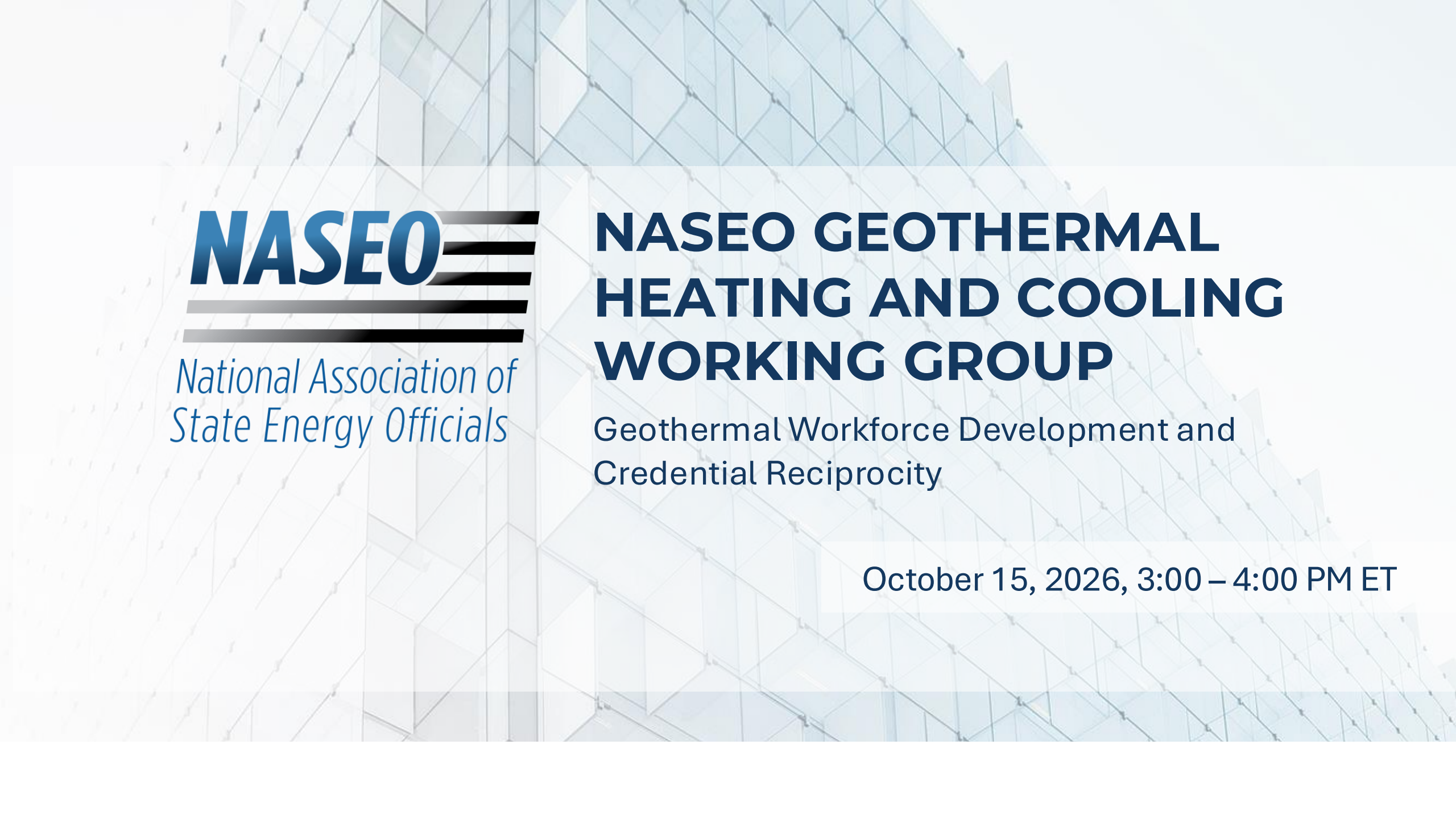




NASEO

*National Association of
State Energy Officials*

NASEO GEOTHERMAL HEATING AND COOLING WORKING GROUP

Geothermal Workforce Development and
Credential Reciprocity

October 15, 2026, 3:00 – 4:00 PM ET

AGENDA

October 15, 2026, 3:00 – 4:00 PM ET

1. NASEO Updates and Webinar Housekeeping
2. Panel Presentations
 - Dr. Jesse Kolodin, Research Scientist, New Jersey Board of Public Utilities (moderator)
 - Brock Yordy, Founder & President, Geothermal Drillers Association
 - Stacy Kinnaly, Executive Director, Geothermal Drillers Association
 - Christine Hoffer, Executive Director of NY-GEO and IGSHPA State and Provincial Association Committee Co-Chair
3. Q&A and Discussion

EVENTS

Welcome, DC Department of Energy and Environment to the NASEO Geothermal Heating and Cooling Working Group!

Event Name	Date / Location	Description	Registration
NASEO 2026 Annual Meeting	October 27 – October 30, 2026 (Boulder, CO)	The NASEO Annual Meeting is a great opportunity to connect in person with State Energy Office peers, federal partners, and industry leaders. If you plan to attend, we'd love to see you there and connect on geothermal efforts in your state.	Link here
NASEO Powering Up Data Centers Webinar: Geothermal Heating and Cooling for Data Centers	November 19, 2026, 3:00 - 4:00 PM ET (Virtual)	Join NASEO for a Powering Up Data Centers webinar on Geothermal Heating and Cooling for Data Centers, featuring presentations on how geothermal technologies and underground thermal storage can help data centers manage their heating and cooling loads.	Link here
ICYMI: NASEO Geothermal Heating and Cooling Working Group: Kick-Off Meeting	August 20, 2026, 3:00 – 4:00 PM ET (Virtual)	The NASEO Geothermal Heating and Cooling Working Group hosted its first virtual meeting, highlighting strategic partnerships to enhance in-state geothermal heating and cooling development and investments. This discussion featured presentations from the Colorado Energy Office and Dandelion Energy.	Slides here

UPCOMING NASEO RESOURCES

GETTING STARTED GUIDE

Template For Project Deployment

- Regulatory and permitting process by project type
- Licensing, certification, and workforce
 - Regulations
 - Availability
- Resource and site data
- Incentives, financing, and utility landscape
- Case studies, market data, and contacts

How it supports State Energy Offices: any State Energy Office can customize this template to host and maintain geothermal heating and cooling project-ready information in one place.

CROSS-STATE POLICY COMPARISON

How States Support Geothermal Heating and Cooling

- State-level grants, incentives, and financing
- Project permitting and regulations
 - Streamlining
- Utility pilots
- Ownership models
- Workforce training and credentialing

How it supports State Energy Offices: State Energy Offices in the NASEO Geothermal Heating and Cooling Working Group can benchmark against peer states and identify proven policy models to adopt.

OPEN DISCUSSION

1. Is your office interested in regional collaboration(s) to advance credential reciprocity?
2. Which credential(s) does your state currently recognize for geothermal work?
3. What is your office's relationship with the state agencies that oversee credentials for drilling, aquifers, and water wells?
4. Does your state make supply-side investments, such as funding or incentivizing the purchase of geothermal drilling rigs, to manage equipment-related project bottlenecks?

GET IN TOUCH

NASEO Geothermal Heating and Cooling Working Group

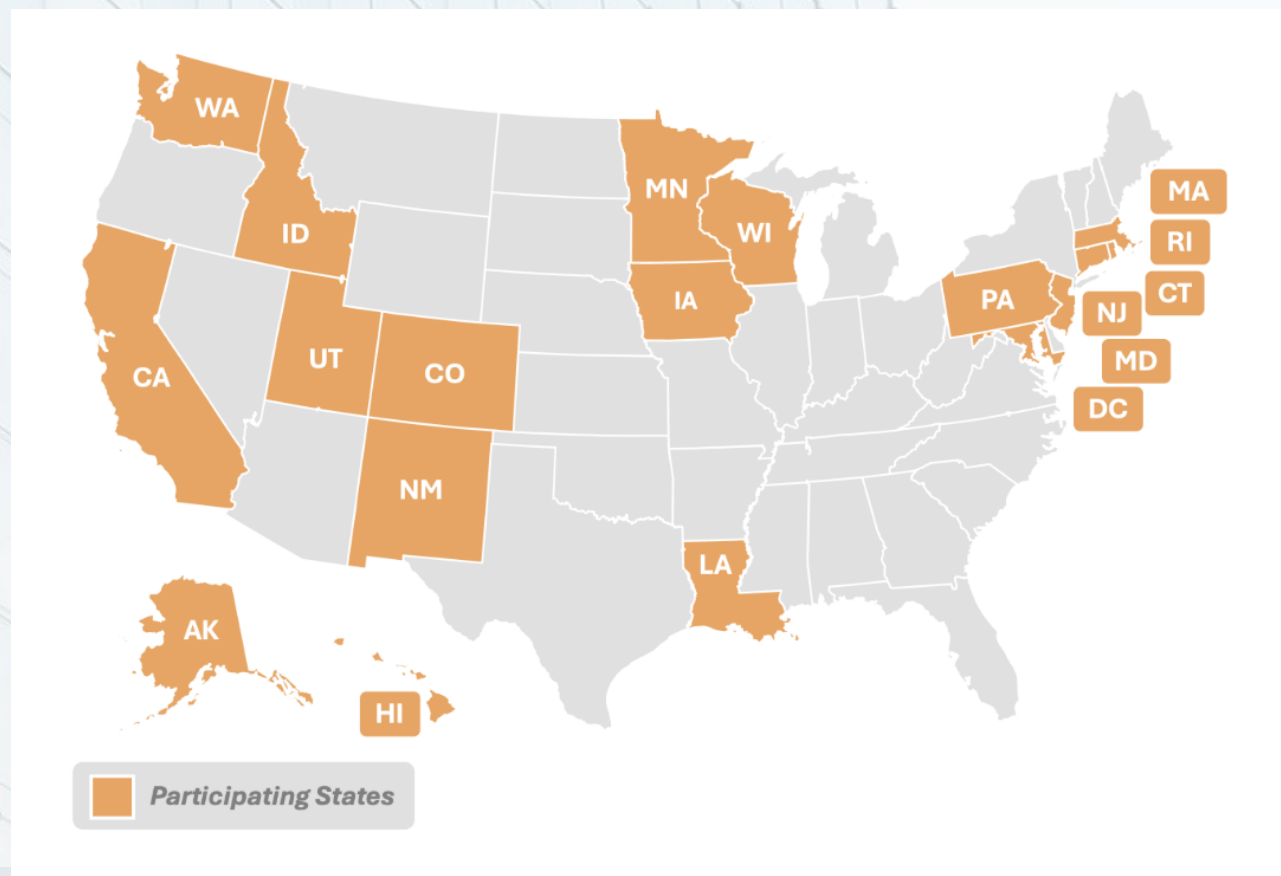
NASEO Staff Leads:

Maddie Koewler

Email: mkoewler@naseo.org

Jasmine Xie

Email: jxie@naseo.org



New Jersey's Emerging Geothermal Workforce Pathway

NASEO Geothermal Heating & Cooling Working Group

New Jersey Board of Public Utilities | October 15, 2026



TM

NJBPU Geothermal Program Direction

Building a Pathway from Feasibility to Market Readiness

2024

Study Direction

BPU Study - S244/A5442
Triennium 2 -Technical
feasibility studies: Utility-led
Pilot feasibility studies + NJCAT

2026

Rutgers/CUPR Report

Insights informing next steps:
Clarify Regulatory Authority, Develop
Flexible Pilots, Encourage New
Construction, Build Industry Partnerships

2027

Utility-led Pilot Studies

PSE&G and New Jersey Natural
Gas: Identifying viable sites and
assessing design, costs, and
technical requirements to inform
viable TENs pilots

2027+

Future Market Development

UTENs, MTENs, CTENs, and Single-
Site Pathways



**Workforce
Readiness**

**Project & Market
Readiness**



Regulatory Authority Comes First

A clearer deployment pathway makes workforce investment more credible

TODAY

GATE

POTENTIAL NEXT PHASE

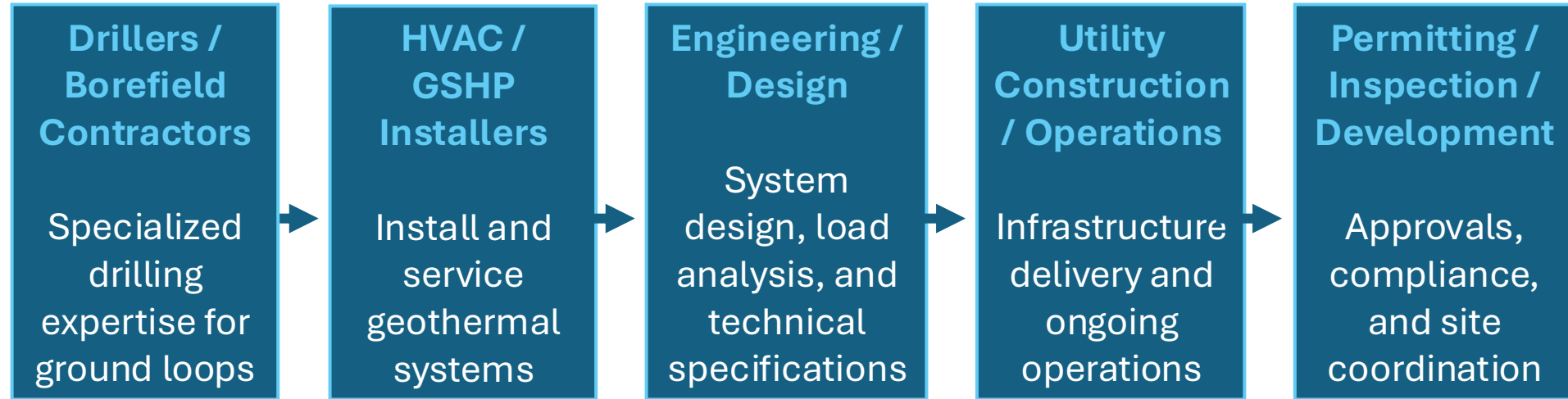


Capacity Areas are Clear → Strategy is Emerging

A foundation for planning, not a qualified TEN labor forecast



Source: Eversource

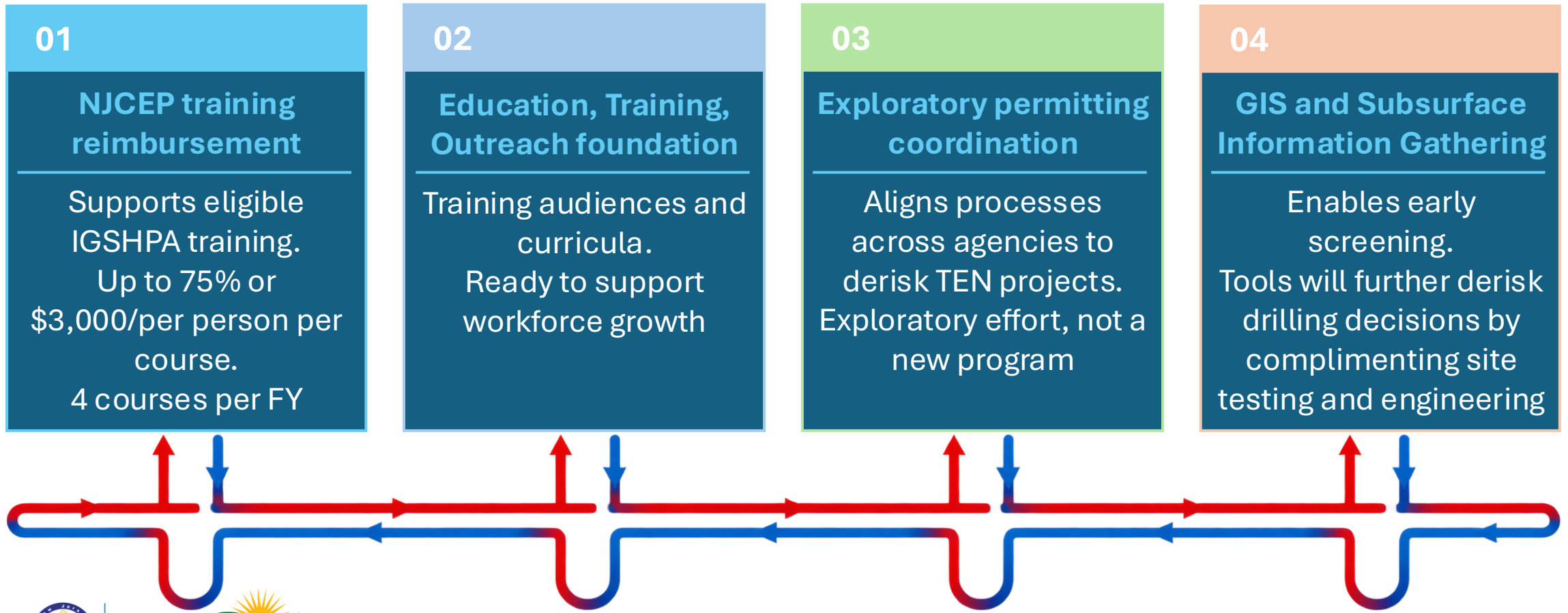


Studies recommended a dedicated GSHP workforce development plan integrated with State energy-efficiency initiatives, supported by coordinated outreach and training tailored to different market participants.

Source: NJCAT pp.11-13, Rutgers p.iv.

The Existing Building Blocks We Can Connect

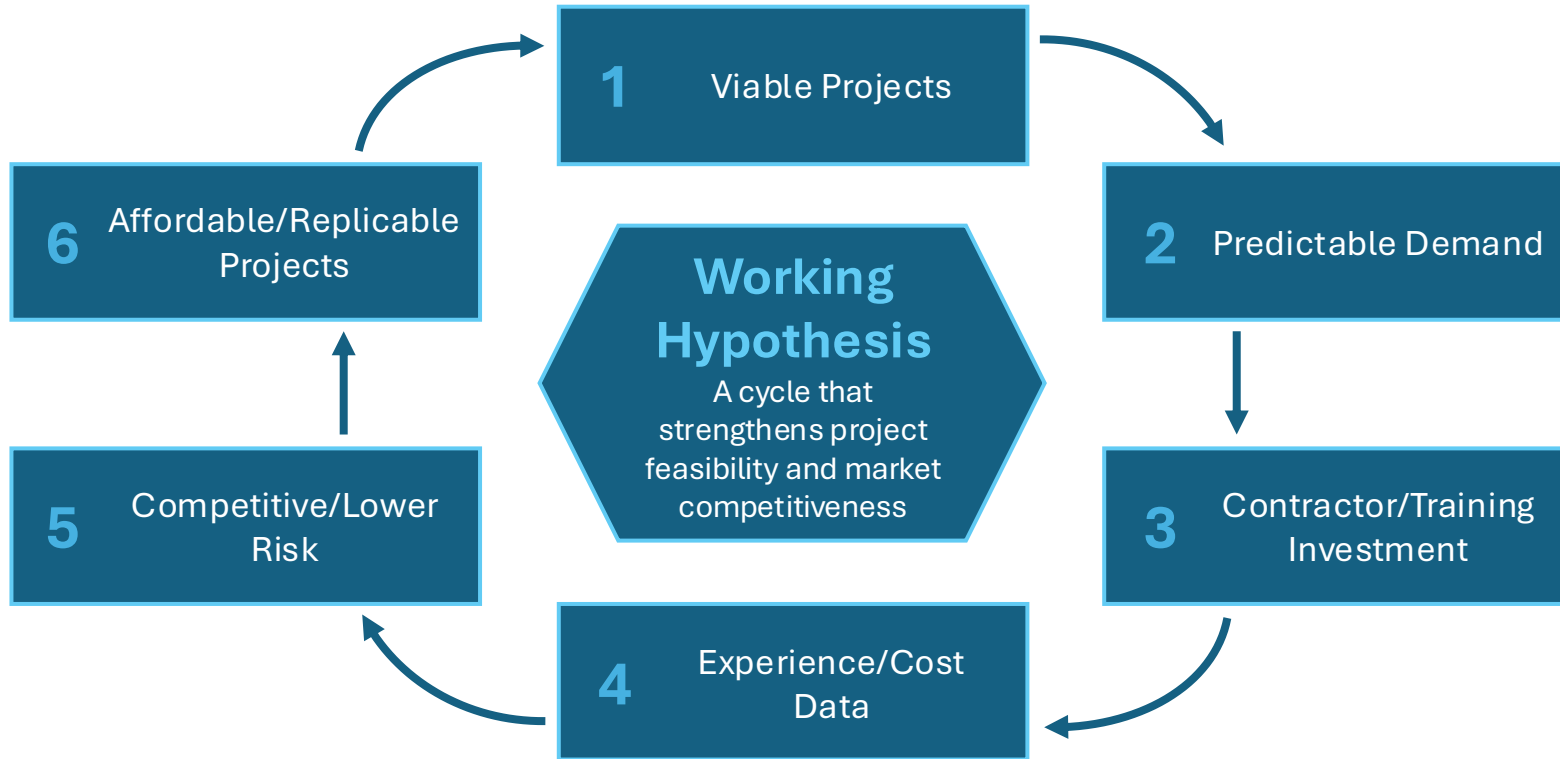
Connecting those existing resources as demand grows



New Jersey's
cleanenergy
program™

Projects Can Help Build a More Competitive Market

Qualified firms need opportunity to invest and stay



State's Potential Role

Authority

Training/Credentials

Permitting

Siting/Data

Pipeline Visibility

Early-Project Learning

What Do We Need to Learn From Industry?

Industry insights today help shape NJ's geothermal workforce tomorrow

CREDENTIALS	Which skills matter most?
LICENSING	What barriers keep qualified firms out?
PIPELINE	What demand justifies hiring and equipment investment?
BOTTLENECKS	Where do permitting, training, data, or procurement slow delivery?

**What must New Jersey get right, right now
so the workforce is ready when projects are?**



NASEO GEOTHERMAL HEATING & COOLING WORKING GROUP

Geothermal Done Right

Advancing GHP Education from Entry-Level Workforce to Established Engineers:
How IGSHPA, GeoExchange, and NY-GEO Partner with Utilities, Institutions, Agencies,
and Governments.

Christine Hoffer, Executive Director, NY-GEO · October 15, 2026



Building State and Utility Awareness

Ensuring geothermal projects are designed, installed and inspected to maximize energy efficiency and affordability, while supporting streamlined licensing and permitting.

Engaging State Agencies & Utilities

PSC

DPS

DEC

NYPA

NYSERDA

Utilities

Public Service Commission, Department of Public Service, Department of Environmental Conservation, NYPA, NYSERDA and the utilities

Certified Geothermal Inspectors

Encouraging funded programs to include specifications requiring **Certified Geothermal Inspectors** to review projects throughout the full design and build process.

Streamlining Permits with DEC

Working in tandem with the Division of Water (DOW) and Division of Mineral Resources (DMR) to streamline SEQR and other permits.

Hosting review and education programs with local governments.

WORKFORCE DEVELOPMENT

GHP Certification & Accreditation Initiative

Establishes a cadence of accessible, accredited Ground Source Heat Pump certification and accreditation programs, as required by **Section 4.1.2 of NYS Clean Heat**, training Clean Heat Contractors and professionals from every sector of building heating and cooling.

1

Accredited GSHP Trainer Programs

Entry to GSHP

2

Accredited GSHP Trainer Programs

Advanced GSHP Certifications

3

Providing GSHP Trainer Certifications

Making GSHP Certifications Sustainable

Entry to GSHP: job-function-specific training

Starting with the HVAC Installation Technician and HVAC Service Technician modules, offered online and in person.

1. Entry to GSHP - Who the Training Reaches

SCHOOLS | COLLEGES | CONTRACTORS | TRADES

WSWHE BOCES/CTE, SUNY and TECH Schools with HVAC
Students can add two GSHP certifications to their HVAC program.

TWO WORKSHOPS

Residential Installation Technician

Learning to install Ground-Source Heat Pump

Residential Service Technician

Learning to service Ground-Source Heat Pump System

When taken together, includes GEO 101 and DOE Energy Skill Recognition Badge

HVAC technicians & installers

Already skilled in equipment, electrical and refrigerants

Fossil fuel delivery companies

Training priority, to broaden services to GSHP installation, service and future sales

Mechanical contractors

Take full ownership of GSHP installation to the designer's specifications

Additional trades

Plumbing, ductwork and landscape contractors can be reached through GSHP distributors

2. Advanced GSHP Certifications

INSTALLER WORKSHOPS

GHX Installer Workshop

Ground Heat Exchanger installation

DESIGN WORKSHOPS

GSHP Residential Design Workshop

Residential system design

GSHP Commercial System Design Workshop

Commercial system design

NYS Clean Heat Contractors

The person supervising a GSHP installation must hold these certifications to qualify for Clean Heat rebates and incentives

Utilities, state agencies & institutions

Employees who oversee GSHP project implementation

Distributor sales engineers

Often support contractors with GSHP sizing and loop design

Organized labor

A skilled workforce is critical to deploying Thermal Energy Networks and large-building GSHP systems

Professional Engineers

Mechanical, Civil, Geological

Advanced Certifications: Learning Objectives

Determine Cooling and Heating Needs

Precisely calculate building cooling and heating requirements by analyzing load components and their effects on energy usage.

Specify Ground Heat Exchangers

Design appropriate GHX systems based on estimated formation thermal properties.

COURSE OUTLINE

I. Core Concepts

Introduction to Ground Source Heat Pump technology

Types of Ground Heat Exchangers (GHXs)

Fundamentals of GHX sizing

WORKFORCE DEVELOPMENT

GSHP Trainer Certification Program

Meeting growing GSHP demand means building a skilled installation workforce, and that starts with **regional trainers** who deliver accredited installation workshops to new professionals.

Train-the-Trainer certification covers both GSHP system installation and the teaching techniques needed to train others.

WSWHE BOCES/CTE, SUNY & technology schools

Pilot with WSWHE BOCES/CTE to certify HVAC instructors as trainers, then expand to more BOCES/CTE locations statewide

Utilities, state agencies & institutions

Distributor sales engineers

Organized labor

THE RESULT

Certified trainers broaden the reach of GSHP-certified professionals, creating a truly sustainable program.

What Learners Will Be Able to Do

Design & Evaluation

- Evaluate site conditions and select heat pump equipment and loop configurations
- Apply manufacturer specifications and C-448 standards to design compliant systems

Installation & Procedures

- Install complete systems: indoor equipment, piping and electrical connections
- Carry out air purging, debris flushing and system filling for optimal performance

Testing & Troubleshooting

- Conduct pre-startup reviews and full performance testing
- Measure capacity, flow rates and temperature differentials against specifications
- Prevent common installation errors and troubleshoot basic issues

Safety & Documentation

- Follow proper safety protocols throughout installation
- Create the documentation needed for warranty compliance

Selecting a Ground Source Heat Pump Team

A **5-hour IGSHPA workshop** for architects, engineers and designers, building owners, client representatives, developers, project managers and general contractors. Familiarity with basic HVAC terminology is recommended.

Course objectives

- Understand why selecting qualified construction team members is key to the technical and financial success of GSHP projects
- Identify key roles and responsibilities in GSHP system installation
- Develop, specify and issue concise project documents
- Apply best practices in project bidding, planning and execution

Course topics

- RFI, RFP, RFQ and project information
- Selecting a mechanical engineer
- Preliminary GHEX site planning
- Thermal conductivity testing
- Equipment sizing and controls
- GHEX installation and coordination
- Contract administration and quality assurance

GSHP System Verification and Inspection

Online, self-paced training for people who inspect and verify GSHP systems against **ANSI/CSA/IGSHPA C448:25**.

Verify materials

Confirm construction materials conform to the construction documents: pipe material, pipe length, grout material and more.

Verify testing

Confirm ground heat exchanger pressure testing and flushing meet the specifications.

Who it's for

- Inspectors, regulators and AHJs
- Project managers
- Construction inspectors, construction managers and commissioning agents
- General, mechanical and HVAC contractors
- Utilities and government employees
- Professional engineers: mechanical, civil, geological
- Engineering technologists



NY-GEO 2027

ATTEND • EXHIBIT • SPONSOR

Saratoga's Hottest Ticket Is Underground.

APRIL 26–28, 2027 | SARATOGA SPRINGS, NY
Saratoga Springs Hilton & City Center

MON APRIL 26

Field Day

Geothermal site tours, live
drilling demo & Exhibitor
Mixer

TUE APRIL 27

Deep Dive

3 education tracks, 15
sessions, exhibit hall &
networking

WED APRIL 28

Down the Stretch

3 education tracks, 12
sessions, exhibit hall &
networking



Scan to Register
Exhibit • Sponsor • Attend

THE UNDERLYING
SOLUTION

GEOHERMAL

HEAT PUMPS

September 20-22

Ameristar Casino, St. Charles, Missouri



SEPTEMBER
2027
ST. CHARLES, MISSOURI

Day 1
GSHP Experiences

Day 2
Education
Exhibitors
Networking

Day 2
Education
Exhibitors
Networking

Thank You

Questions and discussion

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President, Geo Exchange

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Sally Stephens

IGSHPA, Associate Executive Director

sally@igshpa.org





Expanding the Geothermal Workforce

Brock Yordy – GDA President & Founder, Global Drilling Trainer & SME

Robert Meyer – GDA VP & Co-Founder

Stacy Kinnaly – GDA Executive Director

Info@gdadrillers.org

GDA Context and Mission

- Industry identified a notable gap in driller numbers, development, support, & consistency at local & national levels.

Promoting professionalism in the geothermal construction industry through access to education, safety, and business resources

- Unite the geothermal drilling community in a purpose-driven organization – collaboration between drillers, contractors, engineers, regulators, scientists, and academics drives widescale geothermal adoption:
 - Ensure businesses and professionals have the tools needed to continue driving scale, safety, and access to geothermal heating & cooling
 - Strive to educate and connect industry professionals
 - Provide resources that enhance best practices in the geothermal drilling sector

Our services & offerings

Driller Development & Training

- A range of individual, project team, or site-specific workforce and skill development opportunities
- GDA Alumni Database of available candidates
- Establishing Geothermal Drilling Centers of Excellence (first in Framingham, MA)

Networking

- Aspiring and established geothermal drillers and industry professionals
- Regulators across various states
- Online and live events to share information, access lessons & best practices
- Facilitation of coalitions focused on geothermal

Advocacy and Expertise

- Expert advocacy for the interests of our members, including testimony/representation in legislative and regulatory matters
- Diverse geographic representation ensures comprehensive perspectives & expertise
- Partnering to define best practices and standards in borehole construction

Resources

Resources for member success and industry alignment:

- National Occupational Framework
- Standards in borehole construction & completion
- Industry reports
- Standard operating procedure and RFP templates
- Licensing guidance by state
- K-12 curricula + open-source MIT course

The 2050 National Target

SUBSURFACE PRODUCTION DEMAND

 **>136M**

Boreholes required nationwide.

Vertical geo-exchange heat exchangers installed by 2050

 **>88.4B**

Linear feet of drilling required.

Equivalent to ~16.7 million miles of borehole advancement

⚡ Averages ~650 ft per borehole across residential, commercial & TENs

STAFFING THE EXPANSION (BY 2036)

10-year workforce mobilization required to meet national drilling capacity



44,052 Direct rig crew members

Drillers, pump operators, helpers & loop fusion technicians on site

40.3% OF WORKFORCE



5,874 Field leaders and supervisors

Toolpushers, site superintendents, OSHA safety & QA/QC leads (~1:7.5 ratio)

5.4% (LEADERSHIP CADRE)



59,442 Permanent support staff

Hydrogeologists, loop designers, fleet mechanics, logistics & manufacturing

54.3%

TOTAL 2036 WORKFORCE PIPELINE: 109,368 Professionals

Expanding the Geothermal Workforce

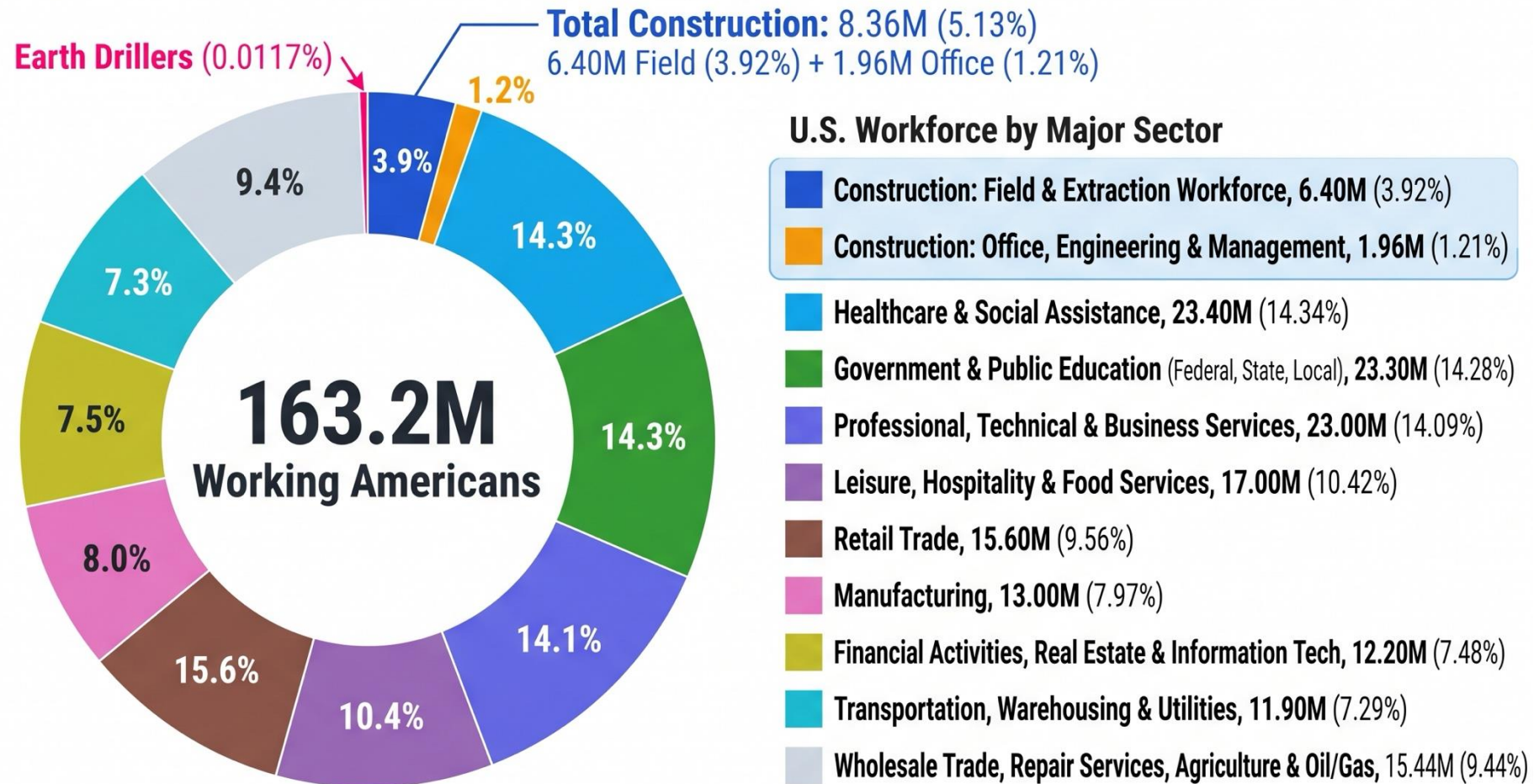
The Core Challenge

Geothermal exchange technology has proven it works; demand is growing, but the bottleneck is recruiting the individuals who want to build our sustainable future.



Breakdown of the 163.2 Million U.S. Employed Workforce

Major Economic Sectors vs. Construction Field & Office Workforce (BLS Data)



Macro Workforce Comparisons:

- **Total Construction** (8.36M) = 1 in every 20 working Americans (5.13%)
- **Leisure & Food Service** (17.0M) employs **2.6x more workers** than all **Construction Field Trades** (6.4M)
- **Earth Drillers** (19,100) = **0.0117%** of U.S. workers (1 in every 8,545 working Americans) in highlight

CONSTRUCTION WORKFORCE DEMOGRAPHICS: SNAPSHOT & TRENDS

1 GENDER DISTRIBUTION



2 RACE & ETHNICITY OVERVIEW



NOTE: Hispanic/Latino is an ethnicity and can overlap with racial categories

3 AGE TRENDS & WORKFORCE MATURITY



Aging workforce indicates urgent need for talent pipeline.

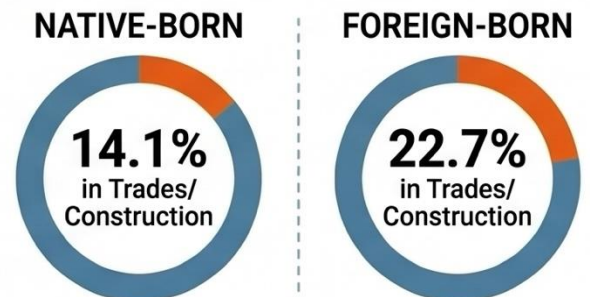
5 VETERAN CONTRIBUTION



POST-9/11
FEMALE VETERANS:
2.3% in Trades
(More than double
non-veteran women, 1.1%)

Veteran Men
show high
potential for
leadership &
management
roles.

4 FOREIGN-BORN WORKFORCE



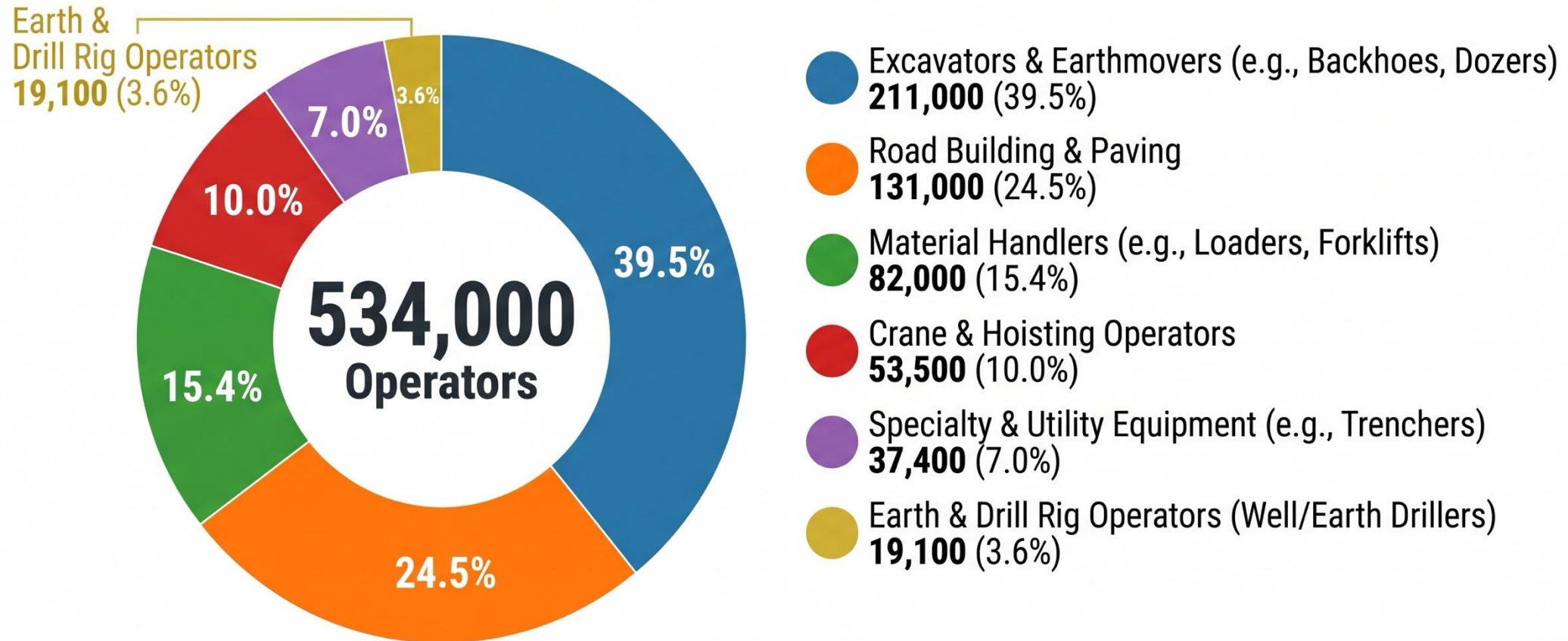
Foreign-born workers make up a disproportionate share of skilled trades.

Source: US Bureau of Labor Statistics (BLS) Data (Percentages)

NOTE: Total number of construction workers can vary by BLS survey type (household vs. payroll). This infographic uses percentages only.

Breakdown of U.S. Construction Equipment Operators

Analyzing the 534,000 workforce, highlighting the 19,100 Drillers



28 operators to 1 Driller Hired

Team Stats

The Contractor Age Gap:

The average contractor is 55 years old, a full decade older than the national average for U.S. workers.

The Retirement Wave:

An estimated 50% of the drilling workforce is at or beyond the retirement age of 55.

Expanding the Geothermal Workforce

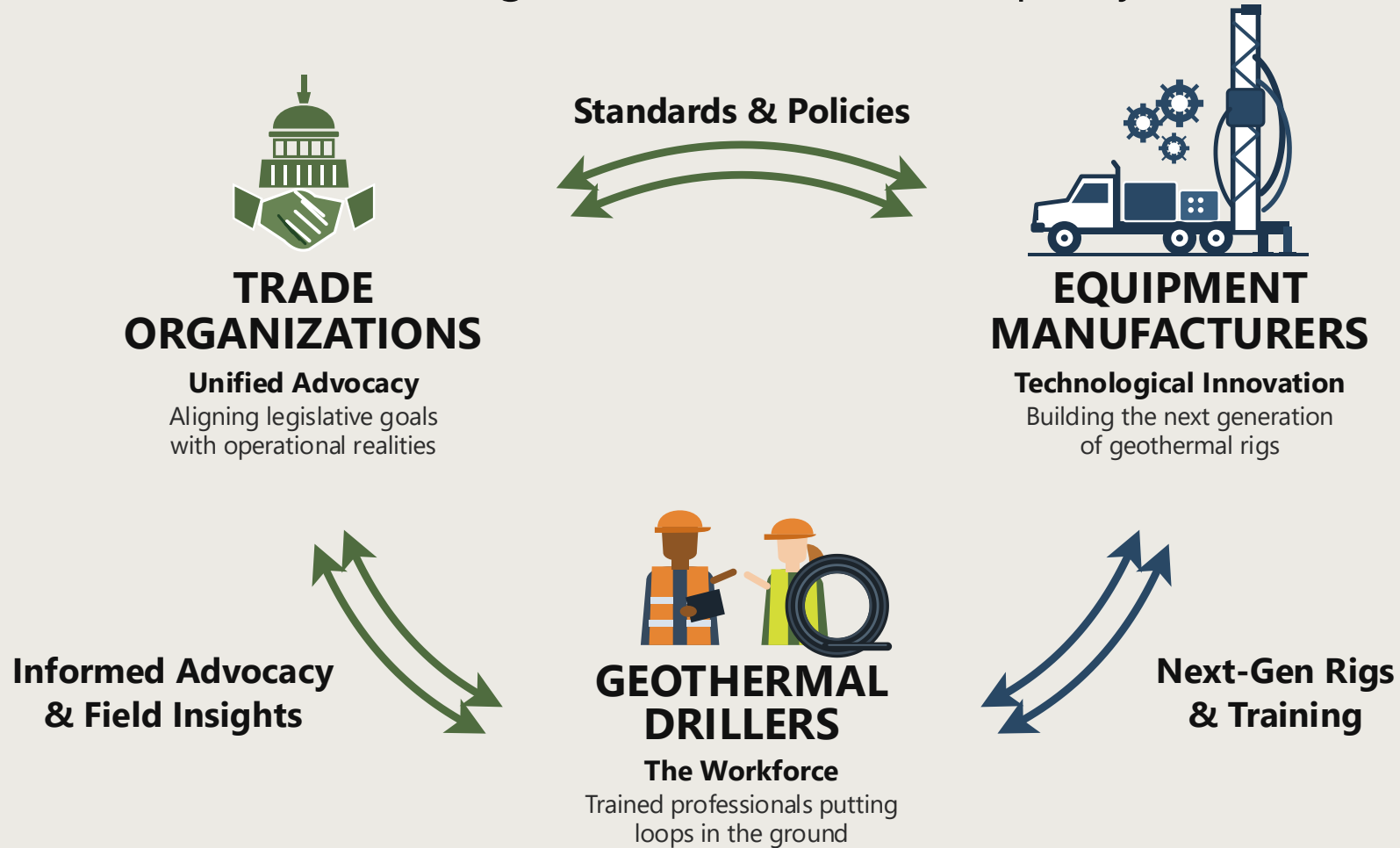
The Solution

Turning 'Driller Wanted' into 'Driller Trained,' aligning the industry through the Geothermal Market Capacity Coalition and collaborating on regional Centers of Excellence.



Geothermal Market Capacity Coalition

Breaking Down Silos to Build Capacity



End Goal: Putting Trained Professionals to Work

Pilot Collaboration with HEET & GMCC

NE Regional Center of Excellence: Framingham Pilot

Launching the first Geothermal Drilling Center of Excellence where utility networks and state investment converge.



1. Regional Catalysts

Framingham Network: First US utility-owned geothermal grid expanding.

Soaring Demand: Interested host city, driven by campus, commercial, and data centers.

Federal & State Backing: Powered by DOE Prize and MassCEC grants.



2. Dedicated Training Hub

Dedicated Drill Rig: Funded via MassCEC equipment grant for instruction.

New England Granite: Simulated field training in hard-rock geology.

Employer Validated: Contractors shape curriculum and host site visits.



3. Inclusive Pipeline

Broad Recruitment: Veterans, grads, trades, and justice-involved talent.

Rigorous Vetting: Interest screening and interviews ensure candidate readiness.

Direct Placement: Connects graduates directly into family-sustaining careers.



Geothermal Drillers Association

Geothermal Exchange Construction Training



Old Skills → New Careers

A workforce development program built to recruit tradespeople with broad occupational knowledge and technical skills. The program will leverage their existing work experience to shorten the time between classroom training and working on active geothermal projects. The objective is to achieve a balance between short-term training intensives and long-term career development for the students.



Geothermal Drilling Courses

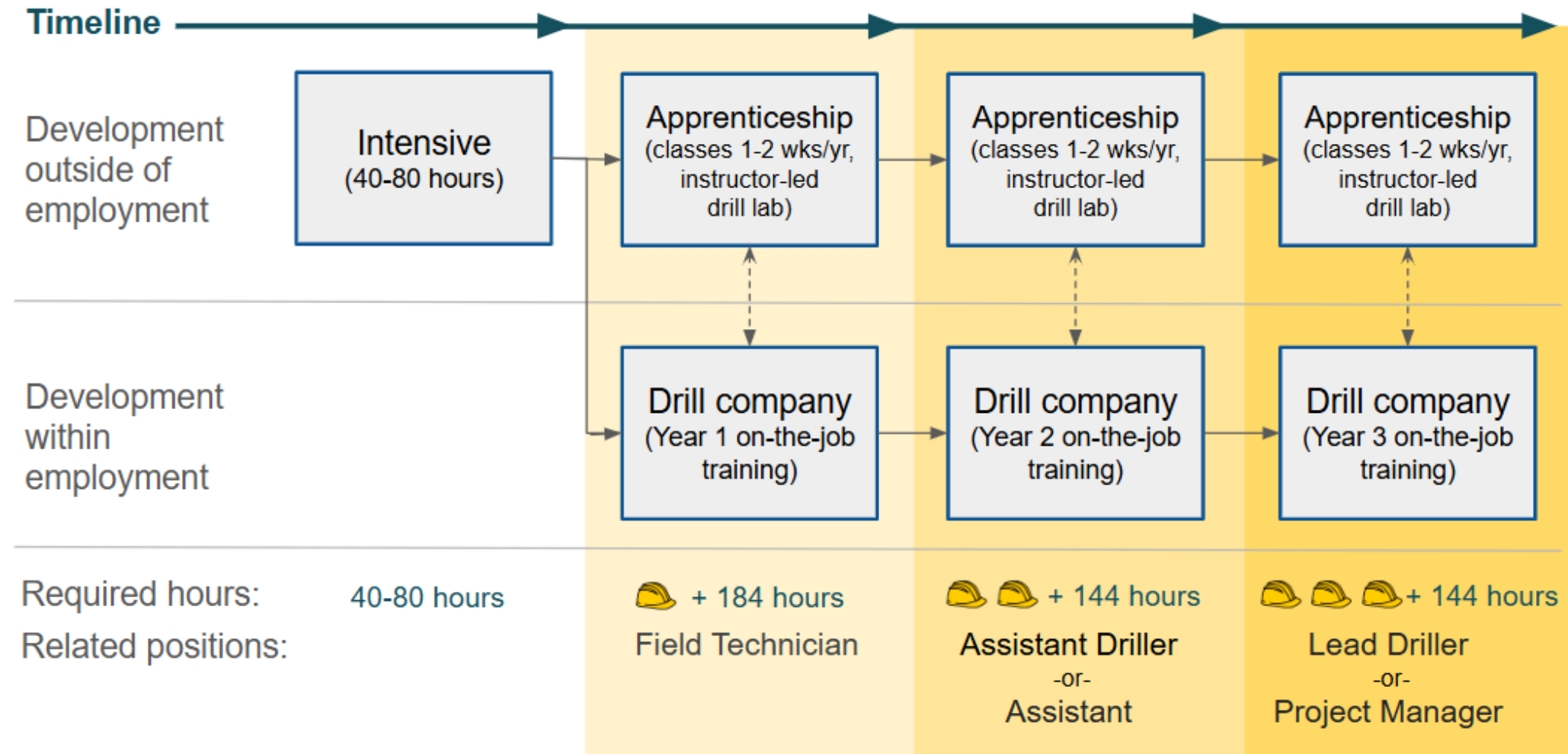
FUNDAMENTALS COURSES

- 40-80-hour pre/apprentice training - stackable
 - Certificate from GDA – industry-recognized, pursuing official pre-apprenticeship accreditation
 - Qualify new entrants to the field = improved retention
 - Accelerate entry to the profession or a project site
 - Includes classroom & field work: safety, roles/responsibilities, hands-on with drilling equipment
1. Field Technician - new to field work or onboarding for a project – *launched*
 2. Assistant - Previously working professionals starting in construction as a long-term career
 3. Lead - Experienced or displaced fieldworkers expanding their skillset into geothermal drilling (e.g. construction workers, union workers, well or other drillers)

POV: Growth of a Driller

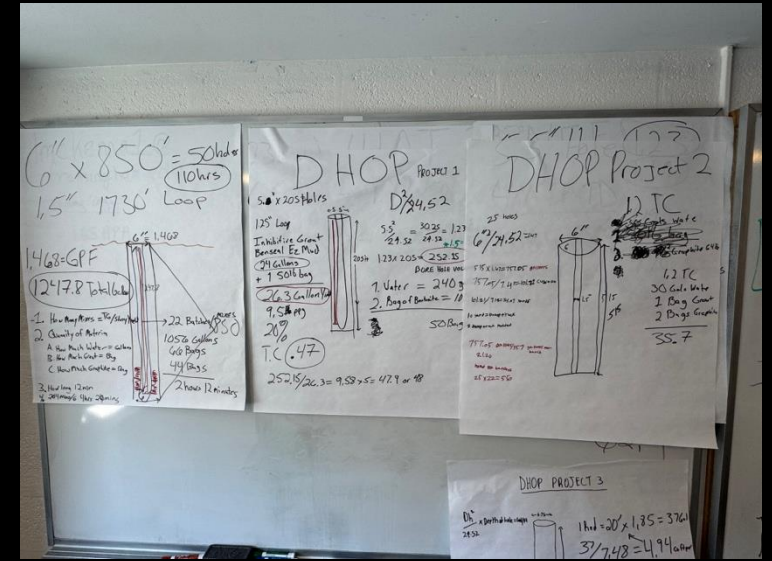
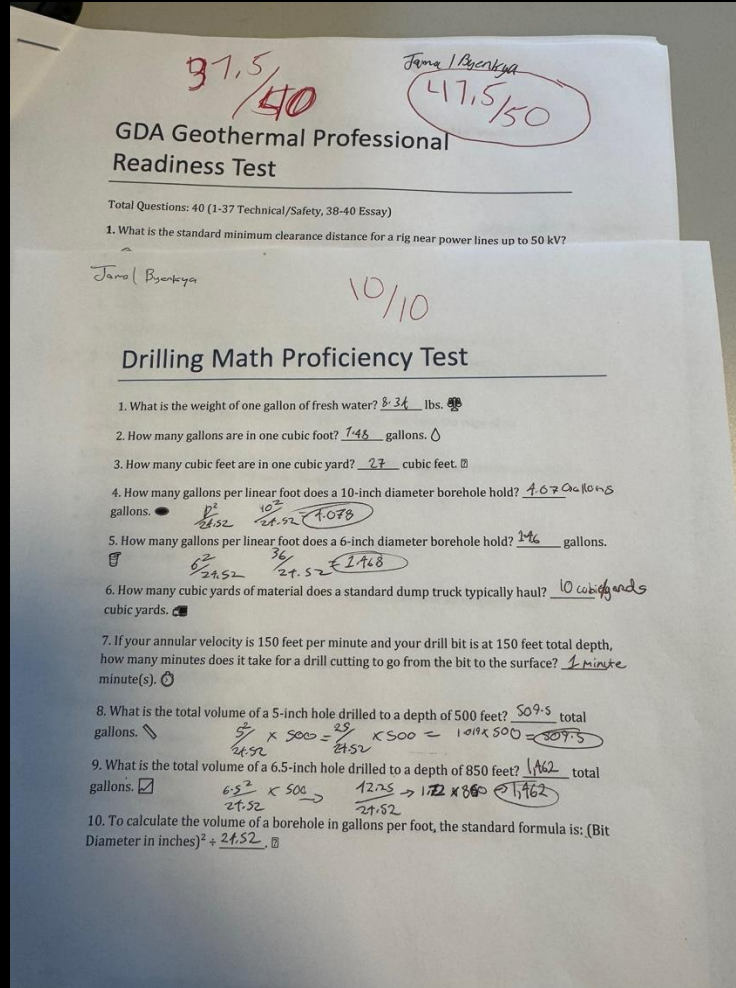
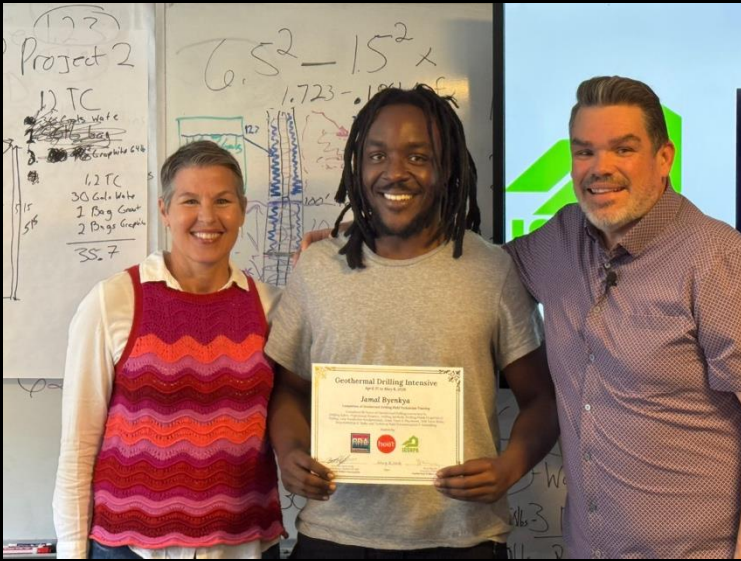
Many pathways for new entrants + upskilling for existing crew

Figure 1: A Geothermal Driller's Development



The graduate meets the next class of students.





GDA – Framingham – Field Tech Intensive
May 2026



Logistics and Materials

- GDA markets and manages enrollment – *share your contact info*
- Student cost often covered by grants, Masshire/workforce boards
 - WIOA acceptance
 - Wraparound supports from sending organizations, partnerships
- Pre-apprenticeship accreditation in process
- Materials:
 - Interest form
 - Flyer with enrollment information
 - Overview guidance for candidates to consider “fit”
 - Curriculum including learning objectives
 - Site specifications for training center



GDA WORKFORCE DEVELOPMENT PROGRAM

COMMUNITY GROUP SUPPORT
(WRAPAROUND SUPPORT & CAREER COACHING)



REGIONAL
Outreach



LOCAL
Coalition



VETERANS



TRADE SCHOOL STUDENTS



TRANSITIONING COAL MINERS



ENROLLMENT:
20 STUDENTS
PER COURSE



TAILORED, RIGOROUS CURRICULUM



GRADUATION & CERTIFICATION

ENTERED INTO GDA ALUMNI DATABASE



STAY CONNECTED TO IMMEDIATE AND FUTURE EMPLOYMENT OPPORTUNITIES
within the GDA network

FEATURED PARTNERS



GDA MEMBER COMPANY



GDA MEMBER COMPANY



GDA MEMBER COMPANY



GDA MEMBER COMPANY



GDA MEMBER COMPANY

DIRECT WORKFORCE PATHWAYS TO INDUSTRY LEADERS

A map of the United States illustrating a geothermal expansion strategy. The states are color-coded: dark blue for current operations (CA, NV, UT, AZ, NM, TX), light blue for rapid expansion (CO, KS, MO, IL, IN, OH, WV, VA, NC, TN, AR, MS, AL, GA, SC, FL, LA), and grey for multi-state growth areas (OR, ID, MT, ND, SD, MN, IA, WI, MI, NY, ME). Large blue arrows indicate the flow from CA/NM/TX towards CO, and from CO/IL/IN/OH towards NY/ME. Red excavator icons are placed in various states along these paths. Labels include "RAPID EXPANSION", "MULTI-STATE GROWTH", and "MULTI-STATE EXPANSION".



Empowering Careers in Geothermal Drilling.

- **Make a positive impact** – Contribute to groundbreaking advancements in heating and cooling in your local community
- **A Growing Industry** – The geothermal industry is growing rapidly, particularly in Massachusetts where the first utility-owned geothermal network is live and expanding, and college campuses, housing authority communities, and large commercial projects are installing geothermal heating and cooling
- **Opportunities for Career Advancement** – The industry is steadily growing with a need for more workers on drilling teams and in other jobs related to geothermal exchange.



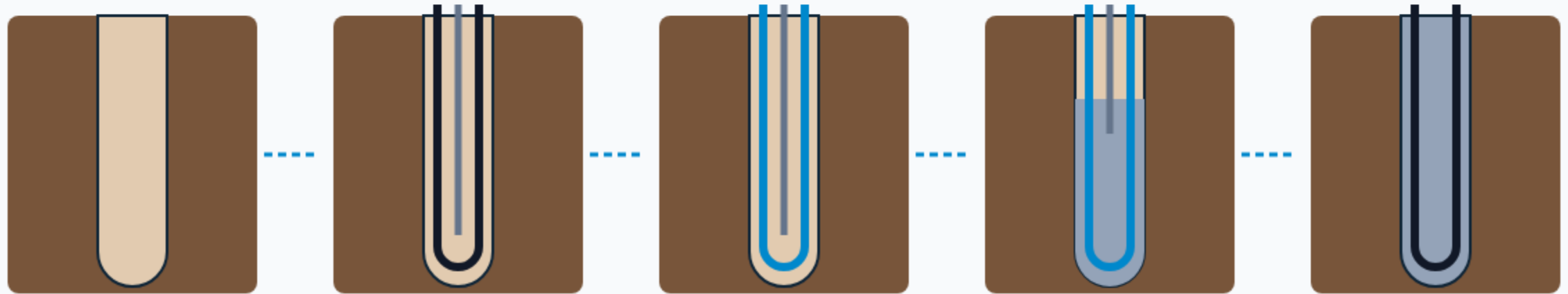
Borehole Completion

Product Installation Standards



Borehole Completion Process

Vertical Loop, Tremie, & Grouting Installation Standards



STEP 01

Condition Hole

Verify target depth
mud weight.

STEP 02

Co-Deploy Pipe

Lower U-bend with
full tremie.

STEP 03

Pre-Grout Test

Hold 100 psi after air
purge.

STEP 04

Tremie Grout

Pump thermal grout
bottom upward.

STEP 05

Cap & Verify

Verify final pressure
before capping.

Vertical Loop & Tremie Sequence

Massachusetts Landscape

Target Sector	Target Occupation	Current Positions	Positions by 2030	Growth Rate	Average Starting Wage	Notes
Geothermal Heating and Cooling	Geothermal Drillers (includes field tech, assistant, and lead drillers)	231 licensed drillers (in and outside geothermal industry, per Mass DEP, a/o Dec 2025)	+5400 (based on residential statistics alone)	Over 2000%	\$28.97 (DOL estimated regional average) (\$22.00 for new to the workforce)	Data from "Massachusetts Clean Energy and Climate Plan for 2025 and 2030" (CECP); also highlighted as a "severe work-force bottleneck risk" in MassCEC Workforce Needs Assessment

New Jersey Wage Parity & Capital

New Jersey Hourly Benchmarks

\$26.19 – \$27.95 / hr

Statewide average driller wage baseline

\$37.00 – \$38.00+ / hr

High-demand markets like Kenilworth, NJ

Workforce Funding Mechanisms

MassCEC Grants: Dedicated state funding for training drill rigs.

Federal Support: Department of Energy prize capital catalyzing hubs.

Thermal Energy Networks: Tapping utility ratepayer capital for stability.

Questions?

www.gdadrillers.org
brock@gdadrillers.org
stacy@gdadrillers.org



GDA's Accomplishments

- **National Occupational Framework** - defined competencies (Dept of Labor approved)
- Received **Dept of Energy Prize** to build our geothermal drilling training
- Received **Massachusetts Clean Energy Center Equipment grant**
- Delivered multiple pre/apprentice **geo drilling trainings** - "Field Technician Readiness" Certificate, Local 150 second- and third-year apprentices
 - Exploring how our drilling practice can deliver needed test boreholes for actual installations
 - Always expanding our workforce partnerships
- Open-source **MIT course + many industry conferences**
- Partnering to define best practices and **standards for geothermal well control**
- Driving establishment of first **Geothermal Drilling Centers of Excellence** (here in Framingham) -- GMCC
 - Modeling student pipeline and cost per student as input to a detailed program outline
 - Will pursue accreditation of driller training curriculum
- Participating in various efforts nationally to develop **K-12 curricula**



GDA Training Strategies 2026 & Beyond



Deploy Short-Term Intensives: Utilize 40-to-80-hour foundational training programs to quickly qualify new entrants and accelerate their readiness for project sites.



Target Adjacent Trades: Actively recruit individuals with highly transferable technical skills, including mechanics, welders, general construction laborers, and veterans.



Host Active Site Demonstrations: Invite prospective workers to active drill sites for hands-on observation of drilling, loop installation, grouting, and fusing.



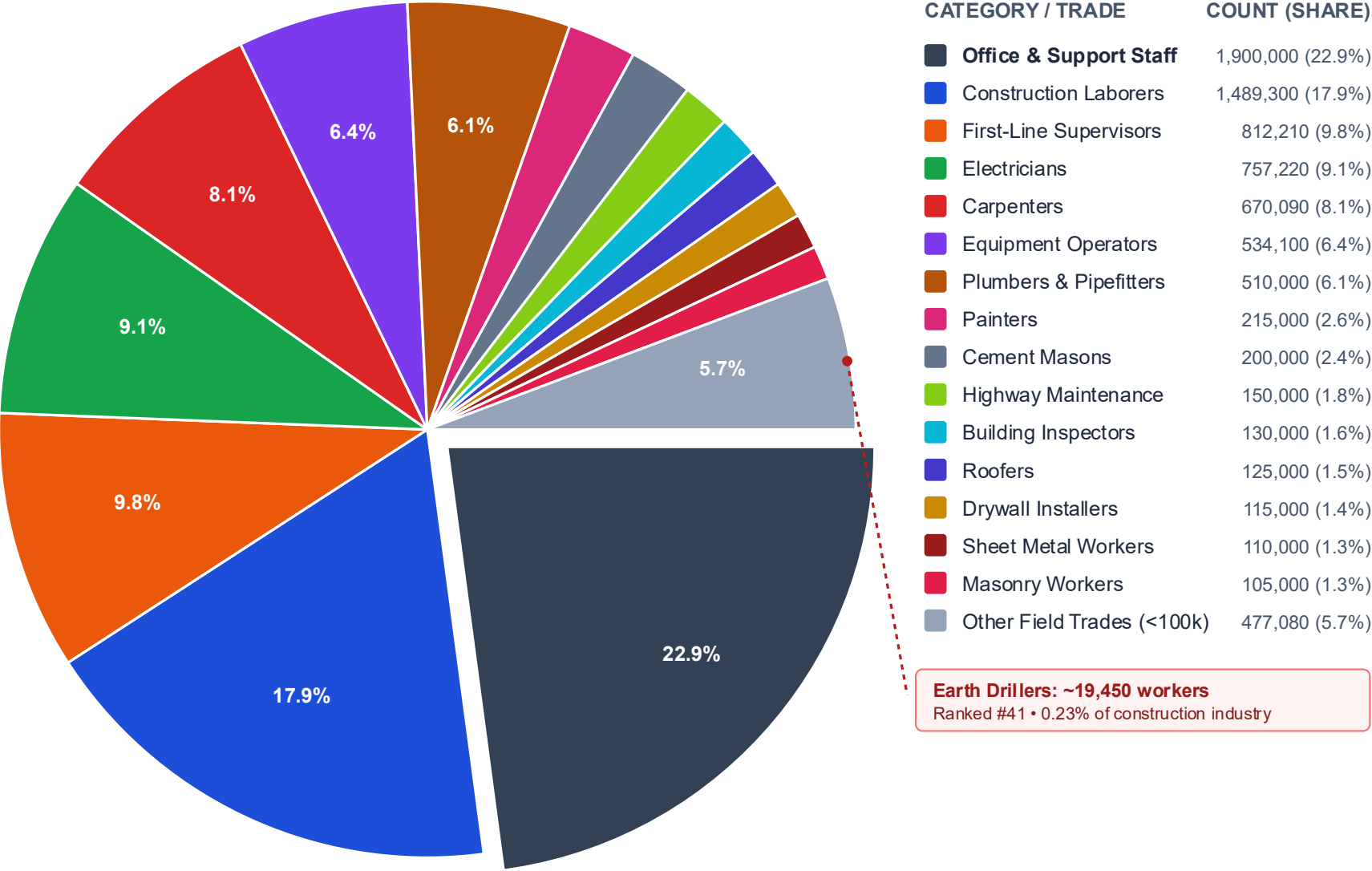
Establish Clear Career Progression: Implement an apprenticeship framework that clearly maps the long-term career path from Field Technician to Assistant Driller and ultimately to Lead Driller.



Engage in K-12 Educational Outreach: Build a sustainable future talent pipeline by partnering to develop K-12 curricula, such as refining existing 4th-grade modules.

U.S. Construction Industry Workforce Breakdown (8.3 Million Total)

Office/Support Staff (1.9M) vs. Field Labor (6.4M) with Trades > 100,000 Workers



* Source data based on U.S. Bureau of Labor Statistics (BLS) Occupational Employment and Wage Statistics.

