DRAFT

CT's Inclusive Economic Action Plan

Presentation to Governor Lamont

Jan 31, 2020

CERC
Connecticut Economic Resource Center

By the numbers: our vision for inclusively growing CT’s economy

12 initiatives

reaching **100%** of residents,
creating demand for

~80,000 new jobs

in the next **5** years

Our aspiration

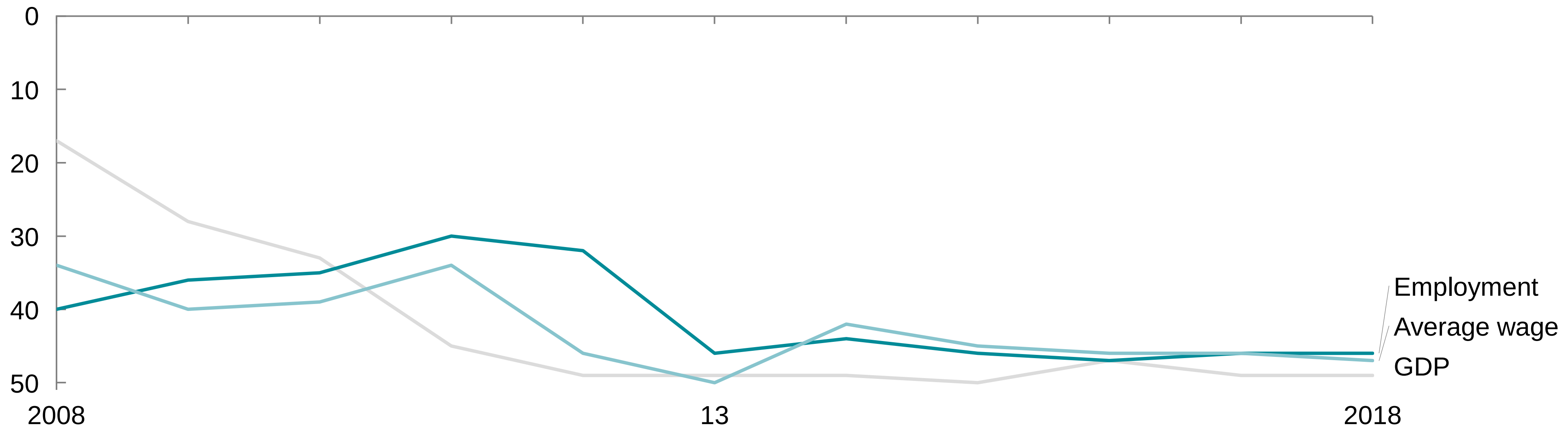
CT will be a leading state in the nation for economic growth and job opportunities for all by 2025

- The fastest job growth in the Northeast
- A top ten state for median household income growth
- 15,000 additional households lifted into earning an annual living wage
- A top ten state for median household income of racial and ethnic minorities
- The most work-ready population in the US

DRAFT

CT lags the nation in key growth indicators

CT's growth rankings vs US states[1], Rank



	2008	13	2018
Employment growth rank	40	46	46
Average wage growth rank	34	50	47
GDP growth rank	17	49	49

1 Growth rate defined as the CAGR for the trailing five years

SOURCE: US Bureau of Economic Analysis, US Bureau of Labor Statistics, Moody's Analytics

CT saw mixed performance in key economic enablers over the last 10 years

Workforce	▪ Sustained outmigration (-65,000 residents since 2012) ▪ Working age population is expected to decline by more than 150,000 workers between its 2011 peak and 2025
Innovation	▪ Strong innovation pipeline (6^{th} in US for business R&D, 8^{th} in patent generation per capita) ▪ Low R&D conversion rate (45^{th} in start-up density, 36^{th} in high growth company density)
Business climate	▪ Bottom 10 states for doing business across multiple indices – 48^{th} in small business friendliness – Business costs are 10% higher than US average, though lower than MA and NJ – CT's corporate tax rates are comparable overall to other states (ranked 27^{th})
Infrastructure	▪ 35^{th} in commute times, 43^{rd} in road quality ▪ Energy prices are the 3^{rd} most expensive in US

Source: BLS, BEA, Moody's Analytics, US Census, National Science Foundation, Kauffman Foundation, Forbes, CNBC, Thumbtack

Our plan is rooted in robust diagnostics and stakeholder engagement

Mid Sep – Mid Oct

0 **Set up for success**

Mid Oct – Early Nov

1 **Refresh diagnostic of CT's economy**

Mid Nov – Mid Dec

2 **Prioritize initiatives and build out coordinated strategies**

Early Dec – Mid Jan

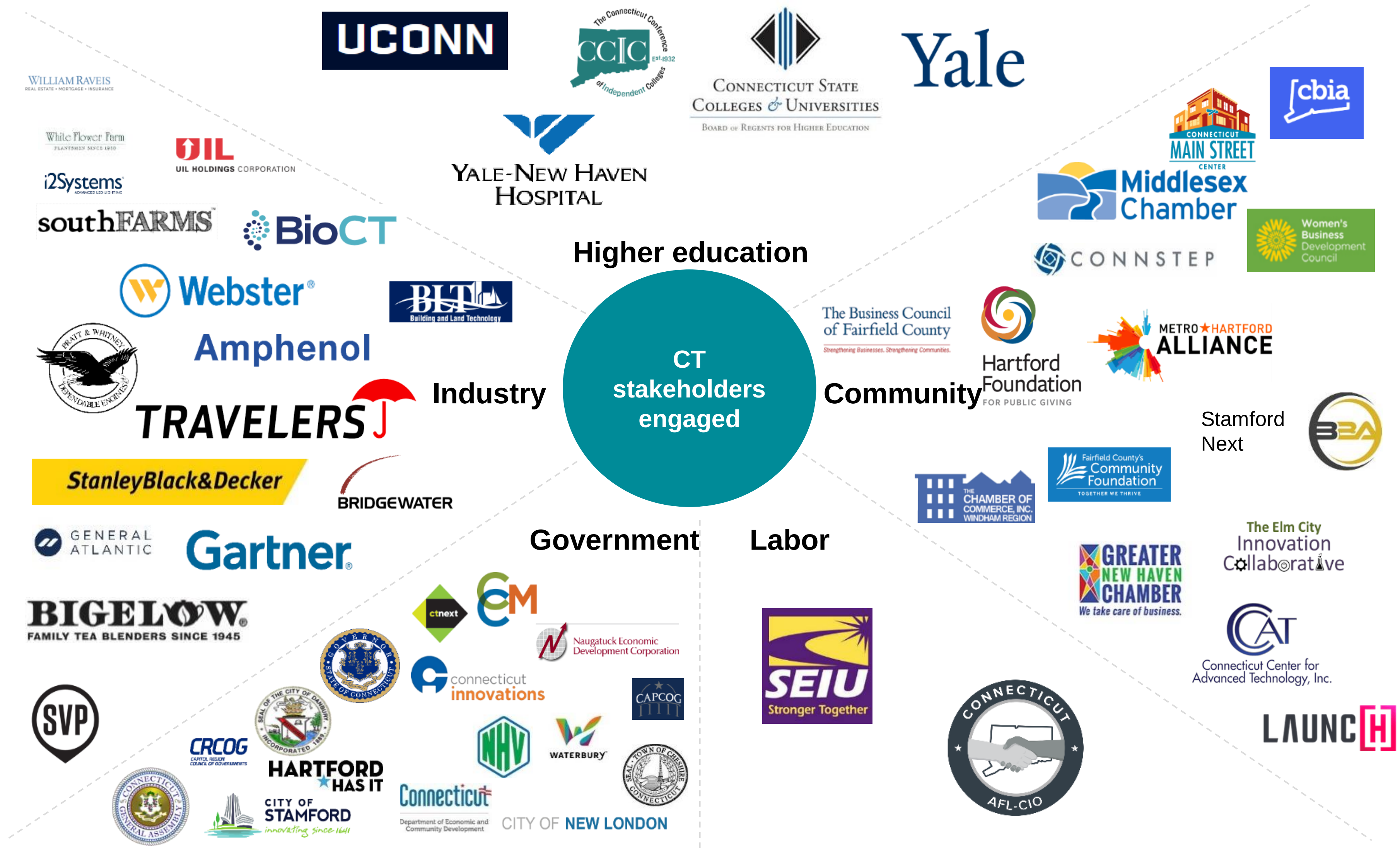
3 **Develop implementation plan and integrated strategy**

Mid Sep – ongoing

4 **Engage stakeholders**

We conducted substantial stakeholder outreach to shape the action plan

- 90+ stakeholders from 50+ organizations interviewed or engaged in small group discussions
- 35+ Advisory Council members
- 20+ interviews with industry experts
- ~1000 survey respondents from all areas of the state and all target industries

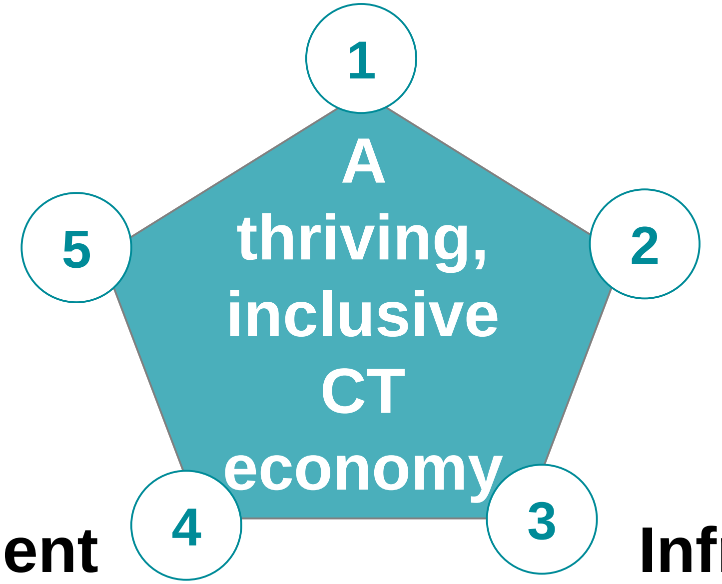


DRAFT

Our action plan for inclusive economic growth is built on 5 pillars

Attract and retain talent by investing in vibrant and affordable communities for all

Communities



Broaden the base of skilled workers to meet increasing industry demand

Workforce

Innovation

Support growth and generate inclusive economic opportunity within CT's most innovative and specialized industries

Business Environment

Improve CT's environment and reputation for starting and growing businesses

Infrastructure

Invest in safe, fast, & accessible infrastructure to enable sustainable growth

5 pillars, 12 initiatives, creating ~80K jobs at a state cost of ~$510M[1] across five years

1 $97M in tax credits, $316M in capital grants and loans, and $93M in operating grants

DRAFT

Signature initiative

Priority initiative

Communities

Vision

Attract and retain talent by investing in vibrant and affordable communities for all

A
Communities Challenge[1]

Launch a platform to improve the livability, vibrancy, and economic health of cities with technical assistance and funding for:

- Regional design and placemaking
- Urban revitalization
- Transit-oriented development
- Other investments in public space

B
Welcome Home CT

- Retain and attract 4-year graduates by offering companies tax credits for repaying student loans of STEM employees
- Attract and help immigrants make CT their new home by coordinating career services and community building support

C
Arts & Culture Studios

Draw upon historic preservation resources and real estate investment to create artist studios, live-work space, galleries, and cultural centers

1 Hartford, New Haven, and Stamford are not eligible to compete for this funding due to the placemaking component of the Innovation Corridor initiative

Key issues discussed: Net migration, working age population, college graduate retention

DRAFT

Signature initiative

Priority initiative

Innovation

Vision

Support growth and generate inclusive economic opportunity within CT's most innovative and specialized industries

A Innovation Corridor

- Concentrate industrial and commercial activity
- Invest in livability and vibrancy of urban areas through dedicated placemaking fund
- Incentivize equitable and inclusive economic opportunity for local residents

New Haven Region Bioscience

Stamford Region Tech

Hartford Region Mfg. & Ins.

B Women- and Minority-Owned Businesses

Promote the growth of women and minority-owned enterprises with dedicated technical assistance, training, and capital assistance

C Smart Manufacturing

Accelerate modernization through technical support and workforce training, and work with third-party lenders to create a partial guarantee framework enabling investment for expansion and job creation

Key issues discussed: Industry anchors; Placemaking; Knowledge partnerships; Emerging innovators; Capital; Brand

DRAFT

Signature initiative

Priority initiative

Business Environment

Vision

Improve CT's environment and reputation for starting and growing businesses

A

Regulatory Modernization

In consultation with businesses and residents, eliminate barriers and pain points in regulations and business processes to improve the perception and reality of doing business in CT. Focuses include

- Ease of govt. interactions (e.g., starting a business)
- Clarity and transparency of platforms for citizen/state interactions
- Occupational licensing burdens

B

CT Business Attraction and Concierge

Centralize the business attraction, retention, and expansion team to offer:

- White glove concierge service for clients
- Revamped incentive programs

C

CT Brand

Launch a marketing campaign that appeals to tourists, residents, potential migrants, and businesses, highlighting the State's strengths and correcting misconceptions about its business climate

Key issues discussed: Business friendliness rankings, occupational licensing burden compared to other US states, business attraction/retention structure and capabilities

Signature initiative

Priority initiative

Workforce

Vision

Broaden the base of skilled workers to meet increasing industry demand

A

Regional Sector Clusters

Energize regional workforce-sector partnerships and jumpstart a responsive, demand-driven, skills-focused workforce system

B

Skills Upgrading

Build pathways and credentialing opportunities for all CT residents to gain exposure, training, and opportunities around critical occupational skills

Additional initiatives to be designed and implemented by Governor's Workforce Council

Key issues discussed: Opportunities for living wage jobs, skills matching for employer needs, higher education and certification graduation rates

Signature initiative

Priority initiative

Infrastructure

Vision

Invest in safe, fast, & accessible infrastructure to enable sustainable growth

A

CT 2030 Transportation Plan

Invest in CT's statewide road, rail, and other transit infrastructure to connect communities and empower a mobile workforce

Specifics of transportation improvement to be approved by legislature

Key issues discussed: Opportunities for living wage jobs, skills matching for employer needs, higher education and certification graduation rates

DRAFT

Our signature initiatives include all areas of CT

Direct impact of initiative

Regional impact of initiative

Initiative developed by other organization

Initiatives	Communities Challenge[1]	Innovation Corridor	Regulatory Modernization	Transportation Plan	Workforce Council
Fairfield					
Hartford					
Litchfield					
Middlesex					
New Haven					
New London					
Tolland					
Windham					

4 in 5 CT residents can commute to an Innovation Hub[2]

1 Hartford, Stamford, and New Haven are not eligible for Communities Challenge funding due to dedicated funding in Innovation Corridor initiative
2 82% of CT residents are within a 45 minute driving distance of the centers of Hartford, New Haven, and/or Stamford
SOURCE: US Census, Alteryx, TomTom

DRAFT

★ Signature initiative

The plan is designed to create ~80K jobs, with a ~3:1 leverage of State funds

		Direct costs						Leveraged	
		Shown by bonding year		Shown by expense type					
Initiative[1]	5-yr total jobs (K)	Year 1 (M)	Years 2-5 (M)	Capital grants and loans (M)	Operating grants (M)	Tax credits (M)	Total State funding[4] (M)	Private and other govt funding (M)	5-year State cost per job[4] (K)
★ Innovation Network	**19**	$3	$148	$151		$59	**$210**	$890	**$11**
Women and Minority-Owned Businesses	**10**	$12	$48	$50	$10		**$60**		**$6**
Smart Manufacturing[2]	**12**	$10	$40		$50		**$50**	$85	**$4**
★ CT Communities Challenge[3]	**10**	$10	$90	$100			**$100**	$400	**$10**
Welcome Home CT	**11**		$2		$2	$38	**$40**		**$4**
Arts and Culture Studios	**2**	$3	$12	$15			**$15**	$65	**$9**
★ Regulatory Modernization	**11**	$2	$5		$6		**$6**		**<$1**
CT Business Attraction and Concierge	**12**								**<$1**
CT Brand	**N/A**	$5	$20		$25		**$25**		**N/A**
Total:	**86**	**$45**	**$364**	**$316**	**$93**	**$97**	**$506**	**$1,440**	**$6**

1 Transportation Plan and Workforce initiatives (Regional Sector Clusters and Skills Upgrading) have other owners and are not included on this list; see appendix for additional initiative detail
2 Smart Manufacturing is designed to grow and retain jobs in the state's manufacturing sector; numbers reflect new and retained jobs
3 The Communities Challenge is designed to increase livability to retain residents as well as to create jobs; it is estimated to create ~3K jobs and retain ~10K residents (inclusive) by increasing livability.
4 State funding includes costs paid (e.g., grants and loans through bonding) and future revenue forgone (e.g., tax credits)

A bold, inclusive vision for our economic future

- Our aspiration is for a fast-growing, inclusive CT economy, with quality jobs for all

- Our action plan to achieve that aspiration has 12 initiatives across 5 economic pillars
  - Initiatives build on strengths and address opportunities identified by a comprehensive economic diagnostic
  - We engaged stakeholders throughout to help us prioritize initiatives and develop action plans; we surveyed ~1000 stakeholders and interviewed 90+ more one-on-one and in small groups

- Initiatives are designed to create demand for ~80,000 new jobs in the state

- Inclusivity and opportunity for all are woven through the action plan, with initiatives intentionally designed to benefit historically disadvantaged groups

- Execution requires ~$410M in bonding and ~$100M in tax credits over 5 years; year 1 launch requires ~$45M in bonding

- State cost per job is ~$6K, with 3:1 funding matches from private sector and other sources

Appendix: Additional detail

- **Action plan initiatives**
- Aspiration and targets
- Economic performance diagnostic
- Roles and responsibilities

Diverse stakeholders informed our initiative prioritization and development

Sources of insight

- Advisory Council
- Industry associations
- Case studies from other states and cities
- Industry experts
- Stakeholder survey with ~1000 responses

- Advisory Council
- Key stakeholders
- Stakeholder survey
- Impact & feasibility
  - Sector
  - Geography
  - Impacted population
  - Timeline

- Advisory Council
- Key stakeholders
- Stakeholder survey
- Impact assessment
  - Cost
  - Impact
  - Return on investment

CT Communities Challenge

Context and rationale

CT struggles to attract and retain residents, in part due to underinvestment in place-based community development

- Drivers of perceived low quality of life and a lack of urban vibrancy vary by region
- Northwest CT identifies amenities for young talent as a major concern, while Bridgeport ranks housing and transportation as top needs

Sources of inspiration

miplace — MI Redevelopment Ready helps cities implement planning, zoning changes, and marketing to jumpstart development

MassDev's TDI assigns Fellows to distressed Gateway Cities to coordinate transformative place-based investment

NEW YORK STATE OF OPPORTUNITY. — RCCF ESD Grants invest $150M across 10 NY regions to fund capital projects that increase economic activity

The CA AHSC Program awards $1-30M grants for affordable housing, public infrastructure, and streetscape

Initiative detail

- **The Communities Challenge will offer competitive community grant funds to stimulate investment in compact, high-quality, and transit-connected development, prioritizing our largest and most strategic urban cores outside Innovation Hubs**
- **Funded projects must demonstrate that they will:**
  - Improve convenience, livability, and appeal of CT communities
  - Densify commercial or residential development near transit hubs
  - Provide project area residents with greater access to and/or opportunities for employment
  - Attract private sector redevelopment of adjacent commercial or residential properties
- **Municipalities can apply for funding for either development or pre-development[1]**
  - Pre-development grants fund site design, financial feasibility analyses, and market studies
  - Development grants fund capital improvements of up to $10M
  - To encourage partnership, awards from the Communities Challenge can represent no more than 20% of total project costs
  - DECD will assign regional coordinators to help municipalities access and use funds

Inclusive growth elements

Funding conditional on anti-displacement strategy for existing residents

Funding criteria reward positive impact on underserved & marginalized communities

Five-year impact and cost summary

Direct jobs	Talent retained[2]	Project cost[3]	Public cost[4]
3-4K	~10K	~500M	~100M

1 Innovation Hub anchor cities of Stamford, Hartford, and New Haven are not eligible for Communities Challenge funding due to dedicated placemaking funding included in Innovation Corridor initiative
2 Inclusive of 3K direct jobs created
3 Total project cost, includes upfront and annual operating costs, does not split share of public investment verses non-public investment
4 $100M in grants and loans for planning and capital investments; $10M in Y1 bonding for planning and early execution funding and $90M in Y2-5 bonding for execution

DRAFT

Welcome Home CT

Context and rationale

Workforce supply in CT faces decline due to aging workforce and high out migration

- CT is ranked 41st in US on net migration
- CT retains <40% of its university graduates
- CT employers have unmet demand across the education and skill spectrum

CT is family and immigrant-friendly and can draw upon this reputation to address its workforce shortfall

- CT is in the top 6 in health, safety, education, child care, and affordability for families
- 34% of Stamford, 30% of Bridgeport, 30% of Danbury, and 22% of Hartford residents are foreign born
- Immigrants comprise ~18% of workforce and ~25% of CT business owners
- CT has large Indian, Jamaican, Polish, and Hispanic immigrant clusters

Sources of inspiration

'**Welcome Dayton'** focuses on immigrant integration by providing business and economic development support and ensuring access to better healthcare, and education

Rhode Island's **"Wavemaker Fellowship"** provides grads pursuing a career in RI in STEM or design student loan forgiveness for up to 4 years

Initiative detail

Retain and attract college graduates to CT through employer tax credits for student loan forgiveness and young professional recruiting:

- Offer tax credits to companies who repay student loans of new STEM hires
- Collaborate with private, public, community and technical schools and local employers to link talent to jobs

Provide comprehensive programming and support centered on career assistance, community engagement and access to social services for immigrants

- DECD will partner with NGOs and a communications firm to draft a "Welcome CT" guidebook to assist immigrants with cultural, social, and financial tasks (e.g. getting identification, locating community centers)
- DECD will identify opportunities to provide accelerated credentialing and/or reciprocity for skilled immigrants (e.g. nurses)
- DECD will partner with local NGOs and EDOs (e.g. CT Institute for Refugees and Immigrants, CT Immigrant & Refugee Coalition) to provide immigrants access to career, education, legal, health, housing and social support services

Inclusive growth elements

Initiative designed around empowering immigrant and refugee communities	Historically underrepresented and financially disadvantaged groups prioritized for program	Alumni and job recruiting team carries dedicated mandate to recruit underrepresented minorities

Five-year impact and cost summary

Direct jobs	Total jobs	Project cost[1]	Public cost[2]
5-6K	10-12K	$40M	$40M

1 Total project cost, includes upfront and annual operating costs, does not split share of public investment verses non-public investment

2 $38M in tax credits for employers repaying student loans, $2M in Y2-5 bonding in operating expenses for guidebook development and community partner services

SOURCE: Moody's Analytics; US Census Bureau, EMSI, 2014-2018 American Community Survey 5-Year Estimates

DRAFT

Arts and Culture Studios

Context and rationale

Investment in space for artists can help CT attract and retain talent by:

- Catalyzing neighborhood investment
- Rehabilitating vacant buildings
- Enhancing community quality of life
- Animating street life in blighted areas
- Encouraging creative firms to move to CT

Art space developments typically require multiple funding sources:

- Financing often includes market-rate and federal loans, federal tax credits, and grants
- State funds are often used to fill small financing gaps
- Given this complexity, technical assistance can be vital in catalyzing development

Sources of inspiration

PENN AVENUE

Pittsburgh's Penn Avenue Arts Initiative developed art space alongside commercial district promotion, business assistance, and youth programming

Initiative detail

- **Appoint a DECD Art Space Officer to assist municipal agencies in planning and executing the development of artist spaces. Responsibilities include:**
  - Forming partnerships between arts organizations, real estate developers, and CDCs to develop space for visual artists, architects, designers, musicians, writers, and other creative professionals
  - Identifying former mills, factories, and underutilized public and private buildings that could be acquired and rehabilitated into live-work lofts, studios, performance space, and galleries
  - Assembling existing financing (e.g., low-income housing tax credits, historic preservation credits, Opportunity Zone tax credits, CDBG grants, HOME funds, community foundations, and CDFIs)
  - Engaging the community in developing arts programming and setting eligibility criteria for artists (e.g., artist must agree to offer youth programming) and other tenants
- **Art Space Fund to provide additional financing for art space developments**
  - The Fund would offer $2-$4M loans or $200-$500K grants as necessary for project viability
  - Similarly-sized state and local funding was offered in projects such as Ice House (Pittsburgh) and Toshiro-Kaplan (Seattle)

Inclusive growth elements

Eligibility criteria for artists and commercial tenants consider cultural diversity and community orientation

Community Benefit Agreements and anti-displacement plans required

Five-year impact and cost summary

Direct jobs[1]	Total jobs[1]	Project cost[2]	Public cost[3]
~800	1.6K	~80M	~15M

1 Benchmarked to similar art developments at $80K per studio created, $80M in project costs can create space for 1K professional artists and creative firm professionals; assumes 80% are new to state
2 Total project cost, includes funding from private developers and other existing federal and state programs of approximately 80% of total project costs
3 $3M/yr in loans and grants to fund 4 new ~50 studio rehabilitation projects; $3M in Y1 bonding, $12M in Y2-5 bonding

DRAFT

Innovation Network: Innovation Placemaking Platform

Context and rationale

Attractive, vibrant cities are needed to attract and retain residents and workers

- Mixed-use and transit-oriented development increase livability and entertainment options
- Public space can be used to showcase local innovation and offer amenities like WiFi and free meeting space to jumpstart collaboration

Sources of inspiration

Caltrans' Sustainable Planning Transportation Grant awards $100K - $1M grants for land use planning

RCCF ESD Grants invest $150M across 10 NY regions to fund capital projects that increase economic activity

Twin Cities' $12M Communities Demonstration Grant pool funds public infrastructure and space improvements

The CA AHSC Program awards $1-30M grants for affordable housing, public infrastructure, and streetscape

Initiative detail

- **The Platform will award grants for transit-oriented development and urban revitalization**
- **Hartford, Stamford, and New Haven metro regions may each apply for grants to fund development of a comprehensive urban design, vision, and blueprint**
  - Plans can be developed with expert urban design firms and engage regional stakeholders
  - Criteria for execution funding include talent attraction, displacement minimization, cultural asset preservation, and district-based placemaking
  - Funding may be used to integrate or improve on existing urban and regional plans
  - Approved plans are a prerequisite to receiving funding in years 2-5
- **Each metro region can apply for annual grants to execute their plan**
  - Recipients may be public entities or a consortium of public and private partners
  - State grants must represent no more than 20% of total project costs
  - Applicants must demonstrate how plans will attract development, assist in linking urban centers to transportation systems, and advance equity and inclusion

Inclusive growth elements

Funding conditional on anti-displacement strategy for existing residents

Funding criteria reward positive impact on underserved & marginalized communities

Major funding sources (included in cost estimates for site pages that follow)

- Total public funding for Innovation Placemaking Platform is $100M[1]
- Public-private partnerships highly encouraged; awards represent no more than 20% of total costs
- Target private: public leverage for funding of 4:1

1 $3M in bonding in Y1 to cover plan design or integration of existing plans, remainder to be bonded in Y2-5 with split determined by results of planning and grantmaking process

DRAFT

Innovation Network: New Haven Region Bioscience Hub

Context and rationale

New Haven is a bioscience research powerhouse

- New Haven is 4th in NIH funding per capita
- Yale is 10th in institutional NIH funding
- New Haven is already home to a sizeable cohort of bioscience companies; Alexion w/ 10M USD R&D investment

Commercialization opportunities are limited, driving small and large companies to leave

- Inadequate wet lab and graduation space limits growth of existing companies
- Lack of commercialization ecosystem leads to talent drain
- Limited late-stage funding opportunities
- Bayer, Bristol Myers Squibb, and Alexion have relocated HQs elsewhere, eliminating over 2000 jobs in the process

Sources of inspiration

WEXFORD SCIENCE+TECHNOLOGY — Wexford Innovation Center in RI, new innovation hub w/ 190K sq. ft incubator, $88M development

UNIVERSITY OF CAMBRIDGE — Cambridge UK / UofC: 61k people employed by 4.4k tech-based companies in local area

Initiative detail

- **Public-private partnership will develop a bioscience incubator in New Haven dedicated to start-ups and early stage companies**
  - Private developer will build a facility with ancillary services, wet lab and office spaces, graduation space for start-ups, and anchor company space
  - Yale will extend research expertise and university resources to support start-ups centered around biotechnology, pharmaceuticals, med-tech and devices, and precision medicine
  - BioCT, CTNext, Yale and industry will recruit high-level, in-house mentors that will provide active mentorship, facilitate career opportunities, and improve commercialization
  - CI, CTNext, and BioCT work with a co-working provider to foster innovation through start-up competitions, hackathons, internships, and an in-house start-up residency
- **DECD, CERC, partners will develop other critical elements of an innovation ecosystem**
  - DECD supports placemaking to make New Haven more attractive for young professionals
  - CERC leads efforts to attract two anchor bioscience companies to New Haven
  - CI and BioCT spearhead a marketing campaign to tout CT and New Haven as a bioscience destination

Inclusive growth elements

Targets set for start-ups in incubator founded by underrepresented minority groups

Ensure workforce pillar program efforts align with Hub needs and offer training and credentialing to local residents

Five-year impact and cost summary

Direct jobs[1]	Total jobs	Project cost[2]	Public cost[3]
0.5-1K	3-4K	$350M	$55M

1 Job growth estimates provided for next five years assuming incubator launch in 2023; post-launch 5-year direct jobs estimate is 2.5-3K, total jobs 7-7.5K
2 Total project cost, includes upfront and annual operating, and placemaking costs; does not split share of public investment verses non-public investment
3 $22M in tax credits for incubator space, $1M in Y1 bonding for placemaking planning, $32M in Y2-5 for execution

SOURCE: Connecticut Innovations Bioscience Strategic Plan Executive Summary: Dec 2018, US News, NIH database, Yale

Innovation Network: Stamford Region Tech Campus

Context and rationale

Industry anchors rely on tech talent
- From software development firms to manufacturers or insurance carriers, digital talent drives competitive advantages
- Job postings for computer science talent increased by more than 11.5% p.a. in CT over the past three years

Tech talent is scarce within CT
- There is an undersupply of computer science talent in CT, with ~2 CS job openings for every available CS worker
- CT produces ~1,000 computer science degrees a year, and is not keeping up with demand

Sources of inspiration

CORNELL TECH

NYC used desirable land and $100M in cash incentives to attract top institutions

The city used a stage-gated process to attract Cornell Tech, culminating in a competitive RFP

Partnership with local universities was encouraged, as was community engagement

Initiative detail

Develop CT's technology ecosystem by reducing talent shortages, creating a hub for research, and boosting commercialization
- DECD runs a competitive process to identify a leading higher education institution to create an anchor campus for the tech ecosystem in Stamford
  - DECD solicits interest from institutions with highly rated CS and digital programs
  - Higher education partner designs curriculum for and educates ~1,000 Bachelor's, Master's and PhD graduates per year, strengthening an undersupplied talent pool
  - The State uses the public process to improve global recognition of the quality tech talent trained and located in CT
  - CERC helps to attract anchor companies to collocate with the campus and collaborate with faculty to spur new ideas and increase innovation
- Faculty and industry talent leverage innovation ecosystem to create startups in the hub, creating a network of investors, accelerators, and supporting services

Inclusive growth elements

Demonstrated commitment to equity and inclusion is meaningful portion of RFP score (e.g., 20% in Roosevelt Island)

Public-private partnership to endow scholarships for minorities

Commit to local procurement of goods and services

Five-year impact and cost summary

Direct jobs	Total jobs	Project cost[1]	Public cost[2]
5-6K	10-12K	$550M	$105M

1 Total project cost, includes upfront and annual operating costs, does not split share of public investment verses non-public investment
2 $20M in tax credits, $1M in Y1 bonding for placemaking planning, $84M in Y2-5 for development of tech campus ($52M) and placemaking execution ($32M)

DRAFT

Innovation Network: Hartford Region Hub

Context and rationale

Deep specialization in advanced manufacturing and insurance in Hartford

- CT is 5x as specialized as the average state in aerospace, electrical, and ship building, with ~160K manufacturing jobs
- CT ranks 3rd nationally in direct written premiums, with 47K insurance jobs, many centered in Hartford

Existing innovation momentum is poised for acceleration

- Stanley Black & Decker and private sector development in Parkville; R&D activities underway at Manufactory 4.0
- CTNext Innovation Places built 7 industry partnerships and relocated 5 Insurtech companies in Hartford
- CCAT supports manufacturers with applied research and assistance, with a particular emphasis on energy and advanced manufacturing
- MetroHartford Alliance, CRCOG, and Hartford Foundation for Public Giving published “Hartford Metro Future” plan

Initiative detail

- **A Hartford Region Hub working group led by DECD and MetroHartford Alliance will densify industrial and commercial activity, revitalize neighborhoods, and create inclusive opportunity**
  - Will include private, public, and social sector entities, (e.g., MetroHartford Alliance, Upward Hartford, Launc[H], Stanley Black & Decker, DECD, Advance CT, Connecticut Innovations, and CTNext)
  - The working group will collaborate to set priorities and assign roles
- **The working group will coordinate efforts around four priority activities:**
  - Attract and retain insurance and manufacturing firms, with place-based real estate investment as a core strategy for developing these two industrial clusters
  - Connect anchor firms with start-ups looking to pilot new B2B products
  - Catalyze angel investment and connect the local workforce with innovation opportunities
  - Engage the community in placemaking, using funding from the Placemaking Platform

Inclusive growth elements

Set target percentage of WMBEs in incubator space and conduct outreach and technical assistance to achieve target

Working group members commit to local procurement of goods and services

Five-year impact and cost summary

Direct jobs	Total jobs	Project cost[1]	Public cost[2]
~2.5k	~5k	~200M	~50M

1 Total project cost, includes upfront and annual operating costs, does not split share of public investment verses non-public investment
2 $17M tax credits estimated for Industry 4.0 hub, $1M in Y1 bonding for placemaking planning, $32M in Y2-5 for execution

DRAFT

Women and Minority Business Initiative

Context and rationale

CT's women and minorities are under-represented in the state's economy

- ~16% of CT's businesses are minority-owned despite ~33.5% minority population
- In 2018, CT's unemployment rate was 5.5% overall but 9.5% for Black or African-American and 7.8% for Hispanics; opportunities exist to improve wealth generation and employment
- Women own ~33% of CT's businesses, and the state ranks 44th in women-owned business growth since 2014

CT has a foundation of relevant programs

DECD's $25M revolving loan fund created/retained ~700 jobs by lending ~$4.5M in 2019 (through November)

Sources of inspiration

During FY17, SBA's Women's Business Centers provided business assistance to ~150k people

Ohio · POWERED BY SBA U.S. Small Business Administration · NYC EDC · DRIVE GREATER FRESNO REGION · Massachusetts · State of Rhode Island

Initiative detail

Launch an RFP to establish a network of coaching and mentorship offices to engage MWBEs in their communities and provide technical assistance

- Tailor programming to entrepreneurship barriers faced by women and racial minorities (e.g., disproportionate primary care responsibilities, poor experiences with financial institutions)
- Focus curriculum on MWBE certification, business incorporation, financial literacy, payroll and tax filing, marketing and customer acquisition, and state contracting
- Staff mentors and coaches who relate to experiences of minority communities in order to overcome trust barrier that minority populations feel towards potential mentors and advisors
- Choose easily accessible office locations for communities (e.g., near public transit)
- Conduct outreach to relevant communities in person and online, increasing utilization of technical & capital assistance programs

Restructure direct capital assistance programs to better address MWBE capital needs

- Augment third-party loans with a partial state guarantee program via a pooled "first loss" fund
- Qualified MWBE loans would have an incremental state guarantee component

Inclusive growth elements

Provide MWBEs with technical know-how to serve large state contracts

Work with qualified community lending institutions

Five-year impact and cost summary

Direct jobs	Total jobs	Project cost[1]	Public cost[2]
5-6K	10-12K	~60M	~60M

1 Total project cost, includes upfront and annual operating costs, does not split share of public investment verses non-public investment
2 $2M/yr in operating expenses and $10M/yr in capital assistance loans; $12M in Y1 bonding and $48M in Y2-5 bonding
SOURCE: 2019 Fresno D.R.I.V.E. Initiative, Small Business Administration, US Census, DECD, American Communities Survey

DRAFT

Smart Manufacturing Campaign

Context and rationale

CT is a leader in advanced manufacturing

- 4,000+ enterprises exporting $17B per year
- Strengths in aerospace, electrical equipment, and ship & boat building

However, many CT manufacturers face modernization barriers

- Top modernization needs are R&D testing and production integration assistance
- 70% of manufacturers have <20 workers, and 35% of workers are over the age of 55
- Smaller firms face challenges modernizing due to capacity and capital constraints
- CONNSTEP[1] assists manufacturers, but is at a remove from research emerging from CCAT and UConn Tech Park

Sources of inspiration

BUFFALO MANUFACTURING WORKS Operated by EWI

Public-private partnership that supports >50% of manufacturing base in New York region, became 75% self-funded within 2.5 years due to demand for unique services

Initiative detail

Redesign and relaunch the existing Manufacturing Innovation Fund

- The relaunched $10M fund will focus on small manufacturers' workforce training needs
- Approximately $6M will fund apprenticeships and incumbent worker training for manufacturers with under 1,000 Connecticut employees, with a minimum 1:1 matching contribution
- Approximately $3M will fund capital investments for manufacturers with under 150 Connecticut employees, with the required match ranging from 2:1 to 4:1 depending on the company's size

Work with third-party lenders to create a partial guarantee framework that enables manufacturing expansion and job creation

- This first loss guarantee on loans from partnering financial institutions will expand access to capital for manufacturers with fewer than 150 employees
- Loans must be used to purchase equipment or machinery that will have a positive jobs impact

Inclusive growth elements

Fund will identify solutions to improve transportation between underserved urban communities and manufacturers

Loan guarantee may also be used to finance employee equity ownership (e.g., ESOPs), broadening the base of wealth

Five-year impact and cost summary

Direct jobs	Total jobs[2]	Project cost[3]	Public cost[4]
~6K	12K	~135M	~50M

1 CONNSTEP is a large nonprofit that helps manufacturers statewide adopt new technologies, implement lean manufacturing, and optimize sales, pricing, and marketing strategies
2 Includes 6K direct jobs, 2K retained jobs, and 4K indirect jobs
3 Total project cost, includes upfront and annual operating costs, does not split share of public investment verses non-public investment
4 $10M/yr in operating expenses; $10M in Y1 bonding and $40M in Y2-5 bonding

Regulatory Modernization

Context and rationale

CT's complex regulatory environment burdens entrepreneurs

- Highest cost to incorporate of any state: $455
- Time to incorporate ranges from 12-20 business days, compared to 2 days in best-in-class states
- CT has the 18th largest number of occupations requiring licenses
- CT received an "F" in regulation in Thumbtack's 2019 small business survey

Regulatory processes are decentralized, difficult to navigate, and outdated

- CT's 169 municipalities each control their own zoning, land-use, and permitting
- Only 5% of CT's 2000+ forms can be completed online

Sources of inspiration

Within three years, British Columbia's "red tape review" program reduced regulation by 1/3

BRITISH COLUMBIA

Initiative detail

- **OTG and OPM will coordinate efforts to identify and improve regulatory processes:**
  - Leaders of prioritized regulatory agencies will meet with leaders in target industries and small business organizations to identify major pain points
  - OTG will support regulation modernization efforts at other regulatory agencies, leveraging DEEP's "20 by 20" initiative as a model
  - OTG will work with DECD to set target business friendliness metrics (e.g., time to incorporate) to measure the success of regulatory modernization efforts
  - OTG and OPM will reach out to municipalities to identify business forms to simplify and digitize
  - OTG will continue existing work on occupational licensing and expand analysis to the comparative burden of different licenses
- **CERC and DECD will support outreach as necessary and publicize business friendliness improvements**

Inclusive growth elements

Set ambitious target for outreach to MWBEs and businesses owned by veterans and people living with disabilities

Include impact assessment for MWBEs and businesses owned by veterans and people living with disabilities in comparative burden analysis

Five-year impact and cost summary

Direct jobs	Total jobs	Project cost[1]	Public cost[2]
~6K	~11K	~6M	~6M

1 Total project cost, includes $1.5M annual operating costs for 4 years; does not split share of public investment verses non-public investment
2 $1.5M/yr in operating expenses for 4 years; $1.5M in Y1 bonding, $4.5M in Y2-5 bonding
SOURCE: CT Governor's Office, CT Mirror, Thumbtack, Mercatus Center, BC Ministry of Small Business and Economic Development

DRAFT

CT Business Attraction and Concierge

Context and rationale

CT's existing tax incentives for businesses are costly, difficult to access, and inefficient at creating jobs

- Business attraction programs such as First Five Plus do not calculate incentives in a standardized or transparent way
- Business tax credits are difficult to use; the cumulative volume of stranded tax credits in CT exceeded $1.8B in 2016
- Credits are also costlier than the US average, with an average CT expenditure of ~$25K per job created

Sources of inspiration

JobsOhio

JobsOhio created a business attraction team in 2011 led by industry experts. Since then, they have closed deals on 65% of all projects for which they submit an offer

Initiative detail

- **CERC and DECD will establish a CT Concierge service that offers centralized support for businesses interested in moving to or expanding their presence in the state**
  - Industry-specific teams will recruit businesses in target sectors
  - Staff will also assist companies with zoning and permitting processes for new development
  - Concierge staff will certify sites and publicize them on a website, including details such as electricity, water, sewage, internet, and transportation availability
- **DECD will restructure its incentives to be standardized, transparent, and performance-based:**
  - Job creation will be incentivized through the JobsCT program
  - Capital investment will be incentivized through the urban and industrial reinvestment tax credit and/or sales and use tax exemptions
- **Job creation incentives will take the form of state employee withholding tax rebates:**
  - If a company creates at least 25 jobs in two years, it will receive a 25% rebate on state employee withholding taxes in years 3-5 or 3-7
  - If a company is located in an Opportunity Zone or distressed municipality, the rebate is 50%

Inclusive growth elements

Only offer incentives for jobs paying 110% of area median income	Set recruitment targets for minority job creation	Offer additional incentives are available for jobs created in an Opportunity Zone or Distressed Municipality

Five-year impact and cost summary

Direct jobs	Total jobs	Project cost[1]	Public cost[1]
6K	12K	-	-

1 No new funding required from the State or other sources

DRAFT

CT Brand

Context and rationale

CT has a high quality of life and an attractive location

- Ranked 5th in quality of life by Forbes
- Situated between New York City and Boston

Despite these assets, CT struggles to attract businesses and residents

- CT is ranked in the bottom 10 for business friendliness
- CT ranks 41st in net migration

Sources of inspiration

VEDP: Virginia Economic Development Partnership administers a ~$4M annual business marketing budget to aid in the cultivation of target industries

MEDC Michigan Economic Development Corporation: Michigan has dedicated ~$29-38M annually to its Pure Michigan campaign, widely regarded as one of the most successful state tourism brands in recent years

Initiative detail

Launch a marketing campaign that highlights CT's strengths in tourism and business, and corrects misconceptions about CT's business climate

- Brand will be developed through an RFP for marketing and branding firms to help shape the State's marketing strategy
- Allocation of funding between tourism focused spending and business-oriented spending will be determined in consultation with the marketing and branding firm
- Track campaign effectiveness by surveying business leaders and the public annually
- Use survey results to adjust brand positioning and strategy
- Partner with industry stakeholders to pool advertising funding and disseminate marketing materials

Inclusive growth elements

Test campaign with diverse audiences

Emphasize the inclusive, welcoming culture of the state

Five-year impact and cost summary

Direct jobs[1]	Total jobs	Project cost[1]	Public cost[2]
-	-	$25M	$25M

1 Total project cost, includes upfront and annual operating costs, does not split share of public investment verses non-public investment
2 Incremental budget increase from existing $4M annual budget; $5M in Y1 bonding for ramp up, $10M in Y2 and Y3 for execution; additional funds subject to efficiency evaluation

CT 2030 Transportation Plan

Context and rationale

Aging infrastructure creates longer commute times for CT's residents

- 65% of CT's highways are over three decades old
- In 2017, 7.8% of CT's ~4,000 bridges were structurally deficient and 34% of CT's roads were in poor condition
- At 26.3 min, CT has the 36th longest average commute times in the nation
- Longer commute times are growing—from 2012-17, the share of residents commuting 60+ minutes grew from 7.6% to 8.9%
- Meanwhile, share of residents with <10 min commutes decreased from 13.5% to 12.2%
- US News ranks CT 37th in transportation infrastructure, driven by low scores in road quality (43rd) and commute times (35th) despite high public transit usage (19th)

Initiative detail

- **Provide ~$7B in targeted road and bridge improvements**
  - CT DOT to identify highway segments where traffic could be improved through targeted widening, including a new northbound lane between exits 19-27A in Bridgeport
  - Invest in safety improvements (e.g., traffic signals at exists, drainage, roadway upgrades)
  - Improve congestion at highway exits and interchanges through strategic redesign
  - Provide municipalities with funding for local improvements to be used at their discretion
- **Invest ~$3B in improvements to public transportation**
  - Support rail service to New York City through bridge and track repair, signal system replacement, platform enhancements, new rolling stock, and new stations
  - Enhance bus service with improved signs, real-time service information, maintenance facility modernization, and digital fare collection
- **Improve access to air travel in central CT** by directly linking CT Rail service to Bradley and transforming either Tweed or Sikorsky into a regional airport serving 30+ destinations daily
- **Finance through low-interest federal loans, DOT grants, and new truck-only tolls**

Inclusive growth elements

Provision of funding to municipalities for local road improvements; investment in public transit

SOURCE: CT Governor's Office, ASCE Infrastructure Report Card, Hartford Courant, CT Mirror, U.S. Census American Communities Survey

Regional Sector Clusters

Context and rationale

CT faces workforce challenges…

- Mismatch between job seekers and job demand observed without enough qualified workers (e.g., healthcare occupations, computer related occupations)
- Limited granular, actionable data to inform decision-making, (e.g., skills demand, training program ROI)
- Poor completion rates across both 2-year and apprenticeship programs
- Fragmented public financing for training and education with limited transparency on results

…but has numerous assets to build on

- Unique concentrations of industries in regional areas creates pools of common needs to address, (e.g., in aerospace, insurance, business and financial services)
- Engaged and educated workforce (2nd in US on college readiness, 3rd in NAEP reading scores, 6th for higher ed attainment) has potential for strong workforce outcomes
- High commitment and experience in workforce development across the state with numerous smaller successful programs to learn from and/or scale

Initiative detail

Build data platform to understand labor market insights powered by real-time advanced analytics

- Integrate data and analyses using traditional and new data sources
- Generate real-time labor market insights
- Enable a range of stakeholder interfaces and interventions

Enable outcomes-based funding for flexibility, responsiveness, and accountability to the state's needs

- Redesign restrictions on state and local funding
- Deploy funding quickly and with agility, based on industry and learner needs, e.g., incumbent training or business attraction
- Consider personal learning account to fund life-long learning

Create responsive education and career pathways

- Shape curricula provided by education and training partners
- Tailor education and training to high-skill middle-skill, second chance and out of work needs
- Allow direct access to or joint partnerships using training funds

Skills Upgrading

Local context[1]

CT is home to leading institutions...

- Including renowned postsecondary institutions among 41 higher education institutions
- Producing nearly one-quarter (24%) of New England's digital tech-oriented degrees and certificates

…but has room to address challenges

- In an average month, only one out of six active job tech-related job postings are filled (3,288 of 19,149 of unique active tech-related job postings)

Hard skill gaps remain in industry recognized credentials including:

- Agile Software Development
- Python
- Automation
- Amazon Web Services
- APIs
- NET Framework
- Software Engineering
- Java

Initiative detail

Build regional sector driven partnerships between business, educators, government and nonprofits

- Engage C-suite business and academic leaders
- Create work-based learning programs that align with talent and recruiting strategies

Align academic pathways in K-12 and higher education around critical skills and competencies for specific jobs; include opportunities and pathways for incumbent worker training

- Translate employer-led partnerships into transformative metrics-driven change
- Review company human-resource strategies and human-capital planning to effectively signal and recruit diverse STEM and digital-skills talent

Develop a universal computer science curriculum for K-12

- Traditional academic programming should marry foundational skills with industry-recognized credentials

1 Digital Talent in Connecticut, New England Board of Higher Education, November 2019

Appendix: Additional detail

- Action plan initiatives
- **Aspiration and targets**
- Economic performance diagnostic
- Roles and responsibilities

DRAFT

For each metric, a wide range of aspiration levels was considered

CT baseline position[3] | CT 2025 target

	Aspiration metrics		Top 5	Top 10	Top 15	Top 20	Top 25	Top 30	Top 35	Top 40
Growth[1]	Net Jobs	CAGR	1.0%	0.7%	0.5%	0.5%	0.5%	0.4%	0.4%	0.3%
		Absolute value	84k	58k	47k	43k	40k	37k	36k	27k
		Incremental value	57k	31k	20k	16k	13k	10k	9k	1k
	Median household income	CAGR	3.5%	3.4%	3.2%	3.2%	3.0%	3.0%	2.9%	2.8%
		Absolute value	15.1k	14.6k	14.1k	13.7k	13.2k	12.9k	12.7k	12.1k
		Incremental value	1.0k	0.5k	0.0k	-0.4k	-0.9k	-1.2k	-1.4k	-2.0k
Inclusion	Households earning a living wage	Share	63.5%	62.8%	61.4%	60.0%	58.9%	57.9%	57.1%	55.2%
		Absolute value	861.9k	852.4k	833.4k	814.4k	799.4k	785.9k	775k	749.2k
		Incremental value	43.4k	33.9k	14.9k	-4.1k	-19k	-32.6k	-43.4k	-69.2k
	Median income of minority households	Absolute value	72.4k	59.3k	54.2k	51.9k	47.6k	44.8k	42.1k	39.9k
		Incremental value		3.0k	-2.1k	-4.4k	-8.7	-11.4k	-14.2k	-16.4k
	Population with a quality credential[2]	Share	54%	52%	51%	49%	48%	46%	45%	43%
		Absolute value	1,941k	1,873k	1,812k	1,773k	1,719k	1,633k	1,600k	1,543k
		Incremental value	0k	-68k	-129k	-169k	-223k	-309k	-341k	-398k

1 Growth metrics are driven by the 2020-2025 forecast for all US States 2 Statistics include the Lumina Foundation's estimates of the share of the population 25-64 with a high quality non-degree credential; 2025 target is to reach #1 on this measure 3 Baseline position is defined as the expected CT forecast for growth metrics and as the most recent reported historical value for inclusion metrics

SOURCE: Moody's Analytics, Bureau of Labor Statistics, US Census, United Way ALICE index, Lumina Foundation

DRAFT

Each target is tied to a specific metric, relative ranking, and absolute value

	Aspiration metrics	Draft public target	Suggested internal target for 2025[1]	CT's current position	CT's historical position	What you need to believe to achieve it
Growth[1]	Net job growth (% CAGR)[1]	Have the fastest job growth in the Northeast	**20K net new jobs** above projected annual growth of 27k jobs (0.3% from 2020 to 2025), top 15 nationally	**41st** with expected CAGR of 0.3% creating 27k jobs from 2020 to 2025	**46th** with a CAGR of 0.3% creating 27k jobs from 2015 to 2020	CT creates 20K jobs above expected job growth in the next 5 years to meet an 0.5% p.a. growth target, creating a total of 47k net new jobs
Growth[1]	Median household income growth (% CAGR)[1]	Become a top ten state for median household income growth	**Top 10 in median income**, increasing annual median household income by $500 above projections from 2020 to 2025	**15th** with an expected CAGR of 3.2% for a $14k increase in annual income from 2020 to 2025	**42nd** with a CAGR of 2.6% for a $10k increase in annual income from 2015 to 2020	New jobs created in CT will have an average annual wage of $68K-$83K to reach a top 10 median household income in the US
Inclusion	Households earning a living wage (%)	Lift 15,000 additional households into earning an annual living wage	**Enable 15K additional households** (1% of CT households) to earn a living wage (top 15 nationally)	**19th** with 60% of households (818k) earning a living wage in 2018	65% of households in CT earned a living wage in 2014[3]	At least 30% of net new quality credentials are earned by individuals in households currently below a living wage
Inclusion	Median household income of racial and ethnic minority residents ($)	Become a top ten state for median household income of minority residents	**Top 10 in MHHI of racial and ethnic minority residents** $3K increase in MHHI	**13th** with racial and ethnic minority households earning $56k in 2018	**11th** with racial and ethnic minority households earning $49k in 2013	25K minority residents will attain new credentials beyond the 110k expected, with an incremental value of ~$14k; 20k minority residents attain a net new job worth $66k on avg.
Inclusion	Population with a quality credential[2] (%)	Build the most work-ready population in the US	**#1 state for educational attainment** with a 51K incremental residents aged 25-64 with a quality credential	**5th** with 54.1% of residents holding a quality credential in 2017	**3rd** with 52.8% of residents holding a quality credential in 2013	CT will improve by 2.7 p.p. to reach MA's current level of 56.8% of the population with at least a quality credential, implying 10k net new credentials per year above the 50k degrees and certificates created today

1 Growth metrics are based on a forward looking five year forecast for all US States, using most recent source available (Moody's Analytics, 2020-2025) 2 Statistics include the Lumina Foundation's estimates of the share of the population 25-64 with a high quality non-degree credential 3 Historic ranking data is limited for this metric.

SOURCE: Moody's Analytics, Bureau of Labor Statistics, US Census, United Way ALICE index, Lumina Foundation

Appendix: Additional detail

- Action plan initiatives
- Aspiration and targets
- **Economic performance diagnostic**
- Roles and responsibilities

DRAFT

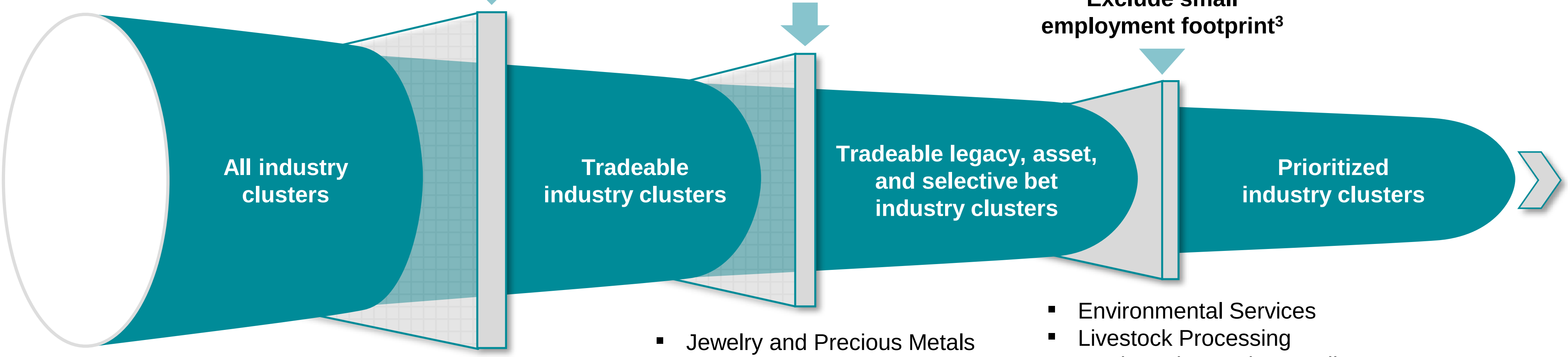
We identified attractive sectors for the state using a series of filters

Non-tradable industries are excluded from industry cluster analyses because their growth is capped by local demand (as compared to tradable industries). They follow (rather than create) long-term sustainable growth
Non-tradable sectors are included in workforce analyses, as potential generators of quality jobs

Exclude non-tradable[1]

Exclude low growth and low specialty[2]

Exclude small employment footprint[3]



Examples of filtered clusters:

- Local Health Services
- Local Logistical Services
- Local Utilities

- Jewelry and Precious Metals
- Oil and Gas Production
- Metal Mining
- Coal Mining
- Tobacco

- Environmental Services
- Livestock Processing
- Music and Sound Recording
- Wood Products
- Furniture

Note: this exercise aims to inform the prioritization of sectors for pro-active outreach and activities for the State. However, passive opportunities in deprioritized areas should still be pursued

1 As defined by US Cluster Mapping Initiative
2 Low growth defined as US forecasted 5-year CAGR< overall US forecasted 5-year CAGR (1.06%), low specialty defined as LQ < 1
3 Defined as less than 5000 jobs in CT

DRAFT

CT has strong industries to serve as the engines of growth

Low High

Target cluster	Jobs: 2018 jobs, K	Jobs: US jobs CAGR '18-'28	Jobs: Δ to US jobs CAGR[1] '18-'28	Jobs: Jobs multiplier[2]	Inclusivity: Good pay / no BA jobs[3], share	Productivity growth: 2018 GDP, $B	Productivity growth: US GDP CAGR[1], 18-'28	Productivity growth: Δ to US GDP CAGR[1] '18-'28	Specialization: Specialization, LQ[4]
Advanced Manufacturing	76	0.1%	-0.3 p.p.	2.6	22%	12	3.6%	-0.6 p.p.	2.0
Bioscience	17	1.9%	-1.1 p.p.	2.9	16%	6	0.9%	0.1 p.p.	1.3
Financial Services	37	1.0%	-2.2 p.p.	2.5	10%	9	0.8%	-0.4 p.p.	1.6
Insurance Services	47	0.8%	-1.5 p.p.	4.2	12%	14	1.5%	-0.3 p.p.	2.9
Other Manufacturing	77	0.8%	-1.2 p.p.	2.3	24%	11	1.5%	0.5 p.p.	0.8
Software, Digital, and Data Services	36	4.8%	-4.1 p.p.	2.2	12%	8	6%	0.0 p.p.	1.2
Portfolio Total:	**290**	**0.6%**	**-0.9%**	**2.7**	**18%**	**59814**	**2.9%**	**-0.6%**	**1.4**

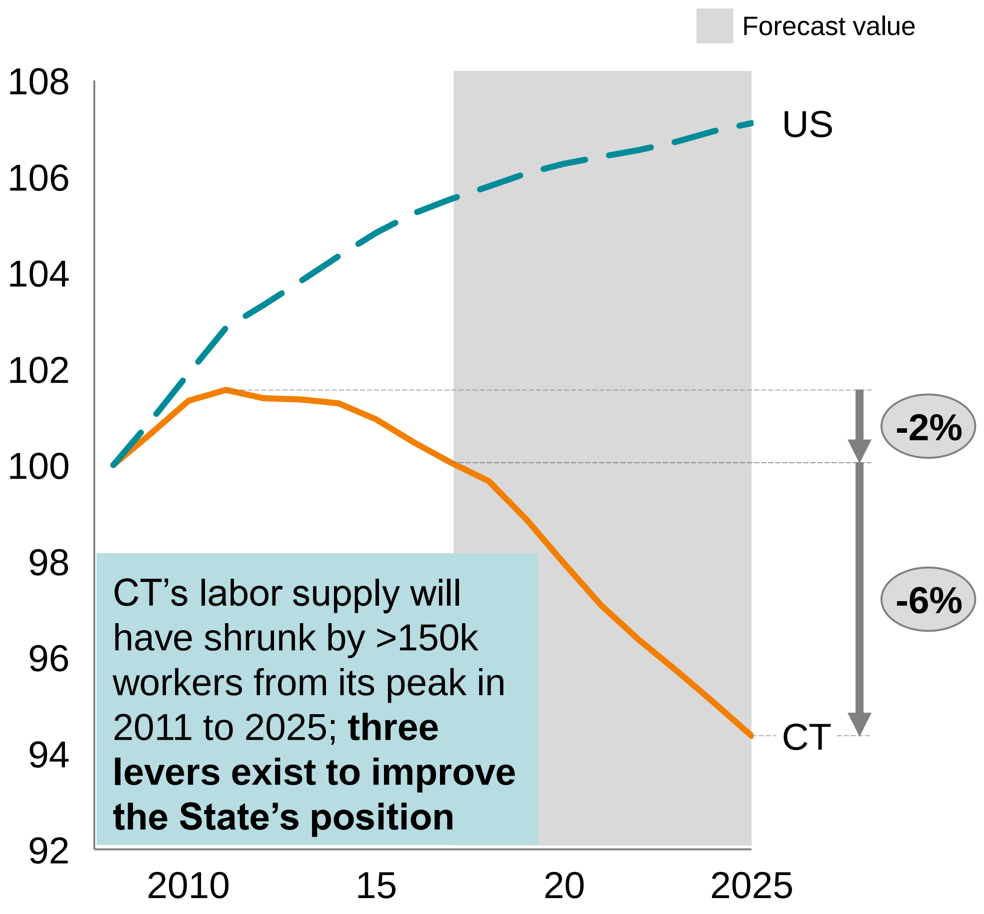
1 Delta to US is measured as the difference between projected US growth and projected CT growth over the coming decade; 2 Weighted averages of EMSI's multipliers, estimated by a multi-region "gravitational pull" model for transactions flows; represents the total number jobs created when a job is created in a given sector (i.e., original job in industry plus jobs in adjacent/support/service industries); 3 "Good pay / no BA" jobs are jobs that pay above the regional median wage and include benefits but do not require a college degree, or are jobs that lead to those jobs; 4 LQ is a measurement of the comparative concentration or density of industries relative to other locations; the ratio of an sector's share of jobs in a given area to that occupation's share of jobs in the U.S. as a whole

SOURCE: EMSI, BLS, Brookings Institute, Moody's Analytics

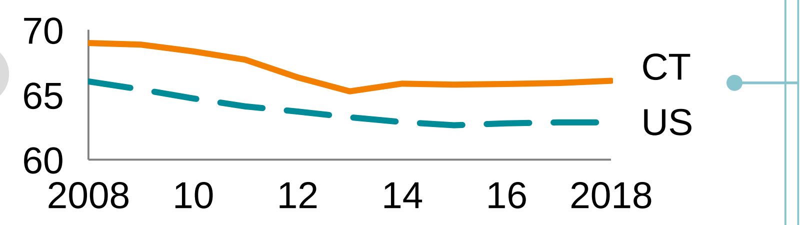
DRAFT

CT's labor supply is trending towards a 6% decline in the coming years, with few levers available to mitigate trend

Working age population[1], indexed to 2008

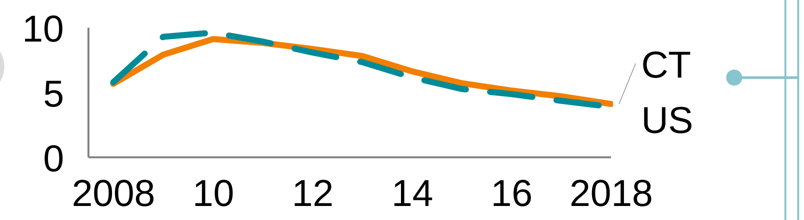


1 **Lever 1: Labor force participation rate,** %



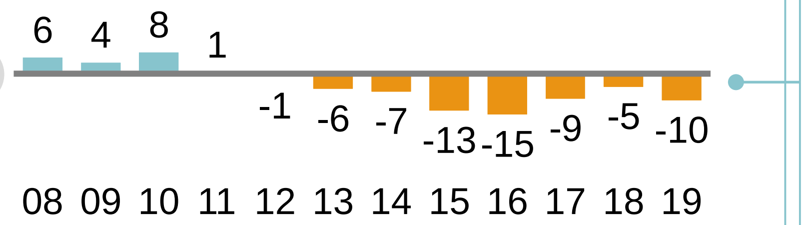
Stable, higher than US average LFPR is a structural barrier to unlocking sufficient new worker participation

2 **Unemployment rate,** %



Historically low unemployment rate is a structural barrier to bringing sufficient numbers of job seekers back to employment

3 **CT annual net migration,** ths.



Substantial opportunity exists to improve CT's net migration, but it has historically struggled to take advantage of this lever

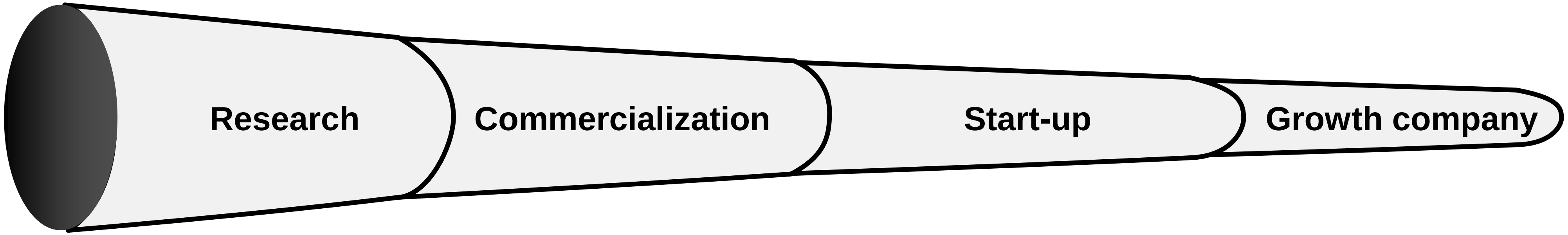
1 Defined as population aged 20 to 64

SOURCE: Moody's analytics, BLS, US Census

CT's innovation pipeline is strong in early stages but struggles to convert new IP into in-state growth companies

Innovation pipeline

University/ Industry driven innovation



CT rank

Research	Rank	Commercialization	Rank	Start-up	Rank	Growth company	Rank
Academic science/ engineering R&D, percent of GDP	8	Patents per 1m people	8	Rate new entrepreneurs	31	Established small business density	8
Business R&D as % of private industry output	6			Startup density	45	High growth company density	36
Small Business Innovation Research/Technology Transfer, per $1m GDP	18					Survival rate	12
State agency R&D, per $1m GDP	7						

SOURCE: Kauffman Foundation; National Science Foundation; U.S. Census; U.S. Patent and Trademark Office, Moody's; Small Business Administration

DRAFT

Ranking
1 50

CT ranks in the bottom ~10 on business competitiveness indexes

Business climate rankings		Regional peers				Economic peers			
	CT	MA	RI	NY	NJ	UT	OR	SC	VA
Best states for business (Forbes)	40	19	43	26	38	2	22	15	4
State competitiveness report (Beacon Hill Institute)	43	1	35	31	50	3	15	21	10
Small business friendliness (Thumbtack)	48	13	41	47	40	7	37	44	2
Business regulation (Pacific Research Institute)	47	34	48	41	49	12	44	14	6

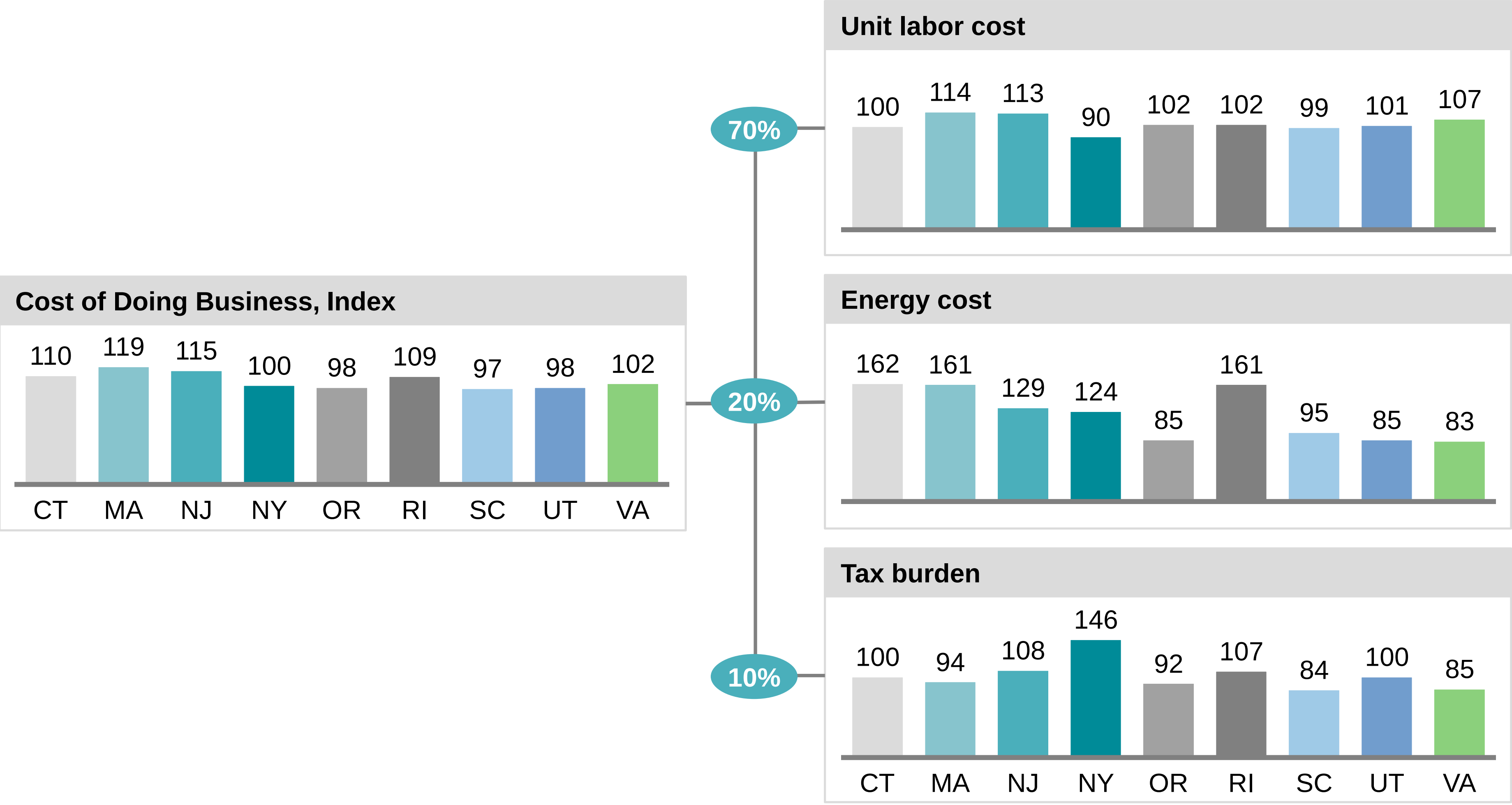
Please see Appendix for details on the underlying metrics behind each index

SOURCE: Forbes, Beacon Hill Institute, Thumbtack, Pacific Research Institute

Connecticut's cost of doing business is 10% higher than US average

Connecticut | Massachusetts | New Jersey | New York | Oregon | Rhode Island | South Carolina | Utah | Virginia

Cost of Doing Business, 2017, 100 = US Average



Definition

Labor compensation (wages and salaries per employee) per dollar of output (gross product per employee)

Compares commercial and industrial electricity costs, in cents per kilowatt-hour, with the national average

Measured as the total state and local tax revenue as a percent of total personal income in the area, indexed to the national effective tax rate

SOURCE: Moody's Analytics, North American Business Cost Review

DRAFT

Ranking
1 … 50

CT trails all peers but Rhode Island on infrastructure rankings

			Regional peers				Economic peers			
	Metric	CT	MA	RI	NY	NJ	UT	OR	SC	VA
Energy	Electricity price	48	47	46	42	41	7	13	26	22
	Power grid Reliability	13	8	2	33	6	27	23	28	47
	Renewable Energy Usage	37	36	46	19	46	42	1	26	31
Internet access	Broadband Access	14	7	14	21	7	4	7	43	16
	Ultra-Fast Internet Access	48	47	48	18	42	7	14	17	44
Transpor-tation	Commute time	35	46	29	50	48	12	23	25	43
	Public Transit Usage	19	8	17	1	2	13	16	40	15
	Road Quality	43	45	49	26	46	31	8	20	9
	Bridge Quality	24	30	50	37	29	5	12	32	16

SOURCE: US News best states index 2019

Appendix: Additional detail

- Action plan initiatives
- Aspiration and targets
- Economic performance diagnostic
- **Roles and responsibilities**

CERC and DECD: High-level overview of proposed roles

Additional detail on next page

	CERC	DECD
Business retention and attraction	▪ Primary interface for business relationships & recruitment, in close partnership with DECD ▪ Lead outreach to targeted businesses and relationship management/calling of existing anchor businesses	▪ Help companies navigate government processes and access incentives ▪ Weekly pipeline meetings with CERC to coordinate relationship management
Marketing	▪ Create industry/cluster and region-specific marketing materials to attract firms, in conjunction with relevant organizations	▪ Own the unified branding and advertising campaign for the State, ensure alignment with industry/cluster and regional efforts
Research	▪ Conduct industry and regional research to inform strategy, marketing, retention, and recruitment ▪ Online investment guide (e.g., resources on state programs, taxes and regulations)	▪ Audit financial incentives and analyze effectiveness of DECD-owned programs (e.g., placemaking grants)
Workforce	▪ Communicate businesses' needs to the Governor's Workforce Council ▪ Identify relevant resources/organizations (w/ DECD) ▪ Direct businesses to appropriate workforce solutions	▪ Continue to operate workforce programming in coordination with Workforce Council
Other programs and incentives	▪ Help publicize DECD-managed programs ▪ Convene partners (e.g., municipalities, Chambers of Commerce, COGS) to develop or execute new initiatives	▪ Leads development and placemaking efforts for Innovation Hubs and Communities Challenge ▪ Own and administer incentive programs ▪ Own small business support services

DRAFT

CT business retention and recruitment process

Research	Prospect	Qualify	Develop	Pitch	Negotiate & Close	Retain
▪ Identify targets ▪ Industries of strength ▪ CT value prop	▪ Intros via network ▪ Direct approach	▪ Establish targets ▪ Raise DECD awareness	▪ Relationship building ▪ Further qualify, build CT case ▪ Leverage network	▪ Full court press ***As needed:*** ▪ Governor ▪ DECD ▪ CERC Board Members	▪ DECD takes lead	▪ CERC owns relationships and relays business needs to DECD ▪ DECD helps companies navigate government processes

Lead

Research – Develop	Pitch	Negotiate & Close	Retain
CERC	DECD/CERC	DECD	CERC

Support

Research – Prospect	Qualify – Develop	Pitch	Negotiate & Close	Retain
	DECD		CERC	DECD