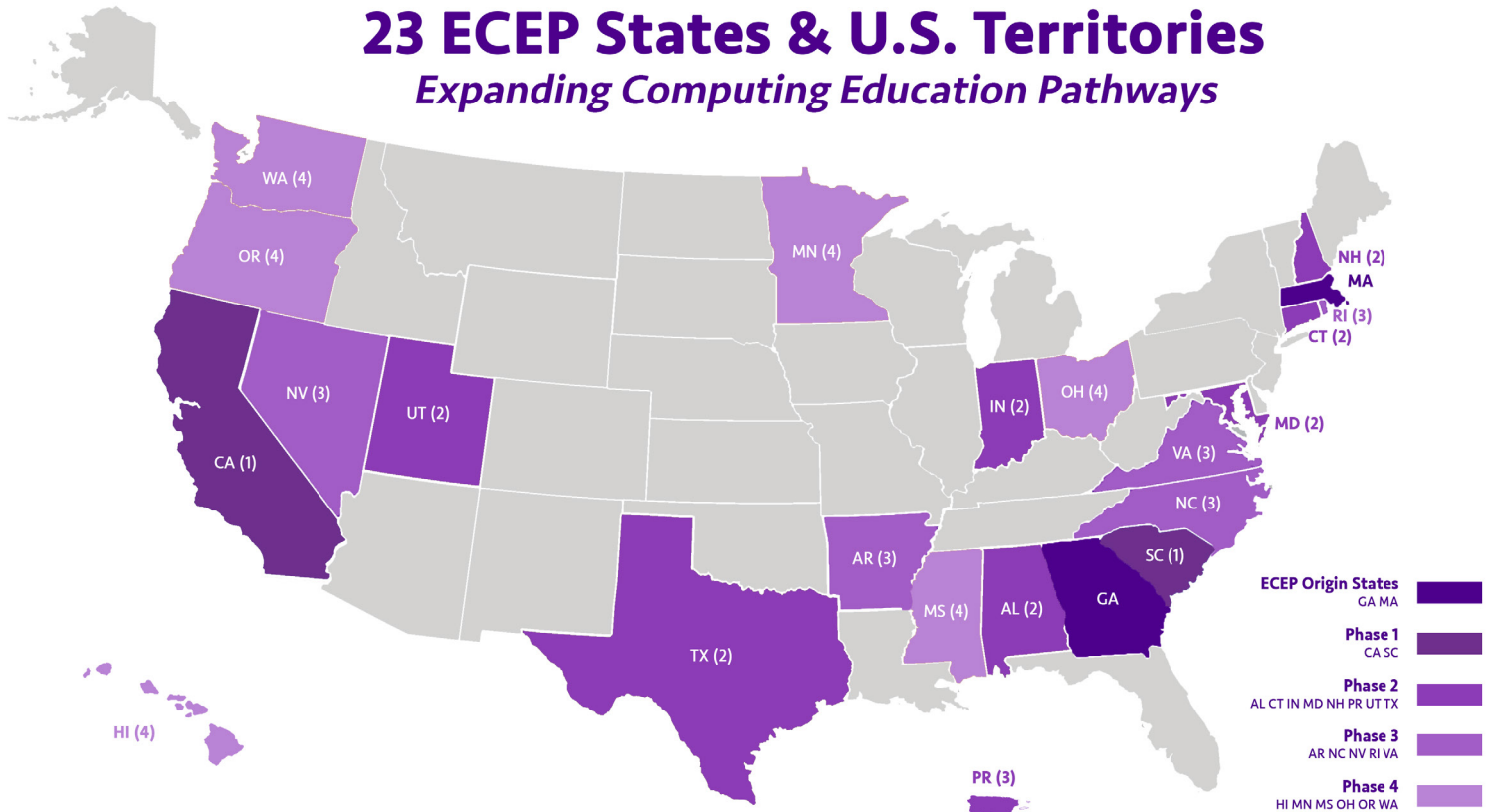**The Expanding Computing Education Pathways (ECEP)** Alliance seeks to increase the number and diversity of students in the pipeline to computing and computing-intensive degrees by promoting state-level computer science education reform. ECEP supports diverse state leadership teams to develop effective and replicable interventions to **broaden participation** in **computing** (BPC) and to create state-level infrastructure to foster equitable computing education policies.

23 ECEP States & U.S. Territories
Expanding Computing Education Pathways

WA (4)
OR (4)
MN (4)
NH (2)
MA
RI (3)
CT (2)
NV (3)
UT (2)
IN (2)
OH (4)
MD (2)
CA (1)
VA (3)
NC (3)
SC (1)
AR (3)
MS (4)
AL (2)
GA
TX (2)
HI (4)
PR (3)

ECEP Origin States
GA MA

Phase 1
CA SC

Phase 2
AL CT IN MD NH PR UT TX

Phase 3
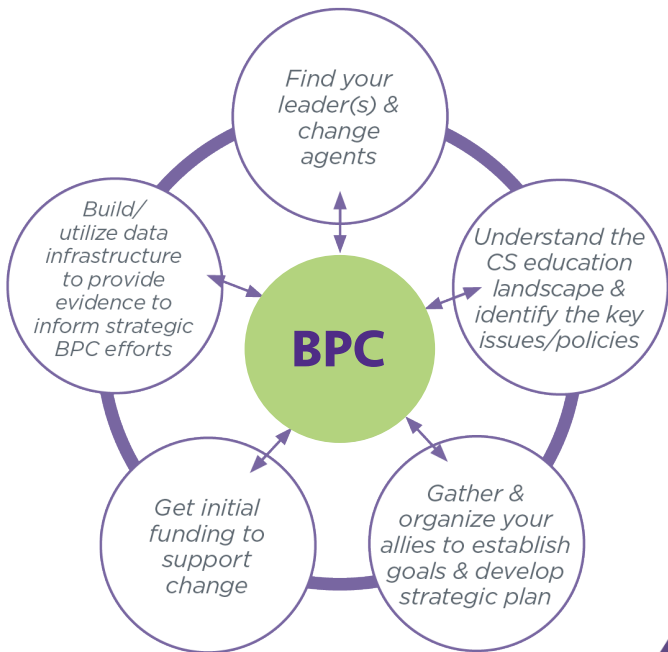AR NC NV RI VA

Phase 4
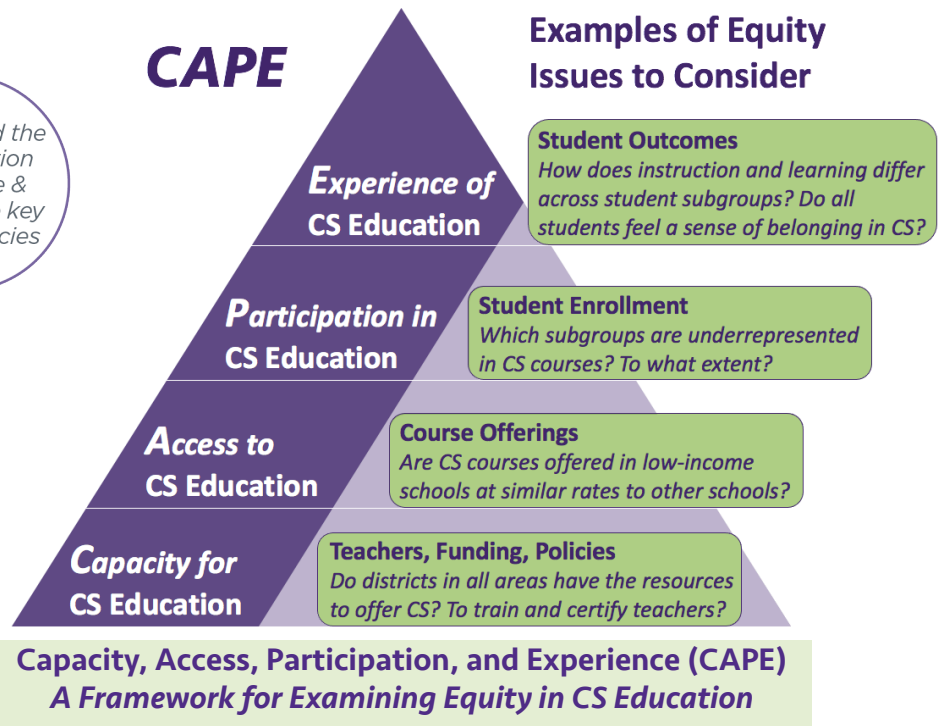HI MN MS OH OR WA

Key Features of ECEP

The ECEP Alliance deploys a collective impact model in which ECEP manages the backbone functions of the Alliance while state BPC leadership teams engage directly in the implementation and data collection activities specific to each state.

- ECEP focuses on **STATES as the unit of change** by supporting systemic improvements in policy, organization, and data systems that lay the foundation for large-scale and sustainable advances in BPC.

- ECEP provides **technical support** to state leadership teams for BPC data analysis, goal setting and tracking, and policy design and implementation rather than engaging in direct student interventions.

- ECEP outcomes are grounded in systems change, an approach that focuses on policies and practices that are often codified in law, **leading to policy based sustainability**.

- ECEP requires **cross-disciplinary collaboration** at a systems level among diverse stakeholders representing the computing, education, and policy components of the entire CS education ecosystem.

- **C**atalyze and **incubate diverse state leadership** teams that keep BPC at the forefront in state level actions around Capacity for CS ed, **Access** to CS ed, **Participation** in CS ed, and Experiences of CS ed (**CAPE**).
- **P**rovide **coaching** and technical assistance to state teams, advancing them through the **ECEP 5-stage state change model**, including **CS education summits, developing goals** and metrics for tracking longitudinal change in BPC, **creating CS landscape reports**, and supporting **BPC data collection and dissemination**.
- **Connect** state leaders to expertise, resources, and promising practices to help them advance BPC for students historically underrepresented in computing.

5-Stage Change Model

BPC

- Find your leader(s) & change agents
- Understand the CS education landscape & identify the key issues/policies
- Gather & organize your allies to establish goals & develop strategic plan
- Get initial funding to support change
- Build/utilize data infrastructure to provide evidence to inform strategic BPC efforts

CAPE

Examples of Equity Issues to Consider

Experience of CS Education
- **Student Outcomes** — How does instruction and learning differ across student subgroups? Do all students feel a sense of belonging in CS?

Participation in CS Education
- **Student Enrollment** — Which subgroups are underrepresented in CS courses? To what extent?

Access to CS Education
- **Course Offerings** — Are CS courses offered in low-income schools at similar rates to other schools?

Capacity for CS Education
- **Teachers, Funding, Policies** — Do districts in all areas have the resources to offer CS? To train and certify teachers?

Capacity, Access, Participation, and Experience (CAPE)
A Framework for Examining Equity in CS Education

68 % of ECEP states have identified one or more priority K-12 populations to serve

83 % of ECEP states have a landscape report or are developing one

134 # of core state leaders collaborating across ECEP

ECEP Alliance Team and Contact Info

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