



Work-Learn

Upskilling for Adults experiencing Homelessness with Entry-level Programming and Tech Sector Skills

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Motivation

Urgent and Critical Needs

Employees trained in legacy technologies, technical problem solving, and cutting-edge programming languages

Training opportunities that promote financial security and sustainability for marginalized groups of the labor market

The Coming COBOL Crisis

Current Need Far Exceeds Available Workforce: Remains widely & actively deployed without plans to transition to more modern codebases; 220 billion lines of COBOL are in active use today; average American interacts with COBOL 13 times/day everyday

Retirees Outnumber New Entrants: Average age of a COBOL programmer is almost 60; new entrants lack mission-critical skills & institutional knowledge; ongoing perception of COBOL as obsolete deters applicants

Universities Don't Teach COBOL Anymore: Only 1 in 4 universities teach COBOL or similar languages

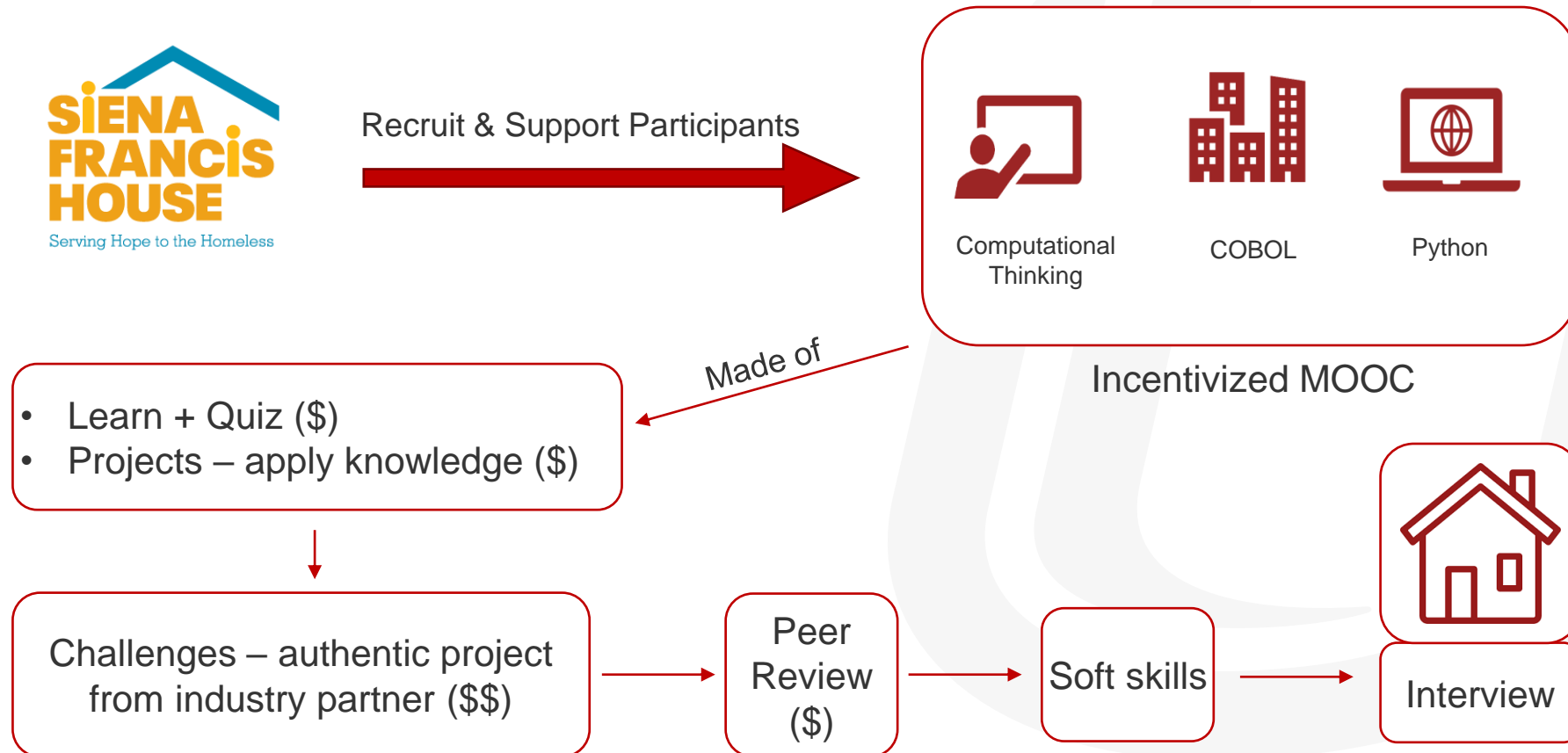
Adult Homelessness

Fundamentally Diverse Population: National 567,715; 1,405 in Omaha metro; Nearly 19% chronically homeless nationally; locally, 81% aged 24 and older; 69% are male; 63% are white, 27% are African American; 40% are currently or recently employed

Pathways to Homelessness: lack of affordable housing; instability during childhood and early adulthood; lack of educational attainment or excessive college debt

Barriers to Meaningful Employment: lack of agency while individuals work with emergency services; unskilled, spotty work history; social, economic & educational disparities reinforce and are reinforced by lack of access to training in new technologies

A Solution: Work-Learn



Project Partners



Work-Learn: NSF-funded project designed to train, support, and prepare individuals experiencing homelessness to enter the STEM workforce

Siena Francis House: low barrier shelter providing meals, physical & mental health services, workforce development programming, case management, and clothing

Industry: high tech partners that rely on mainframe technologies, web development or both

3 Critical Issues: underemployed adults experiencing homelessness; enterprise computing training; MOOC persistence

Initial Data Collection

Data Sample: 8 industry partners with extensive tenures in senior leadership, training, and hiring roles in technology-based organizations

Data Collection: interviews and focus groups to probe expected differences between 'standard' applicants and applicants from Work-Learn; address minimum conditions for placement and task-level expectations upon hire

Status: ongoing and actively seeking industry partners for interviews and focus group participation

Preliminary Results

Minimum Skills for Entry-level Mainframers: curiosity, communication skills & transfer skills; unexpected positioning of fit before skills; *“It is as much about culture, as it is about technology”*

New Collar Workers to Increase Diversity: *“The old boy’s network”* can be a barrier to getting in the door, but an asset to those who get in; more excitement & awareness around mainframe careers from non-traditional hires; automated screening processes may hinder recruiting of non-traditional employees

Learner Attributes: *“It’s not about being smart”*; it is more about aptitude & compatibility; knowing how to think about and work through problems; compatibility between learner & employer

Summary

Mainframe sector represents a distinct opportunity to recruit and retain non-traditional workers

‘New collar’ workforce can be a highly effective method to address lack of trained mainframers

Learners and employers will need to adjust in order to establish successful person-position fit

Ongoing Research

Work-Learn can help close the talent gap in the mainframe pipeline by supporting the abilities of under-represented and under-resourced people

We want to hear and learn more from you, our industry partners, as we look at the attributes and experiences associated with success in enterprise computing



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