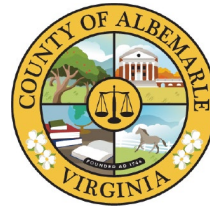


COMING
BACK
HOME

Virginia
Housing



BAMA WORKS
DAVE MATHEWS BAND GIVES BACK



**WOODARD
PROPERTIES**
EST. 1981



SHIMP ENGINEERING, P.C.
Design Focused Engineering

STANLEY MARTIN



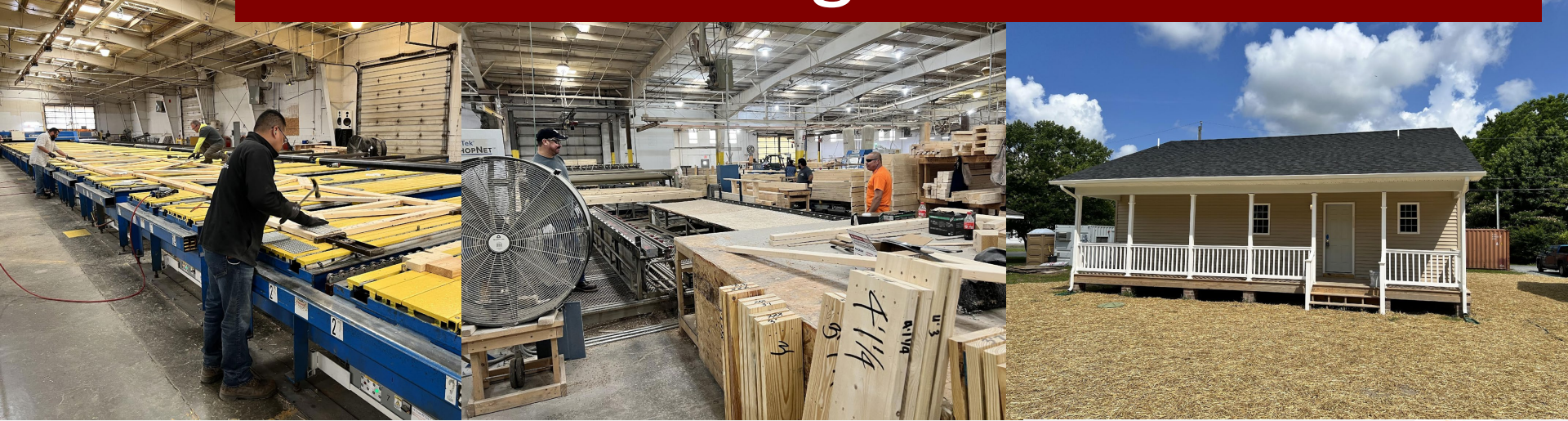
Affordable Housing and Workforce Development Panel

MELISSA (MEL) JONES, SARAH LYON-HILL, and ANDREW MCCOY

Center for Economic and Community Engagement (CECE) | Virginia Tech

Virginia Center for Housing Research (VCHR) | Virginia Tech

CVRHP Housing Summit



CECE AND VCHR | TEAM

3



Andrew McCoy

Beliveau Professor
and Director,



Melissa "Mel" Jones

Associate Director,
Research Scientist



Sarah Lyon-Hill

Associate Director for
Research Development





We are here to discuss housing affordability, workforce training, their intersection and the future of training

1. Introduce our centers and work
2. Housing Affordability- focus in on the construction industry
3. Workforce Development- focus in on construction
4. The Future



Mission: Virginia Center for Housing Research at VT (VCHR)

5

- Established by the Virginia Legislature in 1989 as the state's housing research center.
- VCHR has a mission to serve as "an interdisciplinary study, research, and information resource on housing for the Commonwealth of Virginia."
- VCHR provides housing-related data services to the Commonwealth through working with the legislature, state agencies, Virginia localities, and non-profit organizations.

- VCHR is also the Virginia Tech Center for Housing Research, working across disciplines.
- VCHR's broader mission includes: helping to solve the nation's critical housing needs through conducting national research related to housing affordability, sustainability, and innovative housing technologies.

Housing Affordability Research:

- **Housing analysis:** income, housing stock, transportation, energy costs, healthcare, childcare, social needs
- **Strategic planning** (to help localities make policy decisions affecting housing).
- **More recently- Housing technology research** (a variety of projects for the U.S. Department of Housing and Urban Development, the National Science Foundation, and state agencies)
-



Mission: Center for Economic and Community Engagement (CECE)

8

Solving Problems, Connecting Resources, Engaging Communities:

- Providing research and university connections to organizations and communities
- Strategic thinking and planning for pathways to economic prosperity
- Engaging community and turning ideas into action
- A U.S. Economic Development Administration (EDA) University Center

Analyses, assessments, studies, and projects that equip communities and organizations with the tools they need to succeed. Some specific projects include :

- GO Virginia
- Vibrant Virginia
- Region 2 Internship Collaborative
- Supporting Economic Recovery in Virginia through strategic planning and evaluation, market and feasibility studies, industry and workforce research, and impact analyses

Affordable Housing

- MARKET ANALYSIS
 - AFFORDABILITY BY OCCUPATION
 - GAP ANALYSIS
 - NOAH ANALYSIS
- COMMUNITY ENGAGEMENT
- POLICY DEVELOPMENT

Housing Affordability by Occupation Analysis

11

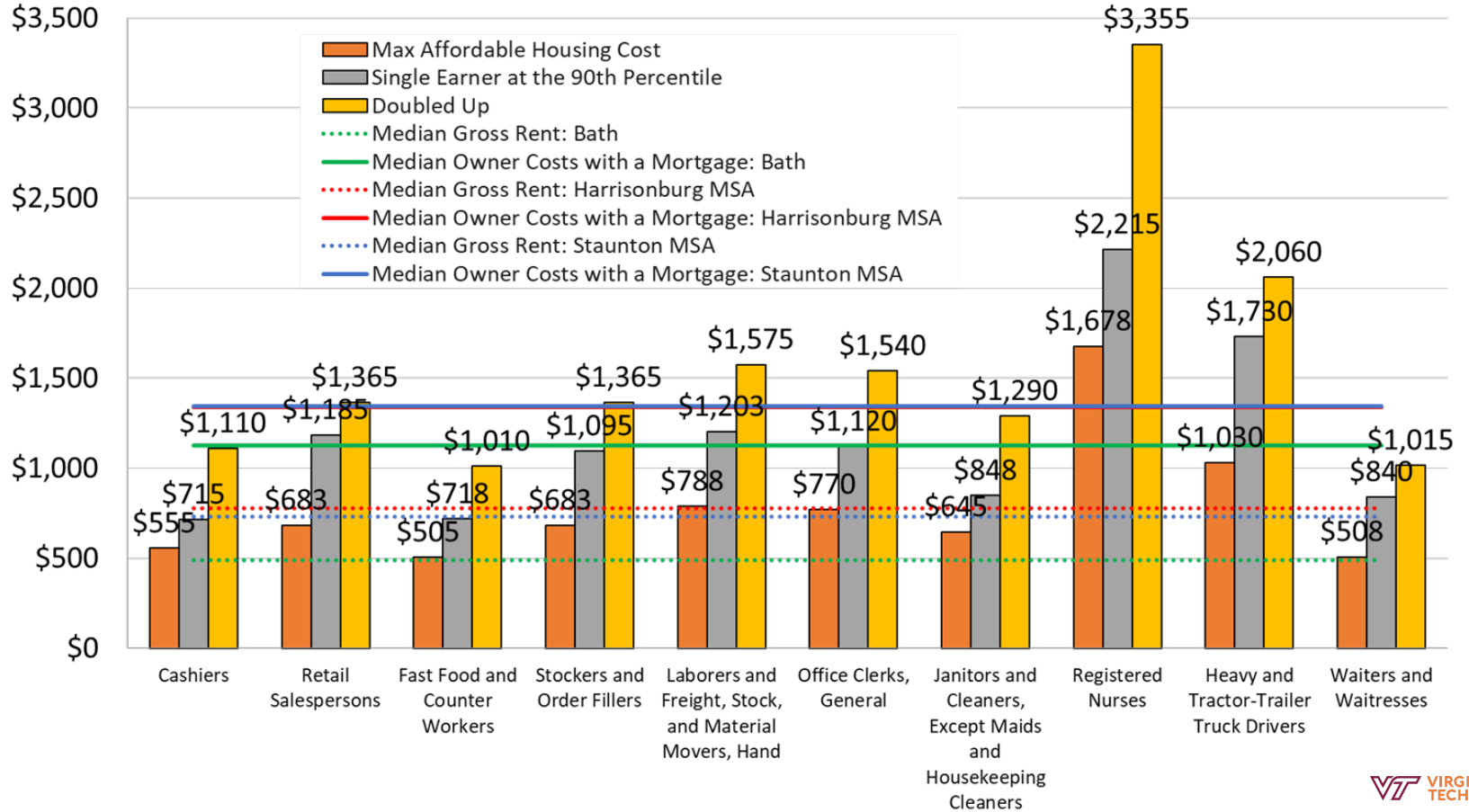
- Establish the number of working households (provide some information about non-working households)
- Examine the distribution of housing costs
- Compare earnings by occupation (six digit) to housing costs
 - Median earnings
 - Median earnings times 2
 - 90th percentile earnings

Example: Rockbridge, Buena Vista, Lexington

- Most households in the region (65%) include at least one worker.
 - 54% include one worker,
 - 38% include two workers, and
 - 8% include 3 or more workers.
- most households that do not include workers are likely to be retired or disabled
 - 28% of households receive retirement income,
 - 3-6% of households receive Supplemental Security Income

Housing Affordability for Top Ten Occupations by Employment in CSPDC

Source: VCHR Tabulation of 2021 JobsEQ Employment, 2020 JobsEQ Wages, 2019 ACS 5-year Estimates adjusted to 2020



Affordability Categories

14

Cannot afford lower quartile rent

Cannot afford median rent; can afford lower quartile rent only

Can afford median rent

Can afford to rent but cannot afford to own (upper quartile)

Can afford to rent and own

Housing Affordability by Occupation Example: Industry

15

Health IT Occupations in Loudoun County		Maximum Affordable Monthly Housing Costs		
Occupations	Employees	Single Earner Median	Doubled Up	Single Earner 90 th %ile
Maids and Housekeeping	1310	\$682	\$1,364	\$1,124
Nursing Assistants	877	\$760	\$1,519	\$1,026
Dental Laboratory Technicians	67	\$1,147	\$2,295	\$1,995
Registered Nurses	1498	\$1,988	\$3,976	\$2,691
Health Services Managers	224	\$2,909	\$5,818	\$5,055
Software Developers	1796	\$3,010	\$6,019	\$4,386
Pharmacists	201	\$3,147	\$6,294	\$3,992
General and Operations Managers	2556	\$3,490	\$6,980	ND

Stakeholder Engagement: Employers

16

Key contacts: small, medium, and large employers; economic development staff, chamber of commerce

Key questions:

- Do you think quality of life in the region will support economic development into the future? Specifically, I'm thinking about appropriate housing, short commute times, resources and amenities that help attract and retain workers.
- In your opinion, does your area offer appropriate housing options and amenities for businesses and their employees?
- Does your organization offer any type of housing assistance to employees? Things like relocation assistance, down payment assistance, help finding a rental?

Stakeholder Engagement: Builders as Employers

17

Key contacts: Developers, builders, contractors, suppliers

Key questions:

- What are some of the local challenges that affect housing in the region?
 - housing production (land use constraints, physical constraints, **developer or contractor availability/capacity**), affordability, other costs of living, location/appropriateness, homeownership, foreclosure, employment, schools, etc.
 - What, if any, barriers do you see to providing affordable housing for the growing/changing?
 - What other costs significantly affect housing? How and why?

Workforce Analysis & Development

- GAP ANALYSIS
- CAPACITY ANALYSIS & DEVELOPMENT
- COMMUNITY ENGAGEMENT
- POLICY DEVELOPMENT

- Identify the target industries to examine (industries with good employment concentration and growth opportunity)
- Examine staffing patterns and demographics of each industry
- Review skills needed for top and in-demand occupations
 - Education level and program completions
 - Knowledge, Skills, Abilities

Example: Thomas Jefferson Planning District

- 7,168 Construction Jobs (2022)
 - Avg. Earnings: \$67,117
 - 6% below the national average
 - 0.8% projected growth is lower than national average (4.5%)
- Compared to the nation, workforce is at high risk of retirement and has limited racial and gender diversity
 - Construction laborers (898 jobs, 12.5%)
 - Carpenters (738 jobs, 10.3%)
 - First-line supervisors (588 jobs, 8.2%)
 - Electricians (455 jobs, 6.3%)
 - Construction Managers (290 jobs, 4.1%)



Construction Workforce: Top Occupations

21

Description	2023 Jobs	2023 - 2028 % Change	2022 Turnover Rate	Avg. Annual Openings	Avg. Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training
Construction Managers	333	5%	27%	29	\$44.63	Bachelor's degree	None	Moderate OJT
First-Line Supervisors	739	2%	56%	74	\$32.36	HS diploma	5 years or more	None
Carpenters	849	1%	45%	84	\$22.99	HS diploma	None	Apprenticeship
Construction Laborers	1,005	2%	51%	107	\$18.54	None	None	Short OJT
Operating Engineers	371	3%	57%	41	\$22.63	HS diploma	None	Moderate OJT
Electricians	612	14%	75%	88	\$26.91	HS diploma	None	Apprenticeship
Plumbers	325	2%	50%	36	\$24.87	HS diploma	None	Apprenticeship
HVAC Mechanics	400	2%	46%	42	\$24.51	Postsecondary nondegree	None	Long OJT

Construction Workforce: Electricians

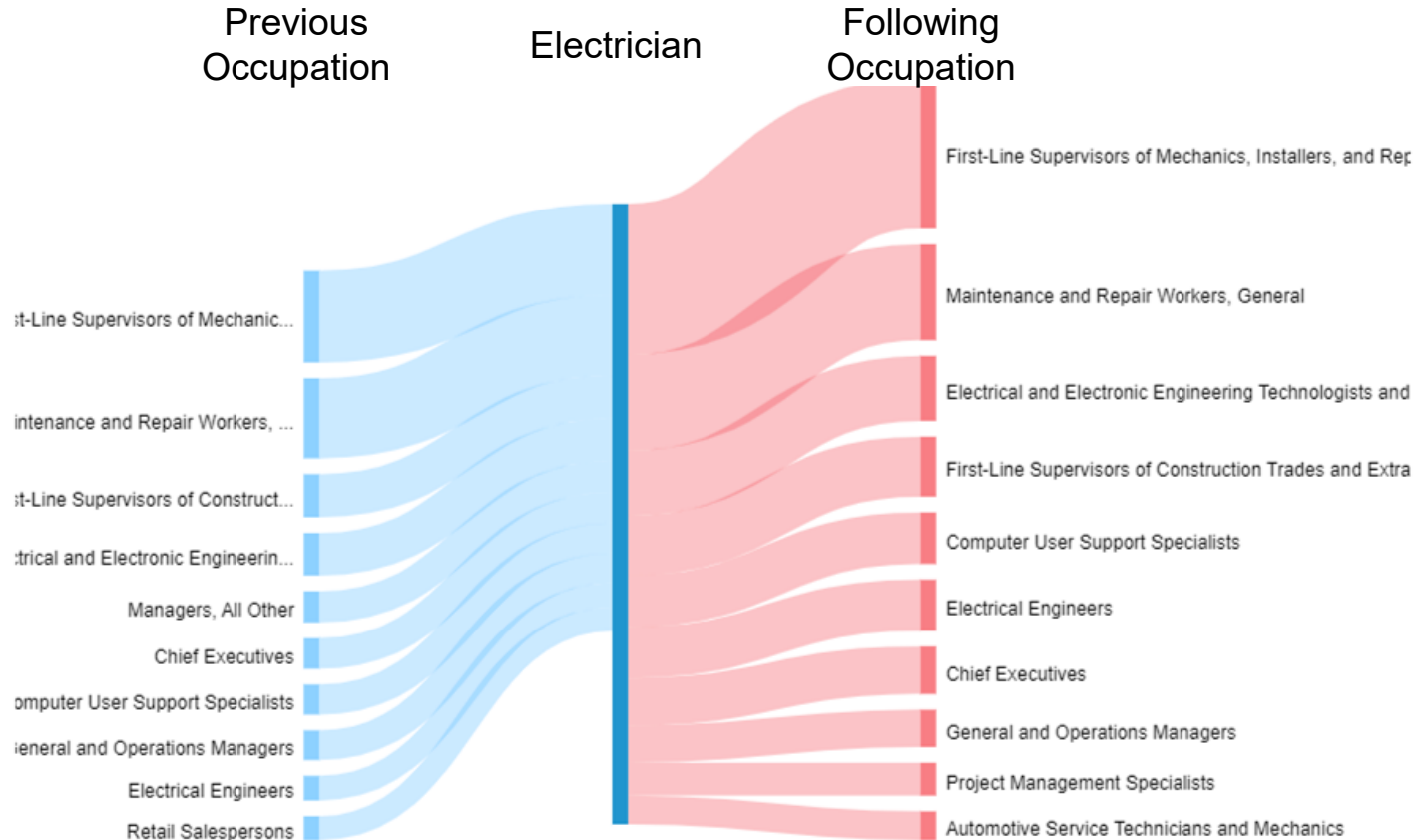
22

- Based on Job Postings data, electricians are in high demand (twice as many postings than the national average)
- 17% expected job growth by 2027
- Retirement risk is above average, while overall diversity is low
- Talent is 14% cheaper in this region, while the cost of living may make worker attraction difficult

Construction Workforce: Electricians



Construction Workforce: Electricians



Stakeholder Engagement

25

Key contacts: Top employers (Building Equipment Contractors, Education and Hospitals, Power companies, Residential Building Construction, Utility System Construction, Employment Services)

Key questions:

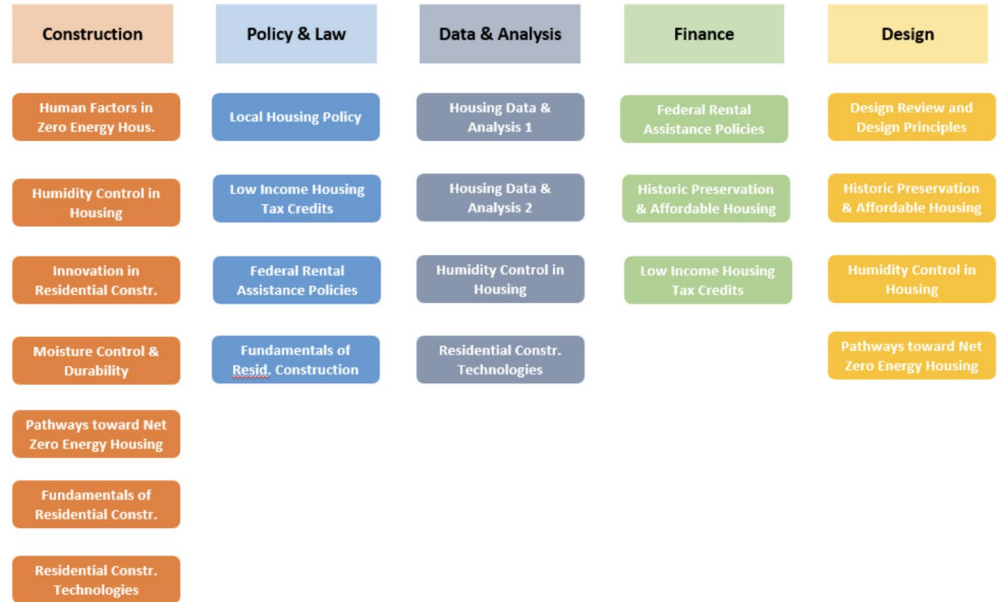
- How many electrician-related jobs do you have? Can you describe them?
- In the past, where have you found electrical workers? What has been their background education and experience?
- How difficult has it been for you to hire and keep electricians in your employ? Why do you think that is?
- What top skills do you want from an electrician?
- How much do you pay your electricians? What additional benefits or services do you offer your employees?

CURRENT TRAINING & THE FUTURE

- HOUSING CAMP
- FUNDAMENTALS OF CONSTRUCTION
PROJECT MANAGEMENT (RICHMOND,
VA)
- REMOTE CONSTRUCTION PROJECT
MANAGEMENT (BLACKSBURG & DMV)

Housing Camp:

- A menu of 250-minute courses focused on the housing industry
- Self-paced and real-time instruction by faculty with industry experience
- Offerings in diverse topic areas: construction, design, policy, law, finance, & data analysis



Training: Virginia Tech Center for Housing Research

28

Badging and Credentialing:

- Earn competency-based credentials through badges backed by Virginia Tech and VCHR
- Build an online portfolio of skill and knowledge evidence linked directly to your badges
- Retain access to courses for life: as a course evolves, your learning can grow with it

Earn your Badge

Please click on the following links for quick access. The course is best experienced in this order:

Part 1: LIHTC policy background

- LIHTC and national housing policy (15 minute video lecture)
- The shift from public housing to private incentives (60 minute reading)
- An overview of recent LIHTC statistics (30 minute reading)
- Reflect on the readings (20 minute discussion)
- Show what you know (10 minute quiz)

Part 2: Basic financial concepts

- The role of LIHTC equity in affordable housing development (60 minute reading, 20 minute video lecture)
- Reflect on the readings (20 minute discussion)
- Show what you know (10 minute quiz)

Part 3: LIHTC legal aspects

- Federal regulations (15 minute video lecture)
- The role of states (15 minute video lecture)
- Qualified Allocation Plan example (60 minute reading)
- Local government policy considerations and LIHTC (15 minute video lecture)
- Case study (60 minute assignment)
- Show what you know (10 minute quiz)

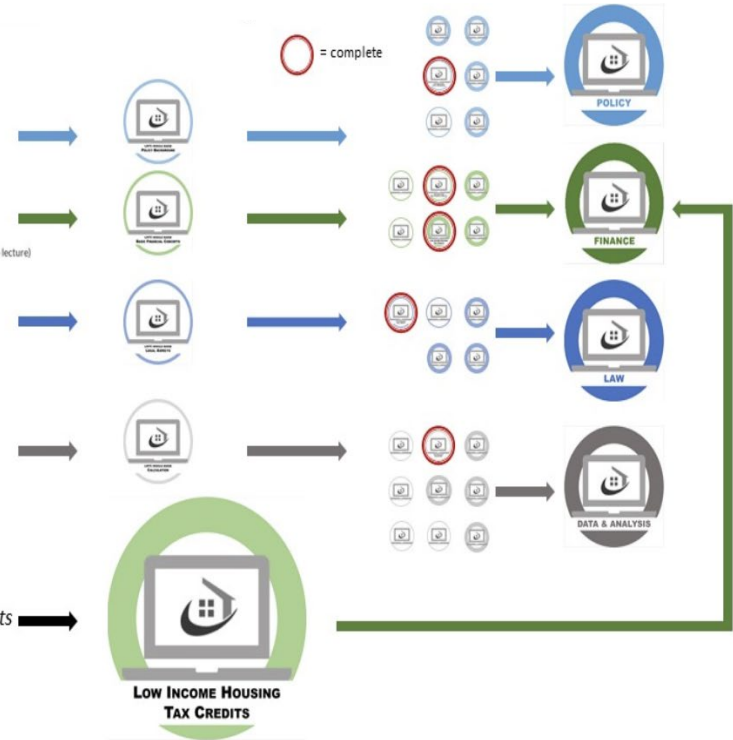
Part 4: LIHTC calculation

- Example calculation 1 (20 minute video lecture)
- Example calculation 2 (10 minute video lecture)
- Show what you know (120 minute assignment)
- Share and compare (60 minute assignment)

Part 5: Zoom Panel + Discussion

- SAVE THE DATE: August 14th. Invitation coming soon (75 minutes)

Completion of all course requirements results in a **Course Badge** which demonstrates **topical competency**.



Fundamentals of Construction Project Management:

- Focused on those moving from the site to office management
- “Leveling” course
- Project delivery & design integration
- Basics of conceptual, square foot and detailed estimating
- Basics of scheduling and cost-loaded scheduling
- Basics of cash flow



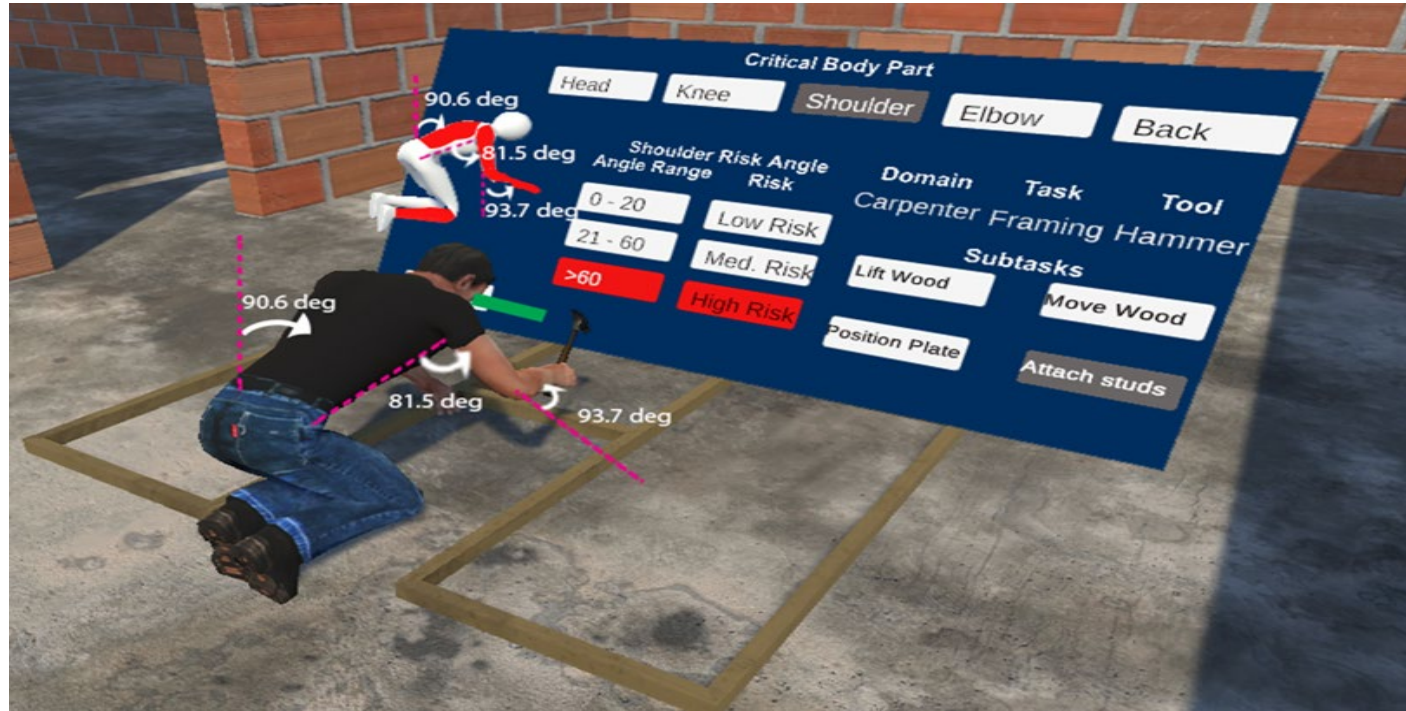
vSite – Virtual Site Visits

30

Dr. Abiola Akanmu

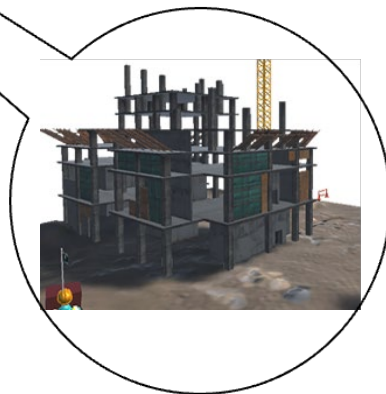
Objective:

- ✓ Design and develop a learning technology where design and construction can learn through technology.



Training: Virginia Tech Center for Housing Research

31



vSite – Virtual Site Visits

32

Dr. Abiola Akanmu

Objective:

- ✓ Develop a cyber-learning tool capable of providing authentic outdoor and indoor construction site visit experiences
- ✓ Real-time bi-directional communication between construction professionals in the field and students in the classroom.

