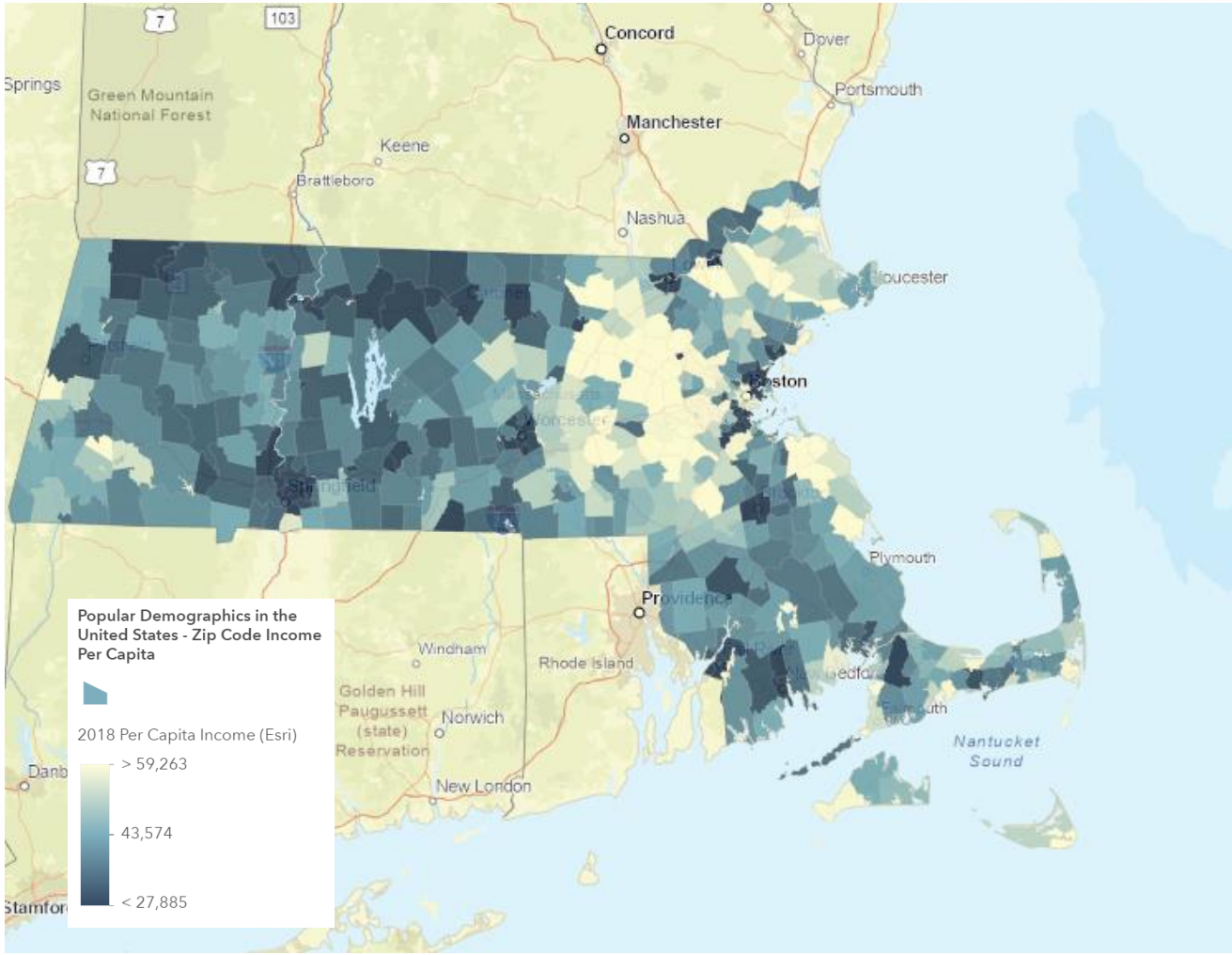
EEAC 3 Year Plan Workshop: LEAN UPDATE

November 10, 2020

Lean | mass save
Savings through energy efficiency

AGENDA

- About LEAN
- LEAN's Service Market
- LEAN Project Management
- LEAN Opportunities & Innovation
- Workforce Development & Equity



HEADLINES

Strength through partnership

- Strong LEAN/Program Administrator Partnership
- Budgets fully spent
- Funding allocated within each Program Administrator territory according to percentage of poverty
- All Public Housing Authorities served
- 84% of participants are renters (including multifamily)
- 23%/year new LI customers – more expected due to COVID

ABOUT LEAN

Overview

- **LEAN (Low-Income Energy Affordability Network)** is the network of local Community Action Programs
- **Community Action is rooted in communities since 1962.** Local community partnerships must be demonstrated as a requirement of funding sources; Boards of Directors drawn from the community. Every city and town in the Commonwealth is covered.
- **Longstanding energy efficiency implementation platform** (40 years), many years of successful delivery and achieving goals, highly trained, certified workforce.
- Founded to **bring energy efficiency equity and affordability** to the low-income population in MA (60% median income and below)
- Low-Income (LI) Energy Efficiency (EE) program is unique, and a **national leader** with it's no co-pay, **comprehensive quarterbacking** approach that includes 100% QC and leveraging additional funding
- 23 CAP Agencies **serving all of Massachusetts**
- Experience in **workforce development**; Boston Weatherization Bootcamp and Green Jobs Academy

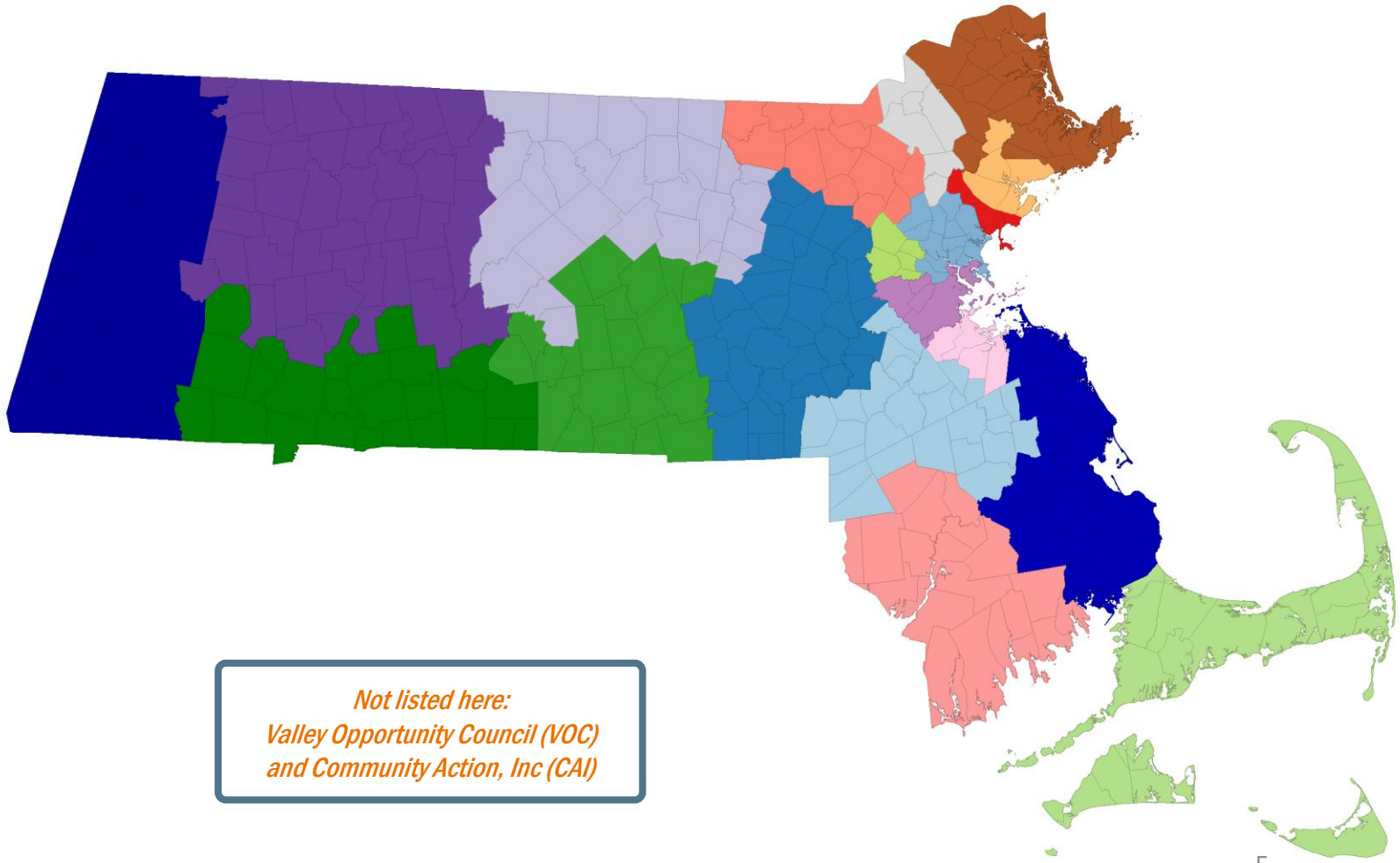
Mission of CAP Agencies is to "help people help themselves" providing disadvantaged members of the community with the tools to overcome poverty, live with dignity and achieve their full potential.

ABOUT LEAN

CAP Electric Service Territory

Agency Name

- Self Help, Inc. (SHI) (28)
- South Middlesex Opportunity Council, Inc. (SMOC) (37)
- Housing Assistance Corporation (HAC) (23)
- Worcester Community Action Council, Inc. (WCAC) (23)
- Citizens for Citizens (CFC) (20)
- LEO, Inc. (4)
- North Shore Community Action Programs, Inc. (NSCAP) (6)
- Springfield Partners for Community Action, Inc. (SPCA) (24)
- Community Action Pioneer Valley (CAPV) (45)
- Berkshire Community Action Council, Inc. (BCAC) (32)
- Action, Inc. (19)
- South Shore Community Action Council, Inc. (SSCAC) (16)
- Montachusett Opportunity Council, Inc. (MOC) (28)
- Community Teamwork, Inc. (CTI) (14)
- Community Action Programs Inter-City, Inc. (CAPIC) (14)
- Menotomy Weatherization (5)
- Quincy Community Action Programs, Inc. (QCAP) (4)
- Greater Lawrence Community Action Council, Inc. (GLCAC) (6)
- Action for Boston Community Development, Inc. (ABCD) (3)

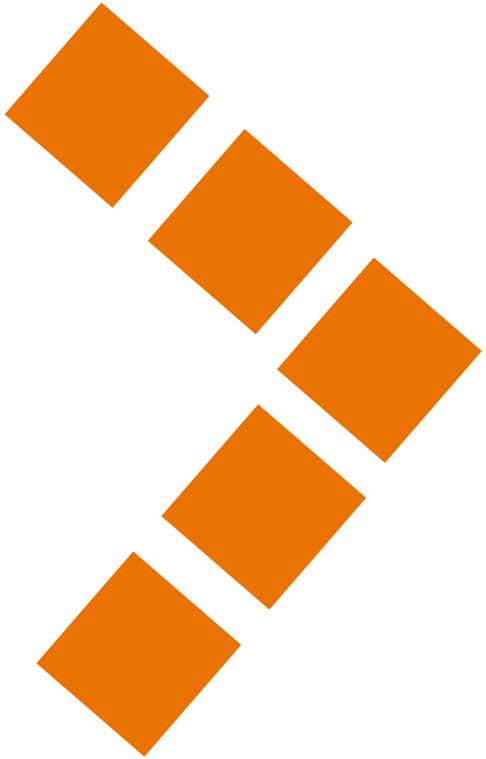


Not listed here:
Valley Opportunity Council (VOC)
and Community Action, Inc (CAI)

LEAN SERVICE MARKET

Topics

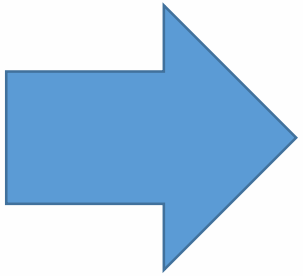
- Outreach
- Discount Rate Dynamics
- Quarterbacking/General Contractor Delivery Model



OUTREACH & DISCOUNT RATE DYNAMICS

- R2/R4 Discount Rate customers are the primary group served by LEAN for efficiency work (LIMF customers not on rate can also be served, and 50% rule applies to 1-4 program)
  - The majority of customers in this group are income certified through LIHEAP
  - Others are identified by data matching through DTA (including SNAP) and some are multifamily clients that pay an electric bill.

- Analysis over a 7 year period
- ***Approximately 17-27% of the R2/R4 Discount Group are new accounts each year***
- Overall numbers on the rate do not change significantly.

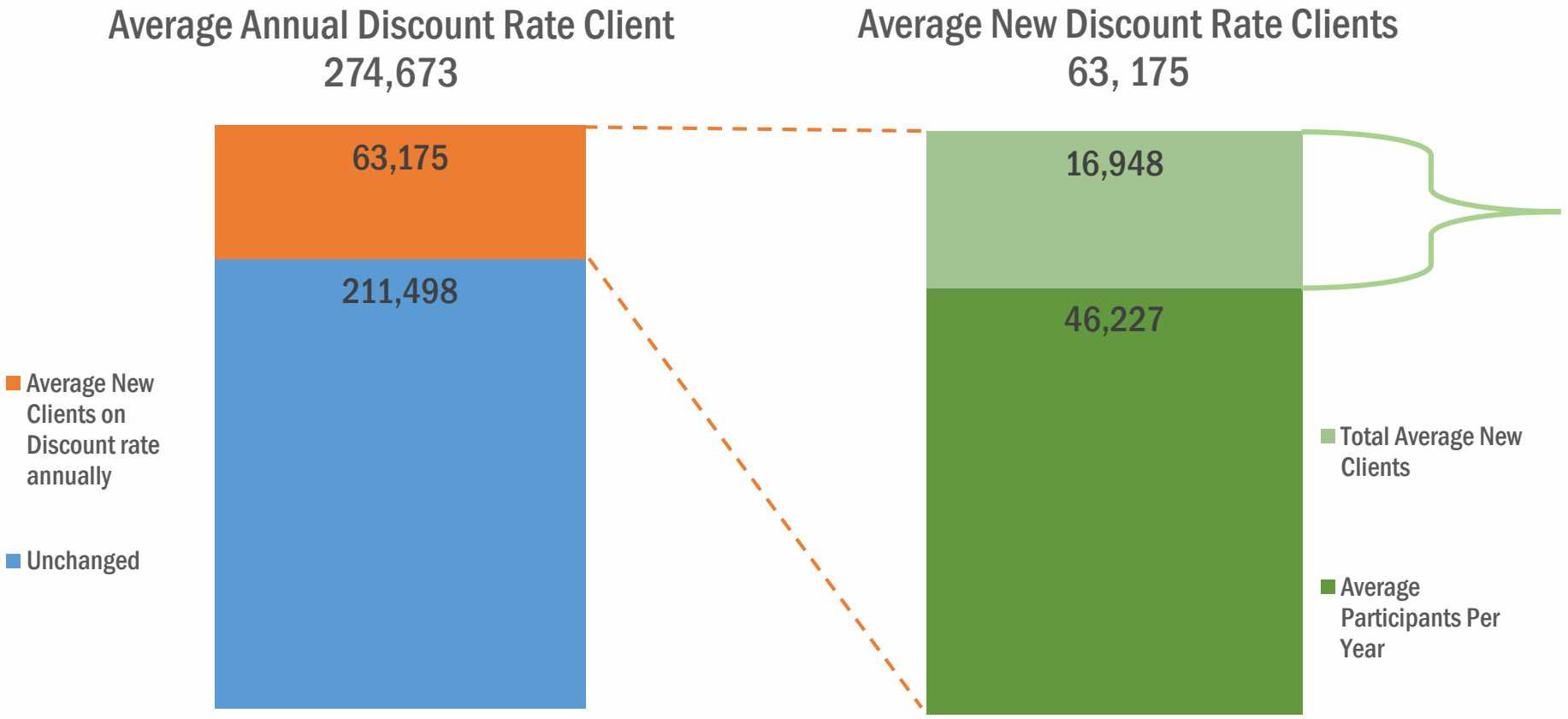


Discount Rate Customer Analysis (2013-2019)		
Average participants per year		46,227
Average LI customers (electric discount)		274,673
Average new LI customers (ES)	23%	63,175

The result is that there are significant numbers of newly eligible families each year that could benefit from discounts and energy improvements.

DYNAMICS OF DISCOUNT RATE POPULATION

Analysis



- Population on Discount Rate not fixed
- This means that available new discount rate clients annually exceeds average participants
- It also means that the “unserved group” is added annually to available client pool.

LIHEAP APPLICATION INCREASE

- Using a significant increase of Food Stamp (SNAP) applications from April 2019 to April 2020 **as an indicator**, we anticipate an increase in Fuel Assistance applications

- This would lead to an increase in discount rate clients across the state, newly eligible for low-income energy efficiency

- End of non-low-income moratorium on November 15, 2020, which could push some to apply for Fuel Assistance and other benefits that lead t enrollment in R2/4

DYNAMICS OF DISCOUNT RATE POPULATION

Outlook

- This insight impacts how achievement is measured in the Low Income sector
- LEAN had thought that mapping would show increasing penetration **over time** in a static low income population
- But the large number of new low income accounts and different addresses reduces the effectiveness of mapping as a measure of service to this population
- The **yearly** proportional allocation and implementation of available resources (budgets) is the practical measure of success

PROJECT MANAGEMENT MODEL

Quarterbacking

General Contracting on behalf of client

Outreach & Intake	Building Assessment	Contractor Selection	Scheduling & Initial Contractor Walkthrough	Quality Control
CAP Agencies conduct outreach & intake through LIHEAP & other sources, market to all discount customers leveraging non-PA funding	BPI Certified & DHCD Qualified energy auditors assess all projects and develop work scopes	Agencies vet all licensed and insured weatherization & heating contractors, electricians, roofers and appliance delivery vendors	Energy auditors manage all projects in the field – first day installation vendor walkthrough & in-process inspection and troubleshooting	Energy auditors conduct 100% final quality control inspections to ensure work completeness and quality

“Quarterback” implementation model guarantees comprehensive efficiency work at high quality and with quantifiable, verifiable savings at no cost to LI household.

OPPORTUNITIES & INNOVATION

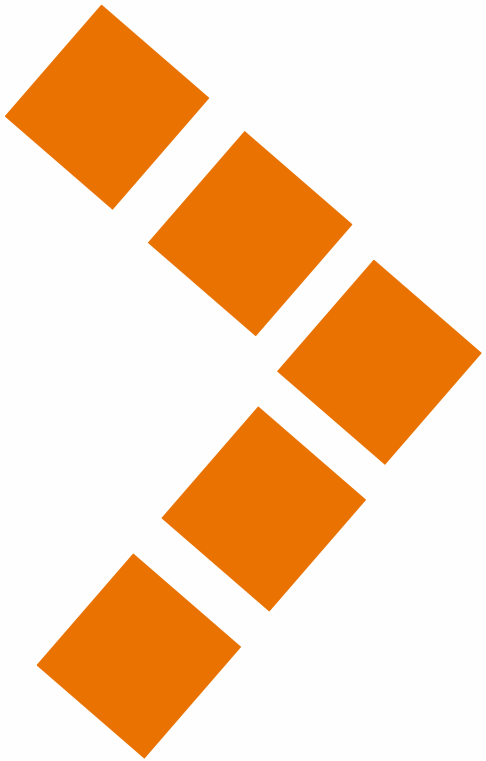
Topics

Heat Pumps

- SF Rollout
- MF Work

Foam Insulation

- Current situation
- High R-Value



FOAM INJECTION

Topics

- Currently installing closed cell foam insulation
- Looking at higher R-Value closed cell foam to bring walls up to R-21, including retrofit with existing fiberglass & masonry type buildings
- Installation can be injected from interior or exterior

AIR SOURCE HEAT PUMPS

Single Family

Fuel types

- Oil
- Propane
- Electric Heat

Technology

- ductless mini-split
- ducted/ductless combo
- mini-VRF

Network-Wide Rollout

- Agencies being trained on identifying potential projects
- Agencies reviewing current inventory of clients
- Engaging local contractors and aligning on approach
  - keeping heating as priority when scoping/designing
  - whole house vs. partial displacement

Tailored Solutions

- Single Family: whole house
- Greater than 2,000sf: mini-VRF
- Smaller than 2,000sf: ductless mini-split
- Triple-deckers: mix of solutions
- Mobile homes: ducted
- Existing ducted system (oil, propane): ducted heat pump

All projects custom!

AIR SOURCE HEAT PUMPS

Multifamily

- Fuel types
  - Oil
  - Propane
  - Electric Heat

- Technologies
  - Majority of installations are ductless mini-split
  - Mini-VRF has become a marginally cost-effective solution
  - VRV – analyzing cost effectiveness (expensive!)

All projects custom!

EQUITY

- We are currently serving all EJ communities - communities we've worked in for years
- Continue to serve renters (currently renters make up 84% of LI units served)
- Mixed Income Protocol (MIP): in development with PAs
- Engaged with Municipal Partnerships strategy with PAs to coordinate work effectively
- Working with small PA's to increase LI budgets
- LEAN marketing is conducted in 14 languages other than English: Arabic, Cape Verdean, Chinese Cantonese, Chinese – Traditional, Cambodian-Khmer, Haitian Creole, Hindi, Portuguese, Russian, Somali, Spanish, Turkish, Urdu, and Vietnamese. In addition, there is community-specific in-house language capability at CAP offices, for example, at ABCD: Albanian, French, Greek, Italian, Korean, Moroccan and Polish.

- Strategy to reach small multifamily buildings (5-25 units)
  - Recent increase in service to small MF – between 2010-2020 small (5-25 unit) building were 39% of MF projects
  - During 2019-2020, small buildings were 62%

WORKFORCE DEVELOPMENT

- Continued commitment in partnership with PAs funding of workforce development across all program sectors
- Through Green Jobs Academy, internal staffing, installation vendors, and other partners to expand a diverse workforce
- Three completed job trainings in 2019:

	Trainees	Hired
African-American	6	6
Hispanic	19	14
Brazilian	2	2
Middle Eastern	2	2
Caucasian	5	3
Total	34	27
Spanish-speaking	19	16

Non-Caucasian	85%	89%
Spanish-speaking	56%	59%
Hired		79%

Program Highlights

- ACEEE Award for Exemplary LI EE Programs (2010-2019)
- Cost-Effective, Innovative
- Dynamic population
- 84% served are renters
- Quarterbacking Model: Full General Contractor Management
  - Comprehensive -- all cost-effective measures
  - Verifiable savings
  - 100% Quality Control
  - No client co-payment
  - Seamless Client Experience
- Results!
  - Clients served
  - Goals met

CONCLUSION

- In 2010-2018, served 259,304 electric participants of average 269,978 LI discount customers – looks like 96% penetration ⇒ but this is a dynamic population
- Average 63,175 new LI HHs each year
- Program spends >100% of budget
- Funding allocated within each Program Administrator territory according to percentage of poverty
- Demographics served proportionately