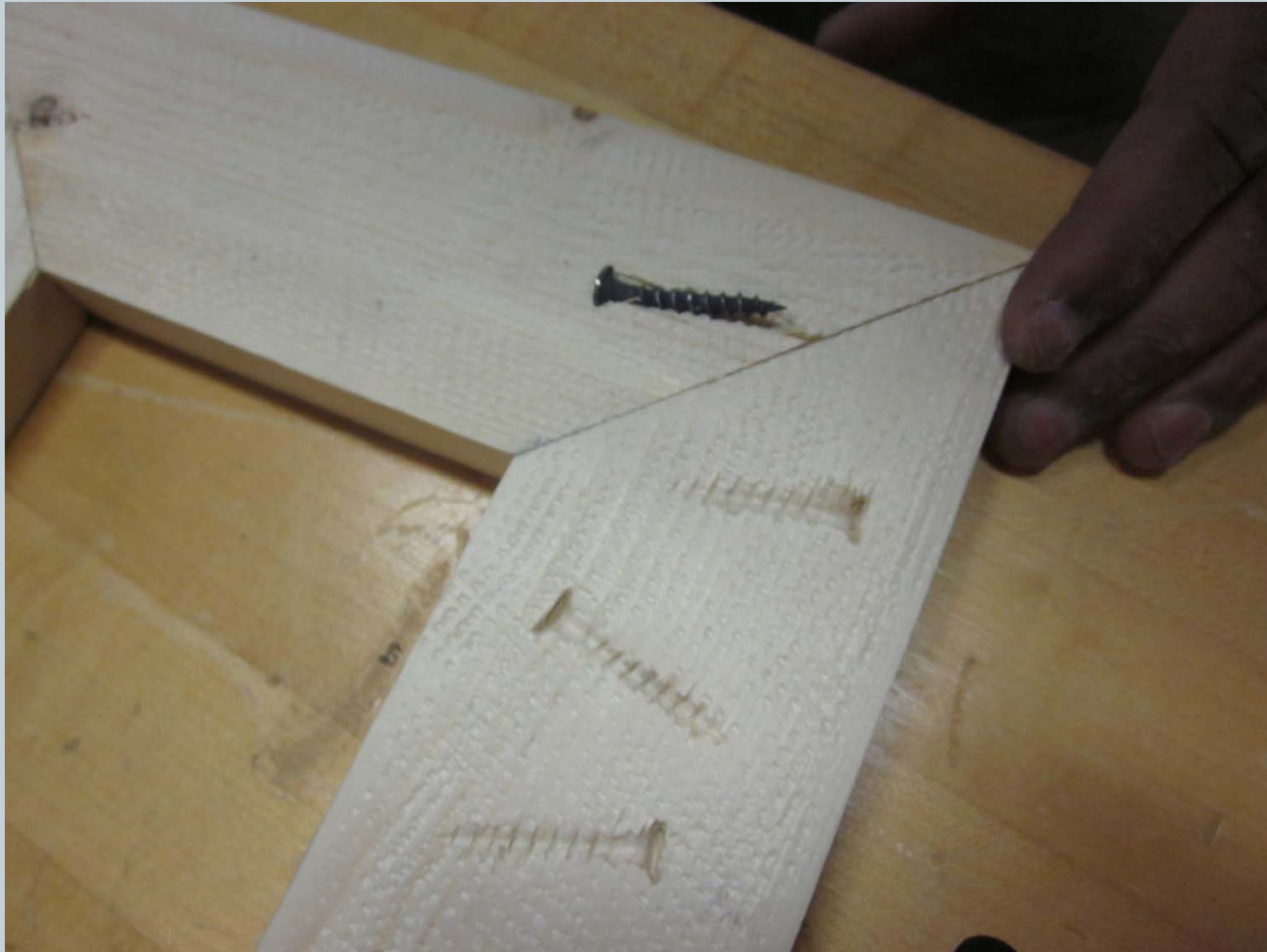
Defining Warp in Lumber



Drills and Jigs



Express Creativity!



Project: Birdhouse



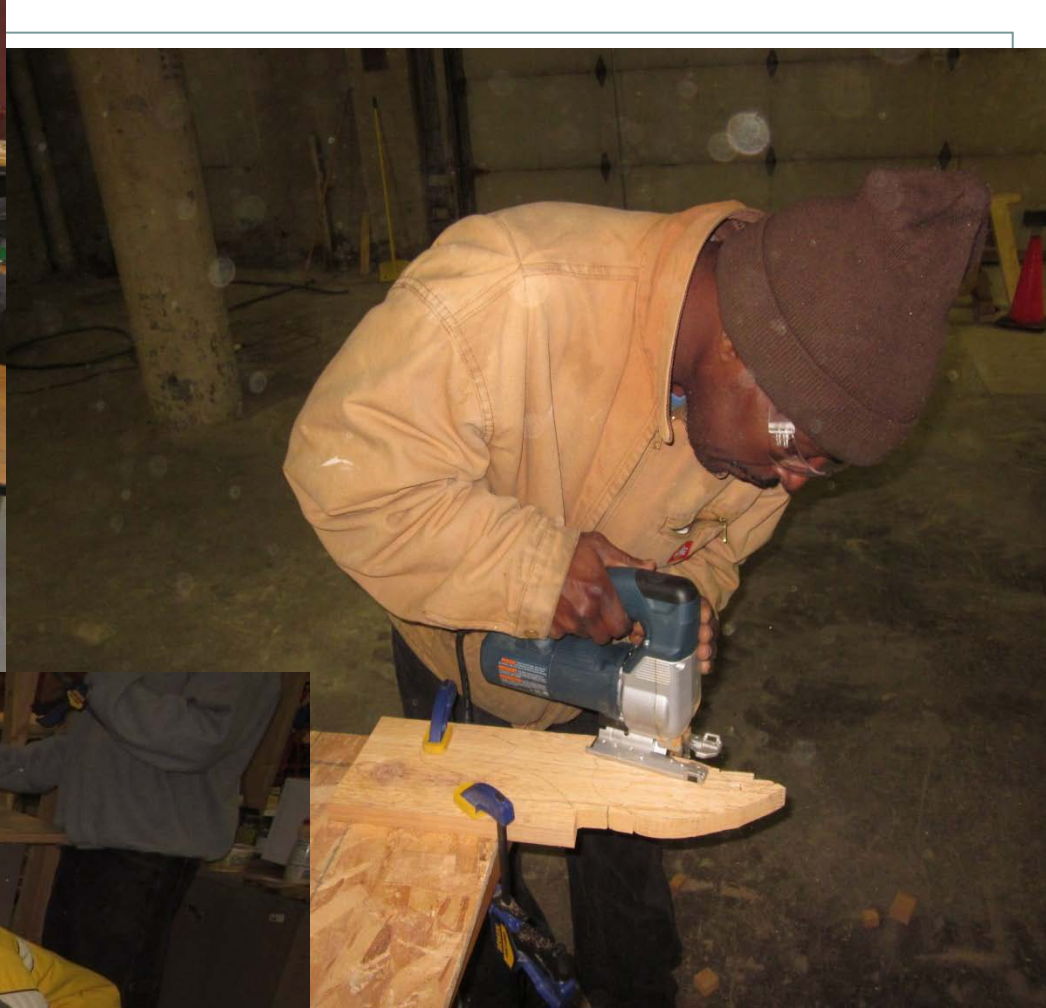


Miter Saw:
Straight Cuts
Angle Cuts
Table Saw:
Ripping Cuts



Project: Bird





- Patterns
- Jig Saw
- Drilling Straight

Wall Plate Layout



Building Walls



Raising Walls



Layout Interior Walls



Install Windows





Install Insulation



Masonry



Electrical Project



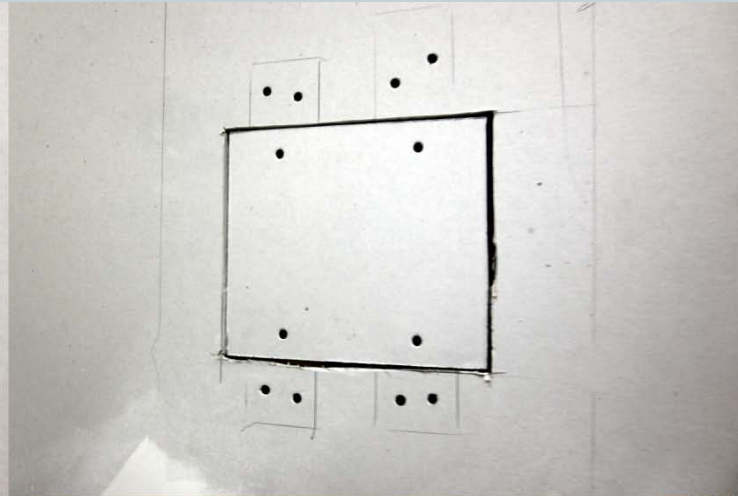
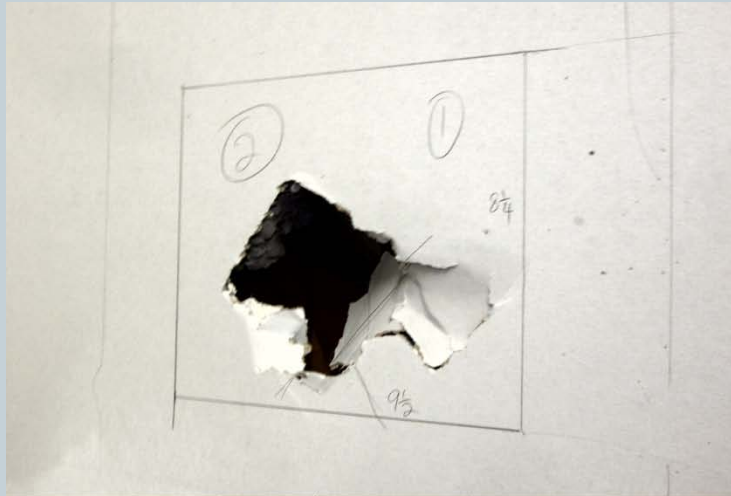


Light Switch and Light

Receptacle and Testers



Drywall Repair



Lead Safety



Curriculum Support Events/Activities



- Guest Speakers
- Site tours
 - MATC
 - Southeast WI Carpentry Training School
- Community Night [C4 Presentations](#)
- Dinners
- Portfolios
- [English as a Second Language](#)
- Graduation

Graduation



Challenges



New Location

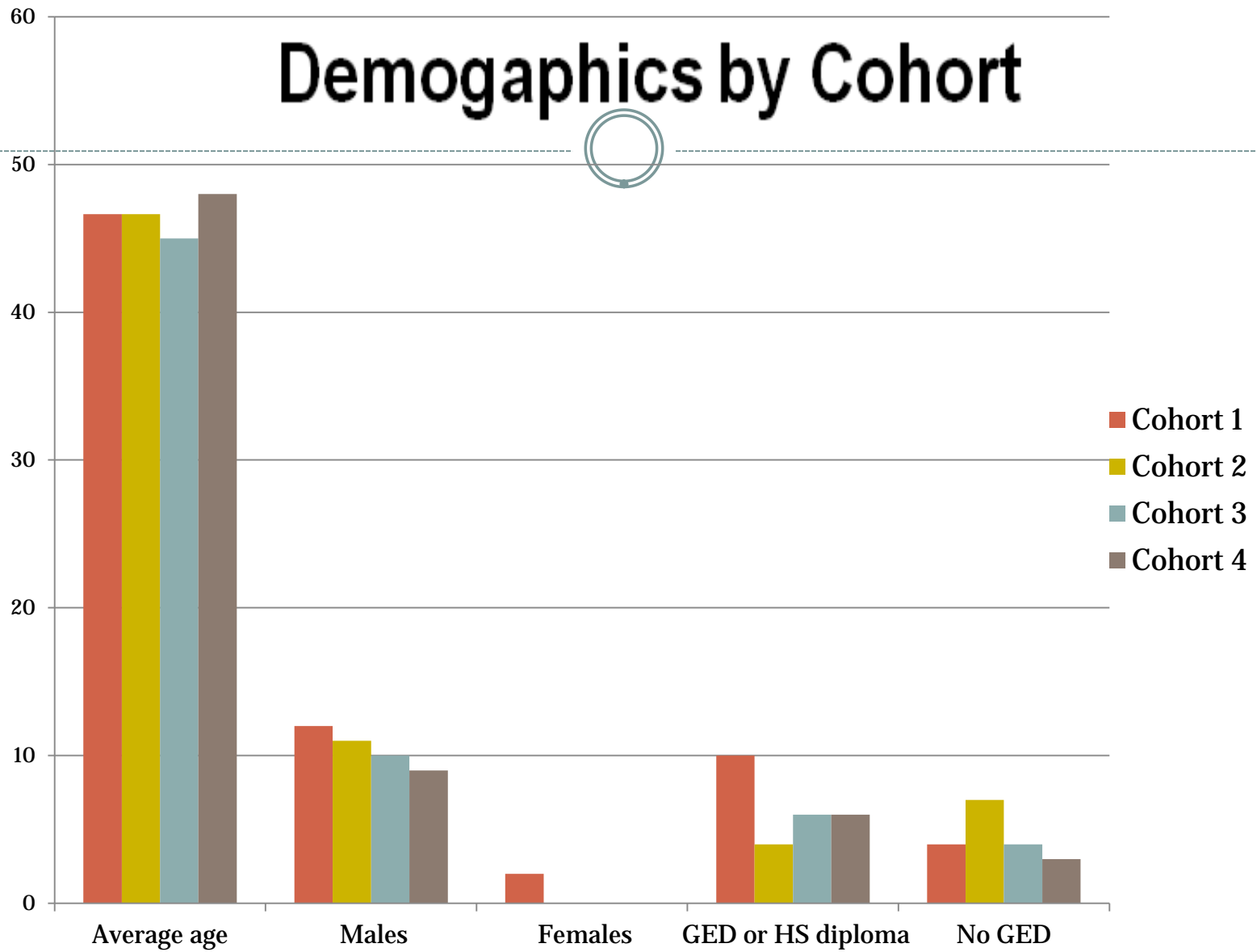


Challenges Identified by Students



- **Social Isolation**
- **Health**
- **Finances**
- **Learning**

Demographics by Cohort



Evaluation Results / Outcomes



- **Completion rate of first four cohorts = 86%**
- **94% of Cohort 1 and 93% of Cohort 2 found employment or continued their education**
- **Gains in Technical and Academic Skills**
 - 100% gained technical skills
 - 79% demonstrated a statistically significant gain in math
 - 42 % demonstrated a statistically significant gain in language arts
 - All reported the development of positive attitudes toward education
- **Quality of Life improved after PaCT Training**

For More information



The PaCT website is being constructed and will be up soon. Visit:

matc.edu/PaCT

QUESTIONS

