RHODE ISLAND

A Plan for People, Places, and Prosperity.











































BACKGROUND

hode Island is a diverse state with people of many backgrounds, and communities from urban to rural. All of these people and places are needed to develop a thriving economy for generations to come based on what makes Rhode Island special. The State Economic Development plan looks forward to the next twenty years in Rhode Island, while also considering things we need to start doing today to improve our economy. This plan focuses on the economy, the environment, community vitality, social equity, infrastructure, education, public health, and more. The plan aims to make the most of our existing resources and talent, draw new development to the state, and prepare us for future growth.

This Economic Development Plan was prepared as part of RhodeMap RI, a coordinated, long-range planning effort led by the RI Division of Planning. The project was funded under a Sustainable Communities Regional Planning Grant from the U.S. Department of Housing and Urban Development (HUD). The goal of this planning grant program is to help communities and regions foster a more sustainable economy by coordinating planning and investment in housing, job creation, workforce training, and transportation. The planning process received additional funding from the U.S. Economic Development Administration.

This Executive Summary summarizes the economic development plan's highlights, lists its goals and policies, and outlines the types of action steps we can all take together to ensure that the state initiatives proposed in the plan are launched and that we are well underway in meeting our goals. Look for these ideas in the "Let's Get Started" sections below. Check out the full economic development plan for a listing of all the strategies.



Jutive Summar



WHAT RHODE ISLANDERS ARE SAYING

hodeMap RI undertook a year-long outreach process between 2013 and 2014. In many ways, this was the most extensive public outreach ever conducted by the RI Division of Planning. It included traditional public forums, as well as new efforts to ask for input and ideas from people who have not participated in traditional public meetings in the past. The RhodeMap team intentionally sought out different people around the state, with different backgrounds and perspectives. While the people and locations differed we heard a lot of the same things from place to place, including:

- Pride and appreciation for the State's assets, particularly its great natural environment, architecture, long-standing institutions, and cultural resources.
- The need for clear and open standards in economic decision making, and accountability in government.
- Streamlined, coordinated, and consistently enforced regulations that continue to protect public health, safety, and well-being.
- Better customer service from state employees, along with a clearer, centralized source of information on government and business resources.
- Equitable opportunities for all Rhode Islanders to fully engage in the economy, regardless of race, ethnicity, age, gender, or neighborhood of residence.
- Many people in this state are struggling to get by, and do not have sufficient access to basic needs such as food, housing, and health.
- More targeted workforce education and training to match current and future workforce needs as well as to provide both soft skills and technical skills training to ensure job success.
- A public education system that consistently prepares students throughout the state for success.
- More opportunities to live in walkable communities with access to transit, services, employment, and a range of housing options.

WHO WE ARE AND WHERE WE'RE HEADED

ike the Nation, the face of Rhode Island is changing rapidly. Communities of color are now the driving force in Rhode Island's population growth and essential to the state's economic success. Further, the population of the state is aging. As baby boomers age out of the workforce, Rhode Island's increasingly diverse youth will be essential to filling these jobs.

A shrinking middle class and uneven wage growth, coupled with wide racial gaps in income, health, and opportunity, require that the State adopt new strategies for growing good jobs, connecting unemployed and low-wage workers to job training and career opportunities, and increasing access to economic opportunity for all.

This includes ensuring a range of healthy, quality housing in all areas of Rhode Island. A new State housing plan and growth centers strategy, also developed through RhodeMap RI will identify strategies to meet the housing needs of the State and revitalize communities.



Equity

RhodeMap RI's Equity Focus

Equity and access to opportunity are critical underpinnings of the Sustainable Communities Regional Planning Grant Program. RhodeMap RI employed an outreach and engagement process that was significantly different from any state planning process to date. The state set out to engage individuals and groups that typically do not participate in state planning projects, with a particular focus on populations that may have barriers to participation. At the outset of the process, to assist with the engagement approach and to provide insight into the social equity issues, a Social Equity Advisory Committee (SEAC) was convened and consisted of advocates, state employees, and residents who have been instrumental in keeping the planning process focused on equity and inclusion. The SEAC developed a set of Social Equity Principles to guide the planning process and outcomes. These Principles can be found in Appendix A.









VISION, GOALS, POLICIES, & GETTING STARTED

In 2035, Rhode Island will be a state where...

- Where the state as a whole is having a business climate that
- and innovators of all backgrounds will want to come, stay and work, and are supported and
- Where urban communities are reinvigorated with new investment bringing new jobs and new housing options, and improving the quality of life for our most disadvantaged residents without displacement.
- Where the labor force is one that is strong and diverse, has access to excellent educational and life-

- long learning opportunities, and the job market.
- Where all residents can maintain a job that supports their everyday needs, improves access to quality of life.
- Where the unemployment rate is sustained below the regional
- supports health and well-being, and, in turn, a healthy population enhances economic efficiency, productivity, and competitiveness.
- Where a sustainable economy the natural environment, improves the resiliency of our built environment, and creates green collar jobs.

Vision

- Provide educational training opportunities to activate a 21st-century workforce.
- Foster an inclusive economy that targets opportunity to typically underserved populations.
- Support industries and investments that play to Rhode Island's strengths.
- Create great places by coordinating economic, housing, and transportation investments.
- Create a stronger, more resilient Rhode Island.
- Make Rhode Island a state where companies, our workers, and the state as a whole can develop a competitive advantage.

Provide educational and training opportunities to activate a 21st-century workforce.



The outcomes of the workforce development and educational systems in Rhode Island play a pivotal role in the overall economic well-being of the state. There exists no greater opportunity to our collective prosperity in Rhode Island than our ability to raise the skill level and improve the competitiveness of our workers. Investing in the education and training of the state's workforce is a critical component of a statewide economic development strategy.

Policies

- A. Provide opportunities for career growth and assist employers to attract and retain qualified talent.
- B. Support reform of the education system to better provide the knowledge and skills necessary for success.
- C. Support apprenticeships and internships to increase access to experiential learning.

- Empower a single, cohesive workforce training system in Rhode Island, so that all of our programs are working together.
- Whether for early childhood education, our public K-12 system, higher education, or adult learning, make sure every person in the state has access to effective education and training.
- Make it easier to connect people with available internship and apprenticeship programs, partner with the private sector and schools, and consider increasing incentives for programs.

Foster an inclusive economy that targets opportunity to typically underserved populations.



An essential goal of the RhodeMap RI process was to address social equity, particularly looking at systems, programs, and ideas that have the effect of marginalizing certain groups of people. As ideas about job growth, investment, training, and other things were explored, discussions about equity were a constant reminder to measure potential economic strategies with the question "Who benefits?" Such questioning quickly reveals that without strategies specifically targeted at populations with greater barriers to opportunity, those barriers may never be overcome.

Policies

- A. Develop an urban core strategy to encourage job creation and other opportunities in areas of higher concentration of unemployment and to benefit those who live there.
- B. Promote opportunities for workforce training that lead to upward mobility, particularly for disadvantaged populations that have faced barriers to employment.
- C. Increase diversity in the state workforce and state contracting.

- Reinvest in our urban communities through efforts such as local purchasing and hiring, training and support for local businesses, and policies that help make sure investments bring positive economic impacts (jobs, neighborhood improvements, etc.) for current residents.
- Locate workforce training and business development resources where people need them most, ensure that key materials are available in multiple languages, and develop targeted programs for people with the most barriers to employment, such as disabled individuals, immigrants, homeless individuals, and the formerly incarcerated.
- Diversify the state workforce at all levels so that the racial and ethnic composition of staff is reflective of the state as a whole, and intensify efforts to promote hiring and apprenticeship programs within minority populations for state and local infrastructure projects.

3

Support industries and investments that play to Rhode Island's strengths.



An important approach to building a healthy economy is to look more broadly at the assets and opportunities that are unique or particularly strong for Rhode Island. Rhode Island must build upon these assets and opportunities as a platform for future economic growth. This doesn't mean simply sticking to and improving what we already know. It means using our strengths in new ways to support new types of businesses and industries.

Policies

- A. Develop and enhance Rhode Island's sustainable and innovative maritime and defense economy.
- B. Strengthen and support Rhode Island's burgeoning food system businesses, which span agriculture, aquaculture and fishing, food processing/manufacturing, and sales.
- C. Invest in arts and culture to build on Rhode Island's identity as a cultural destination
- D. Fuel the manufacturing renaissance and reinvest in Rhode Island's unique built environment.
- E. Transition to a knowledge-, innovation-, and technology-driven economy geared to greener, more sustainable outcomes.
- F. Expand the economic potential of tourism in Rhode Island by developing and marketing the state as an attractive, unique destination on the national and global tourism map through conservation and promotion of our natural, cultural, and built heritages.

- State government and its partners should play the role of convener by providing in-person and virtual places where business owners, entrepreneurs, job seekers, industry groups, non-profits, and others can share information and collaborate.
- State government should serve as a central clearinghouse for data and information related to our strong industries and sectors, including local assets, suppliers, potential locations for certain types of businesses, marketing information, etc.
- Better market Rhode Island as a great tourist destination and place to live and run a business. Also "brand" and market Rhode Island produce and products around the country.



Create great places by coordinating economic, housing, and transportation investments.



Place matters. A job anywhere—a home anywhere—is not equal to those things in the best places. Places that balance the economy and the environment, and that provide access to all the resources that each and every Rhode Islander needs to thrive. By coordinating investment in transportation, housing, and job creation in areas with existing and planned infrastructure—sometimes referred to as "growth centers"—we can create places where residents, workers, business owners, and visitors can have access to a variety of services and amenities. These types of investments will yield economic gains, support the creation of more resilient communities, and improve our quality of life.

Policies

- A. Support state investments and incentives and provide technical assistance focused on high priority redevelopment areas and growth centers.
- B. Increase the capacity of communities to create and revitalize mixed-use, walkable village and growth centers.
- C. Promote alternative transportation that connects people to housing, jobs, and services.

- Develop a system for providing help where it is needed most, with an emphasis on struggling neighborhoods within our urban communities. Assist these areas with property assemblage, financial feasibility studies, developer negotiations, etc. and find ways to target resources such as tax credits, "tax free" zones, the Enterprise Zone Program, etc.
- Provide cities and towns with tools to help visualize what their communities might look like in the future, model zoning ordinances to make sure local regulations allow what is wanted, and tools like design guidelines that can help future development fit community character.
- Invest in transit with an eye towards increasing workforce mobility and health, strengthening our tourism industry and reducing environmental impacts. Expand bus service, the commuter rail network, and our system of bikeways.

Create a stronger, more resilient Rhode Island.



Addressing critical infrastructure needs will be essential to the economic prosperity of Rhode Island, including transportation, transit, water, stormwater and wastewater, and energy, as well as digital infrastructure such as broadband. Further, we need to ensure that this infrastructure is stable and sustainable into the future. Climate change and sea-level rise will directly impact some of Rhode Island's most important assets and infrastructure, and we need to plan accordingly. However, there are also potential economic opportunities resulting from climate change research and innovation that we should assess and pursue.

Policies

- A. Support investments in sustainable built infrastructure to support economic activity, commerce, and benefits to communities.
- B. Support investments in innovative technology infrastructure.
- C. Adopt an energy policy that keeps Rhode Island competitive.
- D. Educate and empower state and local government to increase climate change preparedness and adaptation.
- E. Strengthen regional economic resilience and harness opportunities for innovation.

- Look for new ways to fund existing and new infrastructure projects. Establish a dedicated source of annual funding, build and finance an "Infrastructure Bank," expand existing revolving funds, and aggressively pursue grant opportunities.
- Promote energy efficiency, the siting and regulation of wind turbines, removing regulatory barriers for solar power, and climate change resiliency.
- Encourage agencies and municipalities to consider the impacts of sea-level rise and other climate change concerns on economic centers, infrastructure assets, homes, and community services.

Make Rhode Island a state where companies, our workers, and the state as a whole can develop a competitive advantage.



Small businesses are the lifeblood of Rhode Island's economy. As the national economy has continued to recover it has become even clearer how important entrepreneurship and small businesses are for economic growth. Small business success is never easy, but the state can help by establishing clearer, more consistent regulations and regulatory processes, setting fair tax policies consistent with those of neighboring states, providing easier access to information about funding for small businesses, increasing access to and decreasing the costs of health care, and marketing Rhode Island businesses throughout the country and around the world.

Policies

- A. Accelerate the impact of regulatory reform throughout state and local government.
- B. Make Rhode Island's tax structure more simple, competitive, equitable, and predictable.
- C. Support small business activities to enhance operations and access to capital.
- D. Foster a healthier Rhode Island population and economy where access to care and quality of care are paramount, the health of our population is among the highest in the nation, and the increasing costs of health care are contained.
- E. Promote Rhode Island internationally.

- Investigate new governance models and tools to help communities work together and save money, such as the establishment of a statewide building and fire inspection service.
- Evaluate the impact of recent changes in our corporate and estate tax codes, analyze and reform the unemployment insurance system and the property tax system, and adjust the sales tax rate to be competitive within the region. Also, clearly define desired outcomes of all tax incentive programs, and continually monitor their performance and adjust as required.
- Create a network of "one-stop-shop" business community centers and on-line resources where business owners can learn about licensing, regulations, access to financing, taxes, mentoring, and other essential aspects of running a business.

Getting It Done

How We Go About Doing It

In this ever-changing economy, strategies that make sense today may be irrelevant two years from now. The most important thing is that we stick to a common vision and strive for everything we do to be consistent with that vision. In some ways, what we do is less important than how we do it, how we keep track of our successes and failures, and how we hold ourselves accountable for staying the course. Whatever specific strategies are pursued, everyone is encouraged to implement them with the following in mind . . .

- Set Goals: Before making any investments or starting a new program or policy, clearly define what the desired outcomes are and what should be achieved if successful.
- Collect Data: Collect the data needed to justify state spending, investments, and policies. Make this data clear, consistent, easy to track, and fully accessible to the public.
- Be Accountable: Use data to track outcomes of policies and programs to make sure we are achieving our goals. If there are other partners in these programs and investments, actively track their progress as well, and make sure they are adhering to any agreements made. If programs, policies, and investments are not producing the desired outcomes, the state must hold itself and its partners accountable.
- Act Equitably: All State agencies should work to remove barriers and eliminate disparities that limit the ability of some to fulfill their potential. This involves tracking data on race, income, neighborhoods, educational attainment, public health, etc. so that we know that our policies, programs, and investments are offering fairness and increasing opportunity for all.
- Innovate: The status quo will not move us forward.
 The State needs to be able to try new things—even if that means we sometimes fail. If we set our expectations in advance, determine the data we need to track success or failure, and hold ourselves and our partners accountable, we can explore new policies and actions, see whether or not they are doing what we want them to, and change course accordingly. Relying on data-informed decision making should not result in only trying things that have been proven to work already.

Who Can Get Us There?

The short answer is—all of us! No one person or business or industry or institution can move the state's economy where it needs to be—we need to tap the energy, talent, and skills of all Rhode Islanders. If anything in this plan inspires you or upsets you, we hope you will take action. If you see a void that you can help fill, or a problem you can help solve, give it a try! No one has all the answers.

Naturally, state government has a very large role in implementing this plan, which requires collaboration, particularly in changing the way major investment decisions are made and coordinated across all levels of government in Rhode Island.

- Strong Leadership: The Governor must lead with clear, consistent policy directives, making sure state agency heads are coordinating and aligning their work, and speaking with a common voice to advocate to the General Assembly for necessary changes to achieve the vision of this plan. The General Assembly itself, of course, will be responsible for legislation required for implementation, and is a key partner in moving forward.
- State as Convener: From businesses, to arts
 organizations, to housing advocates—we have heard
 that the State and its partners can play the role of
 convener—providing a hub for information across
 many topics and a place where different businesses,
 non-profits, citizens, and others can find each other
 and work together. Public-private partnerships are
 needed for many of the strategies in this plan, and the
 state will not succeed without such collaboration.
- Efficient, Coordinated State Government: Continue efforts to better coordinate State government across and within agencies, making it more efficient and customer service oriented.
- Mindfulness of the concerns and ideas of all Rhode Islanders: The state should strive to make sure that voices from communities not traditionally at the governance table are both heard and considered in decision making via greater representation on boards, commissions, and other positions of leadership.

STATE PLANNING COUNCIL

- Steven Hartford, Chair, Rhode Island Department of Administration
- Kevin Flynn, Secretary, Rhode Island Division of Planning
- Daniel Beardsley, Rhode Island League of Cities and Towns
- Jeanne Boyle, Rhode Island League of Cities and Towns, President's Designee
- Janet Coit, Rhode Island Department of Environmental Management
- Jeanne Cola, Rhode Island Housing Resources Commission
- · Roy Coulombe, Public member
- Michael Fine, Rhode Island Department of Health
- Ruben Flores-Marzan, City of Providence, Department of Planning and Development
- Grover Fugate, Rhode Island Coastal Resources Management Council
- Richard Godfrey, Rhode Island Housing
- Marion Gold, Ph.D., Rhode Island Office of Energy Resources
- Michael Lewis, Rhode Island Department of Transportation
- Marcus Mitchell, Small Business Representative
- Anna Cano Morales, Public Member
- Thomas Mullaney, Rhode Island Department of Administration, Budget Office
- L. Vincent Murray, Rhode Island League of Cities & Towns, Local Government Representative
- Janet White Raymond, Public Member
- Jan Reitsma, Governor's Policy Office
- M. James Riordan, Public Member
- Raymond Studley, Rhode Island Public Transit Authority
- Samuel J. Shamoon, Governor's Designee
- John Trevor, Environmental Advocate
- Marcel A. Valois, Rhode Island Commerce Corporation
- Sharon Conard Wells, Nonprofit Community Development/Housing Organization Representative
- · Scott Wolf, Environmental Advocate

TECHNICAL COMMITTEE

- Robert Azar, Chair, City of Providence, Department of Planning & Development
- Michael DeLuca, Vice Chair, Town of Narragansett, Community Development
- Corey Bobba, Federal Highway Administration, Advisory Member
- Ames Colt, Ph.D., Rhode Island Bays, River & Watershed Coordination Team
- Steve Devine, Rhode Island Department of Transportation
- Ashley Hahn, Public Member
- Topher Hamblett, Save the Bay
- Thomas Kogut, Rhode Island Public Utilities Commission
- Nicole LaFontaine, Town of North Kingstown, Planning Department
- Patrick Malone, Ph.D., Brown University
- Jason Pezzullo, American Planning Association Rhode Island Chapter
- Jennifer Siciliano, City of Woonsocket, Planning Department

Michael Walker, Rhode Island Commerce Corporation

- Jeffrey Willis, Rhode Island Coastal Resources Management Council
- · Ronald Wolanski, Town of Middletown

RHODEMAP RI CONSORTIUM MEMBERS

- · Rhode Island Division of Planning
- · Rhode Island Housing
- Rhode Island Public Transit Authority
- Rhode Island Department of Transportation
- Rhode Island Department of Environmental Management
 - Rhode Island Commerce Corporation
- Rhode Island Department of Health
- City of Providence
- City of Warwick
- City of Pawtucket
- City of Cranston
- City of East Providence
- City of Newport
- · Town of North Kingstown
- · Town of Westerly
- Town of Burrillville
- Rhode Island Local Initiatives Support Corporation
- · Grow Smart Rhode Island
- Rhode Island Legal Services
- AARP-Rhode Island
- Association of Independent Colleges and Universities of Rhode Island (AICU)
- Community Action Partnership of Providence
- · Housing Works Rhode Island
- Newport County Chamber of Commerce
- Rhode Island Black Business Association
- Save the Bay
- · University of Rhode Island
- Roger Williams University

SOCIAL EQUITY ADVISORY COMMITTEE

Active members included individuals from the following:

- Black PAC
- Rhode Island Commerce Corporation
- DARE
- Nickerson Community Center
- Providence Community Libraries
- Rhode Island Community Food Bank
- Rhode Island Department of Health
- Rhode Island Health Exchange
- Rhode Island Legal Services
- Rhode Island Office of Diversity, Equity & Opportunity
- RiverzEdge Arts
- YMCA of Greater Providence

ECONOMIC DEVELOPMENT COMMITTEE

- RhodeMap RI Consortium Members
- Rhode Island Division of Planning
- · Rhode Island Housing
- Rhode Island Public Transit Authority
- Rhode Island Department of Transportation

Acknowledgments

- Rhode Island Department of Environmental Management
- Rhode Island Commerce Corporation
- Rhode Island Department of Health
- · City of Providence
- City of Warwick
- · City of Pawtucket
- City of Cranston
- · City of East Providence
- City of Newport
- · Town of North Kingstown
- · Town of Westerly
- · Town of Burrillville
- Rhode Island Local Initiatives Support Corporation
- Grow Smart Rhode Island
- Rhode Island Legal Services
- · AARP-Rhode Island
- Association of Independent Colleges and Universities of Rhode Island (AICU)
- Community Action Partnership of Providence
- · Housing Works Rhode Island
- Newport County Chamber of Commerce
- Rhode Island Black Business Association
- · Save the Bay
- · University of Rhode Island
- Roger Williams University

ECONOMIC DEVELOPMENT COMMITTEE

Committee membership was open, but active members included individuals from the following:

- Members of the RhodeMap Consortium
 Members of the Rhode Island Commerce
- Members of the Social Equity Advisory Committee
- · Bryant University
- Gilbane Building Company
- Governor's Workforce Board
- Greater Providence Chamber of Commerce
- Navigant Credit Union

Corporation Board

- Opportunities Industrialization Center of Rhode Island
- Providence Foundation
- Rhode Island College
- · Rhode Island Builders Association
- · Rhode Island Senate Policy Office

FOCUS GROUP ORGANIZATIONS

- AARP Rhode Island
- Bike Newport
- Rhode Island Commerce Corporation Urban Communities Meeting
- · City of Central Falls
- Central Falls & Pawtucket businesses (via Navigant Credit Union)
- Housing Network Rhode Island
- NAACP Providence
- Rhode Island Builders Association
- Rhode Island Commodores
- Rhode Island Council for the Humanities & Rhode Island State Council on the Arts
- Rhode Island Developmental Disabilities Council
- Rhode Island Coalition for the Homeless
- Rhode Island League of Cities and Towns

- RiverzEdge Arts
- Venture for America
- West Elmwood Housing Development Corporation and Resident Engagement Committee
- · Town of West Warwick
- · Town of Westerly
- · City of Woonsocket

MEETING-IN-A-BOX

Thank you to all the individuals and organizations that opened their doors, and invited their members, friends, and family to discuss Rhode Island's future.

ACTIONS FOR ECONOMIC DEVELOPMENT IN RHODE ISLAND

Sincere thanks to Commerce RI, the Rhode Island Foundation, Fourth Economy Consulting, business leaders from around the state who contributed so much to the development of this plan.

CONSULTANT TEAM

- · Horsley Witten Group
- 4ward Planning
- Bonnie Heudorfer
- Dodson & Flinker
- Goody Clancy
- Interaction Institute for Social Change
- Mapping and Planning Services
- PlaceMatters
- Stantec

U.S. ECONOMIC DEVELOPMENT ADMINISTRATION

Thank you to the EDA for the financial assistance and technical guidance in supporting this planning effort.

U.S. DEPARTMENT OF HOUSING & URBAN DEVELOPMENT

The work that provided the basis for this publication was supported by funding under an award with the U.S. Department of Housing and Urban Development. The substance and findings of the work are dedicated to the public. The author and publisher are solely responsible for the accuracy of the statements and interpretations contained in this publication. Such interpretations do not necessarily reflect the views of the Government.

Contents

EXECUTIVE SUMMARY	i
ACKNOWLEDGMENTS	xi
TABLE OF CONTENTS	xiii
INTRODUCTION	1
Role of the Economic Development Plan	3
How the Plan Was Developed	4
Public Outreach and Engagement.	6
PART ONE: A SNAPSHOT OF OUR POPULATION AND OUR ECONOMY	11
INTRODUCTION	12
RHODE ISLAND'S DEMOGRAPHICS	12
Current Population and Population Growth	12
Population Distribution	13
Population Projections	14
Projections by Age and Sex	15
Population Diversity	16
Income and Poverty	18
Educational Attainment	19
Takeaways	20
RHODE ISLAND'S ECONOMY	20
Our Assets and Opportunities	20
Our Challenges	
Takeaways	27
RHODE ISLAND'S INDUSTRIES	28
Industry and Employment Location	28
Top Industry Sectors	31
Takeaways	33
WORKING IN RHODE ISLAND	34
Employment	
Workforce Trends	
Equity Issues for Our Workforce	36
Takeaways	38
PART TWO: WHERE DO WE WANT TO BE IN TWENTY YEARS?	
A Vision for Rhode Island's Economy	40
PART THREE: ACHIEVING THE VISION	
OVERVIEW	44
GROWTH CENTERS: A COMMON THREAD.	44
ED Goal 1: Provide educational and training opportunities to activate a 21st century workforce	46
Public K-12 Education in Rhode Island.	
Aligning Education, Workforce, and Economic Development	
Raising Awareness of Career Path Opportunities	
Apprenticeships, Internships, and Experiential Learning	
Families Re-entering the Workforce	
Takeaways	
Moving Forward	
Performance Measures for Workforce Training and Education	
ED Goal 2: Foster an inclusive economy that targets opportunity to typically underserved	
populations.	57
Targeting Strategies to People with Higher Barriers to Employment	
'Areas of Opportunity' and Economic Inclusion	58

Takeaways	
Moving Forward	61
Performance Measures for Creating an Inclusive Economy	65
ED Goal 3: Support industries and investments that play to Rhode Island's strengths	
Our Core Economic Strengths	
Our New Economic Opportunities	71
Takeaways	
Moving Forward	73
Performance Measures for Supporting Our Economic Strengths	80
ED Goal 4: Create great places by coordinating economic, housing, and transportation	
investments.	81
URBAN CHALLENGES AND OPPORTUNITIES	81
Demographic Snapshot of Urban Focus Communities	81
Urban Community Assets and Opportunities	82
Urban Community Challenges	83
RHODE ISLAND'S ECONOMY OUTSIDE THE URBAN CORE	86
Village Development: The Economic Impact of Rural Growth Centers	86
Working Landscapes: Harnessing Economic Value While Preserving Our Fa	rms
and Forests	87
Takeaways	88
Moving Forward	89
Performance Measures for Coordinating Our Investments	93
ED Goal 5: Create a stronger and more resilient Rhode Island	94
The Components of Our Infrastructure System	94
The New Pressures on our Infrastructure System	101
Our Opportunities for a New Resiliency	102
Takeaways	
Moving Forward	105
Performance Measures for a Strong and Resilient Rhode Island	110
ED Goal 6: Make Rhode Island a state where our companies, our workers, and the state as	
a whole can develop a competitive advantage	111
STATE AND LOCAL REGULATIONS.	112
State Regulatory Challenges	112
Local Regulatory Challenges	113
DATA, INFORMATION, AND COMPETITIVENESS	114
Economic Data in Rhode Island	114
E-Government	115
Importance of Data for Measuring Performance	115
Government Service	115
Public Health	116
Rhode Island's Property Tax	116
ENTREPRENEURS AND SMALL BUSINESS DEVELOPMENT.	
The Economic Power of Entrepreneurs	117
Barriers to a Competitive Small Business and Entrepreneurial Climate	
Takeaways	
Moving Forward	
Performance Measures for Developing a Competitive Advantage	
PART FOUR: IMPLEMENTATION	
Principles of Implementation	
Data-Informed Decision Making & Accountability	
Coordinated Governance and Decision Making	

Appendix

There is one appendix to this plan, physically included at the end of this document.

A. Social Equity Principles—The principles outlined in this appendix are those of the RhodeMap RI Social Equity Advisory Committee (SEAC). They are not presented as an official policy statement of this plan, the State Planning Council or the State of Rhode Island but are included as a means of further communicating the SEAC's recommendations for reducing disparities and widening opportunities for all. The SEAC asks that all offices, groups, and individuals responsible for implementing this plan take these thoughts and approaches into consideration when making decisions. For further discussion of the role of equity and the SEAC in the RhodeMap RI planning process, please refer to page 22.

Supporting Documents

The material within this Economic Development Plan required more intensive investigations of individual issues that were documented in a series of technical papers. These papers serve as supporting documents to this plan and are available to any readers looking to dig more deeply into some of the background analysis or research. Supporting Documents include:

- A. Document Summaries—Over 30 studies completed in advance of this report were reviewed at the early stages of the project. Brief written summaries are provided for each. (2013)
- B. Opportunity Mapping—A description of the background and methodology used to the develop Opportunity Mapping for the project as well as the actual full inventory of maps. (2014)
- C. Employment Centers—Analysis of employment centers in the state including location and economic sector. (2013)
- D. Apprenticeships—A summary of apprenticeship programs from other states that help to illustrate some of key elements for success. (2014)
- E. Living Wage and Occupational Analysis Study—A brief study that looks at issues related to living wages and job availability pertaining to Rhode Island's workforce. (2014)
- F. Urban Focus—An assessment of economic development issues within ten of Rhode Island's urban municipalities. (2013)
- G. Redevelopment Areas—An analysis of priority redevelopment areas identified by ten Rhode Island municipalities and many of the real estate, infrastructure, and permitting issues that will affect the ability to initiate redevelopment. (2014)
- H. Commercial, Industrial and Mixed Use Zoning—A summary of the amount of land zoned for commercial, industrial, and mixed use for each municipality based on most recent available data.
- I. The Equity Profile of Rhode Island—prepared by PolicyLink and the USC Program for Environmental and Regional Equity (PERE). (2013)
- J. Economy RI: Economic Development Data Analysis & Assessment prepared by Fourth Economy Consulting. (2013)
- K. Economic Intersections of Rhode Island: A Private Sector Generated Action Agenda prepared by the Rhode Island Foundation and the Rhode Island Commerce Corporation. (2014)
- L. Actions for Economic Development in Rhode Island prepared by the Rhode Island Commerce Corporation. (2014)

The great recession that hit the country in 2008 was particularly brutal for Rhode Island, which felt the impacts before many other states, and continues to deal with the consequences. This experience has been a wake-up call for Rhode Island and demonstrates that the state cannot continue business as usual if it is to succeed in the decades to come. Although the state is recovering slowly, we need to learn the lessons from the past and prepare for a more sustainable and prosperous future. This Economic Development Plan for Rhode Island is founded on the urgency of doing just that.

Our collective efforts to reach out to the citizenry of Rhode Island have taught us much. This unprecedented outreach is the very foundation of this plan. Through targeted research, workshops, focus groups, one on one interviews, surveys, and social media, we have asked the people of Rhode Island how they have been affected by this most recent economic downturn, and what ideas they have to move in a positive direction. That engagement has ranged from leaders in government, industry, business, academia, and charitable foundations to grass roots community organizations, community residents, and others on the front lines of providing assistance to people in the greatest need. While no effort is perfect, we have done our best to tap the collective experience and wisdom of the greatest resource the state has; its people.

Here is some of what we have learned...

- Our state is changing. Our economy has been changing for quite some time, and is likely to continue changing even more rapidly into the future. Our success will depend not only on how well we adapt to change, but also our ability to lead change.
- Our people are changing. Rhode Island does not look the same as it did 30 years ago, and 30 years from now, it will be different still. We need to embrace this change, in all its complexity, diversity and challenges if we are to have a vibrant economy that meets the needs of today's Rhode Islanders. And tomorrow's.
- Our ideas of how we approach economic development need to change. If we have learned anything in the past decade, it is that we can't depend on short-term fixes or our ability to predict economic winners and losers. Instead, we need to think longer term, about systems that can





respond to changes we can't predict, and focus on education and training that can meet the demands of a changing economy, and provide the skills people need to thrive. These systems acknowledge that a clear connection among jobs, education, housing, transportation, and other aspects of our quality of life is needed for the economy to grow and thrive. Certainly we need to learn from the past...but not be so beaten down by past mistakes that we are unwilling to invest in our own future.

Our approach to implementation and accountability need to change. No plan will be successful unless we have defined responsibilities, adequate resources, and an ongoing commitment to measure our progress and make adjustments as necessary. But most importantly, leadership is the key ingredient that will take a plan from the shelf and make it a living and evolving document.

Promoting a sound economic development future for Rhode Island requires us to acknowledge the relationships and dependencies that are woven through this plan. It begins with recognition of the place itself that we call home...its very location, its diverse physical attributes and resources, its unique cities and towns, its varied transportation and other infrastructure, its marine and manufacturing heritage, its housing patterns, its institutions of higher learning, and, of course, its people.

The foundation of this plan is in recognizing our strengths and unique attributes and then building from that base. Our spectacular bay and coastal location has always defined who we are and continues to be a critical resource for our future through trade, tourism, and marine technologies. Our cities share an industrial heritage that once made Rhode Island the most

prosperous state in the country. Our small town centers and villages each have their unique history and character. Our nearby farms, fields, and forests provide an easily accessible refuge for urban dwellers, and play an ever increasing role in a vibrant local food culture. Our many institutions of higher learning not only attract students from around the country and the world, but also provide an important pathway to better economic futures to those who have grown up here.

Our small size itself should also be an asset. Decision makers in Rhode Island are probably more accessible than in any other state. Our abilities to convene, collaborate, develop networks, and harness the creativity of diverse talents (and often physically in the same room!) should put us at the forefront of innovation. Indeed, this plan is the product of such collaboration....one that hopefully continues in the plan's implementation.

Recognizing our assets does not imply that we ignore our challenges. We have many, and in this plan we don't shy away from addressing them. Among them are the needs to:

- Align aspects of education with workforce training and the needs of tomorrow's businesses, harnessing the tremendous intellectual capital in the state with our tradition of business know-how.
- Focus our efforts on the state's most disadvantaged populations and the places where they live all over Rhode Island, but particularly in our more urban communities, as the successful growth of our urban communities is directly tied to the overall economic success of Rhode Island.
- Celebrate our strengths based on our locational advantages, natural environment, and manufacturing history.
- Foster economic growth in all its varied forms and locations, recognizing that strategies for doing so must be tailored to place.
- Invest in infrastructure, and address vulnerabilities that we can predict.
- Create a business climate that is predictable, timely, and competitive with our neighbors, while remaining true to our values.

As you read the document that follows, you will see these broad themes explored in greater detail.

This planning process sets the stage. But the value of any plan is in its 'doing,' and in constantly evaluating the impact of what we do.

That is the challenge ahead.

Role of the Economic **Development Plan**

This economic development plan is part of a larger statelevel planning framework known as the State Guide Plan.

The State Guide Plan is actually a collection of over 20 "elements" that provide policy guidance for state agencies, the state's 39 cities and towns, and the General Assembly. Some of the more notable elements of the State Guide Plan include Transportation 2030, Water 2030, and Land Use 2025. This Economic Development Plan will replace the older Economic Development and Industrial Land Use Plans, adopted in 2000 and amended in 2001.

In addition to serving as a State Guide Plan Element, this Economic Development Plan will serve to meet a new legislative requirement in Rhode Island. The state legislature passed a bill in 2013 calling for the adoption of a strategic state-level economic development plan every four years. Strategies from this document will be presented to the legislature to satisfy that requirement and ensure consistency with the broader State Guide Plan Element. This legislation also calls for a new economic development planning council led by a Secretary of Commerce starting in 2015. This body, working with staff from the RI Commerce Corporation and the RI Division of Planning, will continue to develop and update an economic development plan and policy direction every four years, which will be reviewed by the General Assembly and approved by the Governor. Moving forward, these future four-year plans and policy directions are likely to be shorter, more concise action plans for the coming administration that show consistency in implementing this longer-term plan.

This document will also be used as Rhode Island's Comprehensive Economic Development Strategy (CEDS). CEDS is a federal planning process used to develop a five-year economic strategy that is updated annually. Importantly, Rhode Island is mandated to submit a CEDS to the U.S. Economic Development Administration (EDA) in order to receive funding for economic development projects. EDA provided additional funding for this planning process to help ensure the plan meets all requirements of a CEDS.

Finally, it is worth noting a few things that are not part of the role of this plan. The plan does not, in and of itself, change any laws, set any regulations, change any tax policy, or serve as a budget. It is meant to provide guidance to the legislature, state agencies, and Rhode Island's municipalities, who will continue to makes these decisions and actions at the state and local level.

How the Plan Was Developed

The Sustainable Communities Initiative

This Economic Development Plan was prepared as part of RhodeMap RI, a coordinated, long-range planning effort led by the Division of Planning. Other important products from RhodeMap RI include a Housing Plan, a Growth Centers Report and Toolkit, training and capacity building materials, and a Regional Plan for Sustainable Development (RPSD) that pulls together the top ideas from these and several existing elements of the State Guide Plan.

This project was funded under a Sustainable Communities Regional Planning Grant from the U.S. Department of Housing and Urban Development (HUD). The goal of the planning grant program is to help communities and regions foster a more sustainable economy by coordinating planning and investment in housing, job creation, workforce training, and transportation. The regional planning grants are part of the federal Partnership for Sustainable Communities, established by President Obama in 2009 to promote healthier, sustainable communities of opportunity by coordinating federal investments in housing, transportation, water, and other infrastructure. The partners are the U.S. Departments of Housing and Urban Development (HUD) and Transportation (DOT) and the

Because of Rhode Island's small area, the state as a whole qualifies as a planning "region."

Environmental Protection Agency (EPA). These agencies recognize the complex challenges communities face as they try to strengthen their economies, meet changing demands for housing and transportation, and protect the environment and public health; their goal is to meet multiple economic, environmental, and community objectives with every dollar they invest. The plan's further funding from the U.S. Economic Development Administration, the Rhode Island Foundation, and the Rhode Island Commerce Corporation, demonstrated those organizations' commitment to coordinating their work with the Partnership for Sustainable Communities and RhodeMap RI as well.

Plan Governance and Guidance

THE RHODEMAP RI CONSORTIUM

The Consortium was the decision-making body of RhodeMap RI. It consisted of 35 member organizations that were chosen based on area of expertise, geographic diversity and interest in participating in RhodeMap RI. The lead member is the Rhode Island Division of Planning, representing the State Planning Council, the Metropolitan Planning Organization (MPO) for the region. The Consortium played many roles over the course of the planning process, including developing the work plan, helping select a consultant team, providing perspectives for the project's direction, reviewing deliverables, and setting the course for public engagement. The group met roughly once a month from April 2012 through the end of the grant period, and served as an advisory body to the State Planning Council.

HOW RHODEMAP RI FOCUSED ON EQUITY

Equity and access to opportunity are critical underpinnings of the Sustainable Communities Regional Planning Grant Program. HUD recognized this nexus when HUD Secretary Shaun Donovan, in announcing the first round of Sustainable Communities awards, proclaimed:

Sustainability [also] means creating "geographies of opportunity," places that effectively connect people to jobs, quality public schools, and other amenities. Today, too many HUD-assisted families are stuck in neighborhoods of concentrated poverty and segregation, where one's ZIP code predicts poor education, employment, and even health outcomes. These neighborhoods are not sustainable in their present state. (February 23, 2010)

RhodeMap RI employed an outreach and engagement process that was significantly different from any previous state planning process (described in more detail in the following section). The state set out to engage individuals and groups that typically do not participate in state planning projects, with a particular focus on populations that may face barriers to participation. At the outset of the process, RhodeMap RI convened a Social Equity Advisory Committee (SEAC) to assist with the engagement approach and to provide insight into the social equity issues. The committee consisted of advocates, state employees, and residents who have a particular interest in and understanding of issues of social equity.

THE ECONOMIC DEVELOPMENT COMMITTEE

The Economic Development Committee convened for RhodeMap RI had an open membership that included several members of the Consortium and Social Equity Advisory Committee (see below), and approximately 25 business leaders, industry representatives, government officials, advocates, lenders, and academics. This group met roughly once a month between June of 2013 and July of 2014 to review the development of new materials, provide direction on the development of the plan, and work through the details of technical issues related to economic development. This group essentially represented the primary "work space" for the development of this plan.

Another important function of the committee was to ensure integration of perspectives from all of the different engagement processes as well as the technical materials developed in other parts of RhodeMap RI. For example, membership within the committee overlapped with participants in the Commerce RI Economic Intersections process (described below) and development of the Housing Plan and other grant deliverables. This crossover helped to create a unified and complementary set of documents across the full RhodeMap RI process.

SOCIAL EQUITY ADVISORY COMMITTEE

The Social Equity Advisory Committee (SEAC) is comprised of diverse constituents from various organizations and communities, and served to advise the grant Consortium. The SEAC met regularly to advise RhodeMap RI on two major topics—designing an inclusive, diverse process and reviewing the development of all goals, policies and strategies to ensure that the outcomes of RhodeMap RI widen opportunities for all and reduce disparities. RhodeMap RI will affect all Rhode Islanders, so all Rhode Islanders needed to be heard and included in the process. The importance of inequalities is a part of all of the RhodeMap RI focus areas, from racial differences in unemployment and education to a scarcity of affordable housing in some parts of the state

The SEAC was formed to ensure that many of the deepest challenges related to inequalities and disparities facing Rhode Island are included as a key consideration of this plan. Discussions with the SEAC were often challenging for everyone involved, tackling issues of discrimination, segregation, and racism. In some instances there were fundamental philosophical differences about what it means to create a "sustainable" economy. However, in many instances, it is clear that these discussions led to the development of economic policies that would not have



otherwise been incorporated into the plan. Without the work of this committee, many of the deepest challenges facing Rhode Island's workforce, business community, and residents might not have been considered

STATE PLANNING COUNCIL AND TECHNICAL COMMITTEE

The State Planning Council (SPC) adopts goals and policies related to planning, most of which are contained within individual plans, such as this one, which are elements of the State Guide Plan. As the Comprehensive Economic Development Strategy (CEDS) Committee for the state, the Council maintains the state's Comprehensive Economic Development Strategy and reviews projects for funding consideration by the U.S. Economic Development Administration. The body also advises the Governor on strategic planning matters and helps ensure that major project and program proposals are consistent with the State Guide Plan.

The SPC's Technical Committee (TC) is a permanent advisory committee that reviews the Statewide Planning Program staff work on major plans and provides other advice as requested by the SPC. Membership of the TC parallels that of the SPC, with representatives of state agencies, local governments, citizens from different areas of the state, and federal advisory members. The Committee is intended to ensure representation of diverse interests and views in the Statewide Planning Program's activities. Many of the activities of the TC parallel those of the SPC. The Committee holds regular monthly meetings and reviews staff reports throughout the year. State Guide Plan elements and documents are reviewed by the TC before being recommended to the SPC for action.

Public Outreach and Engagement

RhodeMap RI undertook a year-long comprehensive outreach and engagement process between 2013 and 2014. In many ways, this was the most extensive public outreach ever conducted by the RI Division of Planning. It included traditional public forums, as well as new efforts to get input and ideas from people who have not participated in traditional public meetings in the past.

Traditional Public Events

RhodeMap RI included a series of public forums to solicit feedback at critical points in the project in locations all over the state. Map galleries, breakout discussions, technical presentations, polling, surveys, and posters were used to communicate ideas for RhodeMap RI and to record feedback from participants.

Opening Work Session—In May 2013, the RhodeMap RI process kicked off with an "opening work session" where business leaders, community advocates, and government officials came together to kick off the project and start discussions related to improving conditions in the state. This served as a "test" for some of our engagement strategies.

Public Forums—Four forums were held throughout the state in August 2013. The agenda included a discussion of the following questions:

- How do we provide housing opportunities for all Rhode Islanders?
- How do we revitalize our villages and cities?
- · How do we grow our economy?





Open Houses—Six open houses were held over two weeks in May 2014. These events presented informational posters highlighting all the work done over the past year. Through online and paper surveys, available in English and Spanish, participants were asked to gauge proposed goals, policies, and strategies for both the economic development and housing plans. It was important to understand what was on the right track, what was missing, and what could be better as the team started to draft a full plan.

Public Hearings—Notice of two public hearings in October 2014 and opportunity to comment on the draft plan were provided through advertisement in the Providence Journal, posting on the Statewide Planning website, a direct mailing to the over 2,000 planning and transportation contacts in Statewide Planning's database, and an e-blast to all the contacts in the RhodeMap RI database. The draft was then revised by staff based on direction received from the public through the hearing process.

Targeted Feedback Opportunities

With guidance from the Consortium and SEAC members, staff and consultants reached out to groups and individuals throughout the state to encourage them to organize sessions to help identify the most critical issues in Rhode Island and brainstorm potential strategies for making the state a better place for everyone. Also, through assistance from Commerce RI and the Rhode Island Foundation, a series of discussions were held to seek input from Rhode Island business owners and leaders.

Focus Groups—As part of the outreach for the Economic Development Plan, over two dozen focus groups were convened to help identify the issues that should drive policy decisions in the state and potential strategies. These groups ranged from members of the RI Builders Association, to the RI League of Cities and Towns, to groups of small business owners. Not only were these discussions integral

to the understanding of each plan, but more closely knit exchanges often provided for cross-cutting discussions that combined issues of land use, transportation, social equity, housing, and economic development.

Meeting-in-a-Box—One of the more challenging aspects of community outreach is how to give a voice to individuals who typically do not have a "seat at the table." Barriers to engagement are numerous and sometimes complex, and often discussions need to be taken into the community in order to hear perspectives that might otherwise go unnoticed. To help overcome some of these barriers, a tool called "Meeting-in-a-Box" was applied to RhodeMap RI. This tool includes a highly structured packet of information that helps residents host their own focus groups and record discussions in a way that makes it easy to incorporate ideas. Approximately 15 meetings were held, with groups from a wide range of perspectives, from public housing residents, to Rotary Club members, to public library advocates, to a group of homeless individuals and families. Spanish language versions of the tool were made available.

Economic Intersections of Rhode Island—Starting in September 2013, the Rhode Island Foundation and the Rhode Island Commerce Corporation (Commerce RI) sought to engage a wide range of private sector representatives in a process of identifying opportunities and barriers to economic growth in the state. Over 200 Rhode Island business leaders and representatives of business-serving organizations participated in a series of working group sessions. Participants offered over 100 ideas and recommendations, and in the process began to identify new opportunities for collaboration and focus. The effort was designed to provide more private sector input into the RhodeMap RI engagement process and to identify some immediate opportunities for economic gains.





The engagement process for Economic Intersections began with the formation of eight working groups. The working groups were organized by what were perceived to be "intersections" among typical industry sectors and represented a new way of considering the interrelatedness that exists in Rhode Island's economy. A guiding guestion for these working groups was, "What can we do together to positively impact economic development that we can't do alone?"The ideas generated in these working groups were researched and expanded by the project consultant, with the results being vetted by many of the participants before final publication. Many of the strategies and the policy discussions within that effort's final report, Actions for Economic Development in Rhode Island, are folded directly into this Economic Development plan, providing more depth to this plan than would otherwise be possible.

Online and Social Media Outreach

Website and Social Media—www.RhodeMapRl.org was developed to help communicate with the public, share products, announce meetings, etc. Other social media like Facebook and Twitter were used to provide more "real time" updates on hot discussion topics and public events. During the month of May 2014, all of the meeting materials and surveys were displayed on the website in a "Virtual Open House."

Crowd Sourcing –The RhodeMap website incorporated an Internet-based discussion tool called MindMixer, which allows users to submit ideas in response to questions and to rate and comment on other people's ideas. Users generated ideas in response to discussion topics which could then be discussed with other users.

What We Heard

Through all the outreach described above, the RhodeMap team heard from many different people around the state, with different backgrounds and perspectives. While a range of topics and concerns were identified, a number of common themes began to emerge, including:

Assets and Attitude: Many Rhode Islanders expressed pride and appreciation for the State's assets, particularly its rich natural, built, and cultural resources. Despite this, it is a well-known and oft-repeated concern that Rhode Islanders, generally, are too pessimistic about their State. Many expressed interest and enthusiasm for finding ways to shift this attitude and celebrate and build upon the unique assets this State has to offer.

Accountability and Transparency: Many Rhode Islanders share a perception that government decisions about economic development are riddled with corruption and back-door dealing, and that when economic agreements or deals are made, there

is rarely follow up to ensure that commitments are kept. Rhode Islanders want to see clear and open standards for decision making, and that the government and recipients of government incentives are held accountable for meeting their obligations to the public.

Cumbersome Regulations: The cost and time burden of meeting regulatory requirements at the state and local level, and a lack of consistency in enforcement is a common theme. From small business owners, to housing advocates, to developers, to many average Rhode Islanders, there is a perception that regulations are holding the economy back. The most common desire was to see regulations streamlined, coordinated, and enforced consistently and in a timely fashion.

"Customer Service" Oriented Government: Rhode Island's small size should make it easier and more efficient to accomplish things. However, a lack of adequate support and customer service within local and state government is perceived as adding difficulty to conducting business. The desire for a one-stop-shop to access business development and governmental information was often heard.

Social Equity and Inclusion: Like the Nation, the face of Rhode Island is changing rapidly. The full inclusion of the

entire region's residents regardless of race, ethnicity, age, gender, or neighborhood of residence in a more open planning and outreach process was a major theme heard throughout this effort.

Access to Prosperity: Across the state, many Rhode Islanders discussed the specific day-to-day challenges they encounter to feed their families, find meaningful work, pay for college, and cover the everrising costs of utilities, among other challenges. The great number of people in this state struggling to get by is a reminder of the importance of meeting people's basic needs of food, housing, and health.

Workforce Development and Education: Many businesses say there are not enough trained

workers for the available skilled jobs in Rhode Island currently and for future economic growth. At the same time, a lack of entry-level jobs is leaving many new or skilled workers unemployed. There is a desire for more targeted education and training to match current and future workforce needs as well as to provide both soft skills and technical skills training to ensure job success. There was also an acknowledgement that our public education system is not consistently preparing students throughout the state for success.

Investing and Creating Great Places: Rhode Islanders often expressed pride in their communities and neighborhoods and want to continue to invest in walkable communities with access to transit, services, employment, and a range of housing options. Preserving Rhode Island's historic character, conserving the State's green assets, and supporting revitalization efforts is important for many.





The Plan contains four major sections plus an Executive Summary and an Appendix. The four major sections include:

Part One: A Snapshot of Our Population and **Our Economy**

This section presents information related to our overall economy, including population demographics, characteristics of our industries, trends within our workforce, and Rhode Island's place in the regional and national economies. We need to know where we are today to figure out how to get where we want to be.

Part Two: Where Do We Want To Be In Twenty Years?

This section describes where we want the economy to be in the long run, for both the prosperity of all our residents and for our businesses and institutions. It lays out a vision and overarching goals for the future, with the intent of guiding future policies and strategies.

Part Three: Achieving the Vision

This section summarizes the major issues that will need to be addressed if we are to achieve the vision of the plan. These issues are organized by the six goals of the plan, followed by their associated policies and strategies. From training opportunities for our workforce, to assessing our vital infrastructure, to supporting entrepreneurs and small businesses, to developing an inclusive economy that affords opportunities for all Rhode Islanders, these are the issues that can guide which strategies and actions the State and our partners take.

Part Four: Implementation

This section provides a matrix of the Goals, Policies, and Strategies for the Economic Development Plan, and serves as an action agenda for the short as well as the long term. These strategies are not just for State action, but represent things that private industries, non-profit organizations, and citizen groups might do to improve Rhode Island's economy and the prosperity of our residents and families.

A SNAPSHOT OF OUR POPULATION AND OUR ECONOMY

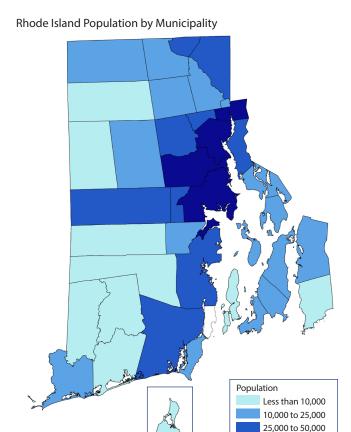
Introduction

his section is meant to be a guick snapshot of who we are as a state, and where we're going. It begins with a review of overarching aspects of Rhode Island's current demographics, followed by snapshots of our greatest assets and opportunities, our economic challenges, and relevant industry, business creation, employment, and workforce statistics. The picture of Rhode Island's economy today and the anticipated population and economic trends will inform the state and local policymakers to craft and implement strategies to realize Rhode Island's full potential. Two reports completed in early 2013 set the stage for discussing Rhode Island's current economic conditions and the demographic make-up of its residents and workforce: The Equity Profile of Rhode Island, prepared by PolicyLink and the USC Program for Environmental and Regional Equity (PERE); and Economy RI: Economic Development Data Analysis & Assessment prepared by Fourth Economy Consulting. Readers are encouraged to review those documents at www.Planning.Rl.gov for more details related to population and business demographics as well as overall economic and business climate conditions.

Rhode Island's Demographics

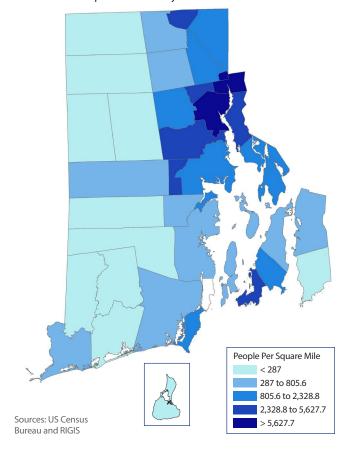
CURRENT POPULATION AND POPULATION GROWTH

As of 2013, Rhode Island's estimated population was 1,051,511, according to the American Community Survey. Population is highest in and around the state's largest cities and along Narragansett Bay. Likewise, population densities are highest in our traditional population centers such as Providence, Pawtucket, and Newport.



More than 50,000

Rhode Island Population Density



Rhode Island is one of the slowest-growing states in the nation. Since 1980, it has maintained a population of just over 1 million and has grown by approximately 100,000 residents since 1970, an increase of less than 11 percent. Between 2000 and 2010, the state gained just 4,200 residents, and, as its economy continues to struggle, has lost nearly 2,300 residents since 2010. This rate of growth—just 0.2 percent since 2000—ranks Rhode Island 49th among all states for this period. Only Michigan, the sole state to have lost population, showed a lower population growth rate.

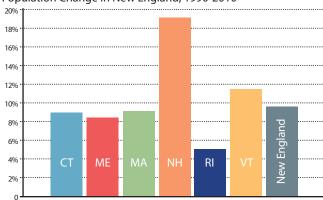
Rhode Island Population Change, 1940-2010



Source: U.S. Census Bureau

Our New England neighbors have out-paced us in population growth. In the past 30 years, the New England region population grew as a whole by nine percent. New Hampshire leads with an increase of 19 percent, followed by Vermont (11 percent) and Connecticut and Massachusetts (both nine percent). Rhode Island is at five percent.

Population Change in New England, 1990-2010

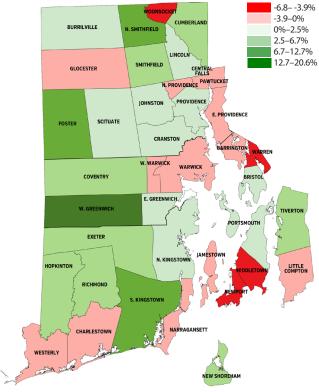


Source: U.S. Census Bureau

Population Distribution

Even with little overall growth, the state's population distribution has shifted geographically over time. During the 1970s and 1980s, the movement of people and businesses to the rural and suburban parts from Providence and the surrounding urban communities of the state created sprawl and increased demand for new and improved infrastructure. Suburban communities gained 56,000 jobs, while the cities lost 10,000 jobs. Major military cutbacks impacted Newport, Middletown, and North Kingstown, in particular. Low-density, largelot, single-use development proliferated, consuming valuable natural resources.

Population Change, 2000-2010 (as a percent of 2000 municipality population)



Source: ProvPlan, from U.S. Census Bureau, 2000, and 2010 Redistricting Data

During the 1990s, overall growth slowed modestly to 4.5 percent. The population dropped during the recession of the early 1990s, but by the end of the decade Rhode Island had experienced a net population gain.

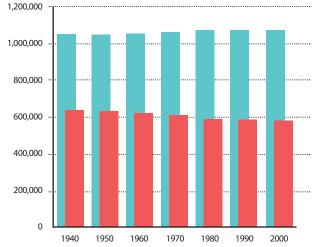
Most of the state's population lives in the more urban communities with infrastructure services like centralized water supply, centralized sewer supply, higher levels of public transportation, and access to major interstate highways. Providence, Pawtucket, and Central Falls are the most densely populated with more than 5,600 persons per square mile. Municipalities adjacent to these

urban core communities (Cranston, East Providence, North Providence, West Warwick) have population densities between 2,300 and 5,600 people per square mile, as do Woonsocket and Newport. While our cities traditionally have been and continue to be our centers of population and density, this map makes it clear that population growth is primarily occurring outside the urban core, with more and more land being developed to serve approximately the same number of people. This can lead to greater infrastructure expenses in the communities experiencing population growth, and disinvestment in the communities losing population. Land Use 2025, the State's land use plan, also calls out this issue with sprawl development in the state, and the continued need for policies to reinvest in our traditional population centers.

Population Projections

The RI Statewide Planning Program published a report on population projections for the state in April 2013. The central finding of the report is that Rhode Island will continue to have very low or negative population growth through 2020, and then will return to higher rates of population growth through the 2030s, at which point the growing number of older residents will again cause decline in the state's population. These projections are based on demographic trends and are merely a "best guess." That said, population projections can

Projections by Working Age and Total Population



Source: US Census Bureau

assist planners with assessing future built environment and natural resource needs, including transportation options, appropriate housing, and sufficient water supply. Projections also are useful to social service agencies, libraries, school districts, developers, and entrepreneurs.

The implications of these projections will affect life for Rhode Island residents and work for Rhode Island's public and private sectors. For example, changes in the age distribution will reduce the share of the population typically considered "working age." In 2010, 60.7% of the population fell between the ages of 20 and 64, and by 2040, that share is expected to drop to 54.2% of the population. This figure is significant because the young population and the elderly population tend to be the most dependent on the support of others. A shrinking share of population ages 20-64 may signal increased strain on those who are able to provide support to children and the elderly, and an increased strain on businesses to find working age employees.

Finally, users of the population projections should consider that any number of economic, political or public health developments could significantly change population dynamics. On a statewide level, unforeseen economic or social influences could bring unexpected numbers of new residents to Rhode Island, or drive existing residents away. At the city and town level, factors like public and private investments, cost of transportation, and policy changes that encourage compact development or redevelopment may affect the growth and decline of municipalities in Rhode Island. These projections incorporate the best information available about the past, but the underlying assumption of all population projections is that the future will resemble the past. In reality, the future never neatly imitates history. And in fact, the more successful Rhode Island is in implementing this plan and improving its economy, the more we can expect increases in our population.

Population Projections By Age And Sex

		ACTUAL		PROJECTED				
es	AGES	2010	2015	2020	2025	2030	2035	2040
Femal	0-4	28,052	28,132	27,478	27,499	27,398	26,839	25,756
Fer	5-9	29,389	27,336	27,775	27,501	27,563	27,502	26,945
-	10-14	31,151	29,185	27,289	27,991	27,698	27,744	27,682
	15-19	39,889	35,886	33,691	29,707	29,391	28,020	28,067
	20-24	40,938	41,050	36,769	34,431	30,172	29,654	28,277
	25-29	32,673	37,230	37,884	35,597	33,928	30,245	29,727
	30-34	31,107	31,075	36,318	37,672	35,540	34,009	30,312
	35-39	32,545	30,519	30,911	36,484	37,831	35,675	34,142
	40-44	37,495	31,633	30,032	30,868	36,505	37,929	35,774
	45-49	41,865	36,666	31,251	29,992	30,833	36,469	37,902
	50-54	41,912	40,972	36,204	31,131	29,856	30,671	36,295
	55-59	36,726	40,512	39,972	35,737	30,749	29,513	30,339
	60-64	30,986	34,732	38,699	38,876	34,892	30,136	28,951
	65-69	22,803	28,860	32,750	37,077	37,366	33,634	29,082
	70-74	17,272	20,613	26,484	30,613	34,829	35,270	31,819
	75-79	15,426	15,081	18,230	23,780	27,603	31,530	32,049
	80-84	15,345	12,543	12,420	15,217	19,946	23,255	26,738
	85+	18,593	18,525	17,313	17,060	19,052	23,691	29,000
	Total	544,167	540,552	541,469	547,234	551,151	551,787	548,859

		ACTUAL	PROJECTED					
es	ACTUAL	2010	2015	2020	2025	2030	2035	2040
Males	0-4	29,396	29,355	28,689	28,763	28,682	28,119	26,983
~	5-9	31,051	28,755	29,094	28,773	28,847	28,801	28,242
	10-14	32,673	30,854	28,687	29,300	28,942	29,015	28,970
	15-19	40,157	36,407	34,533	30,827	30,546	29,471	29,545
	20-24	41,229	41,444	37,653	35,736	31,869	31,357	30,281
	25-29	33,126	37,203	38,112	36,338	35,114	31,863	31,354
	30-34	30,056	31,147	36,128	37,698	36,058	34,981	31,727
	35-39	31,185	29,139	30,807	36,123	37,637	36,064	34,993
	40-44	35,635	30,137	28,587	30,649	36,002	37,584	36,026
	45-49	39,435	34,197	29,299	28,213	30,315	35,727	37,320
	50-54	39,138	37,976	33,244	28,755	27,676	29,776	35,154
	55-59	33,908	37,241	36,524	32,347	28,042	26,974	29,065
	60-64	28,969	31,338	34,861	34,872	31,014	27,027	26,036
	65-69	19,999	25,919	28,434	32,420	32,695	29,261	25,532
	70-74	13,805	17,232	22,762	25,598	29,414	29,945	26,895
	75-79	11,219	11,147	14,186	19,240	21,874	25,396	26,009
	80-84	9,262	8,012	8,144	10,711	14,782	17,051	20,003
	85+	8,157	8,271	7,965	8,200	10,018	13,600	17,111
	Total	508,400	505,775	507,708	514,563	519,525	522,012	521,245

Source: US Census Bureau

Population Diversity

As of the 2010 Census, Rhode Island's population identified as 76.4% White, 4.9% Black, 2.8% Asian, 12.4% Hispanic, and 3.2% "Other." In 1990, nearly 90% of the population identified as White.

The most significant story about our current demographics is that they are in a state of rapid flux, and are looking more and more each year like the diversity of the United States as a whole, which is ultimately a good thing for Rhode Island.

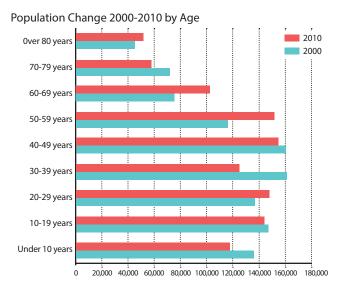
Even though the state has experienced slow growth over the past several decades, population growth that is occurring is in the number of people of color. As a result, all of the state's net population growth is attributed to people of color. Currently, Rhode Island is a moderately diverse state, ranking 94th out of the top 150 metropolitan regions nationally, having a diversity score of 0.84.1

Communities of color—including Latino, Asian, and African American populations—experienced the most growth since 2000, while White and Native American populations declined. Between 2000 and 2010, the Latino population exhibited the most growth (44 percent), followed by the Asian/Pacific Islander population (28 percent), and the Black (non-Latino) population

(22 percent). This trend is projected to continue well into the future, as people of color are projected to represent 41 percent of the population by 2040.

The state population is also getting older. In 2010, the median age of Rhode Islanders was 39.4, an increase of 2.7 years from 2000. Representing 37 percent of the state's population, the 60 to 69 age group saw the largest increase, followed by the 50 to 59 age group (30 percent). The 30 to 39 age group saw the largest decrease (22 percent).

The under-18 population overall declined by more than eight percent between 2000 and 2010, but the drop among non-Hispanic white youth was nearly 21 percent compared to the less than 4 percent drop among children of color. As Rhode Island's population continues to diversify as a whole, its youth population is diversifying



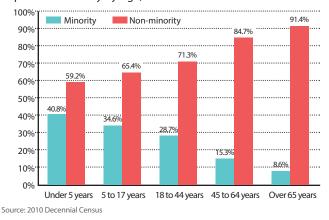
Source: U.S. Census Bureau

Population Change by Decade by Race/Ethnicity

YEAR	TOTAL	WHITE	BLACK	ASIAN	HISPANIC	OTHER
1990	1,005,995	902,567	35,516	17,991	46,250	3,671
Share Of Total	100.0%	89.7%	3.5%	1.8%	4.6%	0.4%
2000	1,048,319	858,433	41,922	23,416	90,820	33,728
Share Of Total	100.0%	81.9%	4.0%	2.2%	8.7%	3.2%
2010	1,052,567	803,685	51,560	29,988	130,655	36,679
Share Of Total	100.0%	76.4%	4.9%	2.8%	12.4%	3.5%
Numerical change, 1990–2000	42,324	-44,134	6,406	5,425	44,570	30,057
Numerical change, 2000–2010	4,248	-54,748	9,638	6,572	39,835	2,951
Numerical change, 1990–2010	46,572	-98,882	16,044	11,997	84,405	33,008
Percentage change, 1990–2000	4.2%	-4.9%	18.0%	30.2%	96.4%	818.8%
Percentage change, 2000–2010	0.4%	-6.4%	23.0%	28.1%	43.9%	8.7%
Percentage change, 1990–2010	4.6%	-11.0%	45.2%	66.7%	182.5%	899.2%

¹ According to PolicyLink, the diversity score is a measure of racial/ ethnic diversity a given area. It measures the representation of the six major racial/ethnic groups (white, black, Latino, API, Native American, and other/mixed race) in the population. The maximum possible diversity score (1.79) would occur if each group were evenly represented in the region—that is, if each group accounted for onesixth of total population.

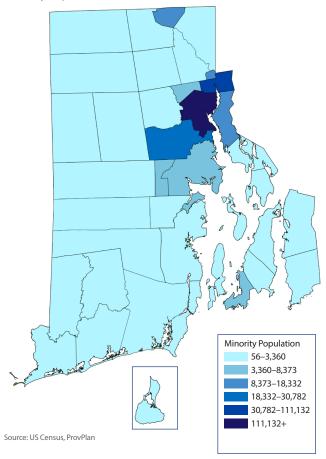
Population Diversity by Age, 2010



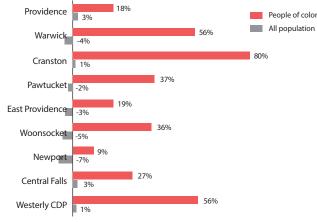
faster than the adult population. Rhode Island's minority households tend to be younger and have more children. They are also more likely to be headed by a single individual, and/or include multiple generations.

In 2010 the state's largest communities of color were found in Providence, Pawtucket, Cranston, Central Falls, Woonsocket, and East Providence. The size of these populations in other municipalities, while smaller, is increasing. While many of our cities lost population between 2000 and 2010, the increase in people of color in these communities prevented even more detrimental

Minority Population in Rhode Island, 2010



Percent Population Change, 2000-2010 (RI's nine largest cities, in descending order of 2010 population)



Source: US Census Bureau

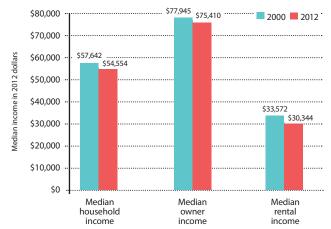
loss. Communities of color are growing fast in and around Cranston, Woonsocket, and Central Falls. Slower increases are generally seen inside the City of Providence (where the people-of-color population already comprises 62 percent of the total) and in the western and southern areas of the state.

Income and Poverty

Income Stagnation. Incomes have stagnated nationwide since 2000, but with the economic recovery yet to gain a strong foothold here, Rhode Island residents are at risk of falling further behind. In 2012 inflation-adjusted dollars, the median household income fell by 5.4 percent between 1999 and 2012 and the median family income dropped by 2.0 percent. Renters, who earn on average just 40 percent of what homeowners do, fared worst of all: their inflation-adjusted income fell by 9.6 percent compared to a 3.3 percent drop for owners. Over the same period, all types of households saw an increase in their inflationadjusted housing costs.

Wide Disparities in Earnings by Household Type. The economic well-being of Rhode Island residents varies widely by race, age, and type of household. The median income of Asian households was 87 percent that of White Non-Hispanic households; for Black households, it was 58 percent; and Hispanic households, just 50 percent. Two wage-earner families reported a 2012 median income of nearly \$92,000, compared to families with a single wage earner, who earned less than \$49,000, and households headed by someone in the prime earning years (45-64) made nearly twice what those in the traditional retirement years (65+) earned. Married couple

2000 and 2012 Median Income by Tenure, Adjusted for Inflation

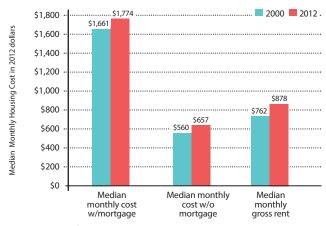


Sources: 2000 Decennial Census, 2012 One-Year American Community Survey

families with children enjoyed a median income in 2012 of more than \$93,000, while the median income for single mothers with children was just over \$30,000.

Increasing Poverty and Disparities by Race and Ethnicity. Nearly 139,000 Rhode Islanders (13.7 percent of the population) lived in households with income below the federal poverty level—currently \$11,490 for a single person to \$23,550 for a family of four—in 2012. For families with children under 18, the poverty rate stood at 15.5 percent in 2012, and children account for more than 42,000 of those living in poverty. Another 15,000 are seniors age 65 and over. Like income, the

2000 and 2012 Median Monthly Housing Cost by Tenure, Adjusted for Inflation

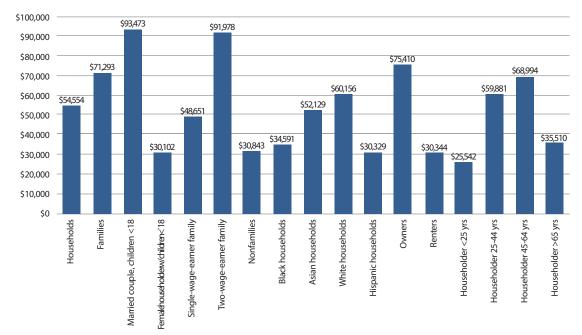


Sources: 2000 Decennial Census, 2012 One-Year American Community Survey

incidence of poverty varies widely across jurisdictions, household type, and racial and ethnic groups. Most striking is the disparity in poverty rates between married couple families with children under age 18 and single mothers with children under 18. Just five percent of married couple households with children live in poverty compared to 35.2 percent of female headed households with children and no spouse present, but almost 40 percent of the state's children lived with a single parent.

The number of single parents raising children is a major driver of child poverty. Nearly 80 percent of the children living in poverty in 2012 lived in single parent homes.

Median Income by Household Type, 2012



Source: 2012 One-Year American Community Survey

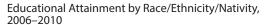
This translates into significant disparities across racial/ ethnic groups. Only 19 percent of Asian and 22 percent of White families with children are headed by a single female, but 45 percent of Hispanic and 48 percent of Black families are.2

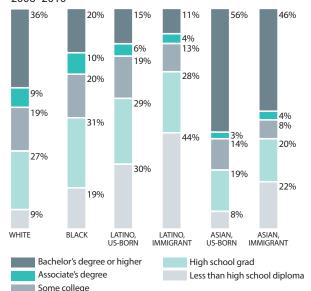
Educational Attainment

While Rhode Island leads New England in the share of residents who are college or graduate students, it lags behind most others in the share of residents 25 and older who hold high school degrees and college degrees. This suggests that the state faces a "brain drain" challenge. The educational attainment of Rhode Island residents is concentrated at both high and low levels of education. Compared with the United States, adults in Rhode Island are more likely to have an education that fell short of a high school diploma or equivalent (15.2% of adults 25 and older in the state, versus 14.1% of adults nationwide). On the other hand, 31.1% of Rhode Island adults have a bachelor's or graduate degree, versus 28.5% of the nation's adults.

Despite having the greatest share of college students in New England, Rhode Island still falls behind other states in the region on educational attainment indicators. In

2 Poverty and income figures are 2012 estimates; family type is based on 2010 Decennial Census count.





Source: IPUMS; universe includes all persons ages 25 through 64

every other New England state, a greater share of adults has earned at least a high school diploma than in Rhode Island, and in every New England state except for Maine, a greater share of adults holds a bachelor's degree.

One reason to be concerned about these lower rates is a correlation between poverty and educational attainment suggested by the ACS data. The poverty rate for everyone without a high school diploma is 24.5% (31.4% for women), while the poverty rate for those with a high school diploma is 13.9% and for residents with a bachelor's degree or more it is 3.5%.

There is a looming education and skills gap for the state's fastest-growing groups. By 2018, 42 percent of jobs will require an associate's degree or higher, but only 21 percent of U.S.-born Latinos, 15 percent of Latino immigrants, and 30 percent of African Americans had that level of education as of 2010.

The overall population growth in Rhode Island has changed little since 1970 and has been flat since 2000. However, looking more closely at geographic population changes, the municipalities that did experience notable population increases since 2000 were suburban and rural. Communities that experienced the greatest decrease in population were generally urban. Looking more closely at racial demographics, communities of color have accounted for all of the population growth since 1990 and this trend is expected to continue. Growth in populations of color occurred most dramatically in the state's urban areas and in our youth. These trends suggest that improvements in education and in our urban communities will be necessary to ensure that our changing workforce is competitive.

RHODE ISLAND'S ECONOMY

Our Assets and Opportunities

Examining changes in our population demographics is a way to anticipate important goals and strategies for economic development. Another important approach is to look more broadly at the assets and opportunities that are unique or particularly strong for Rhode Island. To be efficient and effective in our recovery, Rhode Island must build upon the assets and opportunities that can be used as a platform for future economic growth.

OUALITY OF LIFE

More than any other asset, Rhode Island residents indicate they live here because of the high quality of life. Many of the assets that contribute to this are described below, including a diverse population; cultural, historic and natural resources; 400 miles of coastline; world class universities and health care providers; access to Boston and New York; and the state's unique heritage. Housing, from a regional perspective, is more affordable than in our neighboring states, although incomes are also lower. The quality of schools is good in most communities. Most places are only a short drive from each other, providing easy access to resources and amenities throughout the state. A compilation of rankings prepared by the Chafee Center for International Business identified a number of positive rankings for the state. Related to Quality of Life, Rhode Island has ranked among the top ten states for being the healthiest, having the lowest crime rate, being safest for walking and biking, having access to water for recreation (in fact, the highest amount of shore access per square mile), and being a peaceful place.

A SMALL STATE

Rhode Island's small size—both geographically and in population—relative to other states has been credited as both an asset and a challenge. It is perceived that the small size makes it easier to accomplish things, providing "one-degree of separation" from state leaders to effect change. The size also makes it easy and quick to access most parts of the state. From Providence, a 20 minute drive can take you to a rural village or to the beach. The size also makes it easier for companies to do business with each other, and for Rhode Island to be at the forefront of developing and testing innovative statewide policies.

LOCATION IN THE NORTHEAST CORRIDOR

Rhode Island residents have relatively easy access to both Boston and New York via Amtrak's Northeast Corridor regional rail service, as well as to Boston via the Massachusetts Bay Transportation Authority (MBTA). In fact, Rhode Island is one of the few states connected to another state's regional transit network. This access means that Rhode Island residents can live in Providence or surrounding communities and work in Boston (where salaries for comparable jobs are notably higher). However, with the Boston and New York markets being expensive and crowded (especially in Bioscience), there will be more interest for such businesses to start or locate in Rhode Island, and yet remain close to the major markets in the corridor. In addition to employment, the train provides convenient access to other assets in Boston and New York, such as cultural and historical amenities and institutions, as well as access for people to visit Rhode Island's natural and cultural assets.

A HISTORY OF MANUFACTURING

Rhode Island is the birthplace of the Industrial Revolution, and the nation's first manufacturing operations shaped many of the urban centers and rural villages we still have today. During the late 20th and early 21st centuries, Rhode Island suffered enormous losses in manufacturing much like the rest of the country. Today, manufacturing in the U.S. is recreating itself with smaller, cleaner, highly specialized operations. The confluence of Rhode Island's highly skilled design sector, science brain trust, and underutilized manufacturing facilities could position our state for a significant resurgence.

DIVERSITY

As discussed in depth above, Rhode Island is becoming a much more diverse state. While overall population has been flat, the population of people of color has increased rapidly in the State: Latino at 44 percent, Asian/Pacific Islander at 28 percent, and Black at 22 percent. By 2040, 40 percent of the state's population will identify as a race other than White. Our diverse population is a strategic economic development asset and area of opportunity that Rhode Island should seek to tap into so as to improve our regional and global competitiveness. For example, Rhode Island's Latino-owned businesses already show high levels of growth within the State's economy. According to figures from the U.S. Census Bureau 2007 Survey of Business Owners, Rhode Island Latino-owned businesses jumped from 3,415 in 2002 to 5,764 in 2007, an increase of 68.8%.

FARMS, FOOD, AND FISHERIES

Farms provide numerous economic assets to the state—from actual production, to land preservation and natural resource protection, to the most recent trend in agritourism. It is estimated that plant-based and agriculture businesses in Rhode Island have a total impact of \$1.78 billion per year and 12,372 jobs.3 Rhode Island ranks among the states with the highest percentage of food sales direct to the public, amounting to more than \$6 million in sales in 2007 and the highest sales at farmer's markets, according to What's Right about RI.⁴ In total, there are more than 1,200 farms comprising 70,000 acres in total (averaging 57 acres per farm). This represents a 42 percent increase in the number of farms since 2002, and rising.

In recent years, the state has recognized the positive economic impacts of agricultural land by providing additional protections (making Rhode Island a Right to Farm state, establishing the Farms, Forest and Open Space Program, etc.). Further, A Vision for Rhode Island Agriculture: Five-Year Strategic Plan released by the Rhode Island Agricultural Partnership, serves as a privately funded and researched guidance report for the state. But Rhode Island is also at the forefront of the food movement on the receiving end, with a strong restaurant scene and an embrace of the "farm to table" movement by much of the local restaurant industry. There is great economic potential in the "Food Value Web," which incorporates all aspects of food-related businesses, from production to manufacturing to distribution to sales.

However, this industry faces many challenges. Only approximately 25% of Rhode Island's remaining productive farmland is protected, leaving much farmland vulnerable to development. Farmers in Rhode Island are aging, and many are reaching retirement age without a plan for succession. Young people interested in a farming career are faced with some of the highest cost farmland in the country, and find it extremely difficult to get started in the industry unless they inherit property or marry into a farming family.

Additionally, in 2011, total sales of fish landed by Rhode Island home-ported vessels in the commercial fishing sector totaled \$201MM; 1,506 vessels had commercial landings. An estimated 6,951 Rhode Island jobs are

connected directly to harvesting, processing, distributing, and selling fish landed by Rhode Island home-ported vessels.

Beyond this, not all agriculture in Rhode Island is food related. In fact, one of the largest segments of the agricultural industry in Rhode Island is devoted to turf farming and nurseries.

PORTS

Rhode Island has four major ports—Davisville/Quonset, Port of Providence, Newport, and Galilee—which represent significant opportunities for economic growth. The Port of Davisville is ranked 7th nationally in auto imports. Recent reports identify economic growth opportunities at Davisville and Port of Providence in auto imports/exports and break bulk imports (perishables), as well as other potential opportunities in offshore wind farms and container feeder operations. One of only two deep-water ports in New England and one of the busiest in the Northeast, Port of Providence is a crucial regional hub, generating an estimated \$200 million in regional economic impact, more than \$60 million in direct business revenues, and \$16 million in state and local revenue.⁶ Newport is a major recreational port with world-class yachting and powerboating facilities and approximately 65 cruise ship visits per year, according to the City's website.

The Port of Galilee in Narragansett is a working fishing village and recreational port with ferry service to Block Island and is one of the largest commercial fishing ports on the US eastern seaboard. Galilee is home to approximately 230 commercial fishing vessels, including charter boats. Data from 2009 show there were 179 vessels with federal permits ported in the area. Galilee fishermen have traditionally been highly opportunistic, fishing for a wide variety of species in the waters from Long Island to Georges Bank. In 2012, it landed 46.4 million pounds representing a \$42.6 million total value of landings.⁷ This ratio is a lot better than many other US fishing ports, indicating that relatively high value species are landed at Galilee. Associated with the fishing industry are a number of supporting businesses, including welding and fabricating, electronics, and

Dr. Thomas W. Sproul and Brandon Elsner, The 2012 Economic Impact Study of Rhode Island Plant-Based Industries and Agriculture, Department of Environmental & Natural Resource Economics, University of Rhode Island, January 16, 2013. Note: In addition to food production, these figures include landscaping-related agriculture (e.g., sod, flowers).

Chafee Center for International Business, Bryant University, What's Right About RI.

RI Bays, Rivers, and Watersheds Coordination Team, Summary of Rhode Island's Ports: Opportunity for Growth, 2011

According to the Port's website, http://www.provport.com/last accessed on April 8, 2014.

NOAA Office of Science and Technology, Marine Fisheries Landings Data for 2012

repair. The Port of Galilee is on state-owned land, and the Town of Narragansett is interested in working with the State to improve the overall appearance of Galilee and to promote its use as a major fishing port.

DEFENSE AND MARINE INDUSTRIES

The presence of Naval Station Newport and the Naval Undersea Warfare Center—Division Newport has generated significant economic benefit for Rhode Island. Defense-related activities occur primarily, but not exclusively, on Aquidneck Island and at Quonset Business Park. In 2013, recognizing the industries' impact on the state, the Rhode Island Senate President and Speaker of the House established the Rhode Island Defense Economy Planning Commission.

While not a traditionally-defined industry sector, the 400 businesses conducting defense-related activities employ more than 17,000 Rhode Islanders (3.8 percent of the total workforce) in military and civilian positions and generated more than \$4 billion in sales in 2010.8 Many of these are high wage, high tech jobs that help support our middle class and our manufacturing sector. An additional 6,500 people are employed in positions indirectly related to defense activities. The Southeastern New England Defense Industry Alliance (SENEDIA) reports that in 2012, 80 percent of federal contracts awarded to Rhode Island were defense-related. Federal funding cuts have led these businesses to identify commercial applications for defense technology. One such effort is the establishment of a Maritime Cybersecurity Center of Excellence, which is being convened by SENEDIA.

COASTLINE

With 400 miles of shoreline, Rhode Island has the greatest coastal access per square mile of any other state in the United States.⁹ According to a report by the U.S. Environmental Protection Agency (EPA), there are over 20 million beach visits per year in the state and access to a saltwater beach was the most frequently desired outdoor recreational facility of Rhode Island households (70 percent). The report indicated the value of these beach visits at over \$155 million per year. The coastline, however, is also a critical economic asset for marine-based commercial activity, including recreational tourism, boat building, and commercial fishing. The total economic impact of marine-related businesses amounts to \$2.2 billion in sales and \$118 million in local and state fee and tax revenue.

 Southeastern New England Defense Industry Association, 2014.
 Chafee Center for International Business, Bryant University, What's Right About RI. NATURAL, HISTORIC, AND CULTURAL ASSETS

Rhode Island's cultural assets include local arts and design districts, world class historical architecture, its connection to the American Industrial Revolution, a centuries-long maritime tradition, diverse population and strong sense of community, dense concentration of colleges focused on arts, design, humanities, history, hospitality, and cuisine, a strong and distinctive food culture, and high quality manufacturing and design. Natural assets include state and municipal parks and beaches, forests, farmland, lakes and rivers, and more, all within very easy reach of our more urban communities. These cultural and natural assets will allow Rhode Island to distinguish itself among its northeast neighbors, open up economic opportunities, and enhance the quality of life for residents.

Cultural and natural resources are a multi-pronged element of economic development. They are, first and foremost, resources for the state's residents to use and enjoy, promoting education and a connection to history and the land. Second, these resources draw out-of-state visitors, thus contributing to the positive economic impacts of tourism. Third, they can serve as community anchors and contribute to the revitalization of neighborhoods and cities. Examples of this include the revitalization of historic buildings and the cultural renaissance in Providence, the thriving arts district in Pawtucket, the beaches of Narragansett, the accessible hiking and nature walking opportunities in Lincoln Woods, or the nationally touted music festivals, summer "cottages," and maritime events in Newport, which have improved those cities and towns and the quality of life for those who live and visit there. Indeed, each and every municipality in Rhode Island is rich in such assets.

THE ARTS

Rhode Island is home to the Rhode Island School of Design (RISD), one of the most highly acclaimed design schools in the nation. With an entirely different approach, AS220 serves as another arts anchor in Rhode Island by providing an innovative live/work model with sophisticated workshop, performance, and restaurant venues. These icons of the state's arts scene are just two examples of how profoundly integral the arts economy is to Rhode Island's overall economic health. Beyond its role in the overall tourist industry, arts institutions are being used to bolster education and provide the platform for the growing "Maker Movement" in the state.

¹⁰ Rhode Island Economic Development Corporation, Strengthening Rhode Island's Creative and Cultural Economy, 2013.

TOURISM

Rhode Island's appeal as a tourist destination is a highly valuable asset for its overall economy. Well known tourist destinations include Newport's mansions, the Blackstone River Valley, quaint New England villages, and the robust arts, entertainment and dining options in Providence; and there are historic, cultural, and natural resources in every town and city throughout the state.

Overall, the economic impact (both direct and indirect) of tourism to the state is significant. A report by IHS Global Insights found that tourism supports over 45,000 jobs (9.6 percent of the state's job base in 2013), generates \$682 million in state and local tax revenue, and visitors inject \$3.88 billion into the state's economy (based on 2013 data).11 Without proper investment in the tourist industry, Rhode Island risks losing an indispensable economic and job growth opportunity by not effectively competing for visitor dollars. According to the U.S. Bureau of Economic Analysis, the tourism industry is rebounding and many states are looking to improve performance as part of their strategic economic growth plans.

UNIVERSITIES AND TALENT

Rhode Island has eleven colleges and universities, many of which have solid national and international reputations that draw students from across the country and around the world. To name just a few of the academic assets these institutions offer: Brown University's science, medical, and engineering programs, the Rhode Island School of Design's art and design programs, Bryant University's business programs, and the University of Rhode Island's engineering, pharmacy, and oceanographic research programs, all enjoy high national rankings. Johnson & Wales University's culinary arts and hospitality programs are known worldwide for their excellence and famous alumni. Outside these specific programs, all of these universities are generating talent and innovative thinkers that will guide Rhode Island's future.

Universities—as well as other medical and cultural institutions—have other economic benefits to offer the state. Generally, as place-based institutions they are invested in their community and interested in giving back. Therefore, such institutions are often excellent community anchors, providing services and educational opportunities. Universities in particular have contributed to research and new business creation that continues to drive Rhode Island's economy. Most universities also

11 IHS Global Insight, Rhode Island and U.S. Tourism, 2014.

have networks and connections with sister institutions across the country and around the world, and can help connect Rhode Island businesses with their associated technologies and firms.

BROADBAND CONNECTIVITY AND SPEED

Broadband internet is a key piece in the state's economic development picture—for business attraction and growth, e-commerce, workforce training and education, and more. Broadband Rhode Island has been a champion of increased broadband capacity and programming in order to support a competitive advantage in the state. The federal government, through American Recovery and Reinvestment Act (ARRA) stimulus funds, and with matching funds from Commerce RI, invested \$4.5MM in mapping and broadband adoption. ARRA stimulus funds were also used, along with matching funds from the Ocean State Higher Education Economic Development and Administrative Network (OSHEAN) and its members, to invest \$21.7MM in over 400 miles of above ground fiber throughout the state, connecting over 150 anchor institutions. Wireless broadband is available to 100% of Rhode Island residents and fiber service is available to 63.4% of residents, placing it in the top 12 nationally for both speed and coverage. However, our ranking has been on a downward trend as other states outpace us in leveraging their gigabit infrastructure. Further, while broadband is widely available, many people throughout the state still have limited access to computers, computer skills, and the internet. Widespread broadband infrastructure, service affordability, and digital literacy will all be critical for Rhode Island's residents over the coming decades as more and more public and private services and opportunities transition to digital-only platforms. Broadband infrastructure will also be necessary for Rhode Island to stay competitive as a location for private industry. Advanced, data-intensive private businesses and research organizations will expect access to state-of-the-art broadband infrastructure in order to support their operations. As this is a resource that is constantly evolving, Rhode Island cannot afford to rest on past laurels if it expects to stay competitive.

REDEVELOPMENT POTENTIAL

Communities across the state are planning strategically for growth and identifying redevelopment areas where future public investments could be made to entice further private investment. As part of RhodeMap RI, redevelopment areas were examined in ten municipalities (see Supporting Document G for more detailed results).

URBAN FOCUS COMMUNITIES	OTHER COMMUNITIES	
Central Falls	Cranston	
Newport	East Providence	
Pawtucket	North Kingstown	
Providence	Warwick	
West Warwick		
Woonsocket		

Fifty (50) potential redevelopment areas were identified in these communities through a review of existing plans and conversations with local management, economic development or planning staff. Some of these sites are single parcels while others represent hundreds of parcels.

Analysis performed on these areas looked to identify both near-term and long-term private redevelopment investment opportunities which will strengthen the tax base and increase employment opportunities for a broad range of workers. The analysis considered which land parcels may be ripe for development or redevelopment based on real estate and site conditions.

In the ten focus communities, analyses identified nearly 3,500 acres (representing more than 2,300 distinct parcels) as having high redevelopment potential. This prioritization is not a "highest and best use" study for each redevelopment parcel, but provides one perspective on how the state, and local governments, might prioritize assistance and target economic development strategies. In general, this planning effort identifies redevelopment as one of the state's greatest economic opportunities and demonstrates the need for additional housing and redevelopment of existing buildings within the state, and particularly in urban areas. While not part of this analysis, it should be noted that these redevelopment areas also offer opportunities to improve the environment and the quality of life for these communities—through brownfield remediation, restoration of waterways that run through or near the sites, installation of low impact design infrastructure, planting of trees and other landscaping, etc.

The analysis identified 14 sites that have strong development potential in the next 2-5 years, and an additional 28 with longer term potential over the next 6-10 years. East Providence had the most sites with strong development potential, representing over 500 acres, including many properties along its waterfront such as Kettle Point, Crook Point, Bold Point Harbor, and the area along Veterans Memorial Parkway. And indeed, East Providence is seeing a great deal of development interest and activity, even in the midst of the State's slow

economic recovery from the Great Recession. Other sites of strong potential include Central Falls Landing, the Ciba Geigy property in Cranston, the North End of Newport, Natick Village in Warwick, and the Main Street area of downtown Woonsocket. Again, this is not to say there aren't many other opportunities throughout the state—the I-195 Corridor District in Providence and the Conant Thread Factory complex in Pawtucket and Central Falls, for example, present very serious long term opportunities. This analysis simply tries to identify places that are primed to prosper in the short term with a little extra help.

Our Challenges

Looking at the extensive list of assets and opportunities in isolation, it might be hard to imagine why the state is not currently at a higher level of economic prosperity. But, of course, Rhode Island also has numerous challenges to overcome before our statewide economy thrives once again. This section provides a brief summary of some of the challenges that helped to shape the goals and strategies of this plan.

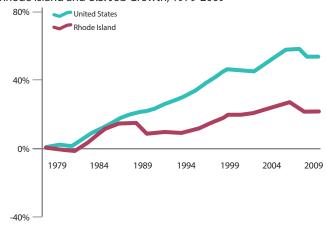
EMERGING FROM THE RECESSION

While the growth of Rhode Island's Gross Regional Product (GRP) (the value of all goods and services produced within the State) has kept pace with the Nation, job growth has not. At 21 percent job growth between 1979 and 2010, Rhode Island has less than half of the Nation's cumulative job growth rate (54 percent). Prior to the start of the Great Recession in December of 2007, Rhode Island had already entered into an economic recession of its own—starting to lose jobs in December 2006, a full year before the onset of the Great Recession, according to the Rhode Island Department of Labor and Training (DLT). The recessionary effects have lingered longer as well, exhibited by continued high unemployment.

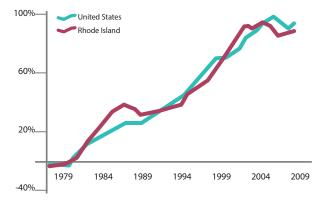
According to the Brookings Institute, and as reported in the Equity Profile of RI, as of March 2013, Rhode Island ranked 92nd among the 100 largest regions in its economic recovery, based on measures of employment, unemployment, GRP, and housing prices. While some industries, such as health care, have recovered

¹² For the purpose of its data analysis, the Equity Profile of RI treated the Rhode Island region as synonymous with the State of Rhode Island. Rhode Island also qualifies as a region according to HUDs definition. Throughout this section of the analysis, the use of "region" may be used interchangeably with "state" in reference to Equity Profile of RI findings.

Rhode Island and U.S. Job Growth, 1979-2009



Rhode Island Gross Regional Product and U.S. Gross Domestic Product Growth, 1979-2009



Source (both figures): U.S. Bureau of Economic Analysis

in terms of job production, a DLT report states that recessionary effects continue to have an impact on the state's Government, Construction, Manufacturing, and Information sectors.13

UNEMPLOYMENT

Although Rhode Island's unemployment rate has declined in the last two years, it remains among the highest in New England and the highest in the nation. In 2011, the state experienced its highest unemployment rate ever, peaking at over 11 percent and exceeding the national unemployment rate by two points. An unemployment rate of just over eight percent equates to more than 40,000 people unemployed and actively looking for work.

In March 2013, there were 32,069 private businesses in the state employing 384,865 workers.14 When combined with public sector employment, as of November 2013, the DLT Labor Market Information Unit reported nearly 510,000 people actively employed in the state of Rhode Island. The state added approximately 10,000 jobs in 2013 alone. However, during the same time period, the labor force as a whole (employed and unemployed persons looking for work) decreased by 2,000. This is attributable—in part—to long-term unemployed persons no longer actively searching for employment and dropping out of the labor force entirely (only persons who are either employed or unemployed and actively searching for work are counted among those in the labor force). Those exiting the workforce through retirement are also a factor in the declining labor force, when positions are not refilled. However, overall population change is not a factor, since the state's population change has remained insignificant, at only 0.2 percent since 2000.

14 DLT, 2013.

Unemployment Rate by Month (seasonally adjusted)



Source: U.S. Department of Labor, Bureau of Labor Statistics

Despite the slow recovery, Rhode Island employment is projected to increase by more than 52,000 jobs between 2010-2020.15 Much of this growth is attributed to the increased demand for the products and services provided by the Health Care & Social Assistance; Accommodation & Food Services; Retail Trade; Professional, Scientific & Technical Services; and Educational Services sectors. Rhode Island added 1,045 manufacturing jobs in 2013 (a 2.78 percent increase over 2012) and the largest such growth since 2000.16 The Professional and Business Services sector experienced the highest job growth rate in Rhode Island, at 3.64 percent.¹⁷ Employment projections suggest that nearly one-in-three future job openings will require college degrees (associate degree or higher).18

¹³ RI Department of Labor and Training, Rhode Island's Employment Trends and Workforce Issues, 2013.

¹⁵ DLT, Labor Market Information: 2020 Industry Outlook for Rhode

¹⁶ Providence Business News, "R.I. ranks 9th for manufacturing-job growth, 28th overall," March 27, 2014. 17 Ibid.

¹⁸ DLT, 2013.

COST OF DOING BUSINESS

The cost of doing business is often credited as one of the most important indicators of a state's competiveness. Until recently, Rhode Island's tax structure compared poorly, both to its peers¹⁹ and nationally. This is an issue that has already received and must continue to receive attention. For example, this year the General Assembly passed changes to the State's Corporate and Estate Tax policies in an effort to make our rates more competitive with our neighbors, though property taxes remain an issue. However, Rhode Island does have cost advantages, as compared to its peer states. Housing, energy, and highskilled labor are available at relatively bargain rates, in comparison to Massachusetts and Connecticut. Despite this, many continue to report that housing and energy are prohibitively expensive in the state, and indeed, housing and energy costs are high throughout New England, making the whole region less competitive in this regard

HEALTHCARE COSTS

Healthcare spending in Rhode Island accounts for 17.6% of the State's total gross domestic product, and per capita healthcare costs in Rhode Island had reached \$8,309 by 2009. Although the healthcare and social service industries continue to thrive and support Rhode Island's economy, these costs have a profound impact on the ability of Rhode Island businesses to grow and prosper by decreasing the number of employees businesses can hire and insure. Additionally, the high costs have not helped to create a healthier population; 63% of the State's population is either overweight or obese, which places them at an elevated risk for chronic diseases such as diabetes, heart disease, or hypertension, which make up 75% of total healthcare costs per year. Many of these costs are preventable through increased investments in the built environment; chronic disease prevention, maintenance, and control; and increased access to primary care. Greenspace, including places to walk, get outdoors, exercise, and otherwise be active, can be an important component of the built environment that helps contribute to residents' health. A healthier State population will decrease healthcare costs, making Rhode Island companies more competitive by reducing operating expenses while increasing the productivity of the workforce and quality of life for everyone.

FINANCIAL RESOURCES

The availability of a range of financial resources for business expansions is also critical for a state looking to grow jobs. When Rhode Island's public and private financial resources are considered as a whole, Rhode Island faces significant gaps in the availability of funding across the entire funding spectrum, but particularly for early-stage companies. Its programs do, however, provide some competitive funding packages to more mature firms within the state and/or looking to locate in the state. Additional research for this plan indicates that lending constraints are even more pronounced in African American and Latino populations.

REGULATORY ENVIRONMENT

Few services provided by governments are more important than regulations that protect the public's health and safety. Unfortunately, as regulatory frameworks grow over time without challenges to their underlying rationale, they can become cumbersome and expensive to follow. It is not uncommon throughout the country for regulatory processes to add significant time, cost, and frustration to the creation or expansion of a business or the permitting of a development opportunity. Rhode Island is taking significant steps to address this issue through the Office of Regulatory Reform. However, regulatory barriers and inconsistent enforcement were among the top concerns heard around the state in this planning process, and there is still much work to be done.

INFRASTRUCTURE AND LAND CONSTRAINTS

As discussed later in this plan, economic development hurdles include a lack of water and sewer infrastructure outside of the urban core and the overall poor condition of the state's infrastructure; limited developable land and the development constraints that exist for remaining land (e.g., brownfields and other environmental constraints); and an aging housing stock. This means we have to be smarter and more intentional about where we grow, how we reinvest in our existing infrastructure and housing, and how we build new development in a way that is sensitive to the environment.

CONNECTING PEOPLE TO JOBS

During the RhodeMap RI process, the Department of Labor and Training (DLT) reported approximately 10,000 available jobs statewide. While this "broad stroke" number does not speak to the quality or permanence of the job openings being reported, it does point to the reality that many jobs are going unfilled in a state with persistently high unemployment. Accessing qualified workers was identified as a significant challenge by

¹⁹ The report's author, Fourth Economy Consulting, compared Rhode Island's position to a peer group, which includes the neighboring states of Massachusetts, Connecticut, and New Hampshire, as well as Delaware due to similar state characteristics.

numerous employers during the outreach process for this plan. This challenge is attributable to many factors, including lack of awareness among the unemployed and underemployed regarding career path opportunities, and a statewide educational and training system that is sometimes misaligned with industry needs. The consequences of these challenges, if left unaddressed, are businesses shutting down and/or relocating from the state—actions which will only further exacerbate Rhode Island's high unemployment rate.

Looking to the future, demand for labor is expected to be significant. In addition to the 52,000 new jobs anticipated during the 2010-2020 projection period, it is estimated that employers will need to replace nearly 116,000 workers who will leave their jobs for various reasons, including retirement. Certain industries, such as construction and manufacturing, will be particularly hard hit by retirement, as 50 to 60 percent of their current workforce is over the age of 45. With aggressive workforce development strategies, this situation represents an opportunity for the State to connect thousands of newly trained or already qualified workers for the positions available today and in the future.

Another consideration for connecting people to jobs is transportation: how do people physically get to work every day? For most Rhode Islanders, almost any job in the state can be reached within 30 minutes by car. However, for many reasons, it is shortsighted to rely on single-occupancy car trips for most commutes. Our highways are becoming more congested. Many people are unable to afford cars, while others choose not to own them. The State has a vested interest in reducing vehicle miles traveled, to help improve air quality. For these reasons and others, the state must continue to invest in transit (as well as bridges and roads) that can connect people with jobs. While most people will continue to drive to work for the foreseeable future, there is no question that providing greater transportation choice will help connect people with jobs where the need is greatest. Future transit investments must consider where people live and where major employment centers are or are likely to be, and make linkages accordingly.

Finally, another barrier to jobs for many people is access to safe, affordable childcare outside of traditional working hours. Childcare is often so expensive that, in an unfortunate twist, taking a job might not make economic sense for a parent. Investments in child care can help unlock job opportunities for many parents, and allow more people to fully participate in the economy.

Rhode Island has an impressive list of economic opportunities and assets—far more numerous and diverse than other states many times our size. Our natural resources, diverse population, and cultural assets provide a tremendous platform for future success as long as state and local agencies maintain focus on strategies designed to capitalize on our strengths. From the opposite perspective, numerous specific economic challenges have been documented in Rhode Island, some of which will require patient and long-term investment to effectively address. As with our opportunities, it will be important for policy makers to maintain a long-term focus on many of these challenges in order to create deep and positive change in the state's economy.

RHODE ISLAND'S INDUSTRIES

Industry and Employment Location

EMPLOYMENT CENTERS

The concept of employment centers refers to geographic concentrations of workers in Rhode Island, both where workers are located and the industries which have the greatest presence in those locations. Identifying and mapping employment centers and the industries that drive them can be useful for many reasons, including:

- Helping to convey the economic character and purpose of a geographic area.
- Identifying the services that may exist and/or need to exist due to the employment concentration (e.g., supporting industries, retail, restaurants, etc.).
- · Identifying worker skill set similarities.
- Identifying commuting patterns and, in concert with housing availability, showing any mismatch between the presence of jobs and housing in that location.
- Predicting wages and shedding light on whether housing that meets the needs of those wage earners is available nearby.
- Identifying how susceptible a given area is to economic change (e.g., if an industry were to severely contract, would there be a significant "ripple effect").
 For example, if the manufacturing industry contracts, that impact may be felt most keenly in the area immediately north of Providence (Central Falls and Pawtucket), where the goods-producing sector is clustered.

Employment density maps also help with the analysis of industry clusters and identify the economic assets of the state, helping to target growth centers and prioritize redevelopment opportunities in the state. In Map 1 (following page) census tracts are depicted in three different categories:

- High employment centers have employment density greater than approximately 19,000 workers per square mile.
- Moderate employment centers have an employment density between approximately 8,000 and 12,000 workers per square mile.
- Low employment centers have an employment density between approximately 2,000 and 6,000 workers per square mile.

• The results of the mapping show that our areas of highest employment density focus on the state's more urbanized areas, with the highest employment densities being in the cores of Providence and Pawtucket. Newport and Woonsocket have census tracts that reach the "moderate" level for employment density.²⁰ Bristol, Central Falls, Cranston, East Greenwich, East Providence, Johnston, Warren, Warwick, and Westerly all have census tracts that reach the low density threshold.

INDUSTRY CONCENTRATIONS

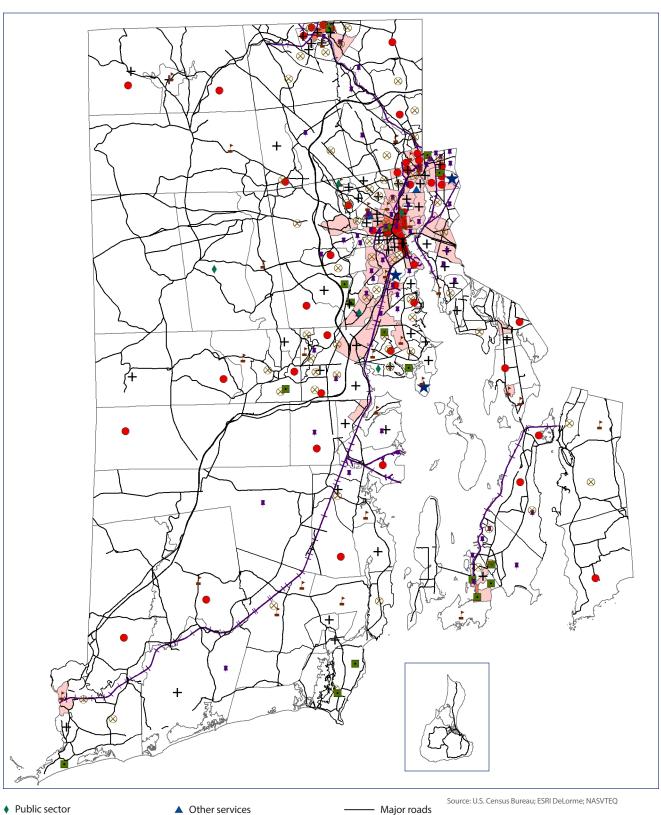
Clusters of industry, by employment, were also mapped as part of early analyses for RhodeMap RI (see map above). A census tract was considered to have an industry sector concentration if at least 25 percent of employment within the census tract was in any individual sector; these are noted with symbols. A collection of census tracts with high employment in a specific industry represents an "industry cluster."

Employment in downtown Providence is largely represented by healthcare, public sector, professional services, and educational services jobs. This is a fairly predictable mix of industry for a city that houses state and local government employees and a number of educational institutions such as Brown University, University of Rhode Island, Johnson & Wales University, Roger Williams University, and Rhode Island School of Design, as well as a number of hospitals and medical facilities. Trade, transportation, and utilities employment is more prevalent along the periphery of Providence, adjacent to Johnston, East Providence, and North Providence.

The high density employment center in downtown Pawtucket similarly contains more than 25 percent each of educational and professional service workers. However, the greater Central Falls and Pawtucket area clearly represents a larger concentration of goods producing businesses (e.g., manufacturing). Looking south and west of Providence, into Cranston, there is a concentration of trade, transportation, and utilities businesses.

Looking outside the state's urban core, Quonset Business Park is an industry cluster for goods-producing/ manufacturing industries. Newport's primary industries

²⁰ Though part of a larger census tract which is primarily residential (thus diluting its employment density), Quonset Business Park has a concentration of approximately 9,000 workers and would be classified as a moderate employment center if examined outside of the larger census tract. The anticipated doubling of employment at Electric Boat in the next ten years could push Quonset into the high employment center category.



- Educational services
- Professional services
- + Healthcare
- Accommodation, food services
- Goods producing
- * Arts, entertainment, recreation
- \otimes Trade, transportation, utilities

Major roads

+ Rail lines

EMPLOYMENT DENSITY (WORKERS/SQ MILE)

Low Moderate High

are accommodation and food services (due largely to the strong tourist industry), professional services, and healthcare.

EMPLOYMENT CHANGE BY MUNICIPALITY

Rhode Island's employment change between 2002 (prerecession) and 2011 (post-recession) was calculated and mapped, based on the primary jobs provided by the U.S. Census Bureau's On the Map application. Pawtucket experienced the greatest loss of jobs, at more than 4,000 (a 15 percent decrease in employment). However, employment in Central Falls, North Providence, and Foster declined by a higher percent of the communities' total employment (between 20 and 25 percent).

By absolute numbers, Providence, Cranston, and North Kingstown experienced the most job growth, adding between 2,000 and 3,500 jobs during the nine-year period. While large in number, these jobs represented only a three percent increase in jobs in Providence and a 12 percent increase in Cranston. However, the percentage increase was much higher in North Kingstown (20 percent), primarily because of growth at the Quonset

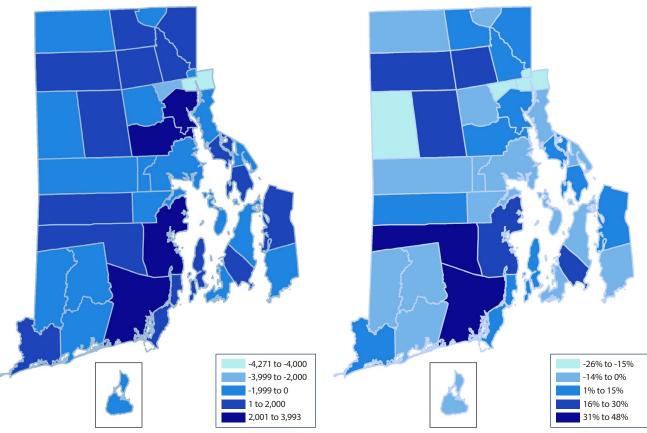
Employment Change, 2002–2011 (absolute numbers)

Business Park. Exeter experienced a 48 percent increase in primary jobs, amounting to approximately 425 new jobs, a significant boost for such a small town based primarily on two significant new employers. Middletown and Scituate also saw job growth of approximately 20 percent during this time period.

RHODE ISLAND IS A SMALL-BUSINESS STATE
Large employers, with 1,000 or more employees, represent 0.1 percent of the state's businesses and employ 16 percent of the private sector workforce.²¹
However, it is well known that the Rhode Island economy is characterized by a large number of small companies, each employing a small number of workers. In 2012, 89 percent of Rhode Island establishments employed fewer than 20 workers (25 percent of the state workforce), ranking the state 17th nationally in terms of its percentage share of small establishments. Nearly half the employers (49.5 percent) in the state have between one and four employees; however, they employ just 7.8 percent of the workforce.

21 DLT, 2013.

Employment Change, 2002-2011 (percentage)



Source: U.S. Census Bureau, 2013. OnTheMap Application. Longitudinal-Employer Household Dynamics Program. http://onthemap.ces.census.gov/; map prepared by

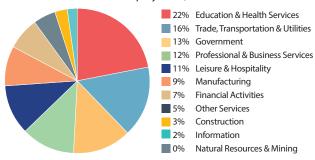
Note: The change reported for South Kingstown (nearly 4,000 jobs and a 48 percent increase) is believed to be an aberration or a result of incorrect reporting. DLT Labor Market Information, which uses a different measure, reported a 17 percent increase in employment (approximately 1,400 employees) for the same time period.

Top Industry Sectors

TRADITIONAL SECTOR OPPORTUNITIES

There are numerous ways to measure a state's "top" industries, such as by percentage of employment, job growth, or economic output. At the outset of RhodeMap RI, the Equity Profile of RI and the Economy RI reports examined this issue from different perspectives. The

Rhode Island Nonfarm Employment, 2012



Source: Economy RI Note: This graph depicts how Economy RI used DLT employment data as a key indicator of industry strength in Rhode Island

Equity Profile used the "industry strength index," which measures four characteristics: size, concentration, job quality, and growth, while Economy RI looked at 2012 total nonfarm employment from the DLT as an indicator of industry strength. The findings of these two different approaches showed significant overlap and provided a platform for further investigation during the RhodeMap RI process.

Through additional research and interviews in the RhodeMap RI process, the following seven traditional industry sectors were identified as existing strengths, representing both our past and current business infrastructure and the skill sets of our workers. The

- > Health Care
- > Food Services

construction industry is a further sector that helps support many of the sectors below.

Agriculture and Fishing: From the RI

Agricultural Partnership's 5-year Strategic Plan—"A rough and very conservative estimate of [agriculture's] contribution to the state's economy is \$100 million.²² Two recent studies indicate that this figure is likely far higher. A 2010 study by the University of Connecticut of the economic contribution of agriculture in CT found that agriculture is a \$3.5 billion industry that generates

more than 20,000 jobs.²³ Especially relevant to RI is the study's finding that each dollar in sales generated by the agricultural industry creates up to an additional dollar's worth of economic activity statewide."

Manufacturing: Rhode Island's manufacturing sector has taken the brunt of the changing US economy and the Great Recession, losing over 21,000 jobs over the past decade. Today, manufacturing directly employs approximately nine percent of the labor force in Rhode Island, and saw what is hoped to be the beginning of a rebound with an increase of over 1,000 manufacturing jobs in 2013. This brings the current labor force count to approximately 40,700 employees. Manufacturing jobs are an important component of the overall job market as the sector creates middle class jobs providing familysustaining wages, with an average annual salary of over \$51,000 and opportunities for career progression.

Transportation: Rhode Island's location along the northeast corridor and our thriving ports help to drive the continued success of this industry sector. Additionally, the increasing need for maintenance and repairs to transportation systems may play a role in elevating the prominence of the transportation sector, while also providing more work for the construction industry outside of housing and other building development. The state's continued emphasis in expanding freight rail service as well as operation at T.F. Green Airport will also help drive this sector for many years to come.

Professional, Scientific, and Technical Services: While this industry class covers a broad range of services, Rhode Island's nationally recognized scientific and design communities help to provide a continued competitive advantage. Continued growth related to climate change research and development, green industries, and marine technology will help to keep these and other related

industry sectors strong in Rhode Island.

Health Care and Social Assistance: These industry sectors continue to thrive in Rhode Island with strong

The Social Assistance Sector

The services provided in this sector are delivered by trained professionals, and many of the jobs in these industries require educational degrees. Social assistance includes child day care providers, social workers, vocational rehabilitation providers, and emergency relief and shelter workers.

anchor institutions and clear career path opportunities. Investments from anchor institutions in expanded

²² USDA National Agricultural Statistics Service, 2007 Census of Agriculture.

²³ Information provided by Gerard Bertrand, with RI Rural **Development Council**

facilities are continuing, with examples such as the redevelopment of the former South Street Power Station in Providence.

Food Services: The quickly rising food and beverage industry is putting Rhode Island on the national stage. Providence was ranked #1 for Food/Drink/Restaurants in Travel + Leisure's "America's Favorite Cities 2012" and was chosen as the site of the nation's first food tourism conference in 2013 called "Taste Trekkers." These industries need to have robust branding and marketing efforts of their own, but also need to be closely aligned with the State's branding and marketing.

Education: Employment opportunities in education will undoubtedly remain strong for many years. In addition to the needs of our public schools, Rhode Island's colleges and universities continue to innovate and thrive. The recent collaboration between the nursing schools at Rhode Island College and University of Rhode Island is an example of how educational institutions are capturing the opportunities presented by other strong economic sectors in the state.

CROSS-SECTOR OPPORTUNITIES

In addition to the traditional industry sectors listed above, the RhodeMap RI engagement process (particularly the work under the leadership of Commerce

Cross-Sector Opportunities

- > Defense
- > Green Industry
- > Food System
- > Tourish

RI and the Rhode Island Foundation) put the spotlight on cross-sector synergies in Rhode Island

that may provide more dynamic opportunities for growth in the near future. When our traditional strengths and assets work together in new ways, they become greater than the sum of their parts. Rhode Island's greatest potential strength is the ability for different sectors to find ways to intersect with one another. Below are just a few examples of some of these cross-sector opportunities:

Defense: Defense is not a traditional industry sector because defense-related work is captured under other sectors, such as engineering (professional services), information technology, and manufacturing. Additionally, most companies that perform defense-related work also perform non-defense work. The Southeastern New England Defense Industry Alliance (SENEDIA) has made significant effort to quantify the presence and impact of defense-related establishments in Rhode Island. Recent analysis provided by SENEDIA identified 400 Rhode

Island businesses working with the Department of Defense or Department of Homeland Security and 17,400 defense-related private sector and government direct employees (3.8 percent of total state employment).²⁴

Green Industry: So called "green collar" jobs represent a broad range of services and expertise related to improving environmental conditions and increasing resiliency, ranging from jobs related to energy efficiency and renewable energy to "Clean Tech" opportunities. For example, as Rhode Island continues to be a partner in future offshore wind farm development, the logistics, construction, shipping, safety, storage, engineering, and permitting jobs associated with this activity will be part of Rhode Island's "green industry profile." Where Rhode Island is particularly well-positioned today is in climate change response industries and green infrastructure.

Food Systems: Although the Food Service and Agricultural sectors are listed individually as focus industries in Rhode Island, the connection between the two industries—the state's "Food System"—is the key to Rhode Island's niche. Local food systems, generally considered to be food produced within a state or within 100 to 400 miles of the place of consumption, represent a growing portion of consumer spending, with 70% of consumers indicating that they would be willing to pay up to 10% more for locally produced food.

Tourism: Tourism is a significant component of Rhode Island's economy, generating more than \$5 billion in sales (2010).²⁵ With national consumer spending increasing

- 24 4ward Planning Inc., Governor's Workforce Board Industry Partnership Program Evaluation, March 2014.
- 25 Tourism District Managers, RI Tourism Development Goals and Objectives, January 2014

Tourism Funding

In 1995, the general assembly eliminated the 27% portion of the lodging tax that was dedicated to statewide tourism promotion and directed it to the general fund. Funding for tourism became part of the newly formed Rhode Island Economic Development Corporation budget, subject to the executive director's discretion.

Slowly, the \$3MM dollar promotional budget eroded to less than \$400,000 dollars. In addition, elimination of a dedicated funding source diminished the effectiveness of the division's statewide tourism promotional efforts. Today, there is no opportunity for advanced planning, and resources cannot be effectively leveraged nor promotional efforts implemented. Missed opportunity is costing the state market share and a consistent and dedicated funding source is necessary to reverse the trend.

(travel and tourism spending increased 3.5 percent in 2011²⁶), Rhode Island needs to be poised to capture economic value from visitors. The tourism industry is expected to continue to be a generator of significant jobs for the state and attract wealth and spending from out of state.²⁷ We will continue to rely upon visitor revenue to provide the amenities our residents require, and the public and social services we need to support our state's important qualities.²⁸ According to project interviews,

26 US Department of Interior, Task Force on Tourism and Travel, 2012

tourism is one area where a regional approach has been effective.29 Since 1986, the state has operated six distinct tourism development districts. Each district works independently to develop their regions, but collectively, with the Rhode Island State Tourism Office, for national and international marketing opportunities. 30 However, the state lacks a cohesive statewide approach to tourism. This is primarily because the State Tourism Office has been repeatedly underfunded (see sidebar).

Communities Of Color Are Growing Most Rapidly In Rhode Island's Urban Areas.

Population growth between 2000 and 2010 occurred only in populations of color, and primarily in urban areas ranging from nine percent in Newport to 80 percent in Cranston. By 2040, Providence County's population is projected to have a majority (greater than 50 percent) people of color.

This increasing concentration of people of color in urban areas exacerbates many of the disproportionate economic impacts clearly documented in these populations. As is observed in many regions of the United States, urban areas have higher rates of unemployment, and higher rates of persons living in poverty or earning subsistence wages. In Rhode Island, the share of people living in high poverty neighborhoods (those with poverty ratios equaling 22 percent or higher) has quadrupled since 1980, rising from two- to eight-percent.

People of color in Rhode Island are therefore suffering disproportionately from high unemployment rates and poverty. Aggressive place-based urban re-investment policies are needed to help reverse these trends, not only for the economic well-being of these communities, but for the overall economic health of Rhode Island.

The relative strength and location of Rhode Island's industries show some patterns and concentrations of jobs and employment that are useful for guiding future policy decisions relative to economic development. Two important findings include:

- The Geography of Jobs and Employment: While the employment cluster and employment change mapping shows activity in many different areas of Rhode Island, there is a clear concentration of employment and industry sector concentration within the state's urban areas. Higher levels of activity in suburban areas could generally be attributed to large individual employers or clusters like the Quonset Development Corporation, the University of Rhode Island, South County Hospital, and others. As has historically been the case, Rhode Island's urban areas serve as the state's primary economic engines. When these areas suffer from disinvestment, low market demand, high unemployment, infrastructure challenges, and fiscal strain, the state as a whole feels the negative effects. Further, focusing economic development on urban communities can have important impacts from a social equity perspective (see sidebar). Mapping of employment change over the past 10-15 years shows decreases in employment within our urban areas, suggesting a need for a policy agenda that aggressively pursues reinvestment in our urban communities. Further, as jobs continue to develop in our suburban communities, place matters. Clustering suburban jobs in growth centers can help improve economic outcomes for suburban municipalities, as well as make it easier for suburban employment centers to be accessible by transit and accommodate different housing types that make it easier for people to live near their work.
- Keeping Activity Local: It is important for the State to recognize the full impact of any investment in specific industries if Rhode Island is to capture as much of the investment benefits as possible. Investing in a single industry may foster growth, but the full potential economic gain could "leak" to other states if supporting/complementary industries are not established within Rhode Island. For example, given the small network of in-state manufacturing suppliers, potential returns on investment in manufacturing are often lost to out-of-state suppliers of supporting goods and services—resulting in less economic activity in Rhode Island than might be possible. However, if policies were aimed at expanding supporting industries (and ensuring the availability of a trained labor force), investment in manufacturing could expand the cannot be expected to capture all such activity locally, yet there are certainly opportunities to capture a greater share.

²⁷ Fourth Economy, Economy RI, 2013

²⁸ Tourism District Managers, RI Tourism Development Goals and Objectives, January 2014

²⁹ Project interview.

³⁰ Tourism District Managers, January 2014.

WORKING IN RHODE ISLAND

This section provides some of the key data points and trends associated with employment and workforce in the state. The information reported here builds, in part, on the previous sections which examined patterns of employment across the state by municipality and industry sector as well as issues related to population demographics. Focusing more on our workforce, this section examines issues related to unemployment trends, the aging of our workforce and some of the social inequities faced by our workers.

Employment

PRIMARY EMPLOYMENT SECTORS

In 2012, most Rhode Islanders working in the private sector were employed in Health Care & Social Assistance (78,578), Retail Trade (46,905), Accommodation & Food Services (44,131), and Manufacturing (39,622). Together,

AVERAGE ANNUAL EMPLOYMENT FOR 2012				
Total Employment	451,357			
Private Sector Employment	392,278			
Health Care & Social Assistance	78,578			
Retail Trade	46,905			
Accommodation & Food Services	44,131			
Manufacturing	39,622			
Administrative & Waste Services	24,102			
Finance & Insurance	23,311			
Professional & Technical Services	21,472			
Educational Services	18,739			
Other Services	18,269			
Wholesale Trade	16,843			
Construction	16,002			
Mgmt. of Companies & Enterprises	10,513			
Information	9,565			
Transportation & Warehousing	9,308			
Arts, Entertainment & Recreation	6,618			
Real Estate, Rentals & Leasing	5,782			
Utilities	1,055			
Agriculture, Forestry, Fishing & Hunting	717			
Mining	188			
Government Employment	58,599			
Local	32,416			
State	15,938			
Federal	10,245			

these four sectors employed over half (53.2 percent) of the private sector workers in the state. This pattern is consistent with other New England states. Public sector employment in Rhode Island, particularly at the local government level, accounted for 13 percent of those employed.

UNEMPLOYMENT TRENDS

According to DLT reports, the numbers of both unemployed and employed have decreased from 2012 to 2013. More specifically:

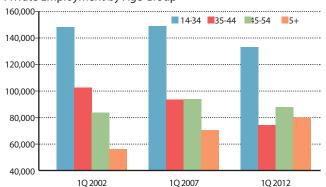
- Number of unemployed falling: The number of unemployed individuals has fallen since peaking at 68,100 in February 2010 to 50,100 in August 2013. In comparison with August 2012, unemployment is down 8,200 over the year.
- Number of employed also falling: The number of employed individuals had been slowly increasing from the end of 2011 through 2012. However, in 2013, the number of employed has declined five of the first eight months and in August was 5,400 below the start of the year.

Workforce Trends

THE AGE OF RHODE ISLAND'S WORKFORCE

Between 2002 and 2012, private sector employment decreased by 3.5 percent. This loss particularly impacted workers under the age of 45. Such workers saw a loss of 41,631 jobs during this period, which accounted for 27.3 percent of the 35 to 44 year-old private sector workforce and 9.4 percent of the 14 to 34 year-old private sector workforce.

Private Employment by Age Group



Percent of Private Employment by Age Group

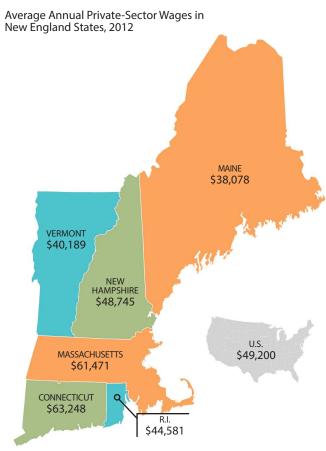
AGE GROUP	1Q 2002	1Q 2012	
14-34	37.8%	35.5%	
34-44	26.2%	19.7%	
45-54	21.6%	23.5%	
55+	14.4%	21.3%	

Source (both figures): LEHD, RI DLT Rhode Island Employment Trends and workforce Issues. 2013

For older Rhode Islanders, however, this same time period saw an increase in the private sector workforce: 42.4 percent for those 55 years and older and 5.2 percent for those between the ages of 45 and 54. Their share of private employment is also increasing. For example, from 2002 to 2012, workers 55 and older grew from 14.4 percent to 21.3 percent. Those 35 to 44 years saw a decline in their share of the workforce from 26.2 percent to 19.7 percent.

REGIONAL COMPARISON OF WAGES

Rhode Island's average annual private sector wage, at just under \$45,000 (2012), is ten percent lower than the national average and 25 percent lower than both Massachusetts and Connecticut. This relatively low annual average private wage rate reflects, in part, the loss of higher wage manufacturing and financial services jobs over the past ten years, in particular. However it can also be attributed to the fact that Rhode Island lacks economic drivers like greater Boston and Fairfield County that bolster average wages in Massachusetts and Connecticut, respectively. Many of the occupations that have increased during that same period pay far less in annual wages, which helps to explain the relatively low annual average wage rate.

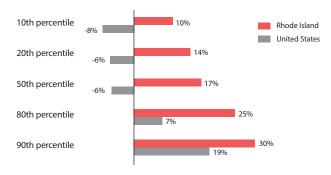


Source: U.S. Department of Labor, Bureau of Labor Statistics

ALL WAGES ARE INCREASING, BUT HIGHEST GAINS GO TO TOP EARNERS

Income inequality, as measured by the Gini coefficient, has increased over the past 30 years, but remains slightly below the national average. Rhode Island ranks 59th in income inequality compared to the largest 150 regions in the Nation. This ranking has changed little over several decades, as the state's standing was 61st in 1979.

Real Earned Income Growth for Full-Time Wage and Salary Workers Aged 25-64, 1979 to 2006-2010



Wages (adjusted for inflation) have increased in Rhode Island over the last three decades, contrary to national trends of declining or stagnant wages.³¹ However, the chart at right shows how higher wage earners are seeing greater increases in earnings relative to lower wage earners.

Furthermore, Rhode Island's middle class is shrinking. Since 1979, the share of households with middle-class incomes decreased from 40 to 37 percent. The share of upper-income households also declined, from 30 to 28 percent, while the share of lower-income households grew from 30 to 36 percent.

THE STATE IS LOSING MIDDLE-WAGE JOBS

Following the national trend, over the past two decades, Rhode Island added low- and high-wage jobs, while losing middle-wage ones. The loss of middle-wage jobs is a weak point, because these jobs are often accessible to workers without four-year college degrees. This is consistent with the findings, above, that wage growth has been faster for high-wage workers and slower for low-and middle-wage workers. It identifies an area of vulnerability in Rhode Island's economy and an issue on which the state can focus its economic development strategy through supporting middle-wage industries and preparing our workforce for those new job openings.

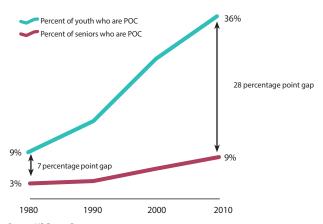
Data examined from the Bureau of Labor statistics for the Providence Journal's series "Middle Class Squeeze" show that examining a shorter record of data, from 2003 to 2013, shows that Rhode Island's wages have not increased significantly

RHODE ISLAND'S FUTURE WORKFORCE DIVERSITY

Population growth among people of color is driven by the growth in young people (those under age 18, as of 2010). Indeed, persons under the age of 18 in Rhode Island are far more likely to be of color than persons who are 65 years of age or older. More than one-in-three people younger than 18 were identified as a person of color in 2010, up from nine percent in 1980.

Importantly, this youth population represents Rhode Island's future workforce. Where they live and the

Percent of People of Color by Age in Rhode Island



Source: US Census Bureau. Note: Gap value may not add to percentage values shown due to rounding.

quality of their education and training opportunities will be critical to providing Rhode Island with a future competitive workforce. All of the state's communities of color tend to be younger than its white population. The median age of its fast-growing Latino population, for example, is 26, or 16 years younger than the median age of 42 for the white population.

As the baby boomer generation ages out of the workforce, minority workers will be essential to filling the future workforce needs of local industry. As identified above, too many minorities are not currently in the workforce. Further, high school graduates, while accounting for approximately 28 percent of the population (25 and older), made up a much larger share (38 percent) of those collecting state unemployment insurance benefits in June 2012, demonstrating the lingering impact the recession has had on this group.³²

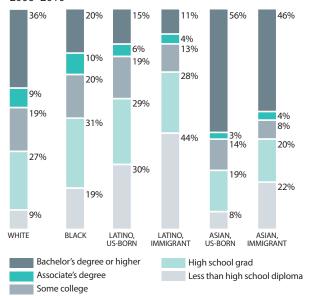
Equity Issues for Our Workforce

EDUCATION AND SKILLS GAP

By 2018, 42 percent of jobs in Rhode Island will require an associate's degree or higher, but just over 40 percent of the entire state workforce currently has an Associate's Degree. Further, only 21 percent of U.S.-born Latinos, 15 percent of Latino immigrants, and 30 percent of African Americans had that level of education or higher as of 2010.

The skills gap, however, is not simply educational. The Equity Profile of RI, and significant anecdotal findings from the RhodeMap RI process, identified other social and financial barriers to employment for all Rhode Islanders, and, increasingly so, for communities of color. Given the significant role communities of color are expected to play in Rhode Island's future workforce, it is critical that they obtain the necessary education and skill sets to take advantage of career path opportunities.

Educational Attainment by Race/Ethnicity/Nativity, 2006–2010



Source: IPUMS; universe includes all persons ages 25 through 64

LOCATION OF JOBS AND HOUSING FOR LOW-WAGE WORKERS

A low-wage jobs to affordable rental housing ratio in a county with a higher than regional average ratio indicates a lower availability of affordable rental housing for low-wage workers in that county relative to the region overall.

Providence is the only county in Rhode Island with a low-wage jobs to affordable rental housing ratio that is lower than the statewide average (2.2). All other counties in the state have a much higher ratio, indicating a potential shortage of affordable units. Washington County's ratio

³² RI Department of Labor and Training, Labor Market Trends, 2013

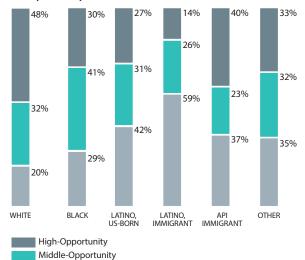
is the highest, at nearly double the statewide average. Even in Providence County, while the average rents may be less expensive, that does not necessarily mean the homes are safe and healthy, regardless of their proximity to jobs. This mismatch of jobs and housing is significant, as it decreases employment opportunities for populations who are already economically disadvantaged. While one may not always be able to secure a high wage job, having access to quality affordable housing can help attenuate the high costs of living in urban areas.

ACCESS TO HIGH-OPPORTUNITY JOBS

The Equity Profile of RI created an Occupation Opportunity Index that looks at job quality and job growth to classify jobs as high, medium, or low opportunity. Latino immigrants are the least likely to be in high-opportunity jobs, with the majority in low-opportunity ones. People of other or mixed racial backgrounds, African Americans, and U.S.-born Latinos are also less likely to be in high-opportunity jobs.

In addition to educational attainment, racial discrimination, work experience, social networks, and English-language ability can be contributing factors to determining access to high opportunity jobs.

Opportunity Ranking of Occupations by Race/ Ethnicity/Nativity in Rhode Island



Low-Opportunity Source: US Bureau of Labor Statistics

RACE, GENDER AND WAGE

In general, people of color experience disproportionately high levels of unemployment regardless of education level, and are more likely to receive lower pay. While it is expected that employment opportunities and wages will increase with higher educational attainment—at nearly every education level, Rhode Island's communities

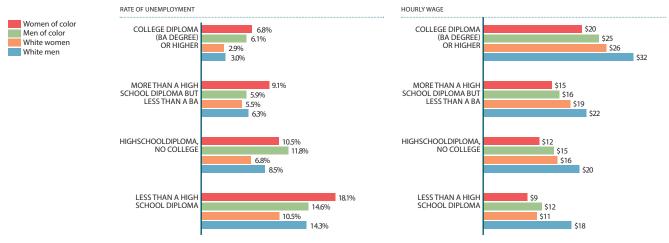
Communities of color are essential to the state's economic success.

Minority populations are underrepresented in the workforce, having greater difficulty accessing middlewage jobs, attributable to educational performance (language barriers, lack of training, or lack of support in the K-12 educational system). As communities of color continue to grow, greater participation of people of color in the Rhode Island workforce will be essential for Rhode Island to remain economically competitive.

Past history and population growth trends suggest that minority-owned small businesses offer great potential to create jobs in Rhode Island. Many of Rhode Island's minority businesses are small, familyrun enterprises. However, compared to national and regional performance metrics, minority owned businesses in Rhode Island fare relatively poorly on a number of performance measures, including the share of employer owned small businesses (e.g., firms which create employment for more than just the owner of the business) and average gross receipts of minority-owned small businesses. For example, Rhode Island African American- and Latinoowned small businesses, in 2012, had average annual gross business receipts which were 56 percent and 38 percent of the national averages (respectively). Further, Rhode Island has struggled for years to meet the goals of its Minority Business Enterprise program.

Cultural differences, language barriers, or the business' small size can make accessing capital, meeting regulatory requirements, and acquiring formal business training particularly challenging. These factors limit the ability of minority-owned small businesses to expand and thrive. While these challenges are not unique to minority-owned businesses, they are particularly prevalent in the Latino, African American, and Asian populations and will have adverse consequences for Rhode Island's future economic expansion and health if not addressed in the near term. Further, economic inclusion is imperative for the state's overall economic health. Higher unemployment rates result in higher Temporary Assistance for Needy Families (TANF) costs, and a need for more low income housing, food assistance programs, etc. When employment rates across populations are high, income rises, the population requiring those services decreases, and local and state revenues increase.

Impact of Ethnicity, Race and Gender on Unemployment and Wages



Source: IPUMS

of color receive lower wages when compared with whites. Similarly, data shows that women are consistently paid less than men despite having the same education level.

Unemployment rates are 3.5 percentage points higher and wages are about \$6.50/hour lower for Rhode Island's people of color compared with whites. On a full-time annual basis, that equates to earning an average of \$13,520 a year less than white adult workers.

Statistics and information related to employment and wages in Rhode Island today send a series of "mixed messages." While unemployment continues to fall as we emerge from the recession, the size of our workforce has also decreased. Relative to the rest of the region, Rhode Island's cost of living is lower than in other states, but so are our wages and recent data suggests that wage increases are not keeping pace with increases to the cost of living. Furthermore, while job numbers overall are beginning to show increases, the number of middle-wage jobs that might provide higher quality of life for Rhode Islanders is decreasing.

Other important issues facing our workforce are related to demographics. The number of individuals over 45 in the workforce is increasing significantly, leading to a situation where many individuals will begin to vacate their positions for retirement. While this may create opportunity for advancement for younger workers, or perhaps create jobs for new workers, these businesses will require assurance that the workforce is ready to fill these openings. Finally, consistent with conditions across the country, Rhode Island's communities of color and our women workers experience significant

inequities related to the workplace and business development (see figure on this page). Wage rates, likelihood of employment, and rates of business ownership in these groups demonstrate that Rhode Island is missing opportunities for economic growth. Addressing these inequities in order to increase participation of communities of color in our workforce can be viewed as a proactive economic development policy.

2

WHERE DO
WE WANT TO
BE IN TWENTY
YEARS?

A Vision for Rhode Island's Economy

Creating a thriving and equitable economy in our state begins with a vision that pulls from the ideas and passions shared by hundreds of individuals in the RhodeMap RI process who represent an amazing diversity of interests and ideas. Through all of the research, the stories, and the conversation that occurred during the engagement process, several important themes emerged:



RHODE ISLANDERS ARE THINKING DIFFERENTLY ABOUT ECONOMIC DEVELOPMENT

Participants in the RhodeMap RI process stressed the need for clarity, accountability, innovation, and social responsibility at all scales of economic development. Whether looking to redevelop an historic mill complex, properties in downtown Providence, or a new village in Exeter, partnerships between the public and private sector, state-of-the-art permitting, broader community benefits, and

greater sustainability need to be part of the equation. Participants made it clear that the status quo will not move us forward. The State needs to be able to try new things—even if that means we sometimes fail. If we set our expectations in advance, determine the data we need to track success or failure, and hold ourselves and our partners accountable, we can explore new policies and actions, see whether or not they are doing what we want them to, and change course accordingly.



RHODE ISLANDERS ARE THINKING DIFFERENTLY ABOUT THE WAY WE DO BUSINESS

Our state agencies can facilitate economic growth by playing the role of a convener, providing a hub for information across many topics and a place where different businesses, non-profits, citizens, and others can find each other and work together. We should continue efforts to better coordinate State government across and within agencies, making it more efficient and customer service oriented. We should use data to

track the outcomes we want our policies and programs to achieve, so that the State can hold itself accountable. Also, any time we make a public investment in a private entity, we should establish clear expectations for what we need in return, and then hold the recipient accountable.



RHODE ISLANDERS ARE THINKING DIFFERENTLY ABOUT OUR STATE Our state is full of talented people ready to build economic success from Rhode Island's extensive list of assets. In the face of continued bad press about economic development in Rhode Island, many participants stood firm on the idea that we are uniquely positioned to take advantage of what we have today and what is coming in the future. Our coastline, historic buildings, manufacturing history, universities, cultural diversity, farms, and natural

resources are just some of the assets that provide a platform for strategic economic development. All of these assets should lead to a growing and vital economy in Rhode Island with more jobs, more people, more graduates staying here, and a housing supply and infrastructure that meet our changing needs.



RHODE ISLANDERS ARE THINKING DIFFERENTLY ABOUT EACH OTHER Discussions about unemployment, education, poverty, race, class, and acceptance were a part of the broader exploration of economic development that helped to create this plan. Delving into these topics was challenging for all participants and consensus was often difficult to achieve. But the opportunity for people to engage in these discussions was, for many, a "first." These conversations and debates raised levels of awareness and, in

some cases, broadened the way participants think about economic issues. It is hoped that RhodeMap RI will serve as the starting point for a higher level of public discussion about the deepest socio-economic challenges that face Rhode Island. More immediately, the focus on social equity has set the expectation that state agencies will continue to look more closely at who will (and will not) benefit from economic policies. Wherever possible, the state must look to increase social equity through its investments in economic development.

The Vision

These themes emerged early in the RhodeMap RI process and provided participants with the opportunity to think about how they would shape the state's approach to economic development. The themes also shaped the way the different participants envisioned the long-term outcomes for the plan. Working with various groups in the early phases of the process a vision statement for the Economic Development Plan was developed. This statement looks forward 20 years and describes where we plan to be:

In 2035, Rhode Island will be a state where...

- Where the state as a whole is more competitive in the regional, national, business climate that is efficient, consistent, and transparent.
- innovators of all backgrounds will
- bringing new jobs and new housing of life for our most disadvantaged
- Where the labor force is one that is strong and diverse, has access to

learning opportunities, and can adapt

- Where all residents can maintain opportunity, and enriches their
- is sustained below the regional
- Where a vibrant economy supports a healthy population enhances
- Where a sustainable economy resiliency of our built environment,

Vision

The Goals

To achieve the vision articulated in this plan for Rhode Island's economy, a series of Goals and Policies were developed. These are presented in more detail and with greater context in Part Three of the plan.

- Provide educational training opportunities to activate a 21st-century workforce.
- Poster an inclusive economy that targets opportunity to typically underserved populations.
- Support industries and investments that play to Rhode Island's strengths.
- 4 Create great places by coordinating economic, housing, and transportation investments.
- Create a stronger, more resilient Rhode Island.
- Make Rhode Island a state where companies, our workers, and the state as a whole can develop a competitive advantage.

Goals

ACHIEVING **THE VISION**

OVERVIEW

The information in Part One: "A Snapshot of Our Population and Our Economy" provides a summary of important data and information that served as a backdrop for the project and helped participants to develop a shared understanding of the basic existing conditions in Rhode Island relative to economic development. As the RhodeMap RI process evolved, a series of "opportunities and challenges" continued to drive policy discussions within groups of diverse interests. Some of these opportunities and challenges built directly on the information provided in Part One. Other opportunities and challenges emerged more organically from the community outreach process, building on the work of different committees and agencies looking to add a richer perspective on specific issues. Once the full range of issues was assembled and vetted, the six Economic Development Goals were used to organize and refine them into a more concise narrative. Before the discussion of these goals, Part Three begins with some overarching thoughts about Land Use and Job Creation.

GROWTH CENTERS: A COMMON THREAD

The State of Rhode Island provided a comprehensive policy framework for how our land would be developed

"The distinction between Rhode Island's historic urban centers and neighborhoods and their rural natural surrounding areas is still strong. It remains the most important feature of the State's land use pattern."

-Land Use 2025

and protected in its State Guide Plan Element Land Use 2025. This document is grounded in several overarching principles, one of which

is "Sustaining the Urban-Rural Distinction." As part of this approach, the state identifies an Urban Services Boundary, which is "based upon a detailed land capability and suitability analysis that demonstrates the capacity of this area to accommodate future growth." The document calls for the State and municipalities to concentrate growth inside the Urban Services Boundary and within locally designated centers in rural areas, using the local Comprehensive Plan as one of the primary mechanisms for implementation.



Recognizing that growth will continue to occur outside of the Urban Services Boundary, Land Use 2025 goes further to describe "a constellation of centers" in our more rural communities. These centers would be the vehicle for directing growth away from farm and forest areas into historic or new growth centers that are appropriately scaled to the community setting. Villages like Chepachet, Shannock, and Kingston all represent villages that can accommodate moderate levels of growth at scales appropriate to the historic setting. In Exeter, where there is no historic village setting to speak of, the Town has developed detailed plans and regulations that provide opportunity for a new village center to emerge.

This concept of compact village development—in part due to the guidance in Land Use 2025, RIDEM's Rhode Island Low Impact Development Site Planning and Design Guidance Manual, and numerous training modules from Grow Smart RI—is moving forward in many communities across the state. Building on this momentum, Growth Centers guidance continued to develop on more increasingly sophisticated levels in the state during 2013 and 2014. Part of the RhodeMap RI process included the development of detailed technical guidance on the tools needed to establish and regulate these areas. This effort was, in turn, bolstered by the release of RIDEM's



Village Training Manual and a supporting document entitled Rhode Island Transfer of Development Rights Manual. These documents represent one of the most comprehensive suites of technical guidance in the country for implementing Growth Centers at a wide variety of scales and design.

The concept of Growth Centers serves as a "common thread" throughout this Economic Development Plan, touching directly or indirectly on all aspects of the policy framework. While it is recognized that not all economic growth will occur within designated Growth Centers, the investments, incentives and strategies put forth in this plan are meant to reinforce growth patterns that concentrate development in areas with existing and planned infrastructure. Growth Centers are viewed as one of the primary mechanisms for coordinating investment in transportation, housing, and job creation in a manner that creates "places" where residents, workers, business owners, and visitors can have access to a variety of services and amenities.

Recent studies have shown a correlation between compact, human-scale urban networks and positive health outcomes for the people who live there related to obesity, diabetes, high blood pressure, heart disease, and asthma. Growth Centers can also accommodate a variety of housing choices throughout the state affordable to a wide range of incomes, providing opportunities for lower-income people, seniors, people with disabilities, and many, many others to live integrated lives within these communities and take advantage of all the resources these places have to offer. As state and local agencies consider the application of incentives or the investment of public dollars in accordance with the strategies provided in this plan, priority should be placed on actions that will create or strengthen Growth Centers. These types of investments will not only yield economic gains, but support the creation of more resilient and healthy communities and opportunities for higher quality of life.

JOB CREATION

Over the course of the planning process, there was much discussion about the relationship between this plan and job creation. In short, and whereas the state itself does not "create" jobs beyond the people it directly employs, the aim of this plan is to help foster the underlying environment for private businesses, institutions, nonprofits, entrepreneurs, and others to create more jobs in Rhode Island and to ensure that more people have the



skills and education to match these jobs. And when the state does make direct investments that result in private jobs, it can have measures that prioritize well-paying jobs that are accessible to all people in the state, including people with particular barriers to employment.

The plan identifies some of the overarching challenges with matching labor and jobs (gaps in skillset, aging workforce, lack of education alignment, access to higher opportunity jobs, etc.) under Goal 1 below, which focusses on workforce training and education. Goal 6 discusses ways to improve the business climate, particularly through clear, consistent regulatory reform that presents a transparent process through which development can occur without compromising community health, safety and well-being. Such strategies are meant to make it easier for businesses to create new jobs. Goal 3 lays out the types of industries that build on our strengths, and have the potential for creating sustainable, long term jobs in Rhode Island. Additionally, this plan also speaks to improving the quality of life in Rhode Island, and protecting and preserving the natural, cultural, and historic assets that contribute to our quality of life. Much research suggests that quality of life, along with the other factors above, plays a significant role in where people choose to live or start and grow a business.

Moving Forward

Under each Goal of this plan is a section called "Moving Forward." These sections lay out the overarching policies for each goal. The policies were all used to organize, combine, and filter the hundreds of ideas that were generated during the RhodeMap process into a more concise list of strategies that will be pursued by local and state governments, academic institutions, community non-profits groups, and business organizations.



Provide educational and training opportunities to activate a 21st-century workforce.

he outcomes of the workforce development and educational systems in Rhode Island play a pivotal role in the overall economic well-being of the state. As stated in the Governor's Workforce Board's Strategic Plan, "there exists no greater threat to our collective prosperity in Rhode Island—and no greater opportunity—than our ability to raise the skill level and improve the competitiveness of our workers." Investing in the education and training of the state's workforce is a critical component of a statewide economic development strategy for the following reasons:

- Training and education increase access to jobs for people who are unemployed or under-employed, as well as improving the wage earning potential for these individuals (see sidebar).
- Training and education assist employers by providing more skilled and productive workers. Training incumbent workers (e.g., those already employed) also provides the opportunity for an employer to increase their skill base and productivity, and remain competitive as their industry changes.
- 3. Training and education are important to the State of Rhode Island because, ultimately, they reduce the number of unemployed persons in the State and elevate the overall wealth and health of the state's economy.
- 4. Disparities in educational outcomes are particularly significant for young people of color, who are also the backbone of our future workforce. If the state does not address these disparities, a significant and growing portion of our population will not be able to fully participate and benefit from the state's economy.
- 33 Governor's Workforce Board of RI, Strategic Workforce Plan for Rhode Island: 2009-2014.

LEVEL OF EDUCATION COMPLETED	AVERAGE YEARLY EARNINGS
High school dropout	\$10,894
High school graduate	\$25,383
Some college	\$29,181
Bachelor's degree and above	\$65,387

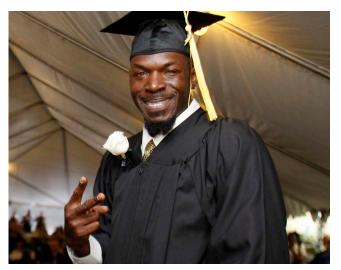
Source: 2011 U.S. Census data

(On top of access to equal educational opportunities, the state should take proactive measures to ensure that young people of color do not face disparities in discipline, both at school and in the juvenile justice system that would put them at a disadvantage in the future.)

The system of education and workforce training in Rhode Island is complex to say the least with the full array of local public and private schools, technical schools, colleges and universities, continuing education and workforce training. With regard to workforce training, the state government concentrates most of its efforts through the Department of Labor and Training (DLT) and the Governor's Workforce Board (GWB). While these programs and institutions have achieved some success in cultivating workforce opportunities, there are challenges in Rhode Island that have not yet been met and opportunities that have not been captured. This plan does not try to address all of the educational needs of the state, but rather some critical areas that came up during the public process and that are well connected to economic development. There is still a need for the state to assess its entire educational system, from early childhood to adult, in a holistic way.

Public K-12 Education in Rhode Island

The importance of a strong, effective public education system in preparing young people to be fully engaged in Rhode Island society and the economy cannot be over stated. This plan cannot pretend to address the complexities of the public education system (a subject beyond both the scope and expertise of this plan), nor does it suggest many specific strategies for K-12 education. However, it would be short sighted not to state here that Rhode Island should continue to do everything in its power to ensure that every child in every community in the state has access to high quality public education, and that our performance as a state should match or exceed all of our New England neighbors and the nation as a whole. The success of our young people, both as well-rounded human beings and as productive workers, depends on this. Further, a well-regarded public education system is an important competitive advantage for attracting and maintaining residents and businesses.



Several key indicators suggest that, over the past decade, Rhode Island has improved the performance of public schools overall. However, there is a need for higher levels of improvement. The State of Rhode Island Public Education, 2014 reported that "[while] high school NECAP performance has improved from 2009 to 2013, we still have many students not prepared for college and career. In the 2012-13 school year, 69 percent of the students had to enroll in at least one remedial course at the Community College of Rhode Island, costing students around \$5.4 million—all without earning college credit."

This report continues to look at areas of academic performance in Rhode Island related to both the region and the nation showing varying results when compared to other jurisdictions, but general upward trends. Importantly, this report corroborates the findings of the Equity Profile when data for academic performance are disaggregated by race, ethnicity and income. These data demonstrate, again, that Rhode Island's low-income communities and communities of color experience disproportionately high barriers to academic achievement. These statistics demonstrate that Rhode Island needs to take an aggressive approach to addressing social inequities, particularly in our urban core communities. As education reform continues, the State should develop policies and strategies that specifically target these disparities. On top of access to equal educational opportunities, the state should take proactive measures to ensure that young people of color do not face disparities in discipline, both at school and in the juvenile justice system that would put them at a disadvantage in the future. It should also continue to explore ways to encourage regionalization of local school systems, where doing so would be more cost efficient and produce better student outcomes. A more comprehensive discussion about developing an inclusive economy is provided under Goal 2.

Aligning Education, Workforce, and **Economic Development**

Two recent reports on Rhode Island's workforce development system—the CCRI: Building a 21st Century Workforce34 and Rhode to Work35⁻identify system coordination as a top priority. The main finding from the CCRI report highlights the need "to support an industry-focused, state-level systemic and strategic approach to career pathways, tapping the expertise of education, workforce development, and economic development partners." The Rhode to Work report's first recommendation, "Empower a single, seamless, and cohesive workforce training system for Rhode Island," cites the need to create a unified workforce development system that can work with CCRI and employers to create meaningful credentials that address middle-skills and career readiness. A recent analysis of the Governor's Workforce Board Industry Partnerships program corroborated this recommendation, further suggesting that Industry Partners should be required to increase their collaboration with state labor and industry initiatives.

The existing disconnect between industries with talent gaps and the educational system at all levels needs to be addressed if the state is to meet the long-term talent demand of growing industries. On the most sweeping levels, reform of our public educational system is required from the earliest points in education (e.g., early childhood and pre-K) through grade 12. In postsecondary and university environments, direct awareness campaigns and strong alignment between course offerings and industry needs are required so that students and businesses can anticipate the needs of each other in a more seamless way. For example, connecting Science, Technology, Engineering, Arts, and Math (STEAM) professionals directly with the classroom environment can raise awareness simultaneously of teachers, students and business professionals about the expectations and needs of all parties. Other more intensive high school level programs, like the award-winning Worcester, MA Technical High School could be used to help shape programs in Rhode Island.36 In our own state, success stories are becoming more common with technical schools taking an aggressive approach to career training and state agencies bringing expertise into the classroom (see sidebar)

³⁴ Rhode Island Economic Development Corporation and Community College of Rhode Island, April 2010.

Rhode Island Senate Policy Office, January 2014

National Association of Secondary School Principals, PL Vol. 11 Sept. 2010-May 2011, Breakthrough Schools, Worcester Technical High School Laying the Foundation for Future Success

Adult education programs in Rhode Island represent another area where linking program content to real workforce opportunity is essential. These programs provide literacy, English language instruction, career training, and traditional classroom education to adult

Governor's Workforce Board Priorities for Fiscal Years 2014-2015

- > Employer Partnerships
 The public workforce system
 must engage employers as
 full partners to ensure that
 training and education are
 responsive to, and aligned
 with, employer needs.
- > Work Readiness All youth and adults must have the opportunity to acquire core literacy, numeracy and work-readiness skills necessary to succeed in the workplace.
- > Career Pathways
 The public workforce system,
 in partnership with employers,
 must provide youth and adults
 with a continuum of training,
 education, work experience
 and supportive services that
 lead to good jobs and careers
 in high-growth, high-demand,
 strategically important sectors
 of the Rhode Island economy.
- > Public Workforce System The public workforce system must be fully integrated in order to coordinate planning, funding, and services; evaluate and report the effectiveness and efficiency of services; and align with state economic development strategies.

learners—skills that are critical to improving career prospects and strengthening upward mobility. Currently, adults who wish to enroll in these programs may have up to a one-year waiting period, depending on the program. As of the writing of this report, Rhode Island's **Adult Education** waiting list includes approximately 700 English language learners; 500 adults in need of basic education (currently at very low levels of literacy); and

100 adults that are at or near the high school level. The Rhode Island Department of Education (RIDE) has authority over adult education and distributes funding to over 35 agencies that administer adult education programs. Beginning with a pilot program in 2009, the funding allocation for adult education has been determined through a performance-based calculation that incorporates federal performance indicators, including the number of students who obtain their GED, the number who enter postsecondary education or training, and the number who enter employment. RIDE is in the process of setting benchmark goals for adult education programs regarding students who go on to enroll in postsecondary education after earning their GED. Additionally, a number of non-profit and municipally supported adult education programs exist throughout the state.

Raising Awareness of Career Path Opportunities

Many Rhode Islanders who might otherwise be served by the workforce development system currently lack awareness of the available tools and/or face disorganized information regarding career prospects. For example, a number of participants in RhodeMap RI indicated that students and families often lack information or have misconceptions about what careers in certain fields offer. Students do not often see what they are learning in school in a contextualized way, and therefore do not make the connection between what is being presented in the classroom and their own career development. Overall, participants in RhodeMap RI felt strongly that there remains a significant disconnect between the traditional education system—starting in the primary grades—and the needs/expectations of many employers in the state. Particular issues identified through interviews include: a lack of job preparation and work readiness skills (e.g., how to interview, professional expectations, soft skills, etc.); insufficient or misaligned training at the high-school level and beyond; and a changing business environment, whereby more employers expect job candidates to come trained for a position rather than provide in-house or access to on-the-job training.³⁷ These information and "job readiness" gaps can be particularly wide in immigrant and low-income communities (and especially among refugees) where exposure to a variety of careers may be more limited, an obstacle that can be exacerbated by language barriers.

On a more specific level, greater day-to-day awareness and information access regarding job and job training opportunities would be a relatively low-cost and effective way to improve the outcomes of Rhode Island's workforce development system. Aggressively

37 Project interview



Rhode Island Leaders in Innovative Workforce **Development Programs**

> Preparing Students for Transportation Careers RIDOT, in partnership with the University of Rhode Island Transportation Center (URITC) and the Federal Highway Administration (FHWA) have developed a series of programs intended to introduce middle school, high school, and college students to transportation careers.

Three programs are targeted to middle school students, including:

- The Middle School Robotics Challenge;
- SMILE (Science and Math Investigative Learning) Experience); and
- The two-week Summer Transportation Institute.

> William M. Davies, Jr. Career & Technical High

A Rhode Island success story in vocational education is the William M. Davies, Jr. Career & Technical High School in Lincoln, named a National Blue Ribbon School by the U.S. Department of Education in 2013. In partnership with teachers, parents and staff, Davies has improved students' achievement through better classroom instruction, an expanded curriculum, rigorous professional development, and data-informed assessments of student achievement

Davies students not only are able to improve their academic levels in core subject areas, but also can achieve industry-based certifications and advanced college credit with the help of the business community and institutions of higher education.

marketing a multi-lingual database for job opportunities through Internet and social media outlets could increase awareness and create better communication between prospective employees and existing industries.

Apprenticeships, Internships and **Experiential Learning**

Although education systems must surely be improved, it is worth noting that workforce development is a shared responsibility that can best be met when businesses are actively engaged as full partners with education and training providers. Generally speaking, the rate at which firms invest in labor training has broadly and significantly declined while hiring practices have simultaneously become more selective. At a time when businesses are facing significant challenges related to skills gaps, demographic shifts, and an aging workforce, it is increasingly important for businesses to recommit to investing in workforce training. By partnering with education and training providers and the public workforce system, businesses can raise awareness of the workforce needs and career opportunities that exist in their company and/or sector. Internships for students, externships for teachers, and support for curriculum development and experiential learning are some of the ways that businesses can partner with education and training providers for their mutual benefit. Rick Brooks, the Executive Director of the Governor's Workforce Board, has stated that "business cannot be expected to replicate the functions of the education system [n]or can education be expected to produce the 'perfect' candidate for every business."38 Successful workforce development requires the collaboration of both. The Governor's Workforce Board has created a funding initiative called the Innovative Partnership grants, developed in response

to the priorities that were established in the Biennial Plan, i.e., supporting partnerships between employers and education & training providers to provide workreadiness, experiential learning, skills training, and career pathways for unemployed or underemployed adults and youth.

APPRENTICESHIPS

Though considered more of a traditional approach, apprenticeship and experiential learning opportunities are important for workforce development in Rhode Island. Apprenticeships have proven to be extremely successful workforce development tools with strong net impacts on employment and earnings at a very low public cost. Rhode Island programs are actively working to expand the number of available apprenticeships beyond the traditional trades and into new industries. For example, in the past two years, the State Apprenticeship Council has approved three non-trade apprenticeship programs for Networking Associate (information technology), CNC Machinist (manufacturing), and Cost Estimator/Project Manager (construction). While the State does offer a generous tax credit for employers providing apprenticeships³⁹, the eligible operations only include qualifying machine tool and metal trade operations. According to Rhode to Work, several initiatives are underway to change this limitation:

The FY 2014 budget passed by the General Assembly included funding for additional non-traditional apprenticeship programs. The Governor's Workforce Board is directed to annually award funding to at least one new initiative developed and operated by one of the Board's Industry Partners that meets the state and federal apprenticeship standards, is approved by the State Apprenticeship Council, and

³⁹ Equal to the lesser of 50% of the actual wages paid to each apprentice or \$4,800

expands the portfolio of apprenticed occupations beyond the traditional trades.

In addition to expanding the number of industries eligible for the State's tax credit program, Rhode Island could consider additional incentives for businesses to establish or expand apprenticeships. A number of states including South Carolina, Michigan Arkansas, Louisiana, and West Virginia, have provided tax incentives, or similar inducements, to encourage companies to embrace this effective and reinvented training model. Incentives like these can encourage early adopters to try out an apprenticeships program and help the "first generation" of non-trade apprenticeships get off the ground.

INTERNSHIPS

Employers are looking for candidates that not only have sufficient training and requisite skills, but also adequate work experience that shows the individual can meet the demands of the job. Paid and unpaid internships are an excellent way for candidates to obtain practical work experience, strengthen their resumes, and learn "soft skills" such as punctuality and teamwork. Internships are also a powerful tool to connect college graduates with the job market and retain them in the state. Studies indicate that students who participate in internships are considerably more likely to receive a job offer after graduation than those who do not.

Two recently-launched initiatives are designed to increase the number of quality internships in Rhode Island. Both should continue to be actively marketed throughout the state, with additional outreach to urban communities and students of color.

bRIdge.jobs is a web portal operated by the Rhode Island Student Loan Authority (RISLA) that helps thousands of college students find internships at participating local companies, and conversely, helps local companies find interns. The program is the result of a strategic public-private partnership between the Governor's Workforce Board, the Association of Independent Colleges and



Universities, RISLA, the state's 11 public and private colleges and universities, Rhode Island's Chambers of Commerce, and local businesses.

A second program, included in the FY 2014 budget, is the Rhode Island Work Immersion program—designed to provide subsidized work experiences for Rhode Island-based college students and unemployed adults. The program supports the expansion of paid internships for college students by providing a 50-percent wage subsidy to participating eligible businesses. The program also provides a 50-percent wage subsidy to eligible employers that provide a 400-hour paid work experience to unemployed adults. In each instance, employers that permanently hire the student or the unemployed adult at the completion of the internship are eligible to receive bonus funding.

Families Reentering the Workforce

Rhode Island has generally retained one of the highest unemployment rates in the nation since 2007. As the State continues The U.S. Temporary Assistance to Needy Families program ("TANF") provides temporary cash assistance to families based on eligibility criteria. Under the federal TANF program, states receive block grants to develop and operate programs, partially designed to help needy families achieve self-sufficiency. Effectively preparing TANF recipients for work and careers will increase the pool of skilled talent in the RI workforce.

to emerge from this situation, a serious challenge that needs to be addressed includes getting those people who recently lost their jobs back to work. Extended unemployment can put tremendous strain on families trying to make ends meet, and the shift in post-recession job markets can make it very challenging for these workers to find the jobs for which they are suited. "RI Works" is the state Temporary Assistance to Needy Families (TANF) program (see inset) and represents one of the key services designed to address this situation.

The U.S. Office of Family Assistance monitors each state's rate of work-related activities in which TANF participants are involved (called the "work participation rate"). Across the nation, the average rate of all families in TANF programs who are engaged in eligible work activities is 29%. In RI, that rate is 12%. Despite this lower performance rate, there are some very promising initiatives underway throughout Rhode Island that can be brought to scale. There are also proven models in

other states that can guide Rhode Island in helping TANF recipients return to work. Such best practices include:

- Increasing the use of "employability" and "career readiness" certificates:
- Providing support services to help recipients stay in school and obtain certificates or degrees; and
- Developing career pathways to connect low-skilled adults to careers in high-demand occupations.

A critical component of career pathways for the TANF participant includes academic and career counseling, child care, and transportation. Successful pathways initiatives coordinate adult education, job training, and college degree programs, and connect these programs to the workforce needs of local employers. The pathways framework is student-centered, providing each recipient with the training needed to pursue a specific career path. As Rhode Island continues to look for social enterprise assistance in returning people to work who experience unusually high barriers, programs like Rhode Island's TANF can provide an important reference. Efforts are already underway within the program to focus on the needs most recently identified such as increasing basic skills, training for real job opportunities, and meeting high standards for performance outcomes.

Takeaways

There is little doubt that effective workforce development and education are crucial determinants of long-term economic prosperity and inclusion. Active policy intervention and robust workforce development programs are required to contribute to a meaningful reduction in the high rate of unemployment that currently constrains the economic progress of the state. The Governor's Workforce Board has stated that "the talent, ingenuity and work ethic of the people of Rhode Island have traditionally been our greatest competitive advantage. This must remain true if

we are to successfully emerge from these recessionary times."40 Individual challenges and opportunities that must be addressed include:

- The upward trajectory of the state's K-12 public educational system must continue. The state will continue with its unwavering commitment to improvement across the entire system coupled with targeted initiatives to address disproportionate challenges to low-income communities and communities of color.
- The efforts of the Governor's Workforce Board and other institutions to coordinate workforce training programs and increase accessibility can have a significant impact on the overall readiness of our workforce across a diverse set of industry sectors. Better connections should particularly be made between workforce and business development, to ensure we are supporting the expansion of businesses that offer the types of jobs people are being trained for.
- Outreach and education within our schools and our communities can help to raise awareness of career path opportunities and specific educational opportunities that can open doors to employment.
- Apprenticeship and internship programs can be expanded and re-invented in Rhode Island to greatly increase access to an emerging workforce. Rhode Island has many of the necessary programs for effective apprenticeship and internship programs already. Continued investment, scaling, and increased eligibility will make these programs tremendously successful.
- Social service investment will continue to be an important tool for removing barriers to disadvantaged populations, particularly in the wake of the Great Recession.

40 GWB Strategic Plan, 2009-2014.

The Special Role of Public Libraries

Public libraries do and should continue to play a large role in economic development in the state. They provide access to computer technology and the Internet for those who don't have access at home. They are centers for people to look for jobs and communicate with prospective employers. They often offer programs in reading and computer literacy, English as a Second Language, improving life skills and career prospects for people of all ages, and giving school children a safe and productive place to be after school. Their role in supporting our workforce, as well as our creativity and imaginations, should not be underestimated.



Moving Forward

To address the opportunities and challenges described above, and to achieve the first goal of this Economic Development Plan, the State has adopted three overarching policies.

Policy 1: Provide opportunities for career growth and help employers to attract and retain qualified talent.

a. Enact and empower a single, seamless, and cohesive workforce-training system in Rhode Island, overseen by the Governor's Workforce Board as recommended in Rhode to Work. Aligning and coordinating the many training and career pathway initiatives unfolding across the state into a single statewide system are essential to reduce duplication of effort, eliminate confusion, and maximize available resources. This is also essential to increasing career readiness, addressing workforce inequities, and creating greater access to economic opportunity particularly for those who experience barriers to employment and upward mobility. Since unifying the mandates of separate state and federal workforce bodies into a single Governor's Workforce Board, requiring a Unified Workforce Development Expenditure and Program Report, and requesting a Biennial Statewide Employment & Training Plan, the General Assembly has sought to bring cohesion and coordination to the state's workforce training system. Through a number of recent innovations and structural changes (such as the creation of an Employer Advisory Committee), the Governor's Workforce Board has been progressing in this area, and the General Assembly and Governor's Office can provide the tools necessary to take this coordination and strategic vision further, including the creation of a "workforce cabinet." Specific roles for this system may include developing a "one-stop shop," both digital and in person, for workforce training, "job fairs," and other resources throughout the state (targeted to communities in the state with higher rates of

b. Expand STEAM education programs by promoting system-wide industry-academic coordination.

STEAM education is a critical component of developing a workforce for many of Rhode Island's key industries. Recent skills gap studies for information technology, bioscience, manufacturing, and defense, identify STEAM education as a key recommendation. To begin industry-academic coordination, the State can facilitate a forum to improve STEAM education for grades K-16. The forum will work to increase the number of students that participate in recognized high quality STEAM programs inside and outside of the school day. It will also work to coordinate industry resources to maximize their impact on the number of Rhode Islanders who are motivated and prepared to succeed in college-level engineering, engineering technology, computer science, and information technology degree programs. This effort should be specifically designed to be inclusive of students traditionally underrepresented in these fields, including women, students of color, and lower-income students.

Many of the industries that are a focal point in other areas of this plan have spoken to the benefits of this type of coordination. Manufacturing stakeholders have indicated a great need for newly equipped and modernized CCRI training facilities and equipment for manufacturing programs to attract youth and other potential future employees to manufacturing occupations. Bioscience stakeholders have recommended strengthening higher education support for students in STEM fields, including academic and career guidance, and exploring opportunities for industry-education collaboration in recruiting. Defense stakeholders have recommended



unemployment), and much more.

partnering with the engineering schools at URI and UMASS Dartmouth and technician degree programs at New England Institute of Technology, MTTI, CCRI, and other relevant institutions to support engineering pipeline programs and recruitment of students into related undergraduate and graduate studies. Furthermore, they cited the need to champion the realization of the URI College of Engineering's Master Plan and partner with them in building collaborative research areas and student learning opportunities of high relevance to the industry.

c. Expand and increase the number of universitybusiness engagement centers modeled after University of Rhode Island's (URI's) recent successful efforts.

Based on the volume of phone calls and positive reaction to URI's recently opened Business Engagement Center, demand for such universitybusiness communication tools is high. This finding is supported by a recent College and University Research Collaborative survey of over 50 STEAM executives. They found that "senior management also wants the ability to tap the educational system for knowledge updates in their workforce in a responsive, flexible manner." Rhode Island would profit from establishing a "one-stop" clearing house to match educational capabilities to business needs. The Business Engagement Center model could either be replicated and expanded at other universities, or an organization like the AICU could support a Rhode Island-wide Business Engagement Center. Such centers can be used as a way for the business community to provide input into curriculum development based on expected industry trends, anticipated skills gaps, and exciting opportunities in Rhode Island. They can also deepen networks across campuses and institutions, and strengthen connections between the universities and the community. The College & University Research Collaborative is beginning to do this by uncovering and highlighting expertise at the colleges and building cross-college teams. As this model is expanded, universities and the state need to develop a mechanism for widely publicizing the centers and networks to ensure that the business community, including small and minority-owned businesses, is fully aware of their presence and role.

Policy 2: Support reform of the education system to better provide the knowledge and skills necessary for success.

a. Provide a competitive advantage to the next generation of our workforce by preparing our children to enter the educational system. Efforts should include promoting and expanding programs that improve early childhood literacy, and advocating for universal access to prekindergarten (pre-K).

The evidence that access to early childhood learning increases the quality of life of students and decreases costs to society is substantial. From the earliest stages of development, research has linked exposure

to learning environments with continued academic and employment success. For example, research shows that children need to hear at least 21,000 words per day in order for their vocabulary to develop at a healthy

Documented Benefits of pre-K

- · It costs less to educate students throughout the rest of their K-12 careers.
- Students are less likely than their peers to repeat grades, require special education services, or drop out before graduation.
- Students earn more (taxable) income as adults than their peers who did not participate in pre-K.
- · Public pre-K makes it easier for mothers and fathers to continue their careers and contribute to economic productivity.

rate. This research goes further to demonstrate that children in the lowest income brackets miss that benchmark by more than 5,000 words.

Research related to children in the pre-K age bracket shows similar results. Across the country, universal pre-K programs are being pushed by Republicans and Democrats and, where existing programs may not be universal, cities and states are trying to strengthen and expand access. The benefits cited by proponents from diverse backgrounds are far reaching and demonstrate outcomes that reach far into a person's professional development (see sidebar).41,42,43

⁴¹ L. J. Schweinhart et al., Lifetime Effects: The High/Scope Perry Preschool Study Through Age 40 (2005).—See more at www. centerforpubliceducation.org/Main-Menu/Pre-kindergarten/Pre-

Kindergarten#sthash.gxxrRH3l.dpuf 42 Gormley, W., Gayer, T., Phillips, D., and Dawson, B., 2004b. The Effects of Universal Pre-K on Cognitive Development. Washington, DC: Georgetown University, Center for Research on Children in the U.S.—See more at www.centerforpubliceducation.org/Main-Menu/ Pre-kindergarten/Pre-Kindergarten#sthash.gxxrRH3I.dpuf

⁴³ New America Foundation. Pre-K Debates: Access and Equality

b. Re-envision and improve English Language Learner (ELL) programming and instruction in urban core districts, and districts with high ELL populations through the creation of a statewide inter-district ELL task force to leverage and centralize established best practices.⁴⁴

District-wide initiatives around ELL program reform are beginning to receive wider attention nationally, and best practices have emerged that have promise for Rhode Island's districts. In addition to making recommendations for Providence—recommendations that can likely be adapted for other RI urban districts—the Council of Great City Schools also compiled a set of best practices from large urban districts nationwide that have made great strides in ELL programming. The Association for Supervision and Curriculum Development has also compiled a set of best practices for adolescent ELL programs. Several of these practices seem particularly appropriate for the Rhode Island urban context, and it is in the best interest of both the Rhode Island Department of Education as well as the local urban districts to coordinate efforts to identify and implement these practices in Rhode Island on behalf of our ELL students in need of high-quality programming.

c. Continue the momentum to improve K-12 education for workforce education by expanding career awareness and counseling for in-school and out-of-school youth.

An awareness campaign should be organized to interest students in STEAM careers and to educate teachers and parents about what a STEAM career in Rhode Island looks like. Industry and educational leaders will need to work together to establish the components of the campaign. This effort should be specifically designed to be inclusive of students traditionally underrepresented in these fields, including women, students of color, and lower-income students. For programs that target students, the students should be involved in the development of those programs. Potential program elements could include:

 Expanding in-school career counseling. As part of the campaign, redouble efforts to train existing and new counselors, not only on higher educational



paths, but also on industry growth trends and emerging fields for employment in Rhode Island. Increasing the capacity and effectiveness of in-school counselors will require improving the quality and timeliness of labor market information that is provided to them by the state. In-school counselors should also be encouraged to expose all their students to the many career paths available, and not target certain students for certain careers.

- Increasing exposure to high-opportunity industries. K-12 schools could regularly host visits from industry representatives to improve student exposure to a number of occupations and career paths. Visiting employees would talk about their jobs, their industries, and emerging opportunities in their fields. Content and format would be tailored to grade levels. Successful implementation of a regular in-school industry event program would require ongoing coordination and leadership, possibly by identifying a guidance counselor to serve as an ombudsman for each school who would be responsible for coordinating visits from private industry. A number of organizations are already hosting similar activities and their work should be coordinated to increase impact.
- d. Access the full potential of Rhode Island university institutions, including community and technical colleges, to help prepare our workforce. Provide academic support for those students who are not adequately prepared for higher education.

Rhode Island's network of universities and colleges is one of the state's greatest economic assets. While some institutions have a more explicit connection to workforce development through intensive technical curriculum, all of them have some level of programming and relationships with various

⁴⁴ Text for this strategy is adapted directly from Latino Students in Rhode Island: A Review of Local and National Performances. A report of the Latino Policy Institute at Roger Williams University. B)y James P. Huguley

key industries in the state. These connections and workforce programming opportunities should be expanded to the extent possible and efforts should be made to increase access for populations in Rhode Island that typically experience barriers to this level of education.

While CCRI is not the only institution of higher learning that addresses workforce development, its current focus and structure provide a unique opportunity for high impact and specific strategies for CCRI are provided as an example of what can occur at many different institutions. Participants in RhodeMap RI from many different perspectives (e.g., social equity, business development, industry representatives, etc.) were enthusiastic about investing in CCRI and targeting strategies to help the college become even stronger in its workforce development role. Strategies that can bolster the capacity of CCRI include:

- Address the gap that results from CCRI's open enrollment of high school students not ready to enter with targeted academic support.
- Increase communication between CCRI and the Governor's Workforce Board in order to determine the best credentials for labor market demands.
- e. Transform adult education by increasing access and developing programs in line with state workforce priorities.

Adult Education programs in Rhode Island provide literacy, English language instruction, career training, and traditional classroom education to adult learnersskills that are critical to improving career prospects and strengthening upward mobility. Today, adults who wish to enroll in these programs may have up to a one-year waiting period, depending on the program. As of the writing of this report, Rhode Island's Adult Education waiting list includes approximately 700 English language learners; 500 adults in need of basic education (currently at very low levels of literacy); and 100 adults that are at or near the high school level. To maximize adult education as a workforce development tool, the RI Department of Education could:

- · Coordinate with the Governor's Workforce Board. Per Policy 1, Strategy 1 above, the GWB should take the lead in coordinating with RIDE and other smaller adult education providers to ensure that adult education programs are designed to align with state workforce priorities.
- · Commit additional resources to eliminate



waiting lists for unemployed or underemployed adult learners. There are a number of factors that result in an Adult Education waiting list of over 1,300 Rhode Islanders. Expanding program capacity by hiring more instructors; offering more afternoon, evening, and weekend classes; and expanding the number of sites and facilities available for Adult Education would significantly reduce, or eliminate, this waiting list.

- Develop a set of investment criteria. Criteria could be developed for use at the Department of Education that helps prioritize different programs. Priority could be given to programs that:
 - > Minimize waiting lists.
 - > Reflect the state's workforce priorities as identified by the Governor's Workforce Board.
 - > Are most effective at attaching participants to the workforce.
 - > Include a digital literacy component.
 - > Provide enhanced transparency of program expenditures and outcomes.
 - > Provide wraparound services (i.e., day-care, transportation) for learners with barriers to participation.

Policy 3: Support apprenticeships and internships to increase access to experiential learning.

a. Actively engage with employer organizations and industry partnerships to develop new internship, externship, and apprenticeship programs based on need, impact, and capacity. Coordination between trainers and industry representatives will be essential for developing effective experiential learning opportunities. As an example, the state could create a manufacturing apprenticeship program, developed and executed with substantive input from private firms that



would provide pre-screened applicants to existing manufacturing businesses. As another example, the IT Skills Gap report recommended implementing a Registered Apprenticeship program with employeridentified career pathways that would be articulated with an academic institution(s), enabling the earned credits to be transferable toward a college degree. Finally, the Defense Industry Skills Gap report recommends developing an organized Defense Industry Partnership Internship program that increases the number, quality, and visibility of defense internships in the region. Non-trade apprenticeships in IT and manufacturing have been developed since these skills gaps studies were published, and such efforts should continue. These programs should include efforts to close the 'job readiness' gap in immigrant and low-income communities, where exposure to a variety of careers may be more limited.

 Support and enhance bRldge.jobs program, including expanding participation to high school students.

The bRIdge.jobs program seeks to match employers with students looking to gain valuable experience. This type of matchmaking is critical to allow students to experience various career paths and for employers to identify young talent to recruit at an early point in their career. bRIdge.jobs currently focuses on connecting students and employers in sectors such as IT, Health, Business, Science, Engineering and Manufacturing. The recent investment of \$500,000 for a match-fund for internships by the GWB, and the Rhode Island Foundation's investment in bRIdge. jobs should continue and be more broadly supported. For example, bRIdge.jobs could be opened to high-school students, and could partner with the State Apprenticeship Council.

With the documented concern of employers about the lack of work readiness and 'soft skills' of high school graduates, providing an appropriate version of the bRIdge program to Rhode Island high schools and their students would potentially connect thousands of future workers to this useful training tool. In addition, the bRIdge program could be a significant asset to the State's apprenticeship program, especially as more non-trade apprenticeships are created. The opportunity to connect students and interested companies to internships and the State's expanding portfolio of eligible apprenticeships, all in one stop, should be embraced.

 Execute a strategic expansion of the occupations and industries that qualify for the apprenticeship tax credit and consider other incentives for developing an apprenticeship program.

Apprenticeships are not a no-cost proposition for employers. They require patience, relationship building, and an investment of time and resources. The current apprenticeship tax credit that Rhode Island offers as a means to defray these costs is limited only to certain machine tool, metal trades, and plastic process technician apprenticeships. Eligibility for this credit should be reviewed to include only those industries and occupations determined to be state priorities by the GWB. For such occupations, where an apprenticeship program is, or can be, established, a tax credit incentive should be made available for prospective sponsors to entice them to take on apprentices. The credit can be limited to a time necessary to bring the apprenticeship program to scale. Beyond the existing state tax credit program, other incentives should be explored that would entice businesses into developing an apprenticeship program. Like all incentives, any credits or other mechanisms used to entice private sector participation should be regularly assessed to ensure the tool is meeting its desired purpose and whether it should be continued, amended, or eliminated.

Performance Measures for Workforce Training and Education

To date, analysis of data related to workforce development programs in the state has not been as robust and consistent as necessary to truly understand the effectiveness of existing job training programs. In order to measure the performance uniformly across all workforce

training programs moving forward, both in the private and public sectors, a fairly standardized set of measures will be needed to develop indicators that might include such approaches as "number of job connections made per dollar spent," "number of students placed within 'x' years of certification," etc. This type of data collection would not only measure the overall effectiveness of individual programs, but may start to point out specific adjustments that are required for better performance.

Additionally, many workforce development program and policy interventions have long-term impacts and outcomes not readily captured in current program data. Under a diverse partnership anchored by the RI Department of Education, Office of Post-Secondary Education, the Department of Labor and Training and The Providence Plan, a State Longitudinal Data System (SLDS) has been developed to better look at performance and outcomes over the long-term. Deepening and strengthening this SLDS improves the tools available to policy-makers in gauging return on investment (ROI) and other outcomes.

The following performance measures will be tracked by the State to measure progress toward achieving Goal 1 of this Economic Development Plan. These performance measures will be tracked over time and presented in an annual "report card" by Statewide Planning.45

- Children ages 3 and 4 not attending preschool, by poverty status (Kids Count)
- Percent of 16-24 year olds not enrolled in school and without a high school diploma (American Community
- · Educational attainment by race/ethnicity, and household income (American Community Survey)
- Number of annual internship placements facilitated by bRIdge.jobs by race/ethnicity, and household income (bRldge.jobs)

⁴⁵ Some of the selected performance measures may not be available on an annual basis, which would be reflected in the report card document.



Foster an inclusive economy that targets opportunity to typically underserved populations.

n essential part of the RhodeMap RI process was using the information assembled in the Equity Profile as a platform for addressing issues related to social equity. In the development of this Economic Plan, addressing social equity involves looking at systems, programs and pervasive ideas that have the effect of marginalizing certain groups of people. Information provided in the Equity Profile was reinforced by the input provided by numerous interviews, focus groups and the work sessions with the Social Equity Advisory Committee (SEAC). As ideas about job growth, investment, training and others were explored, discussions about social equity were a constant reminder to measure potential economic strategies with the question "Who benefits?" This process quickly reveals that, without strategies specifically targeted at populations with greater barriers to opportunity, those barriers may never be overcome not only to the detriment of those individuals and their families, but to that of the state as a whole.

Targeting Strategies to People with Higher Barriers to Employment

To adopt an Economic Development Plan that is considered "inclusive," the RhodeMap RI process committed to exploring issues related to populations

"It is obvious that lack of adequate investment in training can exclude entire social groups from the benefits of economic growth" and that the "main forces for convergence [of wealth and incomes] are the diffusion of knowledge and investment in training and skills."

> —Thomas Piketty Capital in the Twenty-First Century

that are often marginalized or excluded from typical economic development strategies. This approach acknowledges that the chronic problems faced by growing numbers of our population affect us all on many

levels and it is in the best interest of everyone in the state to target strategies that will increase opportunity for these groups. Based on the demographic analyses performed for the Equity Profile, this plan places an emphasis on providing assistance to communities of color, low-income populations, women, immigrants, refugees, and those who speak English as a second language. However, this focus is not exclusive and there are other examples of populations in Rhode Island that require aggressive strategies. It should be noted that workforce training opportunities for all individuals with higher barriers to unemployment should not be limited to lower-skill, lower-wage work, but be integrated with the wider spectrum of career opportunities depending on the person's interests and skills. These populations include, but are not limited to:

- Homeless individuals and families: Homelessness in Rhode Island generally increased over the course of the foreclosure crisis and affected many individuals that were already in the workforce or expected to become part of the workforce. Young adults, age 18 through age 24, constitute a significant percentage of the total shelter population. Homeless families numbered 688 in 2010, including over 1,200 children. While the majority of homeless residents live in the major cities, there is a growing population of rural homeless, especially in the southern region of the state. With shelters often at capacity, these homeless find themselves living in camp grounds in the summer and motels in the off-season. The recent recession and housing crisis showed more clearly than ever that a lack of access to jobs and job training can be the primary factor in creating homelessness for many individuals. Once homeless, individuals and families face a new set of barriers that may require targeted assistance for them to overcome and successfully reenter the workforce. It should be noted that housing stability is viewed by many advocates to be the most important baseline intervention to prepare homeless individuals to take advantage of workforce training and job opportunities.
- Formerly incarcerated individuals: Over 3,000
 people were released from Rhode Island prisons in
 2012, and over 25,000 were on parole or probation.⁴⁶
 These individuals can face tremendous barriers when
 trying to re-enter the workforce including unstable

⁴⁶ Economic Progress Institute, 2014.

- living conditions, lack of financial resources, lack of awareness of re-entry programs, and discrimination in hiring practices.
- Disabled populations: Overall, approximately 3,250 disabled individuals in Rhode Island can actively participate in the workforce; however, the statistics in Rhode Island related to employment of disabled populations shows a lost opportunity. For example, disabled (non-elderly) adults have a labor force participation rate less than half of adults without disabilities (35.5% v 84.3%), and they are more than twice as likely to be unemployed (19.1% v 8.7%). Opportunities for integrated and competitive jobs are being explored aggressively in Rhode Island in response to a recent landmark settlement decision. The imminent re-instatement of the state Olmstead Commission will play a vital role in ensuring the state can fully capture the workforce capabilities of Rhode Island's disabled population.

'Areas of Opportunity' and Economic Inclusion

All projects funded under the Sustainable Communities Planning Grant program call for a strong focus on issues of social equity. With respect to the Economic Development Plan developed under RhodeMap RI, this focus is evidenced in the information taken from the

Equity Profile of Rhode Island (see Part One), the guidance provided by the Social **Equity Advisory** Committee and many of the themes that emerged through focus groups, interviews and other discussions. The findings from these analyses and discussions clearly demonstrate that significant

HUD Efforts to Target Jobs HUD has several means by which it fosters local economic development, neighborhood economic improvement, and individual self-sufficiency. In particular, "Section 3" is the legal basis for providing jobs for residents and awarding contracts to businesses in areas receiving certain types of HUD financial assistance.

Under Section 3 of the HUD Act of 1968, wherever HUD financial assistance is expended for housing or community development, to the greatest extent feasible, economic opportunities will be given to lowor very-low-income residents (and/or public housing residents) and businesses in that area.

barriers exist for communities of color in Rhode Island. Further, based on demographic trends, these findings also show that the ability of Rhode Island to attract investment and create jobs is inextricably connected with



our ability to provide opportunity to these communities. Many of the strategies developed for RhodeMap RI are geared to increasing opportunity for those most in need in our state.

RACE, PLACE, AND OPPORTUNITY

Decades of social science research have demonstrated that neighborhood conditions and access to opportunity play a significant role in life outcomes.⁴⁷The challenges facing marginalized communities are long-term, multifaceted, and interrelated, and the disparities facing marginalized communities have been widening. These inequalities are further exacerbated by the economic downturn and the fallout from the housing and economic crisis. Sustainable growth that is sensitive to the needs of marginalized populations requires multifaceted solutions.

Many advocates are coming to understand that no single negative factor leads to the creation of a marginalized community. Rather, a range of factors—including high rates of incarceration, neighborhood disinvestment, housing barriers, educational and early childhood challenges, and labor market discrimination—act in combination, restricting marginalized groups from access to opportunities and severely limiting the individual and collective ability to build assets.⁴⁸ Lastly, research has consistently demonstrated that these multi-dimensional patterns of structural disinvestment tend to be highly racialized, meaning that people of color are disproportionately concentrated in areas of low opportunity.⁴⁹

⁴⁷ Sampson, R. J., Morenoff, J. D., & Gannon-Rowley, T. (2002). Assessing "Neighborhood Effects": Social Processes and New Directions in Research Annual Review of Sociology, 28, 443–478

Sampson, R., & Graif, C. (2009). Neighborhood Social Capital as Differential Social Organization. American Behavioral Scientist, 52(11), 1579-1605

Wilson, W. J. (1987). The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy, Second Edition. University of Chicago

Patterns of racial and spatial isolation are often the result of historic policies and practices, some of which were overtly racist. Policies like mortgage redlining and suburban highway investment often created an inequitable and segregated social landscape, resulting in uneven opportunities and burdens that persist in the present day, perpetuating spatial and racial inequality.⁵⁰

One of the more compelling set of analyses related to social inequities in Rhode Island (and elsewhere) is that which explores the geographic dimensions of inequalities and opportunity. The Housing Plan developed for RhodeMap RI examines many of these aspects of inequity in great detail because of the new requirements related to plans for an Analysis to Impediments and the Fair Housing Equity Assessment. While these analyses were developed as part of the Housing Plan, the findings are equally important to the Economic Development Plan. Among the many documented inequities, it was found that people of color are far more likely to live in Rhode Island's handful of racially/ethnically concentrated areas of poverty and that the state's public school system is highly segregated.

THE CONCEPT OF OPPORTUNITY MAPPING

As part of the RhodeMap RI project, the state received technical assistance from the Kirwan Institute for the Study of Race and Ethnicity (Kirwan). Part of this assistance came in the form of developing Opportunity Maps for the entire state. Kirwan originally developed the concept of "Opportunity Mapping" in 2003 as a remediation tool in the Baltimore subsidized housing case, Thompson v. HUD. Since then, the Institute has worked with regional partners across the country to develop opportunity maps for a variety of equity and community development applications. Examples of this variety of uses include targeting housing investments in Massachusetts, studying how equitable Recovery Act investments were in Florida, transit-oriented development in Seattle, and targeting strategic housing and neighborhood investments in Austin.

In addition to the prescriptive policy and investment applications of opportunity mapping, it is also a powerful tool for convening challenging dialogue among community leaders and stakeholders. The themes of race, class, and opportunity are challenging to talk about in every region, but using opportunity mapping has proven to be a helpful way of engaging these themes by grounding them in data and explaining the complex structural biases at work in communities.

THE APPROACH TO OPPORTUNITY MAPPING Because of its original application in the courts, opportunity mapping has necessarily been grounded in a body of social science research that identifies specific neighborhood factors that contribute to healthy childhood development and positive life outcomes for adults. The opportunity index includes five broad categories: Education, Health and Environment, Economy, Transportation and Mobility, and Housing and Neighborhoods. Each of these broad categories of opportunity, in turn, is comprised of a series of individual indicators which are scored and aggregated by census tract. The resulting score for each individual category, as well as a composite of all categories, can be mapped in a color coded fashion to display a "gradient" of opportunity across census tracts. A list of research articles corresponding with indicators used in the opportunity index can be found in Supporting Document F as well as the statewide maps for each category (e.g., Economy, Transportation, etc.).

OPPORTUNITY MAPPING RESULTS FOR RHODE ISLAND

The maps developed for Rhode Island reinforce the findings of the housing analyses, previous study (e.g., Equity Profile of Rhode Island), and the everyday experience of many residents who contributed to the process. From a statewide perspective, those areas that show the highest access to opportunity are those generally thought of as the more affluent parts of the state. In some cases, these areas of high opportunity cover most or all of an individual municipality. It is interesting to note

that some of the most affluent areas of the state do not score the highest as areas of opportunity. This is primarily due to the inclusion of a transportation index in the composite score as well

Characteristics of RCAPs:

- · 24% of the state's African Americans and 27% of Latinos live in concentrated areas of poverty.
- These figures are approximately double for African Americans and Latinos living in public housing.
- Over 85% of African American and Latino school-age children live in Rhode Island's seven cities.

as proximity to jobs. While communities like Little Compton, for example, may score high relative to income and education, the lack of transit access and low numbers of jobs serve to drop the composite opportunity score from the highest level. (see Supporting Document F).

⁵⁰ Briggs, X. de S., Popkin, S. J., & Goering, J. M. (2010). Moving to Opportunity: the story of an American experiment to fight ghetto poverty. New York: Oxford University Press.

At the opposite end of the spectrum, areas of low opportunity are concentrated in more urbanized parts of the state. While these areas may be in close proximity to job centers and often have much higher access to public transit, the educational, housing and health indicators used for opportunity mapping quickly pull these census tracts down to the lowest relative scores. The fact that urban core areas represent the most economically challenged places in Rhode Island is a recurring theme in this Economic Development plan, underscored by data related to wages, educational attainment, unemployment, housing conditions, poverty and others that are presented from a number of different sources. Importantly, these difficult conditions correlate highly to communities of color, creating what HUD refers to as "Racially Concentrated Areas of Poverty" (RCAPs, see inset). The statewide opportunity map with the racial data overlay clearly shows that Rhode Island's communities of color have lower access to opportunity (see Supporting Document F).

The result of this continued theme throughout the RhodeMap RI process is the pursuit of an aggressive urban economic development agenda. Instead of these areas representing the highest levels of distress in the State, our urban areas should capitalize on job concentration, infrastructure, and transit to become our primary economic engines. A more detailed discussion of this plan's urban focus can be found under Goal 4.

Building Diversity into State Government

The data presented in the Equity Profile clearly illustrates that Rhode Island's population is becoming more diverse, particularly from a racial and ethnic perspective. These strong demographic trends have raised the issue of adequate representation in agencies throughout government, recognizing that the State would benefit if the number of people of color in government agencies, commissions and boards were at least proportional to the overall population percentage. In recognition of this challenge, Governor Chafee issued Executive Order 13-05 in May 2013 as a call to increase diversity in both representation of government workers and the award of government contracts. As part of the Executive Order, Governor Chafee named the Department of Administration (DOA) as the implementing agency. DOA submitted a report in September of 2013 entitled Promotion of Diversity, Equal Opportunity and Minority Business Enterprises in Rhode Island, which provides action items to achieve the directives of the Executive Order. The list of strategies from the DOA report is provided in the sidebar nearby.

The most critical component to the success of these programs will be the continued commitment of the state's leadership. Strong directives within different agencies will help create more diverse hiring practices, identify contracts where hiring minority owned businesses can be

Improving the State's Minority Business Enterprise Program

As mentioned above, the Department of Administration is currently working to improve the effectiveness of the state's Minority Business Enterprise program. Updates on the proposed actions include:

- > Consider Amending Bidding Procedures to Include **MBE Points**
- The Department of Administration (DOA) is amending the bidding procedures for Requests for Proposals (RFPs) to include the addition of MBE points that could be awarded as part of all RFP procurements. RFPs are the only contracts that require a "scoring" process where bidders are awarded points for fulfilling requirements of the bid. The strategy is to include points for MBE compliance that would create an attractive opportunity for bidders to maximize their total points by including MBE participation in their bids. DOA is currently considering allocating MBE points toward a certain percentage of the technical portion of a RFP, which, on average, is about 70% of the scoring.
- > Improve Tracking through Updated Technology The Minority Business Enterprise Compliance Office (MBECO) has submitted a proposal to develop a

- computerized tracking system that would capture prime contracts awarded to Minority Business Enterprises (MBEs), as well as subcontract utilization of MBEs. They have recommended a review of current systems; i.e., the Department of Transportation's Prism tracking system, or similar systems, to determine whether they would be well suited in meeting the state's need to effectively measure MBE participation, in accordance with requirements under R.I.G.L. § 37-14.1-6 Minority business enterprise participation.
- > MBE Designation on State Websites The Division of Purchases ("Division") and the MBECO websites are the primary resources for vendors for state projects and Master Price Agreement ("MPA") listings. In the recent past, MBEs were not identified on the Division's website MPA list. Necessary adjustments have been made, and MBE companies on the MPA list are now clearly identified as MBEs, which will allow better exposure for the firms and also assist vendors and state agencies in finding MBEs for their utilization requirements on state procurements.

a focus and generally weave discussions of diversity into the everyday operations of government agencies.

Highlights from DOA's recommendations in Promotion of Diversity, Equal Opportunity and Minority Business Enterprises in Rhode Island include:

Recommendations to facilitate the state's efforts to promote diversity and inclusion:

- 1. Community and stakeholder engagement
- Establish an executive division within the department of administration committed to diversity and inclusion
- 3. Improve collaboration with all executive departments and appoint diversity liaisons in all state agencies
- 4. Establish a diversity advisory council

Strategies for recruiting, hiring, promoting and retaining a more diverse workforce:

- 5. Establish annual hiring goals for each executive agency
- 6. Promote available assistance to all state agencies
- 7. Tracking and transparency
- 8. New director of human resources should prioritize diversity and a culture of inclusion
- 9. Implementation of online application system
- 10. Expansion of recruitment options
- 11. Extend the length of time for job postings as necessary
- 12. Coordinate with quasi-agencies on job postings
- 13. Create a culture of inclusion, diversity and respect
- 14. Support a pipeline of talent

Strategies for promoting and facilitating the MBE procurement process:

- Consider amending bidding procedures to include MBE points
- 16. Improve tracking through updated technology
- 17. MBE designation on state websites

Takeaways

Creating a more inclusive economy requires deliberate and targeted investment in neighborhoods and people that are not part of typical economic planning. From an economic perspective, this approach recognizes that opening opportunities for more people to prosper leads to a more sustainable economy. Greater participation in the workforce, lower dependency on social services, and more diverse representation in positions of power all work to increase quality of life and are worthy of strategic investment. Important challenges and opportunities for Rhode Island include:

- The State must find ways to proactively work toward providing opportunity to specific groups that have unusually high barriers. Many thousands of individuals in Rhode Island simply do not enjoy the same levels of opportunity as most others and therefore cannot contribute to or benefit from economic growth. Acknowledging and breaking down barriers related to language, income, disability and prejudice will benefit the state as a whole.
- Barriers to opportunity and high quality of life are very often tied to where an individual or a family lives. An important part of addressing social equity is targeting resources and investment into Rhode Island's urban areas. If populations in our urban core areas are ever going to have ready access to the jobs in nearby employment centers, the housing conditions and educational systems in these neighborhoods need to improve. If residents are "house poor" or subject to the irresponsible practices of absentee landlords, their ability to find time for other commitments like additional job training will be significantly compromised. If school systems in our urban core cannot cultivate an ethic of learning and provide strong basic skills, students will not be ready for career development after graduation. These are real issues for Rhode Island today and must be understood as integral components of our approach to economic development
- Increasing all levels of diversity in state government will help to increase levels of service and provide perspectives integral to the development of an inclusive economy.

Moving Forward

To address the opportunities and challenges described above, and to achieve the second Goal of this Economic Development Plan, the State has adopted three overarching policies.

Policy 1: Develop an urban core strategy to encourage job creation and other opportunities in areas of higher concentration of unemployment and benefitting those who live there.

a. Encourage major financial and other anchor institutions to support community economic development initiatives such as promoting local purchasing, local hiring and business incubation.

When tackling the challenges illustrated by the Opportunity Mapping exercise, no single strategy will be able to notably increase access to higher quality of life. A larger set of partnerships and investors is required to create deeper change over time and raise quality of life in areas with more than their fair share of challenges. One avenue to explore in Rhode Island is strategically engaging anchor institutions in a manner that has positive local impact. Whether these institutions are corporations, hospitals, universities, banks, or some other core stakeholder, providing a focus for their philanthropic activities or business preferences can provide real reinvestment locally. Statewide outreach campaigns inviting anchor institutions to invest locally, and platforms that publicize their efforts can create the classic "win-win" situation. Activities that could occur as the result of anchor institutions engagement include:

- Directing a greater percentage of their purchasing power toward local vendors.
- Hiring a greater percentage of their workforce locally.
- Providing workforce training for people needing assistance in the community.
- · Incubating the development of new businesses, including social enterprise among nonprofits.
- Serving as an advisor or network builder.
- Leveraging real estate development to promote local retail, employer-assisted housing, and community land trusts.



b. Develop and/or strengthen programs targeted to the specific needs of businesses in lowincome communities with efforts directed at businesses owned by women and people of color.

Analyses performed for this plan present several key findings:

- 1. Populations of color are growing in Rhode Island and in several subgroups show higher levels of entrepreneurship and business start-up activity.
- 2. Women and people of color are less likely to obtain high quality jobs or wages that are equitable when measured across race and gender.
- 3. Programs at the state level designed to provide contract opportunities to women and people of color are not effective.

These programs require reform and an explicit commitment across agencies to ensure they are implemented with accountability measures in place for those agencies that fail to implement these requirements. The key is finding ways to bring these programs to scale, and to target startup services as well as services for existing small businesses. One option to consider is producing a Minority Business Enterprise Disparity study, to analyze the state's current set-aside program to determine whether it achieves the goal of facilitating the participation in state contracts of small contractors and minority business enterprises, including whether a statistical disparity exists between the number of companies available to participate in contracts and those that are actually utilized on those contracts in a particular market area. Further, a disparity study can help determine whether the contracting market is fair and equitable to all parties involved.

- c. Develop a process for negotiating Community Benefit Agreements for projects of state significance that receive state or local subsidies, to guarantee that a project's positive economic impacts (jobs, neighborhood improvements, etc.) will benefit current residents.
 - Community Benefits Agreements (CBAs) provide an opportunity to negotiate a wide variety of benefits to the neighborhoods that are directly impacted by a project. Importantly, there must be a "nexus" between the impact of a project and the type of benefit negotiated. In other words, the benefits that may be yielded by a particular project will be different based on the type of project or conditions in the neighborhood. Also, this process must consider how to engage the local community in determining what to include in such benefit agreements. Access of local residents and low income workers generally to construction jobs and post-construction jobs, infrastructure improvements, indoor or outdoor public space, or other items are examples of things that could be included in a CBA tailored both to the needs of individual neighborhoods and opportunities from a specific project. This process should also include mechanisms for holding recipients of subsidies accountable for the promised benefits, which may include reporting requirements on progress, performance-based delivery of subsidies, clear recourse for penalizing recipients who do not meet their promised outcomes, etc.
- d. Develop a means for giving preference to banks seeking to do business with the State if they demonstrate an effective and equitable lending track record to small businesses within Rhode Island, including businesses run by people of color and women.
- e. Expand and coordinate service centers throughout the state that provide career and personal financial education and assistance for low-to-moderate-income individuals, such as LISC's Financial Opportunity Centers or RI Department of Labor & Training's netWORKri and Financial Coaching Program for Transitioning Veterans and Spouses.

- Policy 2: Promote opportunities for workforce training that leads to upward mobility, particularly for disadvantaged populations that have faced barriers to employment.
- a. Recognize an increasingly multi-cultural workforce by promoting language diversity in public and private sectors and placing programs and resources where they are needed most.
 - As noted in this plan, the population of Rhode Island is becoming increasingly diverse, and many historically underserved populations, including people of color and persons with low English proficiency, have higher barriers to accessing workforce training programs. Given the growing importance and future need for these workers to fill projected new jobs, as well as jobs to be vacated by retiring persons, targeted training is needed in appropriate languages and in locations accessible to the people being served. Many existing training programs require an understanding of technical language specific to their industries, and should be mindful of this technical vocabulary in the native languages of their trainees. Further, efforts should be made to co-locate programs and services at facilities within communities with high populations of underserved and economically distressed populations, as better access improves participation and success.
- b. Identify and scale solutions for employing those with barriers to employment.
 - Populations with language barriers, criminal history, mental or physical illness, or other barriers are often not successfully engaged in traditional workforce development and employment efforts. The RI Department of Labor & Training is currently providing services to long term unemployed individuals with low educational attainment through the Workforce Innovation Fund grant "On Ramps" program, and readiness training and job search training for TANF recipients through the "RI Works" program, among many other tools, but more can be done to address:
 - Support comprehensive transitional services for immigrants and refugees.
 - Provide job training opportunities for individuals with disabilities.
 - Increase opportunities for homeless and formerly homeless individuals through greater partnerships with the DLT, non-profits and the private sector for job training, apprenticeship and vocational programs.

Increase opportunities for formerly incarcerated individuals by improving coordination between the Department of Corrections and the Department of Labor and Training, providing entrepreneurship training, apprenticeships and strengthening antidiscrimination statutes, where appropriate. For example, strengthen existing laws against employment discrimination to include protections against discrimination in employment based on an applicant's criminal record unless there is a direct relationship between the offense and the job or license sought, or unless hiring or licensure would create an unreasonable risk to property or to public or individual safety.

The first step in this strategy would involve the engagement of social enterprise stakeholders, such as organizations supported by the Social Enterprise Greenhouse and entities such as the Amos House. These groups have had success in identifying nontraditional opportunities to train and employ these residents and would be able to clearly identify many of the social and programmatic barriers that need to be addressed. Their expertise should also be engaged to identify those opportunities that could be successfully scaled for greater impact. For example, might there be opportunities to provide incentives for contractors to hire the unemployed or the homeless to rehabilitate foreclosed/vacant properties into rental and homeownership opportunities, or explore the expansion of "sweat equity" programs like Habitat for Humanity that give local residents the opportunity to perform work on homes they will later live in?

A second step in this process would include a broader discussion with state agencies and these social enterprise organizations. The goal of this coordination would be to explore opportunities to better connect opportunities for job training with individuals in these groups. The first step to exploring these issues will be to convene a half- to full-day workshop with representatives from DLT, the Governor's Workforce Board, The Department of Corrections, the Department of Behavioral Healthcare, Developmental Disabilities and Hospitals (BHDDH), the Rhode Island Coalition for the Homeless, and other nonprofit neighborhood groups addressing these issues. Objectives and issues to be explored in this work session include:

- Understand the full landscape of job training opportunities provided by state agencies.
- Understand the most pervasive barriers experienced by these groups.

- Identify where these programs could meet the needs of disadvantaged populations and where existing programs.
- Discuss case study examples of programs that are successful in other states.
- Identify possible low-cost opportunities to provide higher access to jobs and job training.

Policy 3. Increase diversity in the state workforce and state contracting.

- a. Diversify the state workforce at all levels so that the racial, ethnic, and gender composition of staff is reflective of the state as a whole.
 - As discussed above, trends in population demographics suggest that action is required to create a workforce that is representative of Rhode Island's growing diversity. Some of the concrete measures identified by DOA to be pursued include:
 - · In relation to civil service exams, identify classes of positions where there exists a need for a particular linguistic background or skill to serve the client population.
 - Implement an online application system that will:
 - > Improve candidates' experiences when applying to State jobs;
 - > Increase efficiency, reduce paperwork, and improve customer service;
 - > Improve our ability to identify applicants and therefore allow the State to assess whether it is reaching out to a diversity of talented and qualified candidates.
 - Create and maintain a list of media outlets and advertisement opportunities with organizations that reach out to a diversity of communities throughout Rhode Island, to be shared with hiring managers and Public Information Officers across state government.
 - Extend the length of time for job postings to a minimum of two calendar weeks, unless circumstances dictate otherwise, to ensure the general public has enough time to review job postings.
 - Conduct a diversity training program. For future hires, this training may be part of the standardized orientation provided to new employees. Moreover, it should be expanded as a refresher for managers and supervisors. A "Train the Trainer" Diversity Training Program to help facilitate diversity and cultural competency trainings at the agency level is also essential.

b. Integrate child care facilities into public service and job training facilities.

Lack of child care can be an insurmountable barrier for many people looking to add job training activities to their schedule. Single parents or families with intensive work schedules may not have access or the means to enlist child care. As such, providing child care services can be the deciding factor for whether someone does or does not take advantage of important public service or job training opportunities. Agencies that provide such services and training programs should invest in child care services, or work with the Department of Human Services to connect with nearby certified childcare providers.



 Provide access to economic development programs in Spanish and other languages as appropriate.

State government should assume a "lead by example" role on the issue of language accessibility. Building on the efforts started with RhodeMap RI, the state will need to consider disseminating information for economic development programs in other languages. Investment in this type of accessibility can take place in many ways, but it is useful to think of two basic categories of access. The first is large-scale investment in products that are highly structured and in constant use, most commonly these are websites. Investments in website accessibility can range from providing attached documents in multiple languages to creating a fully mirrored website that operates in English and, as would be the case in Rhode Island, Spanish. Based on the data collected for emerging small business activity within Rhode Island's Latino community, the State should prioritize the translation and accessibility of those economic programs that facilitate small business development.

 Intensify efforts to promote hiring and apprenticeship programs within communities of color for state and local infrastructure projects.

Construction jobs run by the State of Rhode Island represent an important opportunity to increase employment for disadvantaged populations. Other opportunities include apprenticeships that receive tax credit benefits through the State. In each case, administrators must be trained on how to reach out and market opportunities to communities of color and demonstrate high visibility and follow through in recruitment efforts. The RI Department of Transportation has an office dedicated to meeting state and federal requirements for diversity hiring and contracting, and the RI Department of Administration is working to implement the goals of Executive Order 13-05 designed to reflect the changing demographics of Rhode Island's population through greater representation of minorities in the State workforce and minority-owned business enterprises (MBEs) in State contracts. These efforts should be continued, and where benefits may be directly attached to the actual hiring of people of color, performance must be documented.

Performance Measures for Creating an Inclusive Economy

The following performance measures will be tracked by the State to measure progress toward achieving Goal 2 of this Economic Development Plan. These performance measures will be tracked over time and presented in an annual "report card" by Statewide Planning.⁵¹ Notably, the maintenance of Opportunity Mapping requires tracking and processing data related to over 20 indicators. Maintaining these data will therefore require more of an investment by the State and budget planning will need to reflect this.

- Unemployment by educational attainment, race, ethnicity, and disability status (RI Department of Labor & Training).
- Median household income by race, ethnicity and municipality (American Community Survey)
- Working Poverty Rate by Race/Ethnicity (Integrated Public Use Microdata Series)
- Percent of state employees that are people of color compared with percentages for the State's population (RI Department of Administration)
- Maintenance of all indicators related to Opportunity Mapping (various).



⁵¹ Some of the selected performance measures may not be available on an annual basis, which would be reflected in the report card document.

GOAL

3

Support industries and investments that play to Rhode Island's strengths.

rom the outset of the RhodeMap RI process, participants from many different areas of expertise were eager to offer their opinions on Rhode Island's greatest economic strengths. Specific industries, places, natural features, and infrastructure facilities were all named in a list of assets that continued to grow over the course of the project. In some of the more dynamic discussions, participants not only focused on individual assets, but more on the synergies between industries and small economic systems that seem to fit uniquely in Rhode Island's different settings. What is clear is Rhode Island possesses significant economic strengths that have been part of our state's culture for over a century, but also some new opportunities in nascent industries or partnerships that can make us a nationwide hub for innovation.

Our Core Economic Strengths

LOCATION

Rhode Island's location along the coast makes it a natural hub for global trade. The state's exports have demonstrated substantial growth in recent years, particularly after the downturn between 2008 and 2009.

As of 2012, the State's top exports were waste and scrap, accounting for 30.2 percent of total exports, followed by manufactured metals (13.5 percent), chemicals

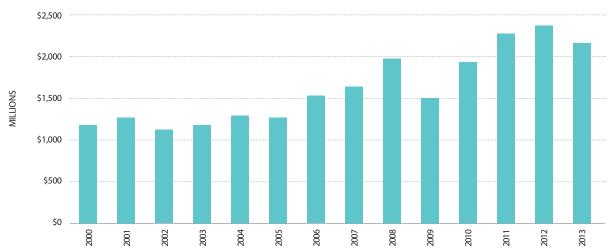
(11.1 percent), miscellaneous manufactured products, including jewelry, medical equipment, sporting goods and office supplies (9.4 percent), machinery (7.3 percent) and electronic equipment (6.5 percent).⁵²

In addition to our position within the global export economy, Rhode Island enjoys an economic advantage by virtue of our location along the Northeast Corridor (NEC). The NEC stretches from Boston through New York, Philadelphia and Baltimore to Washington, D.C., covering a total of 500 miles and providing access to 18% of the U.S. population (over 56 million people). According to researchers at the University of Toronto, the region generates \$3.75 trillion in economic output, meaning that if it were a separate country, "it would be the fourth largest economy in the world, behind only the U.S., China, and Japan and ahead of Germany."53 Rhode Island has good logistical services infrastructure, with port access and rail and highway connections to major northeast population centers with easy access to air travel at T.F. Green Airport. Furthermore, the RI Department of Transportation (RIDOT) is a voting member on the Congressionally-established NEC Commission with eight other states between Boston and Washington D.C. who actively plan and promote the future of the NEC rail asset and high-speed rail.

52 International Trade Administration

53 Richard Florida. The Dozen Regional Powerhouses Driving the U.S. Economy. 2014.

Rhode Island's Exports, 2000-2013



Source: US Census Bureau

MANUFACTURING

As the birthplace of the industrial revolution, the home of the first textile mill, the Jewelry Capital of the World, and a hub for boat building, Rhode Island has

manufacturing in its DNA. Today, manufacturing directly employs approximately 10% of the labor force in Rhode Island. In 2013 it saw what is hoped to be the beginning of a rebound with an increase of over 1,000 jobs. The manufacturing industry plays a pivotal role not

Shipbuilding & Advanced Manufacturing Institute (SAMI) SAMI links unemployed and under-employed Rhode Islanders with local shipbuilding and manufacturing employers, leverages the training resources of a local institution, and highlights the importance of these industries in Rhode Island. The results for the first graduating class were outstanding, with ninety percent having gotten jobs in the field. More info: www.rifoundation. org/InsidetheFoundation/ OurBlog/Tabld/106/PostId/130/ making-the-connection-foremployment.aspxcities.

only in Rhode Island's economy, but also in its economic relationship to the regional and global economy. With nearly 1,700 firms in 2012, Rhode Island's manufacturing sector produced just under \$4 billion in output and accounted for 70 percent of total exports. ⁵⁴ Water and marine-based manufacturing, including boat building and related composite materials manufacturing, are particular strengths for Rhode Island based on our proximity to the ocean and many waterways.

As the state experiences overarching economic progress, Rhode Island is finding the need for new manufacturing real estate options including larger footprint manufacturing and wet lab space. In some instances, the state may consider working with municipalities to identify areas appropriate for new industrial buildings that meet these changing needs. The state and local communities may also find unique opportunities in many of our historic industrial areas, particularly mill complexes, to meet these needs, simultaneously providing a catalyst for community development. Whether to retain these sites for industrial use or to reuse them for residential use is an important decision that both State and local governments must consider carefully. The benefits of revitalized industrial use include higher fiscal gains, greater participation in regional and global markets, and the retention of good-paying, career building jobs.⁵⁵ On the housing side, where old buildings

simply make poor candidates for industrial re-use, those sites can be repurposed to meet important community housing needs.

Local and State government agencies should work proactively to identify constraints related to potential manufacturing on what may be considered high-priority sites. Issues related to utility capacity (e.g., National Grid, sewer, water), circulation and truck access, neighborhood impacts, flooding, available parking, and structural integrity are examples of important constraints that could be evaluated in a preliminary fashion before making decisions related to zoning or other determinations of "highest and best use."

DESIGN AND THE "MAKER MOVEMENT"

According to <u>makerfaire.com</u>, the Maker Movement is a "grassroots innovation" that can be developed in any community. Rhode Island has historically been a community of 'makers,' with jewelry, silverware, steam engines, furniture, textiles, glass, and other products being designed and manufactured in the State for sale around the world. A base of industrial-scale design and maker activity continues in the state and is bolstered by new market entrants as well as the presence of the nationally renowned Rhode Island School of Design.

Rhode Island's designers and makers constitute a wellspring of innovation, creating new products, making existing products better, producing value in the community, and starting companies. Design related activity now is considered to be a key component of the future of manufacturing. Estimates of the market size for products made with 3D printing techniques have grown from \$50MM in 2011 to an estimated \$400MM in 2013 and \$1 billion in 2015. Adding to the value of products will be the growth in the tools of the trade, including 3D printing and machinery. Furthermore, a new report



⁵⁴ National Association of Manufacturers

⁵⁵ Manufacturing typically pays approximately \$22,000 more than other non-farm employers and is systemically important position in the tradable sector.

by Markets and Markets estimates that the global additive manufacturing market was \$1.8 billion in 2012 and is expected to grow to \$3.5 billion by 2017. Further enhancing Rhode Island's innovation, design, and maker capabilities, and increasing relationships and knowledge sharing between designers, makers, and other industry partners have potential to increase business and job arowth.

PORT INDUSTRY AND COMMERCE

Within the broader discussions of exports, the global economy, and manufacturing, Rhode Island's ports deserve special attention. Four ports, in particular, showcase the diversity of economic opportunity associated with these facilities:

Ouonset Business Park As a highly successful public-private partnership in Rhode Island that employs over 9,500 workers representing over 175 companies, Quonset Business Park has been described as "a hotbed of activity and a rare economic bright spot in recession-ravaged Rhode Island."56 Its relationship to the tradable sector is strong, and has become the seventh largest auto-importer in North America.⁵⁷ The cars often come from Japan, Germany, and Mexico, and are subsequently transported via rail or road to destinations throughout the Northeast and the rest of the country.

The Port of Providence

One of only two deep-water ports in New England and one of the busiest in the Northeast, the Port of Providence generates an estimated \$200 million in economic impacts throughout the larger region, providing more than \$60 million in direct business revenues and \$16 million in revenue to local and state government.58 The Port of Providence is a crucial regional hub, particularly of the state's leading export commodity, scrap metal, with supplies coming in from Massachusetts and Connecticut and other nearby states and then sent to Canada, Turkey, China and other countries. Lastly, according to the Providence Working Waterfront Alliance, the port moves over nine million tons of cargo annually, results in thousands of direct and indirect jobs, and is one of the few remaining sources of well-paid, blue-collar work in Rhode Island.59



The Port of Galilee

The Port of Galilee in Narragansett is a working fishing village and recreational port with ferry service to Block Island, and one of the largest commercial fishing ports on the US eastern seaboard. Galilee is home to approximately 230 commercial fishing vessels, including charter boats. Data from 2009 show there were 179 vessels with federal permits ported in the area. Galilee fishermen have traditionally been highly opportunistic, fishing for a wide variety of species in the waters from Long Island to Georges Bank. In 2012, it landed 46.4 million pounds representing a \$42.6 million total value of landings.60 A number of supporting businesses, including welding and fabricating, electronics, and repair, are associated with the fishing operations and illustrate the induced economic effects related to fishing as an industry. The Port of Galilee is on state-owned land, and the Town of Narragansett is interested in working with the State to improve the overall appearance of Galilee and to promote its use as a major fishing port.

Newport Harbor

Newport Harbor is Rhode Island's most famous port. The rich history of this area, combined with nautical recreation and manufacturing make this area an international cultural destination. In 2013, the America's Cup sailing race was hosted in Newport, with a total economic impact (direct and indirect) of approximately \$38.2 million in sales for RI businesses.61

TOURISM

Rhode Island's appeal as a tourist destination is a highly valuable asset for its overall economy. Well known tourist destinations include Newport's mansions and colonial

⁵⁶ Ted Nesi. Booming Quonset park holds lessons for I-195 redevelopment. 2011

University of Rhode Island. King of Quonset. 2014

⁵⁸ ProvPort

⁵⁹ Providence Working Waterfront Alliance

⁶⁰ NOAA Office of Science and Technology, Marine Fisheries Landings Data for 2012

RI Bays, Rivers, and Watersheds Coordination Team. Large Marine Events Benefits Assessment Modeling Report. 2013.

heritage, Providence's "Waterfire" and its robust arts, entertainment and dining options, and quaint New England villages such as Watch Hill, Bristol, and Wickford. Much of Rhode Island's tourist economy is based on our coastal location, with our spectacular Narragansett Bay and ocean beaches. Overall, the economic impact (both direct and indirect) of tourism to the state is significant. A report by IHS Global Insights found that tourism supports over 45,000 jobs (9.6 percent of the state's job base in 2013), generates \$682 million in state and local tax revenue, and visitors inject \$3.88 billion into the state's economy (based on 2013 data).62

While Rhode Island possesses many strong natural and cultural tourism assets, other states are investing considerably more marketing resources to convince prospective visitors to choose them as a destination. According to RhodeMap RI participants, the average state allocation for tourism promotion across the country includes approximately \$10 million directed to state budgets. Rhode Island's state tourism marketing budget is currently hovering at about \$400,000 annually, including money required to pay staff. Rhode Island experienced a 12 percent decline in market share from 2007 to 2012. Without proper investment in the tourist industry, Rhode Island risks losing an indispensable economic and job growth opportunity by not effectively competing for visitor dollars.

FOOD SYSTEMS

The concept of food systems looks at the complete cycle of food as it moves through the market place (see inset). At each stage of the food system, there are different in-

Stages of the Food System:

- > Production
- > Processing
- > Distribution
- > Sale
- > Consumption
- > Waste/Recycling/Composting

dustry opportunities and each stage represents an opportunity for Rhode Island to capture economic activity within a well-defined

and dynamic system. Rhode Island already excels in several of the different stages of the food system. Its farm-to-restaurant scene is thriving, efforts are underway to make farm-to-institution sales easier and more prevalent, and the Rhode Island Marketing Collaborative is working to increase the level of Rhode Island seafood sales and consumption. Farm Fresh RI has done an out-

62 IHS Global Insight, Rhode Island and U.S. Tourism, 2014.

standing job of educating and providing opportunities for consumers to access fresh products, as well as furthering opportunities for people to use federal food subsidies for purchases at local farmers markets. Innovative partnerships between chefs and urban community gardens are

helping to rebuild community and provide revenue to urban farmers. Operations such as the New **Urban Farmers** out of Pawtucket are connecting residents in Housing Authority high-rises to the latest applications in composting and year-round urban farming. New models of food-related entrepreneurialism are emerging with operation like the Hope & Main Culinary **Business Incu**bator (see inset) providing a mar-

Warren: Building a Food Hub With just over six square miles of land area, Warren is often referred to as "the smallest town in the smallest county in the smallest state." But this small town is capitalizing in a big way on Rhode Island's growing food industry with the opening of the **Hope & Main Culinary Business** Incubator. This food hub, located on Main Street, offers affordable kitchen space and mentoring for aspiring chefs, farmers, fishermen and food professionals. Hope & Main helps retain Rhode Island's culinary professionals, provides a new market for local farmers and fishermen, and connects food producers to food consumers in a community setting. It also reuses an historic building, and brings new jobs and vitality to a traditional small downtown. By building connections in the local food economy, Hope & Main contributes to a more resilient economy and increased food security for Rhode Island residents.

ket gateway for people with diverse levels of experience.

Despite the burgeoning fresh food movement and growing agricultural sector in Rhode Island, there are challenges, which have been detailed in the RI Agriculture Partnership Strategic Plan. 63 All land in Rhode Island is very expensive, and farmland in particular is some of the most expensive in the country⁶⁴, thus making it difficult to start or expand operations if land acquisition is required. There is a lack of training and assistance for new and existing farm operators. Jobs in agriculture are typically physically demanding and low-paying, and affordable, convenient homes are hard for farm employees to find. The supply of fresh food in Rhode Island cannot meet the demand. Lowincome areas, particularly urban, are still underserved with regard to fresh food, and many neighborhoods in Providence, Woonsocket, Central Falls, and other urban communities are considered food deserts.



⁶³ Rhode Island Agriculture Partnership, A Vision for RI Agriculture, 2010.

⁶⁴ U.S. Dept of Agriculture, 2013



The immediate job growth implications of supporting food systems may be small compared to other local industries. However, this job growth has been steady and stable, and is something that Rhode Island already does well that it can continue to improve upon. Further, maintaining productive farms serves multiple state goals for land use, job creation, business development, and public health, including support for our tourism economy, quality of life, availability of fresh and healthy food, and improving our food security A recent study by

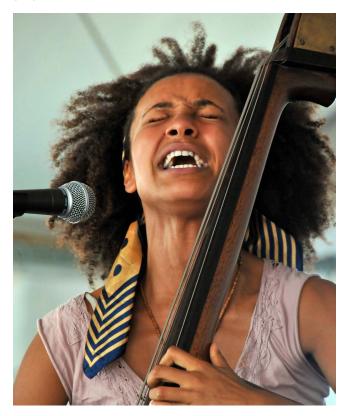
Marketing Local Seafood www. seafoodri.org is a new website administered by DEM designed primarily to market and promote local seafood and related activities, such as the work of the Seafood Marketing Collaborative, providing information on local seafood festivals, and to help promote use of the new RI seafood logo. the University of Rhode Island estimated the economic impact of the agricultural sector at approximately \$170 million in generated revenue and nearly 1,800

jobs, conservatively.65 The URI study notes that Rhode Island historically had the second highest agricultural sales per acre in the country. 66 Analysis for RhodeMap RI found that Rhode Island's agricultural industry has a very low local purchase rate, meaning that the majority of goods and services required to support this industry are not purchased locally. Therefore, there is potential to increase that local purchase rate by producing, marketing, and selling even more agricultural products locally, targeting facilities to appropriate rural growth centers.

Rhode Island has a strong direct retail market (e.g., farmers markets, etc.), but there has been little development of a wholesale market. Some demand exists among distributors for local produce (e.g., the Farm Fresh Mobile Market is seeing a steady increase of wholesale sales), but distributors can't get access to local product. Farmers would rather sell via direct/retail channels because they can get a higher price for their produce. Increasing access to and availability of fresh produce throughout Rhode Island may also result in positive health outcomes for state residents, assuming that increased access leads to increased consumption. This can in turn produce positive long-term impacts in the form of reduced healthcare costs and increased worker productivity.

ARTS AND CULTURE

According to a 2011 New England Foundation for the Arts study, Rhode Island's 1,163 arts and cultural organizations created 5,200 jobs and over \$324M in economic activity in 2009. In a May 2012 report by the National Governors Association entitled, "New Engines of Growth: Five Roles for Arts, Culture and Design," the authors described significant benefits from embracing the Creative and Cultural Economy. Stated benefits include: helping mature industries become more competitive; providing the critical ingredients for innovative places; catalyzing community revitalization; and delivering a betterprepared workforce.



⁶⁵ Dr. Thomas W. Sproul and Brandon Elsner, The 2012 Economic Impact Study of Rhode Island Plant-Based Industries and Agriculture, Department of Environmental & Natural Resource Economics, University of Rhode Island, January 16, 2013. Note: In addition to food production, these figures include landscapingrelated agriculture

⁶⁶ Sproul and Elsner, 2013.

Largely due to the sheer number and diversity of arts and culture assets in the state, Rhode Island is home to numerous state and local agencies that work to preserve, promote and expand these resources. On one level, the diversity of these organizations is an advantage because of the specialized focus and care available for different groups and resources. On the other hand, coordination and leadership can be a challenge with so many active groups. Strategies to bolster the impact of arts and culture in the State should focus on these issues of leadership and coordination.

Our New Economic Opportunities

During the development of RhodeMap RI, it was widely acknowledged that the State cannot hope to anticipate all of the major market opportunities that will emerge in the coming years. The State's economic policies and agencies will therefore need to be nimble and open to unexpected opportunities. However, there are important emerging opportunities that were identified through an intensive engagement process developed by Commerce RI and the Rhode Island Foundation. The process began with a set of engagement sessions designed to crosspollinate ideas from professionals representing different industries. These discussions explored the synergies or "economic intersections" that may be growing across industry sectors such as Manufacturing and Design—two traditional pillars of the Rhode Island economy. Looking at industries in terms of intersections and systems reveals opportunities to explore new market opportunities in Rhode Island as well as opportunities to breathe new life into industries that have been integral to our economy for many decades. For example, the composite materials manufactured for our boat building industry, might easily be adjusted for use in additional products.

In an effort to leverage and further build upon new market opportunities, public, private, and non-profit partners should convene around the creation of knowledge economy hubs. Each knowledge economy hub would consist of a few common core elements:

- Aligning research and industry assets toward a market opportunity defined by data
- Providing resources for commercialization and entrepreneurship
- Leveraging other resources in the knowledge economy ecosystem

These elements will allow for the development of a defined path of priority action for each hub, documenting

what success will look like for the Rhode Island economy. The following hubs were identified as high priorities for Rhode Island:

LIFE SCIENCE AND MEDTECH

Rhode Island is home to a diverse set of life sciences and medtech entities, including research institutions, drug and device developers, and manufacturers that are working to bring new therapeutics, instruments, vaccines, software, and textiles to market. To realize the benefits of these assets, the community must focus on areas of strength and niche market opportunities. One such niche is in the area of brain science, where alignment between the research at Brown University's Institute for Brain Science, the University of Rhode Island's Ryan Institute for Neuroscience, Lifespan's Prince Neurosciences Institute, and Care New England's Butler Hospital Division of Research can leverage the entrepreneurial and design community to create new technologies and products.

MARITIME CYBERSECURITY

According to a recent survey by Southeastern New England Defense Alliance (SENEDIA), the Rhode Island Defense sector directly employs 17,400 people, supports 400 companies, and has a \$4 billion direct and indirect economic impact. This includes both public and private sector defense organizations. The presence of the Naval Undersea Warfare Center (NUWC) in Rhode Island provides a unique asset that can be leverage by the state. SENEDIA is encouraging Rhode Island leaders to examine opportunities for developing maritime cybersecurity capabilities to support both the defense industry and commercial ports. In October of 2013, they produced a document titled, "Securing the Future: Understanding and Advancing Rhode Island's Defense Industry." This document highlights the opportunity to develop a Maritime Cybersecurity Center of Excellence as a top recommendation and provides greater detail on the proposed approach.

THE DEFENSE INDUSTRY

While the defense industry has long been a part of Rhode Island, recent developments provide an opportunity to rethink the role of this industry within the state. The Department of Defense (DOD) continues to look at cost reductions through direct operational cuts and contractor cuts, and Rhode Island needs to assist in managing cost savings, efficiencies, and overall military value. Recent federal budget cuts of over \$1 trillion will necessitate significant decisions by the DOD about operations that could affect Rhode Island.



A CLEANTECH ECONOMY

The cleantech innovation economy encompasses economic activity measured in terms of establishments and early-stage investments that produce new, innovative, and sustainable technological goods by organizations actively engaged in the commercialization process. Obvious focus areas for cleantech investment are those that would build on Rhode Island's historical strengths in relation to the marine trades. Technologies such as offshore wind, hydrokinetic energy, and advanced materials (boat building) all trace back to marine related activities.

The New England Clean Energy Council identified seven active early stage cleantech companies and dozens of other companies in Rhode Island, representing over \$50 million in GDP. From solar developers to smart grid to advanced materials, Rhode Island has a healthy base of companies. For the entire New England region, The Clean Energy Council identified over 200 earlystage cleantech companies. These companies attracted approximately \$100MM in Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) funding from the US Department of Energy between 2005-2013. They additionally received over \$1.1 billion in venture capital during that same time period. Over 75% of the early-stage clean technology companies identified are active in four major sectors:

- Energy generation,
- · Energy storage and distribution,
- Chemicals and advanced materials, and
- Energy efficiency.

CleanTech is an important example of how an emerging industry, or set of industries, can provide opportunities for high quality careers to Rhode Island residents As discussed in Goal 1 or this plan, coordination between

industry professionals, workforce development programs, and educational institutions at all levels will be needed to ensure our residents are prepared for these great opportunities.

Takeaways

Rhode Island currently possesses important economic assets that can be used to assert the State's presence in a regional and global economy. Strategies to accomplish this include revitalizing industries that have long been a part of our economy as well as looking to emerging markets that play to our strengths. When our traditional strengths and assets work together in new ways, they become greater than the sum of their parts. Rhode Island's greatest potential strength is the ability for different sectors to find ways to intersect with one another. Below are just a few examples of some of these traditional and cross-sector opportunities:

- Manufacturing
- Design and the "Maker Movement"
- Port Industry and Commerce
- Tourism
- **Food Systems**
- Arts and Culture
- Commerce and Industry
- Life Science and MedTech
- Maritime Cybersecurity
- Defense
- CleanTech

As the private sector continues to advance these opportunities, the state will need to provide strategic support to ensure that business leaders can optimize their investment and that the benefits of these efforts are realized by as many Rhode Islanders as possible. As discussed in other areas of the plan, incentives for job training, apprenticeships, and other efforts that can increase the connection between new jobs and today's residents can play a key role in reducing unemployment and advancing equity. The state must also consider the competing demands these uses have on our environment, particularly our shoreline, in terms of habitat, water quality, recreation, tourism, food production, and industry. Further, the state should analyze and understand the physical space needs of all of these industries, and keep track of where in the state suitable space exists or could easily be retrofitted to accommodate them.

Moving Forward

To address the opportunities and challenges described above, and to achieve the third Goal of this Economic Development Plan, the State has adopted six overarching policies.

Policy 1: Develop and enhance Rhode Island's sustainable and innovative maritime and defense economy.

 a. Establish a Marine and Cybersecurity Center to showcase the cybersecurity capabilities already within the state.

The Southeastern New England Defense Alliance (SENEDIA) report, "Securing the Future:
Understanding and Advancing Rhode Island's Defense Industry," highlights the opportunity to develop a Maritime Cybersecurity Center of Excellence as a top recommendation and provides greater detail on the proposed approach. A coordinated approach to connect and support all of the State's existing work in this area can advance the State's technology capabilities and provide a platform for pursuing additional projects, funding, and market opportunities for maritime and cybersecurity R&D programs.

This initiative has broad impact beyond the defense sector, providing opportunities to grow and sustain the high-tech workforce in Rhode Island. Furthermore, the state should showcase its capabilities to increase national and international awareness of what the state and its businesses have to offer in the area of marine technology and cybersecurity. This can increase the customer base for applications and existing maritime technology companies, as well as help to diversify existing small businesses that rely primarily on defense contracts. Rhode Island's size makes it poised to serve as a test-bed for prototype solutions developed by companies throughout the New England region.

 b. Create a standing defense industry task force to report to the Governor and identify realtime and longer operational challenges in a proactive manner.

The 2013 SENEDIA Rhode Island defense industry plan recommends the creation of a strategic defense industry economic plan. This activity could be stewarded by the task force. Furthermore, in 2005 Rhode Island General Law 30-32-2 entitled Military Affairs and Defense established the creation of the "National Security Infrastructure Support

Fund." In 2013, the Rhode Island Defense Economy Planning Commission passed a resolution to provide an appropriation to the National Security Infrastructure Support Fund program "for the purposes of supporting and investing in critical capital and infrastructure projects that help maintain the operational competitiveness of military facilities and support reuse of former military facilities in the state."

c. Create a private-public Rhode Island Shipping Association (Ship RI) to provide a platform for collaborating around key opportunities to increase logistics and export support for RI businesses.

Ship RI would be a platform for collaborating around key opportunities to increase logistics and export support for Rhode Island businesses. Among those opportunities are:

- Combining the freight volume of small and medium sized companies and sign contracts directly with ocean shipping lines on their behalves, thereby reducing their costs for international shipping. The Gemini Shippers Group is an example of this type of organization.
- Attracting more imports to Rhode Island, as container ships are looking for balanced trade, which is difficult to achieve without aggregating the volume of exports of Rhode Island's small and medium sized businesses. This would also increase Rhode Island's opportunities to be more of a feeder port for New York and New Jersey, and could be an organization that would help build relationships with other East Coast ports.



- Promoting collaborative marketing efforts between Rhode Island's ports, especially Quonset and ProvPort.
- Creating a platform for common advocacy concerns, such as federal infrastructure investment, state air quality mandates, and dredging maintenance.
- Providing education and resources to businesses on how they can save money on shipping.
- Monitoring emerging market opportunities, for example, the ability of ports to service the wind energy industry.
- Attracting additional federal funding, for example, TIGER grants.
- Creating a web/mobile application that would provide a directory of businesses providing logistics and connectivity services.
- Marketing to attract business opportunities, e.g., perishable goods imports, as identified in the "Rhode Island's Ports: Opportunities for Growth" report.
- d. Provide guidance to host communities on how to retain areas with infrastructure for waterfront industry in the face of market pressures for alternative uses (e.g., resort, hotel, residential, etc.).
- e. Increase investment in Logistics and Export Assistance to support shipping activity and
- f. Explore ways to further capitalize on Rhode Island's strengths in boat building, including additional uses for that industry's composite materials and the manufacturing skills of its workforce.

Policy 2: Strengthen and support Rhode Island's burgeoning food system businesses, which span agriculture, aquaculture, and fishing, food processing/ manufacturing, and sales.

a. Formalize the Food & Beverage Industry within economic and workforce development systems.

Because of the obvious economic potential within Rhode Island's Food &Beverage Industry, a more formal approach to cultivating this industry is warranted. One way to begin this process would be to designate a point person within Commerce RI to identify and support federal funding opportunities

- (e.g., the Health Food Financing Initiative, and USDA and NRCS funds that often currently go unspent), connect local entrepreneurs to regional investors and technical assistance providers, convene industry and academic partners to develop needed business development programs, and ensure that other state agency's investing in the Food & Beverage Industry do so in a way that prioritizes job creation. The Governor's Workforce Board could also create a Food & Beverage Industry Partner that could be a new organization or an existing organization. This group could lead the development of a comprehensive assessment of our food system workforce needs, including issues associated with seasonality of agricultural jobs and the need to create career ladders for workers in entrylevel positions. Finally, marketing of locally grown and produced products should be coordinated with broader efforts to "brand" and market the state for both consumers (individuals, restaurants, etc.) and visitors, acknowledging the draw that local products have for tourism (see Policy 6, Strategy b below).
- b. Review state policies to reduce/eliminate barriers to increased sales of food that is grown, raised, caught and/or processed in RI to state institutions and state and municipal agencies.
 - As the focus on "farm to table" strategies and access to healthy food continues to gain prominence in Rhode Island, one significant opportunity to increase local food sales is with local institutions and agencies. Schools, correctional facilities, and government cafeterias are a few examples of where purchasing could significantly boost demand for locally grown food. Unfortunately, there are barriers built into state-level purchasing rules that make it difficult and sometimes impossible to integrate locally grown food into these kitchens. Progress was made in 2014, when the State added "buy local" requirements to a new Food Supply Master Price Agreement. State officials should continue to work closely with these institutions and local growers to identify all of these barriers in a comprehensive fashion, and then amend these rules to open the possibility for local healthy foods to be served in institutions.
- c. Comprehensively reform existing state regulations and guidance related to food safety, production, processing and sales. Rhode Island is gaining a reputation in the region and across the country as a culinary destination and a culture of food innovation has taken hold in the

areas of growing, processing, cooking, and recycling. The resurgence of home-based enterprise, traditional "slow food" cooking techniques (e.g., curing), outdoor markets, and diversified farm operations is one of the most exciting recent developments in Rhode Island's economy. Importantly, as these activities continue to develop and expand, problems are occurring with state level regulations and individual practices. From the regulatory side, state regulations are out of date and need to be revised in a way that facilitates smaller operations and allows for more innovative culinary techniques to be applied. On the innovator side, guidance must be provided to ensure that new practitioners are educated about food handling, transport and processing to ensure the protection of public health.

d. Conduct a statewide comprehensive needs assessment and feasibility study to determine existing food system infrastructure and improvement needs in the areas of safety, growing, harvesting, catching, processing, distribution, access, and recovery.

This study should seek ways to get more Rhode Island residents (particularly those who lack access to such foods in their own neighborhoods) consuming more fresh, healthy, local products by building infrastructure that offers jobs and increases the distribution capacity and affordability of healthy local foods. For example, the study should explore:

- Strategies to attract food retailers to lower-income neighborhoods lacking fresh food access.
- Strategies to work with existing venues to sell healthier and more locally produced foods.
- Strategies to develop commercial markets and increase demand for local marine species that are abundant, underutilized and relatively inexpensive.



- Identify Rhode Island's role in the New England regional food system, and create strategies to support the growth of Rhode Island food related businesses utilizing the state's existing environmental, demographic, educational, and technological strengths.
- e. Comprehensively reform existing state policies and regulations related to food waste, encouraging diversion of food from the waste stream.
- f. Continue to identify and protect land for urban, suburban, and rural agriculture and increase access to land and water for agri- and aquaculture where appropriate.
 - Work to improve the state's farmland protection program to: ensure that the farmland the state protects stays in production and remains affordable for farmers; help farmers with succession planning; and, improve funding for protecting the state's remaining farmland.
- g. Provide technical assistance to local governments for implementing DEM's Community Guidance to Maintain Working Farms and Forests.

Policy 3: Invest in arts and culture to build on Rhode Island's identity as a cultural destination.

a. Empower and fund the Rhode Island State Council for the Arts (RISCA) to serve as the state's central investment agency in the arts and culture, supporting work that increases partnerships, revitalizes communities, helps creates jobs, and increases participation in cultural activities by Rhode Island residents and visitors.

In many ways, RISCA plays a leadership role today in Rhode Island when it comes to arts programming, funding, education, and access. The goals found in the organization's Strategic Plan are broad and ambitious:

- Lead the arts sector through collaboration, convening, advocacy, and service on behalf of the people and communities of Rhode Island.
- Support the excellence, innovation, and traditions of our state's artists and arts organizations.
- Advance opportunities for all the people of Rhode Island to participate in the arts.
- · Assure that all Rhode Island children and youth

- have equal access to rich and challenging arts learning in and out of school.
- Enhance RISCA's capacity to effectively lead and sustain arts in Rhode Island.

With these goals, RISCA is in a position to take an even greater role in raising the profile of arts and culture statewide, and helping to elevate and celebrate all of our diverse communities. To do so will require funding support and the State should examine its ability to increase funding and/or leverage new partnerships that would help to further empower RISCA.

b. Develop a comprehensive statewide map of cultural assets.

Cities and states across the nation are using smart phone apps as information and promotion tools. While some focus broadly on travel opportunities (e.g., hotels, museums, restaurants), others are more focused and provide information on food trucks, theater, and other similar points of interest. The Rhode Island Department of Environmental Management (RIDEM) recently developed their own State Parks Guide smart phone app, which provides an enormous amount of easily accessible information about parks across the state. A similar app could be an effective way to reach out to a new audience at both the local and national level, raising awareness of the different arts and culture assets in the State and how they can be accessed.

c. Explore the development of a United Cultural Fund that could support a number of functions related to arts preservation and expansion.

Revenue sources could include corporate contributions, income tax, sales tax, and federal funding. A management structure and procedure for allocating funds would need to be established with the support of stakeholders.

Policy 4: Fuel the manufacturing renaissance and reinvest in Rhode Island's unique built environment.

 a. Create a Rhode Island Center for Design and Manufacturing.

As the work of manufacturing continues to evolve, the collaboration between the manufacturing and design sectors will be critical to idea generation, rapid development and prototyping, packaging, reinvention of products, and more. Rhode Island will use its capacity to support existing manufacturers and



attract partnerships from around the globe interested in taking advantage of a Center for Design and Manufacturing (Center).

In 2013, Rhode Island received a grant award from the U.S. Economic Development Administration to develop a Center for Design and Manufacturing as part of the federal Investment in Manufacturing Communities Partnership program. This grant is currently being used to design and develop an effort that takes advantage of the combined design, engineering, and manufacturing capacities residing in the state, including the Rhode Island School of Design, one of the world's leading design institutions and the University of Rhode Island College of Engineering, as well as other institutions of higher learning.

The development of the Center aligns with a recommendation from a recent College and University Research Collaborative report on Advanced Manufacturing. After surveying over 50 STEM executives, the Collaborative concluded that a central hub for business resources is necessary to offer the coordination and scale needed to support those businesses. According to the Collaborative, "the primary services of this entity are proposed as: technology transfer office, business development office, incubator and accelerator space, flexible manufacturing space and training space."

"Next steps" for developing the Center include:

- Align existing capacities of industrial design, engineering, and advanced manufacturing including public, private, government, and higher education resources.
- Identify and activate workforce development strategies to connect current residents, particularly those who are unemployed or underemployed, with

- the skills necessary for positions in these fields that provide a family-sustaining wage and opportunities for career progression.
- Develop a business plan that creates a sustainable structure and core activity set. Develop a specific milestone-based development plan that augments existing resources utilized in the start-up period with additional resources to grow to scale.
- Identify existing and seek new funding to launch the Center.
- b. Claim Rhode Island's position as the center of the Maker Movement by developing an action plan to support business growth.

Rhode Island can benefit from both an economic and a marketing perspective by placing itself at the center of the maker movement in the region. Implementation could include the following steps:

Document maker-related assets and capabilities. As a starting point, it will be important to recognize the various segments of the maker community and the opportunities for action including manufacturers, colleges and universities, and students. Fully identifying maker resources, locally, regionally, and nationally, and identifying Rhode Island's unique assets and strengths will be a key first step in creating a Maker's Guild. There are already examples of these market participants collaborating, and part of the early efforts of the formation of a maker group will be to capture their stories.

Form a maker's guild. One area where Rhode Island could be a leader is in forming a state-based maker association or guild. Many of those working in this movement are small businesses or even individuals. As a result, they may not have access to some of the same benefits and purchasing opportunities as larger enterprises. A maker association can provide access to purchasing power for items ranging from supplies for their projects to health insurance and educational training. An association could also work to identify how to enhance existing government programs to allow maker activities to be included. Programs such as workforce training subsidies and career education have not yet recognized maker-related careers. Members of a maker's guild could help mentor young entrepreneurs across the state, and particularly help make sure young people of color and young people from lower-income communities have role models to follow on this career path.



c. Work with Commerce RI, the Energy Efficiency and Resource Management Council, and National Grid to aggressively target manufacturing expansion opportunities, including expanding the commercial and industrial efficiency program and seeking expansion of the revolving loan pool.

National Grid's role in economic development is critical, as they are the dominant utility in the region. Utility costs are often an important location decision factor for companies that are relocating or investing in existing operations. Increasingly, decision-makers that are looking at sites are also raising reliability concerns. Rhode Island has competitive rates as compared to its neighbors, but there are growing concerns over cost spikes due to capacity issues that may impact the manufacturing sector. To help address these concerns, the State will need to continue to expand the work of the commercial and industrial energy efficiency program and increase awareness of options for energy savings for businesses. Technical assistance can be provided to local communities as well to help identify those sites that may have limitations relative to potential manufacturing use. Expanding the revolving loan pool to allow for increased volume of industrial projects that can be financed could serve as a catalyst for site investment.

d. Work together to develop pad-ready sites that can support new demand for manufacturing facilities.

According to a 2013 Capstone Properties report, the vacancy rate for industrial buildings dropped from 8.0% to 7.4% as the state economy has shown some incremental improvement in all phases of the industrial real estate market. Optimism leads to companies investing in bricks and mortar, and expanding their lease space. There has been a movement by some international companies to reshore, or bring back, some manufacturing to the United States, which has created some added business for local companies that are now beginning to look to expand or potentially add some space. Buildings with up-to-date infrastructure, ceiling heights and prime locations, continue to be in high demand as many of the old mill buildings have become functionally obsolete and, therefore, less competitive in today's market. In the Providence Metro area there has not been any new construction in many years, so the existing buildings continue to be absorbed, and the lease rates have stabilized.

In this type of market, there will also be demand for unoccupied sites, many of which have been identified in suburban communities that could consider pursuing Growth Center status. While these sites may appear to be well-suited to development, environmental constraints, transportation access, and other permitting issues can add a significant amount of time to the approval process. Recently, the Quonset Development Corporation (QDC) worked with state permitting agencies to develop pad-ready sites in an effort to expedite investment. Issues related to wetlands, stormwater management, wastewater management, etc. are "pre-permitted" with the State, which can significantly streamline the approval process once an investor steps forward. This type of approach can be applied to sites that appear to be viable for future manufacturing operations through a State and local government collaboration.

Policy 5: Transition to a knowledge-, innovation-, and technology-driven economy geared to greener, more sustainable outcomes.

a. Pursue collaborations with our universities and hospitals to continue innovation in the fields of design, ocean science, bioscience, public health, translational research, neuroscience and medtech industry sectors.

One of Rhode Island's most powerful economic assets is our collection of colleges and universities. As discussed in Goal 1, the State works closely with these institutions in workforce development and training. Further, related to knowledge and innovation, important collaboration occurs in many of the fields best suited to Rhode Island. An example of one such niche is in the area of brain science, where alignment between the research at Brown University's Institute for Brain Science, the University of Rhode Island's Ryan Institute for Neuroscience, Lifespan's Prince Neurosciences Institute, and Care New England's Butler Hospital Division of Research can leverage the entrepreneurial and design community to create new technologies and products.

Innovation in public health practice is critical to advancing population health and driving down the overall cost of health care. Supporting collaboration with Brown University's new School of Public Health along with the health research at other Rhode Island institutions would support the plan's goal to promote and protect the health of the state's residents. Similarly, support for translational research is critical to ensuring that advances in the lab are carried forth to the front line of clinical practice, where quality and effectiveness require using the most advanced and upto-date scientific knowledge available.

Another noteworthy collaboration is the Association of Independent Colleges and Universities of Rhode Island (AICU), which is an alliance representing the common interests of the eight independent institutions of higher education within Rhode Island. This group is an example of where academia can continue to provide connections between innovation economy leaders and university talent.



- b. Support development of sector-based incubation and applied research facilities and the development of wet lab and other niche space. In order to harness the full power of knowledgebased innovation in Rhode Island, investment in infrastructure and partnerships that facilitate incubation will be necessary. Serving in a convener role, the State can connect mentoring, incubator and accelerator groups such as Founder's League, Social Enterprise Greenhouse, and college and university programs that have good pipeline programs. These partnerships can build on existing programs like SBA and SBDC Business. The TechCollective is currently working on the development of a "collision space" for cross-sector collaboration, which should be supported under this action. Continued support for these niche spaces could greatly facilitate innovation and subsequent commercialization within the growing technology sector.
- c. Continue to advance the CleanTech economy through procurement efforts, renewable energy fund investment and regional collaboration.
 - In order to further support the development of this emerging sector Rhode Island should pursue the following strategies:
 - Continue to expand renewable energy procurement efforts as outlined in the State's energy plan, especially in the area of distributed generation, which will drive growth in cleantech markets.
 - Produce an annual or bi-annual report that surveys companies to determine actual job growth. MA and NC have models that are able to demonstrate the impact of the industry.

- Provide funding for ancillary industries, such as storage, which optimizes the flow of renewable energy onto the grid. Investment should also occur in grid modernization to optimize renewable energy resources but also to take advantage of smart grid technologies that are being developed to take advantage of a flexible grid including demand response and smart appliances. Companies in Rhode Island such as Utilidata, cCharge and Voltserver are at the forefront of this activity.
- Promote alternative fuel and electric vehicle adoption and the development of cleantech infrastructure.
- Continue to provide support through the Rhode Island Renewable Energy Fund.
- Collaborate with regional partners through the New England Clean Energy Council and its new effort called Cleantech Navigate Northeast. Utilize the network as an advantage for Rhode Island businesses.
- d. Create programs that will support high-paying clean technology jobs, including establishing career pathways to ensure that people traditionally underrepresented in these fields, including women, people of color, and lowincome populations, have access to these jobs.
- e. Support collaboration between the State's research enterprises, including academic, government, and private performers in order to increase the level of research funding coming into the state. Build on current efforts of STAC, through their use of the Experimental Program to Stimulate Competitive Research (EPSCoR) program. (Funding through the National Science Foundation's and Department of Energy's EPSCoR program provides a strategic investment funding opportunity through commercial applications for areas deemed to be true economic opportunities.)

Policy 6: Expand the economic potential of tourism in Rhode Island by developing and marketing the state as an attractive, unique destination on the national and global tourism map through conservation and promotion of our natural, cultural, and built heritages.

- a. Create a steady and predictable funding mechanism for state level tourism promotion, programming, and coordination.
 - As is clearly documented in previous sections of this plan, one of Rhode Island's most powerful industries has experienced significant decreases in state-level resources in the recent past. To increase Rhode Island's market share and put it on par with other state budgets, a recommended tourism promotional budget for FY2015 would be \$3MM, with an increase of \$1MM for the following two fiscal years. In FY2017 policy makers must revisit the decision. Three possible funding mechanisms have been suggested for consideration by the legislature:
 - · Applying a state lodging tax to vacation home rentals,
 - Implementing a \$1 per night assessment on all properties in which bed taxes currently apply, and
 - Dedicating the portion of the state lodging tax that is currently appropriated to the general fund.
- b. Develop a state brand that is widely recognizable to promote and expand tourism and promote RI arts, culture, products and

A state brand should be developed through collaborations with the State's tourism organizations. According to the latest thinking in branding, authenticity and brand names are not mutually exclusive; authenticity is beneath every brand name. Rhode Island should remain authentic to its people, places and history. A simple, cute slogan will be weakly received. Conversely, a brand based on the DNA of Rhode Island will define the state in a way that is authentic while also differentiating it from others with lasting results. If a powerful brand is developed for the State, each segment of the Rhode Island community can carry the state brand throughout the world. Tourism promotion, manufacturing, health care, higher education, government, cultural and historical resources, food system production, and seafood production are some of the sectors in Rhode Island that could carry this new state brand.

As part of the branding process, an interpretive story of Rhode Island could be developed. Elements of this effort could include:

- Celebrate Rhode Island's cultural diversity, focusing on ethnic, archeological, architectural, historical, entertainment, literary, and film history.
- Tell the story of Rhode Island's industries, e.g., Bioscience stakeholders expressed a desire to create a narrative/identity for their sector to integrate into the statewide story. Rhode Island's food sector, from agricultural products, to prepared foods, to restaurants, tells a tremendous story for consumers and visitors alike.
- Consult with the Narragansett, Nipmuc and Wampanoag nations about the most appropriate way to tell the story of the Native Americans in Rhode Island.
- Interpret Rhode Island's role in the development of the United States with tools such as the Independence Trail.
- Work with the Rhode Island Council for the Humanities to emphasize the role of Rhode Island's literary icons.
- Celebrate the state's parks, beaches, and other open spaces as beautiful and accessible assets for locals and visitors alike.
- c. Engage the arts, culture, historic preservation, and environmental communities in placemaking efforts.

Arts, culture, historic preservation, and our natural assets are all powerful place-making and marketing tools that are readily accessible to the State of Rhode Island. Because the list of state and local assets is so





large, the greatest challenge is in coordinating efforts around these different assets. As a first step to this type of coordination, Commerce RI Tourism and the State's Convention & Visitors Bureaus (CVBs) should convene a strategy session with various members of the historic, cultural, and environmental community. This meeting will be used to discuss how to use Rhode Island's assets to feature and strengthen the marketing narrative about the quality of Rhode Island's art, design, historic resources, and natural beauty. Commerce RI Tourism and others can then continue to work with these communities to develop tourism products that have specific thematic appeal to targeted market sectors, from history buffs, to art lovers, to those interested in sites of environmental restoration and protection.

Performance Measures for Supporting Our Economic Strengths

The following performance measures will be tracked by the State to measure progress toward achieving Goal 3 of this Economic Development Plan. These performance measures will be tracked over time and presented in an annual "report card" by Statewide Planning.⁶⁷

Spending, revenue, average wages, and job creation in the following sectors, compared with neighboring states (particularly Connecticut and Massachusetts):

- Manufacturing
- Port Industry and Commerce
- Tourism
- Food System Elements
- Arts and Culture
- Life Science and MedTech
- Maritime Cybersecurity
- Defense
- CleanTech

⁶⁷ Some of the selected performance measures may not be available on an annual basis, which would be reflected in the report card document.



Create great places by coordinating economic, housing, and transportation investments.

hode Island's economy as a whole relies on the interconnectivity of all our assets and strengths in every corner of the state, whether urban, rural, or suburban, coastal or inland. What's more, we rely on the interconnectivity of our economy with that of Southeastern Massachusetts and all of New England. Our economy works as a system, and all the parts need to be healthy for Rhode Island to thrive. Understanding the state and our individual communities as an integrated system demands that we address two fundamental challenges. First we must understand the issues that differentiate our individual communities and subregions. The economic opportunities in the Greater Providence area, for example, are different from the opportunities in East Bay, South County and other areas. Second, we must understand that the policy decisions we apply to places like Greater Providence, East Bay or South County have long term effects on the economic health of other places and people in Rhode Island. The fourth Goal of this Economic Development Plan examines those conditions which differentiate areas of Rhode Island from one another on a broad scale, but with the greater goal of coordinating decisions within a statewide economic framework. Coordinated investments in our infrastructure, our housing and our workforce throughout the state will simultaneously stimulate economic growth and provide the housing, infrastructure and skills needed to support the workers that investment will attract.

URBAN CHALLENGES AND OPPORTUNITIES

The health of Rhode Island's urban communities has a particularly direct and profound impact on the overall health of the State. As the State's urban communities prosper—socially and economically—Rhode Island too will become more prosperous as a whole. The RhodeMap RI process clearly showed that a specific focus on restoring the economic vitality of the state's urban communities, particularly those that are historically underserved and economically distressed, will be a critical element of the overall statewide econo mic development strategy.



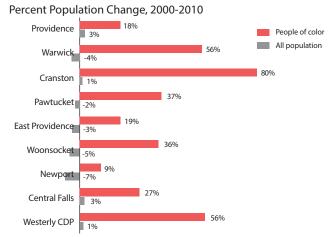
As part of the analyses and assessment performed specifically for urban areas, the RhodeMap RI process examined the opportunities and challenges associated with six of the most densely populated communities in the state: Central Falls, Newport, Pawtucket, Providence, West Warwick, and Woonsocket. These six communities contain most of the state's high and moderate concentration employment centers. They also exhibit higher unemployment, lower incomes and larger communities of color than the state's non-urban communities. Many of these communities experienced their economic prominence with manufacturing during the early to mid-part of the 20th century and, like many other industrial cities in the northeast and Midwest, they have fallen victim to national and international economic shifts—principally reflected in the loss of manufacturing activity. However, opportunities exist to build on the infrastructure and workforce skills in these communities to develop more modern manufacturing and other industries that build on these strengths and help diversify the local economy.

Demographic Snapshot of Urban Focus Communities

The following is a socio-economic snapshot of the six communities⁶⁸:

- Median household income in the six communities is generally lower than the state average, except for Newport where household income is boosted by the hospitality and defense industries (though the higher average there masks some significant pockets of poverty in the city).
- More than one in four Newport residents earned a bachelor's degree, which is significantly higher than the college degree attainment rates in the other five communities.
- Newport's relative wealth is also exhibited by a
 median home value greater than the state overall
 and well above the other five cities. However, both
 Newport and Providence's median home values mask
 significant housing disparities within their borders—
 extremely low-income households within poorly
 maintained housing stock facing a high housing cost
 burden, as well as high-income households and some
 of the most expensive homes in the state.
- Providence, and to a lesser extent Central Falls, have notably younger populations—each community has a median age much lower than the state's median age of 40
- Unemployment in these six urban communities consistently exceeds the state's unemployment rate, except in Newport. While all six communities have seen improvement in their unemployment rates in 2014, high concentrations of unemployment persist

68 Primarily adapted from PolicyLink and PERE, An Equity Profile of Rhode Island, 2013



(Rhode Island's nine largest cities, in descending order of 2010 population)): Source: US Census Bureau, PolicyLink and PERE, Equity Profile of Rhode Island, 2012

- in communities of color in Providence, Pawtucket, Central Falls, and Woonsocket.
- While statewide population growth is projected to remain relatively flat, communities of color are projected to experience relatively strong growth in Rhode Island's largest urban areas: from nine percent in Newport to 37 percent in Woonsocket.
- Minority persons now represent the majority of population in Providence and Central Falls.
- Neighborhoods with poverty rates of 40 percent or higher are most prevalent in Providence, but areas of relatively high poverty are also found in Pawtucket, Central Falls, and Woonsocket. Further, nearly ninepercent of people of color live in high-poverty tracts, as compared with only two-percent of whites.
- High rates of zero-vehicle households are found primarily in and around Providence, Pawtucket, and Central Falls, and some of Woonsocket. This underlines the importance of ensuring these communities have access to other modes of transportation.
- Certain neighborhoods in these communities are lacking in trees, parks, and other open space compared other places in the state.
- Most of Rhode Island's "food deserts," defined as low-income census tracts where a substantial number or share of residents have limited geographic access to a supermarket or full-service grocery store, are located in Providence and Woonsocket, and nearly one-third of the population in these areas is either African American or of Latino heritage.

Urban Community Assets and Opportunities

Community Assets. Rhode Island's urban communities are one of Rhode Island's great assets. These cities are rich in history and New England character, are home to many institutions of higher learning, contain our most diverse populations, and serve as our largest employment centers. A few urban communities have achieved a degree of success diversifying their local economies. For example, Newport has evolved to a more diverse economy based on jobs in defense, oceanic enterprise, and a strong tourism market. Newport attracts up to 3.5 million visitors annually, with a regional, national and global draw. Providence, Rhode Island's capital city, has also diversified, thanks to its many academic and medical institutions, cultural venues, and a burgeoning food sector. Pawtucket is actively attracting artists and creative sector companies, particularly to former mill buildings throughout the city.

Having noteworthy port and harbor operations, Newport and Providence also represent opportunities in the trade, maritime, and defense industries. ProvPort, one of two deep water ports in New England and a crucial element of the state's shipping enterprises, creates thousands of blue-collar jobs, and generates more than \$200 million in economic impacts. In Newport, access to oceanic assets contribute to research and employment in the science, technology and defense sectors. The U.S. Naval Station Newport contributes many permanent and short-term residents.

Small Business Potential. The urban communities also generate business opportunities at a smaller scale. City representatives noted the growth of small businesses in the form of both "mom and pop" establishments and emerging entrepreneurship activities. The state is already a small business state, with 89 percent of businesses employing fewer than 20 workers (25 percent of the state workforce) and nearly half employing fewer than five workers (8 percent of the state workforce). Population growth trends and cultural patterns suggest that minority-owned small businesses offer great potential to create jobs in Rhode Island. However, compared to national and regional performance metrics, minorityowned businesses in Rhode Island currently fare poorly on a number of performance measures, as discussed in Section One of this Economic Development Plan. Improving access to start-up and small business growth resources in urban communities will go far in supporting the economic health of the region.

Anchor Institutions. Anchor institutions have been key players in the resurgence of some Rhode Island communities, though particularly Providence, Pawtucket, and Newport. These community anchors are typically medical and educational, but also include other nonprofit, non-governmental entities. Providence has a wealth of community-serving anchor institutions, while the other cities have less. While usually non-profit, large, private enterprises with strong roots in the state (e.g., CVS, Hasbro) can also serve as community anchors for the local investments they make. Indeed, many large

Anchor Institutions.

These place-based institutions are tied to their location by reasons of mission, invested capital, or relationships to customers or employees and hence have a vested interest in improving the welfare of their surrounding communities. www.community-wealth.org

corporations today are seeking high profile opportunities for contributing to the health and quality of life of the places in which they are located.

Prime Redevelopment Sites. The potential for reinvestment in many of these communities is high from a real estate perspective. An analysis performed for RhodeMap RI identified nearly 3,500 acres (more than 2,300 distinct parcels) within ten Rhode Island communities (the cities and North Kingstown) as having low "improvement to land value" ratios. A low ILV is a key indicator, suggesting that a parcel may be ready for redevelopment because the current improvement value (from buildings, etc.) is too low for the land cost. The majority of these parcels are industrial or commercially zoned today suggesting there may be fewer barriers to reinvestment as mixed-use. They also take advantage of existing infrastructure assets.

Areas like Pawtucket and Warwick have seen greater investment in recent years than other smaller Rhode Island cities. Thanks in part to assets such as location both have good highway access, are served by transit, and are close to Providence. These cities also benefited from state initiatives such as the Armory Arts District in Pawtucket, current or planned future transit investment, and competitive land prices. Private land use investment has picked up in these communities in recent years, particularly for residential and mixed-use. These success stories should serve as examples for Rhode Island's other urban communities.

Urban Community Challenges

Financial Resources. While the list of challenges to the vitality of urban communities can appear to be deep and complex, at its root is the basic problem of insufficient resources. With some exception, these communities lack financial resources in the form of limited tax revenue (partially due to lower housing values), limited access to funding programs (perceived or not), state-mandated caps on raising local revenue, and limited private sector investment. The idea of raising taxes to increase resources receives high levels of resistance, as residents and businesses alike criticize the state's tax structure. Providence already has the highest commercial tax rate of like-cities and recently increased its residential tax rate by 25 percent. Some financial incentive programs have become less effective over time. In particular, exclusion of LLC's, LP's, Sole Proprietorships, and Partnership business entities from participating in Enterprise Zone benefits means most of Rhode Island's small businesses are shut out of a major economic development assistance program. This is particularly problematic because (1) Rhode Island is a small business state; (2) most businesses operated by people of color are small businesses; and (3)



solo entrepreneurs and small employment businesses will continue to be major contributors to the State's economic growth for the foreseeable future. Further, as more and more areas of the state have been designated as Enterprise Zones, the ability to target resources where they are needed most has been weakened. On the other hand, it is worth noting that while Enterprise Zone resources are no longer available to such businesses, such businesses all received significant reductions in their marginal personal income tax rates under the State's 2010 personal income tax reform.

Social Service Resources and Basic Needs. The urban communities also lack adequate social service resources in that they have fewer staff due to tight budgets and a residential base without the time or resources to commit to community building. While lacking these economic and social resources is not exclusively an urban problem, it is more pervasive in these communities. So long as median incomes in these communities remain low, social service outlets and budgets will continue to be strained moving forward. However, these services may prove to be the difference for many individuals between struggling for subsistence or becoming a successful member of the workforce. Many of these communities also lack sufficient access to fresh, healthy, and affordable foods, and can be considered "food deserts." Access to affordable health care and other basic needs can often be a challenge as well.

Redevelopment Barriers. Urban communities generally do not have many opportunities for new development on open parcels, which means redevelopment of existing historic, former industrial buildings and other historic commercial properties represents a significant portion of future investment. Preserving these buildings is consistent with state and local goals, providing significant adaptive reuse opportunities for housing, small business incubator

space, small advance manufacturing businesses, artist lofts, or other economic generators; but they are expensive to redevelop due to building rehabilitation and fire codes which make it difficult for these projects to be economically viable. Further, many of these sites have environmental issues such as brownfields that can be complicated and expensive to address. With rents relatively low in the region compared to construction costs, developers often cannot recoup costs without outside financial incentives. The historic tax credit program was largely viewed as a success and a huge factor in major redevelopment projects, in addition to being described by some as "maybe the only program that has ever worked." Among the interviewees, it was acknowledged that the tax credit program's absence has made rehabilitation of historic structures—ever present in post-industrial communities—very difficult, if not impossible. The relatively high cost of compliance with the state's building and fire codes—made stricter after the tragic Station Nightclub fire in West Warwick was widely acknowledged as a significant impediment to development and redevelopment efforts. Another barrier is the variability in how codes are enforced and permitted across municipalities.

Infrastructure. While existing infrastructure is certainly an asset to build upon, many urban communities have infrastructure challenges as well, related to quality, maintenance, and access. Minimal state infrastructure investments are not unique to Rhode Island's urban communities, but the issue is exacerbated when urban communities have an insufficient tax base to support necessary infrastructure maintenance and improvements on their own. The provision of adequate infrastructureparticularly transit related—is a key element in attracting the private investment which has been inadequate in urban communities. Cities like Providence and West Warwick have good highway and transit access, while others—such as Woonsocket and Newport are isolated from major routes and have limited transit service. While Newport's location on Aquidneck Island is a great asset, it is also one of the city's greatest challenges for transportation and transit access. Newport is also striving to improve broadband infrastructure on Aquidneck Island—a necessity for successful business today.

Suburban vs. Urban Perceptions. Interviews and focus group findings indicate that urban communities, generally, perceive the majority of statewide investment and resources as being directed to suburban communities, or an urban community other than theirs. A review of the past several Rhode Island State budgets, however, demonstrates that this view may not be entirely accurate. A review of state budget expenditures suggests

"In a sense, we (the urban communities) feel a little bit like a Prius in a car dealership that only runs ads for SUVs. Just as the consumer who is looking to buy a Prius is different from the consumer looking to buy an SUV, businesses that are looking to locate in an urban setting are different from those who would want to locate elsewhere..."

—Project interview

that urban communities receive the largest percentage of state resources, principally via the educational State Aid program. Another example is that a very large share of the projects financed with historic

structures tax credits are in the urban communities. Regardless, a perception of preferential public investment exists and must be addressed, as a first measure towards urban revitalization. Another common refrain heard was that the varying land-use policies of cities and suburban towns serve to confuse real estate developers. Some interviewees advocated for the regionalization of local governments, in order to efficiently utilize local resources and improve service delivery.

Housing. Because the vast majority of low-income populations reside in our urban communities, issues related to housing security and safety are prominent. Older housing stock that is predominantly rental results in many families living in homes that may not be up to code or may otherwise require attention. Lead paint removal and energy efficiency are two continuing challenges in these homes that require constant attention in the form of enforcement and incentive programs for weatherization and general improvements for efficiency. Conditions have been particularly challenging in recent years with the foreclosure crisis, which affected urban core neighborhoods disproportionately. High numbers of abandoned homes and displaced families placed enormous stress on neighborhoods that already faced significant economic challenges. As Rhode Island

Percent of Housing Cost Burden (2006-2010)

GROUP	RENTER	HOMEOWNER
Latino	57%	63%
African American	52%	57%
Asian/Pacific Islander	49%	44%
White	45%	35%
Other	47%	56%
All	48%	37%

Source: PolicyLink and PERE, An Equity Profile of RI, 2013

continues to work its way out of the Great Recession, aggressive strategies to stabilize neighborhoods and improve housing conditions must be viewed as an economic imperative.

Another major housing challenge in our urban communities is the mismatch between what households earn and what they pay for housing. According to Anna Cano Morales, Director of the Latino Policy Institute at Roger Williams University, "it's simple math. If a household is spending too much of its income for rent, it has less to spend on other necessities such as food and clothing, as well as discretionary purchases that help strengthen the local economy."69 Having access to quality affordable housing can help attenuate the high costs of living, even when someone does not have the skill set to acquire a high-wage job. According to An Equity Profile of RI, 48 percent of renters and 37 percent of homeowners in Rhode Island spend more than 30 percent of their income on housing, which is the definition for being "cost burdened." This is disproportionately felt by communities of color, particularly Latino and African Americans, who have the highest rate of cost burden.

Consumer spending accounts for approximately 70 percent of economic growth.⁷⁰ The ability of residents to spend money has significant implications on Rhode Island's economic health. Those with higher incomes and less housing burden have more money to spend. If the housing burden is relatively low (closer to 30 percent), a person may be able to spend more money on basic necessities such as food, transportation, and utilities. However, for the most part, the housing-costburdened segment of Rhode Island's population generally cannot contribute to the Rhode Island economy through consumer spending.

Transportation and Mobility. Rhode Island's urban core areas have the highest levels of public transit service in the State. This is clearly driven by higher population densities and lower household incomes. It is widely acknowledged that more and more frequent bus service is needed to meet the demands of the existing population and capture all of the benefits associated with mass transit. It is also widely acknowledged that RIPTA is providing excellent levels of service given their funding structure, which is inadequate to meet the state's full transit needs. Demographic trends (see Part One) forecast significant increases in communities of color as well as an aging population. Statistics show that these

⁶⁹ Christine Dunn, "High Housing Costs a Heavier Burden for

Latinos," Providence Journal, February 27, 2014.

Hale Stewart, "Consumer Spending and the Economy," New York Times, September 2010.

City Centre Warwick

City Centre Warwick is a premier Gateway to Rhode Island and poised to become a great example of transit-oriented economic development. Its central location in the State and in Southern New England provides an unparalleled opportunity for creating a pedestrian- and transit-friendly community within the Northeast mega-region that capitalizes on its multimodal transportation infrastructure, housing stock and coastal assets. City Centre Warwick includes a full master plan, innovative zoning, and streamlined permitting that will transform this area's former manufacturing base into a 21stcentury transit-oriented hub.

trends will only increase the already unmet demand for transit in urban and suburban areas alike, while necessitating more flexible para-transit in our rural communities. Dramatic changes in funding strategies are required in order to create a system that can more

effectively connect residents to jobs and everyday needs.

Another important way to increase mobility is identifying opportunities to coordinate redevelopment with new or planned transit investment. Transit Oriented Development (TOD) is a model of mixed use development that has been widely successful across the country and involves concentrating high density residential develop and complementary commercial uses around transit nodes. The City of Warwick has embraced this model with the City Centre Warwick initiative (see sidebar) and, based on current plans for commuter rail expansion, the City of Pawtucket may be able to do the same.



RHODE ISLAND'S ECONOMY OUTSIDE THE URBAN CORE

The distinction between the urban and rural parts of Rhode Island is its most important land use pattern, according to Land Use 2025, Rhode Island's guiding policy on land use. A corridor through the middle of the state contains over 75 percent of Rhode Island's population and nearly all of the public infrastructure, major transportation routes, and institutional and cultural centers. Beyond this densely developed area, outside the State's Urban Services Boundary, there are areas of much lower intensities of development in Rhode Island's more rural communities.⁷¹ These rural areas are less than a 20 minute drive from the state's most dense urban center, Providence, which provides many residents with unique access the State's shoreline and islands on the east, farm and forest land to the west, and the picturesque Blackstone River Valley to the north. Unfortunately, the close proximity between our urban and rural areas has also increased pressure to develop on farm and forest land. According to Land Use 2025, the past 30 to 40 years have shown a faster rate of development in the state's suburban and rural areas.

Rhode Island's rural lands have economic value both for their natural habitat and their ability to generate economic revenue, particularly through agriculture and other industries that depend on the state's natural assets. Sustaining these distinct and important land use areas is a critical goal in Land Use 2025, specifically through encouraging rural development to occur in villages and growth centers, or through compatible economic uses on farm and forest land. These place-based goals are carried through to this Economic Development Plan by examining the economic conditions that distinguish Rhode Island's rural areas and highlighting important connections between growth centers, rural economic vitality, and the state's natural assets.

Village Development: The Economic Impact of Rural Growth Centers

As noted in Land Use 2025, employment and population have grown away from the urban centers since the 1970s. Rural areas have become more suburban, and suburban areas more urban. The unintended consequences of this suburban growth have become clear. Environmental impacts include loss of working farm and forest lands, decline in water quality, reduction in stream flow, and fragmentation of wildlife habitat. Economic impacts

71 Land Use 2025

include soaring municipal expenses to maintain roads, bridges and infrastructure, not to mention providing police and fire protection and other services to outlying residential neighborhoods. Since the 1970s dozens of "cost of community services" studies have shown that the typical suburban home costs its community more in services than it generates in taxes. An analysis of commercial activity in Barnstable, Massachusetts found the same problem, with shopping centers, big box stores and restaurants all costing more in town services than they paid in taxes.

Finally, the social impacts of the suburban model are widespread. Dependent on the automobile for many daily needs, both young people and older residents are isolated. Ironically, while the neighborhoods themselves change little over time, their residents have to move frequently, especially young people just starting out or older people looking to retire—both of whom have to move away in order to find a smaller or more affordable home or apartment.

Additional social impacts from the classic suburban development model include those related to housing. For several decades, Rhode Island's suburban and rural communities were developed as single-family home neighborhoods. House lots in the most rural areas were zoned as large as five acres (minimum) with more suburban communities creating lots in the one to threeacre range. While there was unquestionably a market demand for these homes for many years, the widespread dominance of single family homes played an enormous role in creating an income and equity gradient across Rhode Island. Lower income populations, predominantly people of color, generally had no affordable housing options outside of the urban core communities, while more affluent households could choose from a wide range of more expensive choices. This pattern of segregation contributes significantly to many of the socio-economic challenges examined more deeply under Goal 2 of this plan.

Growth Centers can be part of the solution. Growth centers are compact, walkable centers with a mix of residential, commercial and community uses with clear economic, social and environmental advantages. Whether in a city, suburb or rural town, the growth center model can be implemented at a wide range of scales and densities to capture these advantages for Rhode Island communities. In urban and suburban contexts, growth centers are about reinvesting in our communities, and building on existing infrastructure and other economic assets. In a rural context, growth centers

Village Development in Burrillville

Working in partnership toward a common vision, the local boards of Burrillville implemented a redevelopment master plan to rebuild Harrisville's village center. Through coordinated planning, the multi-phased Stillwater Mill redevelopment plan transformed the area into a successful mixed-use center, with a seniors apartment building, the construction of the signature multi-use Clocktower complex, a new 24,000-square-foot library, a public pavilion that houses the farmer's market and a canoe launch site that opened up access to the nearby Clear River.

are meant to provide opportunities for economic growth, revitalize existing villages, target new development into traditional village patterns, and protect and conserve the state's vital natural and agricultural resources. Whether in rural, suburban, or urban settings, growth centers can provide a range of housing options for people at different stages of life and income levels.

Exeter's recently adopted Planned Village Overlay District, for example, will direct growth into areas that can best support it. Designed with a diverse mix of singlefamily homes, townhouses and apartments, the village will meet the needs of residents at every stage of life. With more people within walking distance, there will be increased support for local businesses and new jobs. And because the increase in density within the villages will only be possible through the protection of farmland and other open space (through a newly adopted local Transfer of Development Rights program), the village will help to protect the environment and rural character of the rest of the town. In addition to this environmental benefit, an analysis of fiscal impacts of Exeter's potential villages found that each new village home will generate \$1,500 more than it requires in town services, compared to a net loss of about \$1,000 for the more typical suburban home on a large lot.

Increasingly, villages and growth centers are finding economic success because they meet a critical need for smaller homes and apartments. For example, a recent market study for the Wickford Junction area in North Kingstown found a significant pent up demand for apartments. Revising local regulations to encourage apartments would spur redevelopment, meet a need voiced by local residents, and generate positive net tax revenue for the town. Villages can also be centers for rural-oriented businesses, such as farm-based retail, services, processing, and other light manufacturing, to locate close to one another and to potential employees and customers. More information on village development strategies can be found in the Village Training Manual, a publication of RIDEM, sponsored by a Planning Challenge Grant from the RI Division of Planning.

One of the final opportunities related to implementing growth centers relates to the issue of public transportation. There is a clear need for a more robust transit system in our urban communities, as well as a desire to provide greater connections to and among outlying communities. This creates a tension between allocating funds to urban service demands and trying to create connections more broadly across the state. Each of these objectives has clear merits, but limited funding makes it impossible to invest in a way that would satisfy both in the near term. The implementation of growth centers can be used to help guide investment over the long term by establishing nodes of housing and commerce that can be connected over time. Continued investment in urban areas will serve to increase accessibility by transit and outlying growth centers that reach a critical mass can be easily connected to larger employment centers. Growth centers can also be used to strengthen transit networks by coordinating development with existing or planned infrastructure.

Working Landscapes: Harnessing Economic Value While Preserving Our Farms and Forests

The vast majority of land in rural Rhode Island is zoned for residential use—even if the current use is in fact agriculture or forestry. While farmers can generate revenue from selling their crops, profits can be modest in the best of years—and when the only other option is to sell the land for residential development it is no wonder that so many farms have been subdivided. On forested land, the available cash flow from the sale of timber products is even less likely to sustain landowners. For many landowners, splitting off a few house lots from time to time becomes the only way to keep up with expenses. The economic pressures on landowners, combined with the limited opportunities of traditional zoning, contribute to a haphazard, sprawling pattern of development. Interestingly, when reading many local Comprehensive Plans, this pattern of development is at odds with a town's goals to protect rural character and quality of life while encouraging appropriate economic development. It also works against elements of the State Guide Plan, including Land Use 2025, and the desire for more concentrated growth center development.



Rhode Island seeks to help towns provide economic incentives for landowners to preserve their land in agriculture or forestry, by identifying appropriate business uses of farm and forest lands, and exploring how towns might encourage such activities through changes in planning policies, zoning and other regulations. The state seeks to:

- Identify small business uses or commercial operations that will help maintain the viability of our farms and provide incentives to limit the development of working farm and forest lands.
- Develop performance standards for these activities that will allow them to coexist within residential zones with neighboring homes and other uses.
- Craft regulatory guidance that communities can use to shape local ordinances that allow for new businesses, help bring existing operations in residential zones into conformity, and apply reasonable performance standards.

RIDEM recently completed a study called Community Guidance to Maintain Working Farms and Forests. One agricultural policy expert in Rhode Island called this study "potentially the most significant public policy treatment of the land use regulation of farmland and forests in the last 30 years."⁷² This study developed a local regulatory framework uniquely suited to the way rural businesses get started in the home or on the farm. Whether a person is looking to sell baked goods from his or her kitchen, or a vineyard wants to host a 200-person wedding, this regulatory system can be scaled to both encourage local business development and protect the surrounding neighborhoods. Technical assistance will be required to retrofit zoning ordinances in Rhode Island's rural communities with this new system.

⁷² Personal communication with Kenneth Payne, RI Food Policy Council Chairman

Takeaways

As past and current employment centers and residential hubs, urban communities are central to Rhode Island's future economy. By virtue of their location, demographics, industrial past, and unique socioeconomic challenges, they will require more targeted

and patient investment before significant social and economic improvement is realized. Rather than competing against each other for limited

Enterprise Zones

The Rhode Island Enterprise Zone Program offers State tax credits, which can be used by Enterprise Zone businesses to reduce their corporate income tax liability. Tax credits are earned by creating full-time jobs for Rhode Island residents.

resources, the emphasis should be on working together and learning from each other to help those most in need and establish a more interconnected economic system.

A number of tools have already been helpful to these communities—including the arts tax-free district, the historic rehabilitation tax credit, and the use of enterprise zones. However, in each case, either further funding has not been approved, or the areas of eligibility have been expanded, meaning a less targeted impact for these communities. A promising state-level strategy for raising the profile of Rhode Island's cities includes an entity providing targeted resources for urban communities such as an Urban Redevelopment initiative (discussed in more detail in Moving Forward).

In addition to the opportunities and challenges specific to urban communities, the State must be mindful of the unique conditions in less developed areas outside the Urban Services Boundary. Challenges related to public transit and housing in these areas can be addressed, at least in part, by continuing to aggressively pursue a robust growth centers program. This approach will allow communities to redevelop historic villages or create new mixed use centers in a more sustainable fashion that has local and regional benefits. Concentrating development in this fashion will allow the State to better focus any potential future investments for housing transit or other infrastructure. The state can both preserve natural resources and generate economic development and jobs in its non-urban communities by supporting in particular the agricultural, tourism and marine industries, and encouraging targeted growth in other industries where it can be supported by infrastructure.

Moving Forward

To address the opportunities and challenges described above, and to achieve the fourth Goal of this Economic Development Plan, the State has adopted three overarching policies.

Policy 1: Support state investments and incentives and provide technical assistance focused on high priority redevelopment areas and growth centers.

a. Create a state-level urban redevelopment initiative, designed to increase capacity, avoid displacement, and streamline redevelopment within urban communities.

As discussed in numerous areas of this plan, urban communities require additional resources and investment, as their economic success will bolster the economic prosperity of the entire state. Through the direct engagement of urban officials, residents and business leaders, the following list of supports was identified.

- i. Identify idle manufacturing facilities and create incentive-package options for redevelopment with mixed uses, including flexible manufacturing.
- ii. Assist with blight studies, property assemblage, market and financial feasibility analysis, developer negotiations and deal structuring.
- iii. Assist with loan acquisition, particularly where small business lending capital is in most need.
- iv. Provide technical assistance in effectively using redevelopment tools such as Tax Increment Financing, New Market Tax Credits, etc.
- v. Assist with negotiating and crafting Community Benefit Agreements (CBAs) from large projects and leveraging community improvements from anchor institutions. This might include making sure construction jobs are accessible to residents of the communities where development is taking place, and to low income workers generally.
- vi. Provide technical assistance on developing anti-displacement strategies for areas in which development is occurring or desired.
- vii. Provide basic support services to communities such as event planning, convening space, training sessions, and GIS data development and maintenance.

- viii. Provide access to technical assistance for site related issues like brownfield redevelopment or pre-permitting at the state level.
- ix. Increase awareness and coordination of programs like the Volunteer Income Tax Assistance (VITA) program.
- Engage community groups in broader land use and specific site planning issues at the neighborhood level.

It is important to note that this list of support services may not require the creation of a new state-level office. Items on this list could theoretically be assigned to different agencies that may have similar interests and objectives. However, the work performed in the RhodeMap RI process strongly suggests that consolidating these services under a single agency would create a more consistent vision and result in more efficient deployment. A new statewide Urban Redevelopment Office would be the advocate for Rhode Island's urban communities and, if adequately funded, could provide significant capacity building and technical support. A dedicated urban focused agency will provide the mechanism for the state to pool resources, including marketing, financial and real estate analysis, and technical business assistance, for the benefit of underserved urban communities. In the most ambitious scenario, the office could also be granted powers generally associated with a Redevelopment Authority. This could provide the state the opportunity to assume permitting and development control over particularly challenging sites upon recommendation from the host community.

 b. Consider using "tax-free zones" to redevelop older industrial buildings and sites, both to attract new investment and provide clear, direct benefits to residents in the host community.

An aggressive, incentive-based program to lure private investment to the urban core is much needed and would be very well-received by the state's urban communities. Staff in Pawtucket and Central Falls envision a highly targeted tax free incentive (corporate, sales and property), such as an identified redevelopment area smaller than an enterprise zone, as the kind of aggressive economic development incentive program required. Commerce RI championed legislation to enable the establishment of targeted tax-free zones, however the legislation did not pass in the first attempt. Such an incentive would be one piece of a toolkit attracting



the private sector to redevelop older industrial buildings and attract new investment in the State's most disadvantaged communities. Such an incentive should also be designed to provide direct benefits to the neighborhoods and residents where development is taking place (See Goal 6, Policy 2, Strategy e: re Tax Incentives, and Goal 2, Policy 1, Strategy c: re Community Benefit Agreements).

 Restore the Historic Preservation Investment Tax Credit with adequate funding to spur targeted development, including residential development.

Between 2002 and 2006, more than \$900 million in rehabilitation projects happened largely because of the tax credit, reportedly the most generous in the country, which was halted in 2011.⁷³ According to local staff, the program helped to create 1,000 new residential units in Pawtucket and Central Falls, alone. The program—which provides tax incentives for historic rehabilitation—was reintroduced in 2013, with a lottery to allocate the \$34 million in remaining tax credits. Those funds have been entirely allocated to projects approved in the first round as well as others on the waitlist. The termination of the program significantly curtailed new investment in Rhode Island's cities and, as a result, the flow of new business and residents.

While tax credit opponents argue that it is primarily an investment in a private entity, the ripple effects associated with the redevelopment of neighborhoods and job creation, particularly within the construction industry, provide opportunity to both improve distressed neighborhoods and provide entry level and career growth opportunities in well-paying jobs to a diverse workforce. Recommendations for re-instating the program include:

73 Ibid.

- The program should remain available to commercial, residential, and mixed-use projects. Mixed-use and residential, in particular, will benefit the urban communities that need both jobs and affordable housing.
- The program could be modified by adding evaluation criteria, including consistency with state goals related to smart growth, affordable housing, etc., to increase transparency, and an analysis of the economic impact of providing the tax credit.74
- The program could incorporate apprenticeship programs or other community benefits as a requirement for participation.75 (See Goal 6, Policy 2, Strategy e: re Tax Incentives, and Goal 2, Policy 1, Strategy c: re Community Benefit Agreements)
- d. Revitalize the state's Enterprise Zone Program to re-establish it as an effective redevelopment tool that increases the benefit to businesses that provide direct local employment.
 - Over the course of the RhodeMap RI process, many participants talked about the possibility of revitalizing the state's Enterprise Zone Program. Most people who were knowledgeable of the program believed that changes to the legislation had weakened it over time and that a once viable economic development tool had become ineffective. In discussions with those most familiar with the program and the changes that were made over time, the following ideas were identified as worthy of consideration:
 - · Reducing the geographic area covered by the program to create a more targeted and strategic approach;
 - Removing or revising eligibility restrictions built into the program in order to have a wider variety of corporate structures participate;
 - Creating a preference for designated Growth Centers;
 - Increasing the benefits to businesses that provide direct local community benefits.

It is important to note that the tax laws for different corporate structures within the state are complex and several of the corporate models excluded from the Enterprise Zone program do experience special tax benefits in other ways. It will be important for

- parties examining this strategy to fully understand the tax implications of broadening the participation of different corporate models.
- e. Consider exempting Growth Centers from the state's tax levy cap to remove disincentives for public and private investment.

Updated in 2007, the state's property tax levy cap limits the allowable growth in total revenues from property taxes to a fixed rate of four percent each year. The levy is not a restriction on the growth of the tax rate, but rather on the total revenue collected. Exceptions to the levy are granted for the following situations:

- Loss of non-property tax revenue;
- Fiscal emergency;
- Increase in debt service obligation; or
- Growth that necessitates increased expenditure for infrastructure or municipal services.

Critics of the policy believe that the levy cap creates a disincentive for local communities to expand their commercial tax base or pursue economic development projects because it caps the potential benefits to the municipality. With some communities already at or over their cap, the benefits of new investment would be limited from a tax revenue perspective. Further,

an assessment performed by GrowSmart RI revealed that, while many municipalities have used the first three exemptions listed above, none have used the fourth. The fact that no municipality has ever sought approval to

Growth Centers

For more on Growth Centers, see the discussion in Section 3, "Growth Centers: A Common Thread." Note that the formal process for designation of a growth center, and related benefits and obligations, have yet to be determined. In exchange for the additional incentives discussed here, growth centers will likely be required to hit certain targets for multifamily or affordable housing, energy efficiency, transit access or transit readiness, and other measures.

exceed the levy cap based on "growth" underscores the concern about stalled economic development at the municipal level. The statute assumes growth would occur first and then necessitate infrastructure investment, when in fact substantial growth might not be able to take place without first making the public investment in infrastructure to accommodate desired growth.76

76

⁷⁴ Rhode Island Senate Policy Office and Rhode Island Public Expenditure Council (RIPEC), Moving the Needle: RI's Economic Competitiveness Rankings, 2013.

⁷⁵ Focus Group with Rhode Island State Council on the Arts (RISCA) and Rhode Island Council for the Humanities (RICH).

GrowSmart legislative brief.

The recommendation from this economic development plan is to revisit this issue and add designated Growth Centers to the list of exemptions for the tax levy cap. This legislative amendment will not only allow municipalities to realize the fiscal benefits of smart growth, but will also encourage public infrastructure investment in these areas.

- f. Provide incentives to rehabilitate foreclosed/ vacant properties into rental and homeownership opportunities and explore the use of "sweat equity" programs for local residents to perform the work.
- g. Consider providing additional incentives within programs and tools such as the Historic Preservation Investment Tax Credit, Enterprise Zone Program, Tax Increment Financing, etc. when they are applied to approved Growth Centers.

Policy 2: Increase the capacity of communities to create and revitalize mixed-use, walkable village and growth centers.

 a. Provide technical assistance for the identification and implementation of Growth Centers, including growth center visualization techniques.

As communities continue to move toward the identification of growth centers, local officials and supporters must be prepared for public discussions that can sometimes be confusing and confrontational. Questions that will often arise include:

- What exactly is a "growth center" and how does that relate to my town?
- What are the key elements of a growth center?
- · Where could one be located in my town?
- What could it look like?

This last question can be the most important from the perspective of local residents and business owners. One of the biggest barriers to increasing workforce housing production and economic activity in many Rhode Island communities is local resistance to change. Whether resistance comes from the general public, local officials, or existing business owners, it is generally rooted in fear of words like "urban" or "density." Particularly in rural or suburban bedroom communities, phrases like "housing diversity" or "mixed use" can conjure images of 10-story apartment buildings or giant shopping plazas that would not

only be completely out of place, but also misrepresent what would be considered good planning. In these situations, the zoning reform that is required often does not get passed or new zoning gets passed with so many restrictions that development simply is not viable.

One of the most effective tools in easing local anxiety over the concept of growth centers includes computer generated visualizations of what future development could look like. Photo-simulations of "before" and "after" scenarios can clearly show the scale, and design of future development and very clearly communicate the long-term goals for any regulatory reform. Developing these visualizations requires specific training that local planning officials often do not have. Hiring consultants that do have these skills can also be expensive. Statewide Planning could develop these skills "in house" by investing in intensive training for design software like SketchUp, Adobe Photoshop, and other similar programs. At least two state employees should become adept at these techniques through training programs that would likely last between one and two years. Once trained, state level employees could provide visualization services to any municipality as part of an incremental, but essential, campaign to reform local regulations for growth centers.

 Adopt mixed-use development zoning which incorporates village-like amenities, services, and housing options for a mixed-age, mixedincome residential population, and includes by-right multi-family or other denser housing models for rural and suburban centers.

One of the primary barriers to developing high quality mixed use growth centers in Rhode Island



is the absence of zoning provisions that can enable and foster this type of investment. This is a problem throughout New England, where many communities are stuck with zoning ordinance language that requires development practices that are environmentally damaging, perpetuate inequity, and degrade historic settings. In some cases, this zoning does not exist because communities are fearful of change and actively resist adopting any regulations that might facilitate increased development. In other cases, the zoning does not exist because local officials simply do not have the technical expertise or the resources to craft the necessary amendments.

Through the continued development of the State's growth centers program, guidance is required that covers some of the more fundamental aspects of village zoning. Communities that understand the following basic elements are far more likely to succeed:

- Simple (but often overlooked) amenities such as sidewalks, walkways, parks, and transit stops can contribute significantly to the success of mixed use development.
- A range of housing choices, including multifamily, should be allowed by-right to create a clear permitting path that supports density at an appropriate scale in locations across the state that meet the needs and preferences of the current and future workforce.
- "Parcel-by-parcel" requirements for parking, curb cuts, and lot coverage can make village style development impossible without procuring variances.
- communities for the implementation of innovative tools that can increase development density with high-quality design. Beyond the basic elements of village implementation at the local level (see letter "a" above), a series of more innovative and technically complex tools exists that can be integral to growth center development. Communities may require technical assistance and/ or funding to explore and adopt many of these tools to suit their unique challenges and planning goals. Tools that may require this level of assistance include (but are not limited to):
 - · Advanced elements of site design;

c. Provide guidance and funding to local

- Innovative parking strategies;
- · Bicycle and pedestrian oriented design;
- Design guidelines; and
- Transfer of Development Rights.

d. Adopt revised state legislation for the Transfer of Development Rights (TDR) to facilitate strategic, increased economic activity and housing development. Use RIDEM draft legislation as a starting point.

Policy 3: Promote alternative transportation that connects people to housing, jobs, and services.

a. In updating the State's transportation plan, approach future transit investments with an eye toward increasing workforce mobility and health, strengthening our tourism industry, and reducing environmental impacts. RIPTA has made strides in recent years toward making its statewide bus system more efficient, though admittedly there is much farther to go. Other strategies in this plan advocate for increased funding for public transit from a dedicated source. With that in place, RIPTA and RIDOT can continue to build and expand Rhode Island's transit system, which will have significant positive impacts on our economy. Increased bus service between major population centers and major job centers, as well as flexible service options between smaller suburban and village centers, all linked to other hubs such as T.F. Green Airport, train stations, and ports, will improve job access to people throughout the state. Making sure the transit system is accessible to those with disabilities or other mobility issues that don't allow them to drive should be a priority. If the system can serve those with the least mobility, it can serve everyone. Continued investments in pedestrian and bicycling facilities will further increase mobility, not only for residents but also for visitors to Rhode Island, making tourism in the state easier and more attractive. Finally, an increase in transit use has been linked with an increase in walking, and subsequent improvements in public health and workforce efficiency, not to mention a decrease in vehicle miles traveled and poor air quality. Environmental impacts can be further reduced by continuing to invest in electric vehicle charging infrastructure.



 In updating the State's transportation plan, support the connection of bike paths and greenways across the state to create region-wide bike trails, prioritizing investment in bike paths that would serve low-income communities.

Rhode Island continues to make steady progress in improving its systems of greenways and bike paths. There are currently 10 different bike path systems in the state with many more in either the planning or design phases. These connections provide valuable recreational amenities and safe routes for people to access different neighborhoods and commercial centers. Looking forward, the State is considering new bike path links in the cities of Central Falls, Pawtucket, Providence and Woonsocket. To the extent possible, these bike path investments should be prioritized as they can provide direct positive impacts to lowincome communities by increasing quality of life and inducing further economic activity.

c. Focus on in-state and regional commuter rail service at T.F. Green InterLink facility that enhances air-to-rail opportunities for airline passengers, while investigating the businessdevelopment opportunities of additional potential stops in Rhode Island, leveraging the state's central location along the Northeast Corridor between Boston and New York City.

The creation of a broader network of commuter rail stations throughout Rhode Island is a key strategy being explored through the new State Rail Plan, and the state should continue to look for funds to support the addition of new stations. Increasing local commuter rail service (either by MBTA or a future in-state rail shuttle) could provide more service and

headways between T.F. Green airport and Providence, as well among job centers and tourist facilities throughout the state and in greater Boston. Increased ridership and commuter traffic can also provide an increased customer base for business development within the immediate vicinity of stations and the airport. Another strategy being explored in the State Rail Plan is an Amtrak stop at T.F. Green airport. The advantages of this service from a transit perspective are obvious as there would be a direct connection between commuter rail and airport travel. One of the more significant barriers to this service is that the addition of a new stop would increase the Acela and Regional trip times, and would require additional track infrastructure. The State should continue its investigations and attempt to overcome these barriers for the purposes of longer-term sustainable growth.

Performance Measures for Coordinating Our Investments

The following performance measures will be tracked by the State to measure progress toward achieving Goal 4 of this Economic Development Plan. These performance measures will be tracked over time and presented in an annual "report card" by Statewide Planning.⁷⁷

- Vehicle miles traveled per capita (RI Department of Transportation)
- Percentage of housing within ¼ mile of transit stop (RI Statewide Planning Program)
- Increase in non-single-family housing units (percentage by municipality) (American Community Survey)
- Proportion of household income spent on housing and transportation cost (Housing + Transportation Affordability Index)

⁷⁷ Some of the selected performance measures may not be available on an annual basis, which would be reflected in the report card document.

Create a stronger, more resilient Rhode Island.

ike so many other states in the U.S., Rhode Island is grappling with how to address new challenges and capture new opportunities at a unique point in history. The financial pressures that have emerged from the Great Recession, in combination with the growing impacts of climate change are forcing us to rethink how we provide long-term support systems within our state and the northeast region. For Rhode Island, our coastal exposure and aging infrastructure are simultaneously a challenge and an opportunity. Increased storm severity and sea-level rise certainly provide what appears to be a daunting set of circumstances. The most critical challenge, however, is the investment of adequate funding for ongoing maintenance of transportation infrastructure. In Rhode Island, decreasing gas tax revenue, limited funding sources, and increasing debt service costs led to a decline in the condition of Rhode Island's infrastructure. Simply put, neither Rhode Island nor the federal government has been able to keep up with the needs of our aging infrastructure. However, our state's capacity for scientific and policy innovation provide an unmatched opportunity to revolutionize how we develop and maintain infrastructure, become resilient and even thrive in the face of global pressures, and perhaps demonstrate to other places how they too can adapt.

The Components of Our Infrastructure

To fully appreciate the scope of what needs to be addressed to make our state stronger and more resilient, it is useful to review all of the major elements of our infrastructure today. Our infrastructure resources work together as a system, and must be considered as a system. For example, rebuilding the state's transportation infrastructure must and will include the rehabilitation of stormwater infrastructure to ensure that our roads will be adapted to, increased flooding risks, intensified storm hazards, and other hazards. It also includes ports and harbors, which comprise unique forms of public infrastructure that will require extensive renovation for climate change resiliency. Financing the renovation and rehabilitation of RI's transportation system is going to

have to rely upon innovative, long-term combinations of state, federal, and local funding sources. The following pages provide a snapshot of what is truly an enormous statewide infrastructure system and many of the programs and conditions in Rhode Island today.

HIGHWAYS AND ROADS

Rhode Island is traversed by the I-95 interstate highway corridor. This interstate highway system and Rhode Island's two adjacent interstate highways, I-195 and I-295, make up 70 miles of interstate highway and serve as connectors for traffic between New York, Boston, Western Massachusetts, and Cape Cod. The Rhode Island Department of Transportation (RIDOT) is responsible for the maintenance and repair of all interstate highway in the state.

In addition to the interstate highways, Rhode Island has more than 6,700 miles of roads, including arterial and collector roads and local streets. Approximately 1,400 miles of these roads are maintained by RIDOT, while more than 5,300 miles of road are maintained by Rhode Island's 39 cities and towns. Specifically, some of the arterials are locally maintained, while the state maintains lower-level collectors. These mixed maintenance and financial responsibilities for arterial and collector roads and local streets reflect the historical evolution of the highway system in Rhode Island and add a level of complexity to planning, funding and performing maintenance on these roads. In addition, the climate in Rhode Island results in periods of intense expansion and contraction of roadway surfaces: combined with variation in meteorological conditions from one part of the state to the other, and from year to year, pavement life may be adversely impacted.

According to RIDOT, highway capacity has remained relatively static in the state, but within certain corridors there has been an increase in vehicle miles traveled and the number of registered vehicles has grown over the past decade. Future highway and road projects will be primarily focused on improvements to existing highways and roads, but some additional infrastructure and capacity improvements may be needed, particularly in addressing economic development goals. Prioritized

highway and roadway improvements and expansions are included in the four-year State Transportation Improvement Plans (STIP/TIP). Funding is derived from a largely federal program, with a limited match contributed from state sources. ⁷⁸ The state has struggled over the past several years to find sustainable transportation funding resources.

RAILWAYS AND BUSES

RIDOT contracts with the Massachusetts Bay Transportation Authority (MBTA) to provide commuter rail service on the Amtrak main line and the Rhode Island Public Transit Authority (RIPTA) operates a statewide public bus transit system.

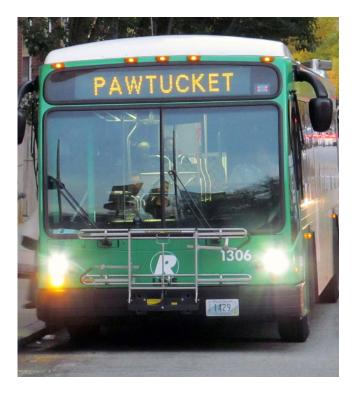
MBTA operates weekday and weekend commuter rail service between Boston and Providence, and weekday commuter rail service between Boston and Wickford Junction, while RIDOT contributes capital funding for projects benefitting the Providence line (i.e., Pawtucket

The R-Line: Rhode Island's First Rapid Bus Service

RIPTA's R-Line is the newest service from RIPTA and is designed to transform transit service along two of the busiest transit corridors in the state. With a combination of operational and passengerfacilities improvements, passengers on the R-Line experience reduced travel times through Transit Signal Prioritization, frequent service, unique branding, and improved waiting areas along the 7 miles of the route. With nearly 11,000 passenger boardings every weekday, the R-Line is making noticeable improvements in the travel times between downtown Pawtucket, North Main St., downtown Providence, and Broad St. The R-Line is a coordinated venture between RIPTA and the City of Providence with additional partners including the City of Pawtucket and RIDOT.

layover yard, trainsets, station improvements, etc). The commuter rail service carries about 2,000 riders/weekday from Providence and 900 riders/ weekend day. As of 2012, there were 17 inbound trips/weekday from Providence to Boston and 19 outbound trips/weekday from Boston to Providence. There also are ten inbound and ten outbound trips per weekday south

of Providence at the Interlink Station in Warwick and Wickford Junction in North Kingstown to Providence and Boston.



The State of Rhode Island created dedicated sections of a third track along Amtrak's northeast corridor (NEC) to allow freight rail to operate alongside Amtrak's passenger service. As a part of this project, the clearance on the rail line was increased to allow automobile carriers with stacked vehicles access to the Quonset Business Park. With 15 miles of track and numerous sidings connecting to the NEC, the park also continually reinvests to maintain and improve their NEC connection. Other issues related to freight are being developed in the new State Freight and Goods Movement Plan, currently under development.

RIPTA's five year strategic plan was completed in 2012. The plan outlines major goals for RIPTA including but not limited to: attracting more riders, growing the transit network to expand mobility and support economic growth, and realizing the environmental, economic, and quality of life benefits of transit. To this end, RIPTA offers a variety of programs including: flex service, whereby buses do not follow a regular defined route. Instead, they travel directly to the next pick-up/drop-off location or time point. This service links patrons with destinations within the zone and with scheduled stops on fixed route transit lines. RIPTA also offers demand-responsive transportation to low income, elderly and disabled people through the RIde program.

⁷⁸ http://www.planning.ri.gov/statewideplanning/transportation/tip. php.

BRIDGES

There are 1,154 bridges throughout Rhode Island. As of January 2014, 206 of these structures were in poor condition, having been identified by engineers as structurally deficient. In addition, 94 structures currently have posted load restrictions and 11 remain closed due to advanced deterioration. Four of the largest bridges in the state, the Mt. Hope Bridge, the Sakonnet River Bridge, the Jamestown Verrazzano Bridge, and the Pell Bridge are owned and operated by the Rhode Island Turnpike and Bridge Authority (RITBA).

The percentage of structurally deficient bridges increased slightly, from approximately 21.4% to 22%, between 2012 and 2013, and the percentage of functionally obsolete bridges experienced a slight decrease from approximately 29% in 2012 to 28% in 2013. Rhode Island's TIP program allocates \$39.5-\$46 million per year to bridge rehabilitation. However, more funds will likely be needed to accommodate regular bridge maintenance in the coming few years.⁷⁹

A number of factors contribute to the condition of the bridges, including age of the structures, climate, and changes in traffic volumes and routes. However, as is true of the rest of the state's infrastructure system, adequate funding for ongoing maintenance is the major barrier. With only the current levels of investment included in the TIP, (approximately \$50 million annually) the deck area of National Highway System bridges in poor condition is estimated to increase from the current level of 19.5% to 41.7% by 2020. However, an investment in bridge preventive maintenance, as well as structural remediation, of an additional \$40.5 million annually would reduce the deck area of structurally deficient NHS bridges to 8.5% by 2021, achieving and exceeding the federal goal established in Moving Ahead for Progress in the 21st Century (MAP-21), the federal transportation reauthorization statute.

ROADWAY TRANSPORTATION FUNDING

Provision of adequate and predictable funding for transportation is an enormous challenge in Rhode Island. Whether investments are made in the construction, repair, and maintenance of Rhode Island's transportation infrastructure or in public transit, including commuter rail managed by the Rhode Island Department of Transportation (RIDOT) and bus and other transit services operated through the Rhode Island Public Transit Authority (RIPTA), the needs are greater than available resources.

While many states rely on Federal transportation funding as a component of their programs, Rhode Island has been excessively dependent. State funding had been limited to the 20 percent match required for the Federal capital program, which had historically been provided by Rhode Island through bonding. Reliance on bonds for this state match created a cycle of increasing debt. At the same time, state gas tax revenues have been declining as more fuel-efficient cars gain traction in the market and Americans drive less due to the increased cost of gas and other demographic factors. RIPTA relies heavily on the state gas tax, fueling 45% of its operating budget and making this decline especially damaging for transit investments in the state.

Without exception, studies conducted over the last two decades have determined that 1) insufficient revenue is generated from available transportation funding sources (federal funds, State bond funds and the State gas tax) for infrastructure construction, maintenance, and operation of the statewide transportation system, and 2) new revenue sources are needed.

Most recently, the Rhode Island Public Expenditure Council report "Transportation at a Crossroads" (2002), the 2008 Governor's Blue Ribbon Panel on Transportation Funding, the 2011 Senate Special Commission on Sustainable Transportation Funding, Transportation 2035, the State's Long Range Transportation Plan (2012), and the Special Legislative Commission to Study the Funding for East Bay Bridges each recognized that diversification of the revenue sources used to fund transportation is critical to the health of our roads, bridges, and transit systems.



⁷⁹ http://www.dot.ri.gov/news/betterbridges.php

Progress has been made on this issue in recent years. Effective July 1, 2013, Rhode Island licenses and motor vehicle registrations were subject to surcharges, phased in over a three-year period as part of the Transportation Investment and Debt Reduction Act of 2011. The legislation created the Rhode Island Highway Maintenance Account, administered by the director of RIDOT. All funds collected were required to provide a portion of the state match for the federal transportation program, thereby reducing the state's reliance on borrowing to gain access to these funds. In addition, Rhode Island Capital Plan (RICAP) funds, a statewide source of capital project investment, have been dedicated to eliminating future bond borrowing to provide the state match. The last of the previously issued General Obligation bonds for state match will be used by RIDOT in FY2015. However, despite this progressive change, no additional funding was allocated RIDOT and RIPTA: both agencies continue to require increased and more predictable funding sources if the state is going to be able to maintain roads and bridges, along with expansion of public transportation options to meet the increasing demands of our population.

Legislation to establish a state-funded transportation infrastructure program was proposed in both the Rhode Island House and Senate in the spring of 2014. Developed, in part, as the result of legislative study of the issues surrounding transportation funding, the bill was incorporated into the FY2015 Appropriations Act (2014-H-7133) as Article 21 and built on prior efforts of the Governor and General Assembly to restructure transportation funding in Rhode Island.

The FY2015 Budget as Enacted provided future additional revenue for transportation infrastructure and maintenance funding, ranging from \$30.0 million in FY2017 to nearly \$80 million over current levels in FY2024. Article 21 made a number of specific changes to transportation-related fees and deposited additional revenue into the Highway Maintenance Account (HMA). The FY2015 Budget as Enacted specifically:

- Eliminated the authority of the Rhode Island Turnpike and Bridge Authority (RITBA) to toll the Sakonnet River Bridge, but did not return the Sakonnet and Jamestown to RIDOT;
- Transferred 3.5 pennies of the gas tax (an estimated \$14.5 million annually) to the Rhode Island Turnpike and Bridge Authority for maintenance of the fourbridge East Bay Bridge System;

- Transferred various new and increased motorvehicle associated revenues to the HMA, including an increased vehicle inspection fee;
- Phased-in a transfer of all existing motor vehicle registration and license fees from the General Fund to the HMA, beginning in FY2015;
- Provided for indexing of the motor fuel (gasoline) tax on a biennial basis, beginning in FY2015, using the Consumer Price Index for Urban Consumers (CPI-U);
- Included language allowing for the more flexible use of the HMA (which was initially established in 2011 to provide the non-bonded match to the Federal program) for "programs designed to eliminate structural deficiencies of the state's bridge, road and maintenance systems and infrastructure."; and
- Provided that 5% of available proceeds in the HMA will be allocated to RIPTA for operating costs, beginning in FY2016.

While the passage of Article 21 of the FY2015 Budget is an important step to creating a state-funded program for transportation infrastructure and transit, there are still critical needs which remain unmet. As an example, RIDOT recently estimated transportation infrastructure needs over ten years at more than \$2.4 billion, while current resources of \$1.4 billion are provided.

AIRPORTS AND PORTS

Rhode Island has six state-owned airports that are operated by the Rhode Island Airport Corporation (RIAC). T.F. Green Airport in Warwick is the primary commercial airport (served by seven airlines). T.F. Green has experienced a fluctuation in passenger activity over the last 10 years. After reaching a high of nearly 6 million annual passengers in 2005, RIAC has seen a slight decline as a result of the economic recession and aircraft seating reductions related to higher fuel costs and airline mergers. Other airports include the Newport and North Central airports which serve general aviation. Quonset serves general aviation and the RI National Guard. Block Island and Westerly also accommodate general aviation with limited commercial service between the two. The Block Island airport is also critical for emergency service.

Rhode Island's Port of Providence is a significant hub for global and regional commerce, providing for goods and services for a population of over a million people. Commercially, the Port of Providence handles liquid, dry, and breakbulk cargoes exceeding 2.7 million tons annually as of 2008. In addition to commercial-cargo, the Port of Providence has an active working waterfront,

driving economic development for the state. The Port of Providence is responsible for hundreds of jobs including tradesmen, truck drivers, service technicians, etc. It is considered to be one of the few remaining sources of well-paid blue-collar jobs in Rhode Island with Port-sector workers earn, on average, about \$50,000 annually. In addition, Providence's working waterfront is the main source of heating oil for Rhode Island, Southeast Connecticut, and Central and Southeast Massachusetts.

Rhode Island's Ouonset Business Park—an economic development hub—is home to more than 175 Rhode Island companies, employs more than 9,500 full and parttime workers, and stretches across 3,207 acres. A driver of economic growth in Rhode Island, the quasi-state agency Quonset Development Corporation (QDC) became a standalone subsidiary of the RI Economic Development Corporation (now Commerce RI) in 2005. In addition to bringing job growth and revenue to this area, QDC is responsible for property development, business park management, utilities, and port operations at Port Davisville, which handles roll-on/roll-off (RO/RO) cargo, processed fish, project cargo, NOAA vessel and future lift-on/lift-off (LO/LO) cargo—break bulk (lumber), containers, and wind components. Port Davisville, Rhode Island's public port, is the in the top 10 auto importers in the U.S. with a record breaking 173,295 autos arriving by sea in 2013. In addition to the economic development associated with the active Port Davisville, future plans for the port include an assembly facility for Deepwater Wind to take advantage of the park's water access and infrastructure and a major expansion of Electric Boat.

EXISTING WASTEWATER INFRASTRUCTURE
Out of 39 Rhode Island cities and towns, 30 are fully
or partially sewered—leaving nine communities with

Rhode Island's nine municipalities with no wastewater systems:

- > Glocester
- > Foster
- > Scituate
- > Exeter
- > Hopkinton
- > Richmond> Charlestown
- . D---t-----tl-
- > Portsmouth
- > Little Compton

no public/ centralized wastewater treatment. RI has 19 major municipal plants, including seven regional facilities. Thirteen of those plants discharge into tidal waters, while the other six discharge to

rivers.⁸⁰ The 19 WWTFs have a total average daily flow of 130 million gallons and an average design flow of 213 million gallons per day.

Rhode Island's wastewater treatment facilities (WWTFs) currently face significant sector-wide challenges including more stringent nutrient limits for discharge waters, facility and collection system impacts from extreme weather and potential changes in climate, and limited options for sludge management.

Many WWTFs are dealing with more stringent nutrient limits for nitrogen and phosphorous. As a result, facility operators and managers struggle to find the funds to implement facility upgrades in order to meet new standards. Facilities can apply for Clean Water State Revolving Fund loans, but those funds will ultimately need to be recovered through rate increases.

In addition, potential capital expenditures are also needed to deal with aging infrastructure and impacts from extreme weather events. Such impacts may include sanitary sewer overflows, combined sewer overflows, inflow and infiltration, inadequate treatment capacity, and cleaning and maintenance of aged infrastructure. To account for extreme events, many RI communities have constructed WWTFs and collection systems to withstand 100-year floods under hurricane conditions (e.g., the East Providence WWTF). However, hurricane storm conditions, combined with projected sea level rise in Rhode Island, may threaten operations at coastal or riparian WWTFs.81 Most recently, the wastewater treatment facility in Warwick was completely overwhelmed in the Spring of 2010 and significant resources have since been allocated to develop measures to prevent this in the future.

Rhode Island's WWTF sludge is generally transported to one of two in-state, privately operated facilities to be incinerated. Some WWTFs have utilized different options such as manufacturing sludge to be used for fertilizer but most WWTFs transport sludge offsite. WWTF operators in Rhode Island have indicated that there is a lack of viable options for sludge disposal. The in-state operators generally operate at capacity and handle considerable quantities from out-of-state sources. This could signify a potential vulnerability for the sector if a contracted facility cannot operate for an extended time.

During heavy rain storms, combined sewer overflows (CSOs) in Providence, Pawtucket and Central Falls contribute to the area's water quality degradation by releasing untreated combined sewage into the Narragansett Bay and its tributaries, namely the Blackstone, Moshassuck, Providence, Seekonk, Woonasquatucket, and West Rivers—causing pollution

⁸⁰ http://www.dem.ri.gov/programs/benviron/water/permits/wtf/potwops.htm#muni

⁸¹ http://www.health.ri.gov/materialbyothers/SafeWaterRIReport. pdf.



and posing public health risks. To combat this, beginning in 1993, the Narragansett Bay Commission (NBC) began a comprehensive CSO abatement program. The first two phases of the CSO project are nearing completion in Providence with the final phase of the project to take place in Pawtucket and Central Falls. As of May 2014, the total project cost is approximately \$578 million. Many ratepayers have seen a 2 percent annual increase since 2001 and additional rate increases would likely be financially burdensome for many households. Infrastructure investment in these urban areas is needed to continue this project, reduce the amount of overflows, and ensure water quality and public health. There would also be value in long-term, integrated planning for wastewater and stormwater infrastructure in upper Narragansett Bay by upper bay municipalities, NBC, the RI Bays, Rivers, and Watersheds Coordination Team (BRWCT), DEM, and other stakeholders such as EPA New England. The goal for such a planning effort would be to develop a long-term agreement on how to rehabilitate infrastructure in a manner that is not overly burdensome to businesses, municipal residents, and municipal governments.

While there are some challenges for WWTFs in adopting energy efficiency measures, significant energy efficiency upgrades have been implemented across the state. Subsidized by funding from National Grid and ARRA funds⁸², these upgrades include onsite renewable energy generation (e.g., wind turbines) and energy efficient motors (e.g., variable frequency drives or VFDs). Increased energy efficiency at WWTFs likely leads to lower long term operational costs for power generation, enable plant self-sufficiency, and decrease the WWTF carbon footprint.

WATER SUPPLY INFRASTRUCTURE

Providing safe and sufficient drinking water is a major priority in Rhode Island. As Rhode Island's population has increased over the last several decades, the demand

82 American Recovery and Reinvestment Act of 2009.

and the location of demand for drinking water have changed. The resultant drinking water supplies and distribution systems have attempted to keep pace with this shift with generally good results but not without impacts or growing concerns. Perhaps leading the list of concerns is the fact that much of the infrastructure has been in place for decades and requires major cleaning, costly maintenance, or outright replacement.

As of 2011, Rhode Island had 487 public water systems and 88 community water systems.⁸³ These systems range in size from large city systems, such as Providence that supplies approximately 60% of the state's drinking water, to small, rural, non-community transient systems, such as restaurants or convenience stores that utilize wells as their drinking water source. Funding for improvements to drinking water supplies comes from a mix of federal and state sources, while customers pay utilities for the costs associated with providing water.

Rhode Island's water system was developed incrementally over time, and without a coordinated plan or design. Consequently, many water suppliers and utilities are very close to one another, serving small areas that might be more efficiently and effectively served by larger suppliers. In some cases, such as South Kingstown and Smithfield, there are multiple utilities within the same municipality. Many of these water systems are interconnected for emergency response purposes which can increase system resiliency to natural hazards and extreme weather, impacts related to climate change (e.g., sea level rise), and potential security threats. However, in the future it may be economically viable, if not necessary, to combine some of these systems to eliminate redundancies, reduce overhead costs, increase long term reliability, and engender the political support for funding much needed system maintenance and rehabilitation.

Of all the public water systems, 28 produce more than 50 million gallons per year and maintain extensive distribution networks. These systems along with Block Island and Richmond provide 98% of public water, with the remaining 457 systems providing the remaining two percent. While there have been periodic and systemspecific fluctuations in water demand over time, the average statewide water demands are nearly the same as they were 25 years ago. Of special note, since 2005, the average daily demand has decreased 20% from these systems (though not all systems have experienced a decline). Hough not all systems have experienced a decline). Water suppliers attribute this change to a number of factors including: changed economic



⁸³ http://www.health.ri.gov/publications/

annual reports/2011 Drinking Water Quality Compliance.pdf.

⁸⁴ Personal communication, K. Crawley, Rhode Island Water Resources Board.

conditions associated with the Great Recession, a decline in high volume industrial water users, improved water efficiency, conservation, and/or, a response to increasing water rates.

Some communities tied to major water suppliers are expanding. During the period 1990 to 2010, Washington County saw an increase in population of 15.4% while the state as a whole increased by only 4.9%. Generally population increases and associated residential water use patterns are occurring in groundwater dependent areas in Southern Rhode Island. While the result is an overall increase in demand, the bigger challenge is the marked increase in water use to support tourism, residential lawn watering, agriculture and other outdoor water uses during the summer months when there is less water available in the natural system. In these aguifer systems, drought conditions occur at the same time water suppliers are faced with peak demands and water suppliers are unable to store significant quantities of water to meet this demand. As a consequence, summer withdrawals can severely affect stream flow in the associated rivers, leading to fish kills, habitat loss and severe recreational impacts.

Conversely, urban areas in Northern Rhode Island have lost populations and/or large water users. Yet the Northern region hosts the state's major reservoir systems, and generally does not experience the increased summer demands on capacity and storage often suffered in Southern Rhode Island. These systems, most notably Providence Water, have expanded their wholesale customer base and there are opportunities to further support areas like Bristol County. Further, it is in areas such as these where there is sufficient high quality fresh water for water-using industry sectors such as biopharmaceutical companies. When managed appropriately, our water system can serve as an economic advantage for the state, and a resource for such businesses.

Readers are encouraged to refer to Water 2030, the water element for the State Guide Plan, for more information on drinking water in Rhode Island.

STORMWATER INFRASTRUCTURE

Stormwater infrastructure is critical for managing rainfall runoff in a safe and environmentally sound manner. The majority of RI stormwater infrastructure was built prior to the period when the cumulative impacts from development were understood. The goal had been to control and convey runoff from and through a property so as to protect and safeguard the project being developed.

Floodplain filling and increased runoff volumes were largely ignored. By the 1970's, the cumulative impact of this practice in the state was keenly realized in the form of more frequent and damaging flooding of downstream properties; in some cases whole neighborhoods had to be abandoned permanently.

While new development today is carefully designed to avoid exacerbating downstream flooding, flood hazards along our rivers may be increasing in part due to climate change. The Northeast United States has experienced a 74% increase in the amount of rain falling in heavy rain events.85 Rhode Island's stormwater structures, as well as some dams and bridges, were not designed to handle the intensity, frequency, or runoff volume of some of these events. The 2010 Rhode Island floods washed out many culvert crossings and caused severe channel erosion. Key stormwater infrastructure may be deemed functionally obsolete and be at greater risk of damage in the long term due to the effects of climate change.

Perhaps more daunting is the fact that stormwater has been found to be the major cause of water quality (WQ) impairment of many of Rhode Island's rivers, ponds and embayment's. The Clean Water Act mandates that these impairments be studied and corrected. A key driver to achieve this goal as it relates to stormwater is RIDEM's Municipal Separate Storm Sewer System (MS4) permit. RIDOT and most local communities, and several other urbanized areas such as URI and QPD, are required to comply with its six minimum measures aimed at curtailing WQ impacts in receiving waters.

In recognition of impacts from stormwater, the legislature passed the "Smart Development of a Cleaner Bay Act of 2007". The act required RIDEM and CRMC to update the Rhode Island Stormwater Design and Installation Standards Manual (RISDIS Manualeffective January 1, 2011). The manual mandates use of Low Impact Design (LID) strategies to encourage more sustainable management of rainfall runoff. These strategies include compact or cluster development, recharging clean runoff into the ground to replenish groundwater resources, building of green infrastructure, and use of more effective best management practices. It also requires redevelopment projects that meet certain size thresholds comply at least partially with the updated design standards including flood abatement and measures to treat and remove greater amounts of pollutants.

⁸⁵ Defined as the heaviest 1 percent of all daily rain events from 1958 to 2010, National Climate Assessment 2013



Addressing stormwater needs will be very costly. Past appropriations for managing stormwater have been minimal and not nearly adequate to fund even basic maintenance needs. Public officials are reluctant to use scarce public works dollars to address stormwater concerns when other more tangible, higher priority infrastructure repair needs grow. In that context, some regard improved management of stormwater as too expensive, an unnecessary burden on the public, and a barrier to development and redevelopment.

The task of ameliorating the impacts of past development falls largely upon RIDOT and the local DPWs who manage most of the existing paved surfaces and stormwater infrastructure in the state, as well as developers interested in redeveloping existing properties and private property managers with large impervious areas with inadequate stormwater management. These parties, the regulators, and other policy makers should continue to work closely together to ensure mandates and deadlines are workable. Stormwater policies should continue to encourage improved stormwater management as part of any redevelopment or major repairs to transportation infrastructure, but in a manner that is consistent with other development, housing and growth goals.

As of late, several communities along with RIDEM and the RI Bays, Rivers and Watersheds Coordination Team (BRWCT) have begun studying the concept of stormwater utility districts (SUDs) to raise needed

funds. These districts take many forms but commonly involve a fee to property owners based on the amount of stormwater they generate. SUDs more equitably apportion costs of service and often contain incentives to help owners treat and reduce the volume of stormwater they release, thus reducing or eliminating their fee charge.

Stormwater impacts are widespread and cumulative, the result of many alterations of the landscape and the various activities occurring on individual parcels. Low impact design strategies, or "green infrastructure," seek to reverse older engineering solutions by aiming to contain stormwater onsite where it is treated and managed so as to avoid offsite impacts. Efforts to mitigate flooding impacts and improved treatment and management of stormwater may be expected to deliver lasting dividends.

ENERGY INFRASTRUCTURE

Rhode Island currently spends approximately \$3.6 billion annually on electric, thermal, and transportation energy needs. Because the state is virtually entirely dependent on imported fossil fuels such as natural gas and petroleum products, the vast majority of this expenditure exits Rhode Island's economy, representing a multi-billion dollar drain on local consumers, businesses, and industry. The resiliency of our energy systems will be critical, from our ability to transport fuels for the foreseeable future, to the ability of utility companies to quickly restore electricity grids after major storms.

Rhode Island should implement the policy recommendations of the updated State Energy Plan drafted in 2014. The vision of the Plan is to provide energy services across all sectors—electricity, thermal, and transportation—using a secure, cost-effective, and sustainable energy system. Modeling completed for the State Energy Plan update revealed that business-as-usual is the most expensive energy future for Rhode Island. The analysis demonstrated that multiple alternative pathways exist for Rhode Island to capture significant net economic benefits and create thousands of jobs through aggressive investments in energy efficiency, renewable energy and alternative fuels, and energy infrastructure improvements. The policy recommendations of the Plan include six major categories:

- 1. Maximize energy efficiency in all sectors
- 2. Promote local and regional renewable energy
- 3. Develop markets for alternative thermal and transportation fuels
- 4. Make strategic investments in energy infrastructure
- 5. Mobilize capital and reduce costs
- 6. Reduce greenhouse gas emissions

Each of these categories contains policy recommendations designed to produce net benefits to Rhode Island's economy, while increasing fuel diversity and reducing carbon emissions. The strategies under Policy 3 of this Goal represent a select few of the entire portfolio of energy policy recommendations that will help drive Rhode Island's economic competitiveness and iob growth.

BROADBAND INFRASTRUCTURE

Today, broadband (high-speed internet) is a ubiquitous resource, like electricity and water. It is also a key piece in the state's economic development picture—for business attraction and growth, e-commerce, workforce training and education, among others. Rhode Island performs well in this area. According to the New Economy Index, the state ranks in the top twelve in internet connectivity (coverage) and internet speed.86 The state ranks much lower in broadband adoption (use of the internet) and e-government.87 Technology is constantly changing and the state needs to ensure it continues to provide coverage, connectivity, and speed to all corners of the state.

The Internet is a powerful unifying technology that can be used to address key public policy areas, including:

- · Better government services within tight bgudgets
- Open government and civic engagement
- · Economic and workforce development
- · Effective and affordable healthcare delivery
- · Quality education for every
- · Integrated public safety and disaster response

—Broadband RI

The state received nearly \$30 million from the federal government (for 2010-2014) to provide "broadband infrastructure, access, digital literacy, and organizational capacity building."88 A portion of this funding

established the Broadband RI (BBRI) initiative, to expand broadband use and digital literacy across Rhode Island. (Note: Federal funding for BBRI ends on January 31, 2015.) Nationally, 30 percent of residents do not use the internet at all. According to Broadband RI, the challenge is not just providing fast connections, but internet that is accessible to and understood by everyone.89 The Ocean State Higher Education Economic Development and Administrative Network (OSHEAN) and Ocean State Libraries used the federal funds to provide internet access in community anchor institutions (libraries)

86 New Economy Index, 2014

89 Project Interview

throughout the state. The higher the adoption rate and digital readiness of its citizens, the easier it will be for Rhode Island to adopt e-government policies and the greater positive impact it will have on Rhode Island's residents.

The New Pressures on our Infrastructure System⁹⁰

Climate change refers to the significant changes underway today that are different from natural changes in climate over the course of a decade, century or longer. Climate change affects temperatures, the length and timing of seasons, the annual rain and snowfall totals, sea level, and ocean chemistry. 91 These changes have significant biological and ecological consequences that directly impact economic activities and development. Arguably, climate change will affect everyone. However, these changes have direct impact on some of Rhode Island's greatest assets—the marine, aquaculture and agricultural industries, the built environment, coastal tourism and other natural resources. Below is a discussion of the key challenges climate change poses to economic development in Rhode Island, particularly related to sea-level rise, storm severity, and other weather changes, as well as potential economic opportunities resulting from climate change research and innovation.

AIR TEMPERATURE

Average air temperature increased by 1.7 degrees in Rhode Island from 1905 to 2006. This number may not sound like much, but it is significant. Even slightly warmer temperatures can lead to drought, which impacts the state's ability to grow food and increases water demand for irrigation. Higher temperatures also impact human health by extending the season for diseasebearing insects, decreasing air quality, and increasing energy demands (and subsequently cost) to regulate internal temperatures in warmer seasons. These latter costs are particularly impactful to lower income residents and those on fixed incomes.

WATER TEMPERATURE

The water temperature in Narragansett Bay increased 3.6°F since the 1960s. While the average beachgoer may welcome such increases, this has significant impact on

⁸⁷ New Economy Index, 2014

⁸⁸ Broadband Policy for Rhode Island, 2012

Many of the statistics from this section are derived from the report, Climate Change in Rhode Island: What's Happening Now and What You Can Do, prepared by the Climate Change Collaborative at the University of Rhode Island and funded by Rhode Island Sea Grant.

Climate Change in Rhode Island, University of Rhode Island, Climate Change Collaborative, 2011.

Rhode Island's marine industries, especially the fishing industry. Warmer waters decrease some populations of fish not suited to those temperatures and attract species not native to this region. The species that will decrease may be more commercially viable (flounder, lobster) than those moving in, which will make it even harder for the already challenged fishing industry. Warmer temperatures also allow for the introduction of invasive plant species and damaging algal blooms, which may further decrease fish populations.

PRECIPITATION

Rain and snow increased one foot total over the last century (0.12 inches per year). This has resulted in a greater risk of flooding, greater stormwater management demands, and the potential for increased pollution in waters from runoff. Further, this pollution can lead to the closure of beaches and shellfishing beds. While seemingly contrary to the concern for drought, noted above, the increased precipitation can also damage certain crops.

STORM SEVERITY

Recent high-impact storms confirm that hurricane intensity has increased as a result of climate change effects. The immediate impacts are obvious property damage, beach erosion, flooding, road and bridge damage, and interruption of business. While severe storms can cause immediate damage to road infrastructure, increased seasonal rain and snow also accelerates the deterioration of roads and bridges. The impacts of storms and sea level rise on coastal properties is already being felt with higher insurance premiums as the Federal government responds to substantially increased payouts from recent storms. A recent study projected that "climate change is likely to cause an additional \$2 to \$6 billion in hurricane damages," through the end of the century.92

92 Brown University Center for Environmental Studies, Summary: Preliminary Assessment of Rhode Island's Vulnerability to Climate Change and its Options for Adaptation Action, February 2010.



SEA LEVEL RISE

Since 1930, sea level has increased approximately eight inches in Newport. By 2100, Rhode Island's Coastal Resources Management Council (CRMC) is anticipating 3 to 5 feet of sea level rise. Mapping produced by CRMC has been completed for the entirety of the state and inundation maps will prove to be a useful economic policy tool in the years to come. The long-term impacts of sea level rise will undoubtedly change the nature of Rhode Island's 420 miles of coastline and the industries it supports. Some of Rhode Island's greatest economic assets, including our tourist economy and port operations will need to adapt to these changes over time. Other direct impacts of these trends include property loss and diminished public access, including the loss or migration of beaches.

Our Opportunities for a New Resiliency

In spite of the many obvious challenges related to climate change, there are many economic opportunities emerging from these issues. According to a recent bill, "industries related to climate adaptation are predicted to double by 2020 to a \$2 billion industry globally."93 Rhode Island is poised to become an innovator in addressing climate change and it has the perfect laboratory to do so, with both its vast coastline and its institutional strength.94

STATE GOVERNMENT TAKING ACTION

The state is advancing its efforts to address climate change in a number of ways. In early 2014, Governor Chafee issued an executive order establishing an Executive Climate Change Council ("EC3"), whose charge was: 1) to coordinate state agency action regarding

climate change; and 2) to identify strategies that would increase the state's resiliency to climate change. The final report of the EC3, "A Resilient Rhode Island: **Being Practical**

"Rhode Island is particularly vulnerable to climate change, and well-positioned to become a global leader in expertise and technology to help communities and businesses become resilient to the changing world."

-Rep. Arthur Handy (D-District 18, Cranston)

About Climate Change," includes a 41 page "Action Plan" that identifies over 100 actions that state agencies can undertake to mitigate climate change, assess vulnerabilities, improve understanding of climate change throughout the state, and reduce risk and losses through 93 Resilient Rhode Island Act, March 2014 94 Project Interview.

adaptation. Many of these actions relate directly to economic development and have been folded into this plan.

During the 2014 legislative session, bills that addressed climate change were introduced in both the Rhode Island House and the Senate. The final version of the "Resilient Rhode Island Act of 2014" statutorily established the EC³ created by Governor Chafee as the Executive Climate Change Coordinating Council (EC4) and gave the Council the additional duties of drafting a plan that would reduce greenhouse gas emissions by eighty-percent below 1990 levels by the year 2050, advising the governor and the general assembly on ways to ensure that Rhode Island continues to be a national leader in developing and implementing strategies to address the challenges of climate change, working with other New England states to achieve common goals, and facilitating opportunities to educate the public about climate change.

The Act also provided guidance to state agencies in support of the EC4, which included a directive to support efforts to expand Rhode Island's green economy and develop green infrastructure. In addition, the Act created a 13-member advisory board and a nine-member science and technical advisory board. The advisory board is tasked with advising and assisting the council in a variety of ways, and must contain individuals with economic policy and/or workforce development expertise. The primary responsibilities of the science and technical advisory board include keeping the EC4 abreast of important developments in scientific and technical information relating to climate change and resiliency, making recommendations to the EC⁴ regarding research needs and priorities, and preparing an annual report that evaluates to what extent the state's policies and programs aimed at mitigating and adapting to climate change are

supported by the best available science and technical information.

Economic development policy can integrate with climate change in the following areas:

RESILIENCY Resiliency or climate change adaptation and mitigation is the process by which municipalities develop policies and plans to be more prepared for the impacts of climate change and protect their assets, including buildings, neighborhoods, utilities, roadways and

City of Newport: Economic Opportunities from Resiliency Having recognized more than ten years ago the need to diversify its economy from over-dependence on civilian employment at Naval Station Newport and the tourism sector, Newport has taken the lead in the state in efforts to capitalize on economic opportunities that grow out of resilience and climate change. Its three major initiatives include development of a technology accelerator; becoming the major community proponent for a green infrastructure job-placementand-training program, as well as a mixed-use Resilience Innovation Hub.

natural resources. Rhode Island already has institutions (such as the Coastal Resources Center and the Sea Grant, both at URI) and municipalities (Newport, North Kingstown) taking the lead on climate change adaptation and mitigation. Issues range from preparing business continuity plans, to investing in existing homes and other buildings to make them stronger and more resilient, to thinking about streamlined permitting processes after a disaster to help communities rover faster. The state can, and should, play a greater role in promoting resiliency in its coastal communities by providing analytical and financial tools, and continuing to work with universities to align their academic research around issues of

Average Retail Price of Electricity to Ultimate Customers by End-Use Sector (Cents per Kilowatt-hour, April 2014)

CENSUS DIVISION/STATE	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	TRANSPORTATION	ALL SECTORS
New England	18.29	14.14	11.23	NM	15.24
Connecticut	19.87	15.16	12.67	12.09	16.87
Maine	15.38	12.11	8.03	_	12.10
Massachusetts	18.19	13.94	12.14	NM	15.15
New Hampshire	17.54	13.92	11.70	_	15.01
Rhode Island	18.26	14.09	12.18	12.58	15.43
Vermont	18.07	14.70	9.84	_	14.73

NM = Not meaningful due to large relative standard error or excessive percentage change.

resiliency.

GREEN INFRASTRUCTURE

According to the U.S. EPA, green infrastructure refers to the "natural areas that provide habitat, flood protection, cleaner air, and cleaner water."95 It is most often understood to refer to stormwater management systems that mimic natural processes. However, green infrastructure can include other aspects of infrastructure such as transportation (e.g., transit or bicycle infrastructure to reduce greenhouse gas contributions of automobile use). In addition to the climate impacts, creating sustainable funding mechanisms for the development and maintenance of green infrastructure will create job opportunities and provide a more attractive business environment. In addition to mitigating climate change impacts, decentralized energy "promotes energy independence, creates jobs, and provides a steady supply of power in the event of disruption to electricity service."96

FOOD SYSTEMS & FOOD RESILIENCY

Rhode Island, like most states in the Northeast, produces very little of the food it consumes. Climate change and rising transportation fuel costs both have the potential to disrupt the world's current food production and distribution system. Increased local food capacity will ensure that Rhode Island can weather climate events that disrupt basic transportation routes, both locally and around the world, and reduce our dependence on imported foods. Soil and green infrastructure in Rhode Island's urban core (including community gardens and urban farms) can act as a critical buffer against stormwater as well, reducing flooding and nutrient

95 http://water.epa.gov/infrastructure/greeninfrastructure/gi_what.cfm 96 Brown University Center for Environmental Studies, 2014



loading into Narragnasett Bay in times of heavy rainfall.

GREEN BUSINESS / GREEN JOBS

Across the country, as a general observation, green jobs have not yet materialized as expected, since it is still an emerging industry and the jobs are not well defined. However, in addition to the green infrastructure opportunities listed above, Rhode Island's efforts in wind energy development and potential innovation in the arena of climate change mitigation are two areas where we are uniquely well positioned regionally. Part of the key to capturing these emerging opportunities will be improving Rhode Island's overall business climate and harnessing Rhode Island's institutional strength in this study area. Over time, job growth will follow.

ENERGY

The cost of energy in Rhode Island is frequently identified as hindering economic development. The table below shows one example of energy pricing in our region, with Rhode Island consistently charging more than most of the other New England states for electricity. From a climate perspective, traditional energy sources (fossil fuels such as oil, gas, and coal) contribute to climate change by producing harmful greenhouse gases. Initiatives to diversify and decentralize Rhode Island's energy sources to include more renewable energy providers will have positive climate and economic benefits. The State is currently developing a new Energy Plan to address issues of cost, distribution, and stability. Initial modeling for this plan suggests that the state's economic position improves as a function of investment in energy efficiency. The Office of Energy Resources and their partners should implement that plan with an eye toward its economic impacts as discussed in this plan.

Takeaways

97 Resource Guide to Sustainable Economic Development: San Antonio Case Study At the core of making Rhode Island a stronger and more resilient state is our ability to maintain and upgrade our infrastructure. Rhode Island will have to work hard simply to rehabilitate existing aging and neglected public infrastructure, let alone address new challenges related to climate change. One of the biggest challenges related to many elements of our infrastructure is the need to identify predictable and adequate sources of funding. Many agencies, officials and non-governmental groups are intensely engaged in this effort. The ever-changing landscape of federal funding makes this challenge particularly difficult and constant attention from a coordinated group will be required. Rhode Island will need to aggressively research and pursue innovative funding strategies that use incentives, create publicprivate partnerships, and layer public funding sources in more complex grant or loan structures.

The state's broadband network is very important to business development and job growth. Most companies today are connected to the internet and require high processing speeds. Additionally, improving internet access and literacy will contribute to a more robust workforce and provide greater access to jobs.

Addressing climate change in Rhode Island requires strategies that are both reactive and proactive. Reactive strategies are necessary to mitigate the direct and immediate impacts of sea level rise, flooding and storms in order to protect property and maintain Rhode Island's natural and cultural assets. Proactive strategies respond to the nature of climate change impacts with research and innovation in the industries and sectors impacted by climate change, including marine, tourism, agriculture and aquaculture, energy and defense. Our infrastructure should be improved without compromising existing community assets, public access and sensitive environmental resources. The state can guide municipalities towards climate resiliency and provide the necessary resources to facilitate a more sustainable economy.

Moving Forward

To address the opportunities and challenges described above, and to achieve the fifth Goal of this Economic Development Plan, the State has adopted five overarching policies.

Policy 1: Support investments in sustainable built infrastructure to support economic activity, commerce, and benefits to communities.

a. Create a sustainable, permanent funding mechanism for the repair of Rhode Island's roads and bridges and for the maintenance and expansion of public transportation, freight, and rail infrastructure.

The current climate for infrastructure funding is unpredictable due, in large part, to the fact that the U.S. Congress has yet to act on a long-term solution to the federal Highway Trust Fund shortfall. On the state level, Rhode Island has dedicated some funding to transportation infrastructure through the establishment of a Highway Maintenance Account (HMA) in 2011, which eliminated the need for future bond borrowing to pay for the state match to federal projects, and redirected additional funds from other sources to the HMA in 2014. However, these improvements in transportation infrastructure funding still cannot sustain our bridges and roads, and do not address transit and rail funding. The course that Rhode Island will take cannot yet be determined, due to the political uncertainty surrounding this issue. However, a combination of funding mechanisms will likely be required: these mechanisms may include general obligation bonds dedicated to large-scale projects, an increase in gas tax revenue, revolving funds, direct state contributions, or other innovative options. Regardless of the combination of tools used to address the issue, Rhode Island needs to take ownership of transportation and transit infrastructure funding and distance itself from reliance on federal funding. Having such a funding mechanism is not only imperative for the efficient movement of goods and services in the state that support our businesses, it also can help ensure that equity is advanced by increasing options for access and opportunity to employment.

b. Investigate the creation of a state-level

Infrastructure Bank or other more innovative models (e.g., Investment Trusts) to fund projects that support critical economic activity.

State Infrastructure Banks (SIBs) operate essentially as a revolving loan fund, providing access to very low interest loans for the purposes of catalyzing infrastructure investment. As with any revolving loan fund, these mechanisms can provide a fairly reliable stream of funding, but must first be capitalized. As the program continues to function, there may be a periodic need to bring available funds back to their original status depending on the status of outstanding loans.

Other more innovative approaches used more recently involve the creation of infrastructure trusts that use private investment for capital infrastructure costs. These investments occur because members of the business community feel there is high potential for economic gains in the target area. Investors receive financial returns in the form of periodic disbursements similar to what would occur for a stockholder in a corporation.

These mechanisms are examples of funding strategies that must be explored in great detail and in the very near future. The following questions can serve as a starting point for state officials:

- How will the SIB or innovative financing scheme be capitalized? Will it require a tax or fee increase?
- What types of projects and programs will be financed by the SIB?
- Who will make the investment decisions and be responsible for the care and control of the SIB?
 Will it be a state agency, a quasi-independent organization or a public-private partnership?
- How will the SIB interface with other state and federal programs?

The second bullet above is worth noting as there are other funding mechanisms called for in this Economic Development Plan. In some instances, as with a State Infrastructure Bank, the fund could be used for many different types of projects—including the many "green infrastructure" recommendations throughout this plan. This will need to be carefully considered to avoid duplication of effort or unnecessary bureaucracy when implementing the plan.

c. Develop a funding mechanism at the state

level similar to the federal State Revolving Fund (SRF) programs specifically designated for developing small-scale wastewater treatment facilities or small community water supply wells in suburban and rural growth centers. Consider preference for systems that demonstrate progress in regionalizing multiple smaller systems, and that are located where surplus water is proven available for development.

One of the largest barriers to advancing economic development initiatives in suburban and rural areas is the inability to achieve higher density developments due to infrastructure limitations. Specifically, where development requires on-site wastewater treatment systems (OWTS) and on-site drinking water wells, buffers and other limitations designed to protect public health preclude higher density development. Places like Wickford Village, for example, could never be built if each property required its own drinking water well and septic system.

To solve this problem, new village centers or similar developments would require some level of centralized utility. Generally speaking if one of these infrastructure elements is addressed (either wastewater or water supply) there is a good chance that higher levels of density can be achieved. Unfortunately, these community systems can be expensive to permit and build and individual property owners are not prepared to shoulder the cost. Developers and planners have both been frustrated in several Rhode Island communities as these infrastructure issues have created seemingly insurmountable roadblocks to incremental reinvestment.

This plan calls for the establishment of a revolving fund that could be used to design and construct these neighborhood scale facilities. Similar to the State Revolving Fund (SRF Loan) operated for large wastewater facilities, these funds would be lent to municipalities for much smaller projects. Unlike the SRF Loan, the criteria for selection for this program would not be solely for environmental and public health benefits, but rather demonstration that the funds will be used to unlock the development potential of a new village or rural growth center without detriment to the environment.

d. Promote T.F. Green's "Go Green" initiative to

attract passengers and service to the airport.

e. Actively encourage and pursue new funding sources for the design and installation of green infrastructure. These could include, but not be limited to, community storm water management districts that DEM and the BRWCT have been working to promote with community partners.

Policy 2: Support investments in innovative technology infrastructure.

- a. Leverage broadband investment for next generation applications and make services more accessible for all Rhode Islanders. High speed internet service is available to 100% of RI residents and fiber service is available to 63.4% of residents, placing it in the top 12 nationally for both speed and coverage. However, these services are often inaccessible for lower income residents who cannot afford the access fees. Widespread broadband infrastructure and digital literacy will be critical for Rhode Island's residents over the coming decades as more and more public and private services and opportunities transition to digital-only platforms. Broadband infrastructure will also be necessary for Rhode Island to stay competitive as a location for private industry. Advanced, data-intensive private businesses and research organizations will expect access to state-of-the-art broadband infrastructure in order to support their operations. Important actions moving forward include:
 - Improve broadband on Aquidneck and Block Islands to support the local business community and the defense and marine industries.
 - Identify ongoing investment needs of the State's broadband infrastructure and promote opportunity to be a Gigabit community.
 - Utilize the broadband backbone in areas of health and safety, urban and rural training, and entrepreneurship. In cooperation with Broadband RI, Commerce RI could market the State's highspeed broadband capacity to the creative and cultural industries in order to attract and retain businesses with high digital demands.
 - Explore ways to fund broadband access in lowerincome communities.
- b. Invest in information technology capacities at

libraries and community centers.

Several sections of this plan mention the need for community based centers where residents can develop skills, search for jobs, or simply visit because the opportunity exists within walking distance. Libraries and community centers have evolved into diverse facilities that can contribute to workforce development and provide links to jobs and other essential services. In order to optimize the function of these facilities, access to high quality technology is necessary. Partnerships between universities, state workforce development, and libraries/ community centers should be explored to see if there are opportunities to strengthen technology grant applications or find other resources to better connect these agencies. These partnerships would be particularly important for those that serve low income neighborhoods.

Policy 3: Adopt an energy policy that keeps Rhode Island competitive.

a. Expand existing energy programs to add new financing and investment tools.

The State of Rhode Island established the Residential Property Assessed Clean Energy (PACE) program in 2013. PACE is a voluntary program at the municipal level that helps to address one of the primary barriers



for homeowners that want to invest in energy efficiency and/or renewable energy installations, which is the lack of upfront capital. Energy efficiency and/or renewable energy improvements are repaid by a special assessment paid at the same time as property taxes. The PACE program will provide an opportunity for homeowners to invest in renewable energy and/ or energy efficiency upgrades, and also leverage the existing state and federal energy incentives. 98 The recent creation of PACE is a significant first step, though it should eventually be expanded to include commercial properties. Further, pooled municipal financing would allow for the scale necessary to access federal funding and potentially private sources. The creation of a "Green Bank" would also help achieve a level of scale that would accelerate the rate and level of investment and contribute in driving down program costs. Further, communities should explore programs that provide energy subsidies or cap energy bills for lower-income and/or fixed-income households, or other such programs that help such households take advantage of energy efficiency measures that lower their monthly costs.

Improve energy efficiency codes and standards.

There are many ways in which to improve codes for energy efficiency that have been used across the countries. For example, the Massachusetts Board of Building Regulations and Standards (BBRS) developed a performance based "Stretch Code" that can be adopted at the local level through an incentive program known as "Green Communities". Another manner in which codes can be addressed is a more targeted approach such as strengthening appliance minimum standards. Also, educational and policy documents might also be developed for a more long-term strategy to transition to zero net energy buildings. Importantly, strategies under Goal 6 call for continued revisions to the state building and fire codes to create greater clarity, efficiency and protection. These efforts to provide better performing codes at the State level should be coordinated with this strategy to ensure that Rhode Island captures opportunities to create more energy-efficient codes.

<u>c.</u> Diversify and decentralize Rhode Island's 98 Rhode Island Office of Energy Resources energy sources to include more renewable energy providers for positive climate and economic benefits.

The purchase and distribution of renewable energy is affected by different mechanisms in Rhode Island. The State's 40 megawatt Distributed Generation Standard Contracts (DG) program plays a key role, requiring National Grid to enter into fifteen-year renewable energy contracts with private landowners, businesses, and municipalities at a set and fixed price. The enactment of the 2014 "Renewable Energy Growth Program" expanded the DG program to 200 MW by 2019 and transitioned the program from a contract-based program to a tariff-based program. Currently, wind, solar photovoltaic, and anaerobic digestion technologies are eligible to participate in the DG program. Distributing the generation of renewable energy sources serves to remove barriers to the solar industry, drive down the price of renewable energy, and have job creation benefits in the residential and commercial sectors. Projects compete to participate in the program and contracts are awarded based on price and economic factors. 99 This program could be expanded to increase the overall allotment and open more opportunity for integrating renewable sources.

Another critical mechanism for increasing the amount of renewable energy consumed in the state is Least Cost Procurement (LCP) mandate and its associated provisions beyond 2018. Continuing the mandate to procure cost-effective energy increases environmental benefit is perhaps the single most important step that State policymakers can take towards ensuring a secure, cost-effective and sustainable future for Rhode Island.

d. Actively engage and train local communities regarding energy efficient neighborhood and site development techniques, the siting and regulation of wind turbines, removing regulatory barriers for solar power, and becoming more fiscally resilient to impacts from climate change.

New ideas about energy production and efficiency create demands on local officials to acquire new knowledge related to site design, building design, small and large-scale renewable energy generators. In many cases, local fear about the development of new facilities creates an urgent demand for new regulations and local Planning Boards are left scrambling to learn new technical information while trying to navigate

⁹⁹ Rhode Island Office of Energy Resources

heated public debate. The State can help with this situation by developing a suite of capacity building tools that can be made readily available to local planners, residents and Boards. Where possible, State employees could also provide training at the local level to assist with public discourse.

Policy 4: Educate and empower state and local government to increase climate change preparedness and adaptation.

 a. Implement the relevant recommendations of A Resilient RI: Being Practical About Climate Change (June 2014), Economic Intersections of Rhode Island (February 2014), Understanding the Opportunities and Impact of Climate Change (April 2014) and associated strategies as referred to in this Economic Development Plan.

A Resilient RI, developed by the Executive Climate Change Council, identifies over 100 actions that state agencies can undertake to mitigate climate change, assess vulnerabilities, improve understanding of climate change throughout the state, and reduce risk and losses through adaptation. Additional and similar recommendations were made in Economic Intersections of Rhode Island (February 2014) and Understanding the Opportunities and Impact of Climate Change (Draft April 2014), both prepared by Commerce RI. The Council and other partners should analyze these actions, identify those that are most likely to have a direct impact on economic development in Rhode Island over the next few years, and take steps to implement them.

b. Perform targeted assessments of economic centers, infrastructure assets, and individual resources for potential impacts of climate change, sea-level rise and other hazards. Vulnerability assessments are the first step to determining the potential impacts that could occur from different hazards related to climate change and how communities, agencies, companies or individual can adapt. In Rhode Island, a limited number of vulnerability assessments have been performed from agencies like CRMC (sea-level rise), the Department of Health (water supply issues), and the City of Cranston (city-wide). RIDEM is also preparing to perform a vulnerability assessment related to the state's wastewater conveyance and treatment system. A program should be developed that targets individual communities, facilities, and/or economic centers to

gradually develop an integrated understanding of economic impacts related to climate change. This can be accomplished using information from the state Hazard Mitigation Plan, as well as the work of the Critical Infrastructure and Key Resources (CIKR) Working Group. The CIKR is comprised of many state, local, and federal members including the RI Emergency Management Agency. One of the CIKR programs' key missions is to collect information on threat identification, cybersecurity, incident response, inter-dependencies, consequence, security and resilience management. With the data collected the group can provide comparisons with similar facilities, suggested improvements, dependency reporting, resource information and hazard mapping.

With 400 miles of coastline to manage, sea-level rise and increased storm severity, Rhode Island will need to perform numerous hazard related analyses in the very near future to fully understand the potential impacts of climate change. Among those analyses will be vulnerability mapping and potential damage assessment for our existing employment centers. The Village of Matunuck in South Kingstown is one example of how beach erosion over the past several decades is endangering the very existence of a truly unique historic village. While not an employment center per se, the issues being debated in Matunuck will certainly be repeated again as the Town, the State, and property owners debate the feasibility and wisdom of various infrastructure improvements designed to save the only access road from eventually washing away. Another example is assessing the state's food and energy supply systems, and making sure we can maintain both in the face of natural disasters and more gradual climate change impacts. Assessing the costs, benefits and potential success of these major infrastructure improvements is part of a complex set of analyses that Rhode Island should begin developing for other areas of the state in a more proactive manner.

c. Actively advocate for amendments to federal policies that would allow infrastructure repair/ replacement funds/grants to be used not just to rebuild the way things were, but stronger and more resilient.

As Rhode Island continues to use federal funding programs to assist with various infrastructure projects, State administrators should identify areas where program guidelines do not provide opportunity to repair or rebuild in a manner that allows for more resilient design and/or construction. Direct

communication with federal agencies can be used to try to remove these roadblocks to better infrastructure improvements. Further, it should be noted that local communities can apply for Hazard Mitigation Funding from the RI Emergency Management Agency for such projects if they have an approved FEMA Local Hazard Mitigation Plan in place.

 d. Align academic research around issues of resiliency in order to provide State and local governments with the best climate adaptation and mitigation tools.

The capacity for our universities to further economic development in the state is discussed in many different areas of this Economic Development plan. Dealing with issues related climate change is an area where universities must be an integral part of policy development. Researchers from URI have already started to work with other colleagues through the Climate Change Collaboration Team. Furthermore, EPSCoR funding will likely focus on addressing coastal issues related to environmental change, with an emphasis on the engineering and applied mathematics fields. Universities should work to make this research as practical as possible by partnering with impacted municipalities on their real world needs and challenges.

Policy 5: Strengthen regional economic resilience and harness opportunities for innovation.

 a. Identify test sites, both land and water facilities, to support piloting resiliency-related product innovation.

Rhode Island is uniquely suited to testing and potentially bringing new products to market that help to address issues related to resiliency. Currently, planning and development for the North End Innovation Hub in Newport is underway. This Innovation Hub development will be a planned research and development, technology commercialization transfer, and service center development project. Its focus is on resilience/climate variability, ocean, underwater and cybersecurity defense, and digital industries, their support sub-sectors, as well as ancillary financial, commercial, and retail/hospitality supports. Rhode Island will need to identify test sites for different technologies and innovative products to ensure efforts like the North End Innovation Hub can successfully commercialize their work.

b. Develop policy and practical support around



the 'Green Economy.'

The emergence of a so-called "green economy" in Rhode Island has been slow, as with most other states in the nation. However, movement in renewable energy production, food system growth, and organization around green infrastructure in particular show positive signs. Commerce RI can play a role both in policy development and in practical support to ensure the full economic benefits are realized. Connecting experts with designers and investors could be greatly facilitated through the Commerce RI networks that continue to grow through support from their staff and Board of Directors. Commerce RI may wish to consider inserting itself as a lead agency in green economic development, with a focus on those areas that play to Rhode Island's strengths. Further, the Governor's Workforce Board can help more people benefit from the "Green Economy" by developing appropriate job training programs that can help more Rhode Islanders—particularly in low income areas and areas of high unemployment—access these jobs.

 Expand availability of business continuity planning and access to different succession models.

Rhode Island's businesses may require assistance with preparing for potential natural disasters, business opportunities, and challenges associated with climate change. This should be a coordinated agency and community resource approach that takes on the following work. The first step is to start the conversation among small business owners about preparing for climate change in order to increase awareness and to identify the greatest risks and opportunities. Next, further study is needed to define these risks and opportunities for prominent industry sectors representing RI's small businesses. Once these

risks and opportunities have been identified, business and government leaders need to work together to make sure the necessary resources, including capital, equipment, and knowledge, are available to support businesses seeking to adapt.

d. Attract private capital for long-term, sustainable financing for energy efficiency, renewable energy and infrastructure (transportation, drinking water, wastewater, stormwater, etc.).

Many of the infrastructure investments that will be required for climate change adaptation and overall resiliency will be significant. It will be critical for Rhode Island to explore innovative relationships, perhaps public-private, that can yield long-term financing for these projects. The goal of these new mechanisms will be to find a means to give investors a reasonable return on investment, finance projects faster than public funding alone can allow, and make projects "greener" than public funding alone can allow. Such an effort may benefit from the enactment of a State statute that enables the use of various publicprivate partnership approaches for the development of infrastructure. It is important to note that any such public-private partnership pursued by any level of government in the state should avoid "availabilitypayment" or other models that put investment risks on the backs of taxpayers. Partnerships should be designed in such a way that the public receives a clear benefit that the government could not alone provide, while the private partner takes on the risks, as well as any additional rewards, from the project.

- e. Ensure the future prosperity of Rhode Island's ports through the development of detailed vulnerability assessments and long-term infrastructure investment plans. These assets are extremely vulnerable to sea-level rise. Once the risks and opportunities facing these assets are identified, businesses (including marine trades and the fishing industry) and government leaders need to work together to make sure the necessary resources, including capital, equipment, and knowledge, are available to support businesses seeking to adapt to more frequent severe storm events and a changing climate.
- f. Perform employment center vulnerability

mapping to better understand the potential benefits of protecting these areas with infrastructure investment.

Performance Measures for a Strong and Resilient Rhode Island

The following performance measures will be tracked by the State to measure progress toward achieving Goal 5 of this Economic Development Plan. These performance measures will be tracked over time and presented in an annual "report card" by Statewide Planning. 100

- Amount of renewable energy purchased by Rhode Islanders and generated in Rhode Island through renewable energy certificate (REC) filings and netmetering contracts. (RI Division of Public Utilities and Carriers and the Public Utilities Commission.) Number of bridges considered "functionally obsolete" and/or "structurally deficient" (RI Department of Transportation)
- High-speed internet access (Broadband RI)

¹⁰⁰ Some of the selected performance measures may not be available on an annual basis, which would be reflected in the report card

6

Make Rhode Island a state where companies, our workers, and the state as a whole can develop a competitive advantage.

everal of the goals provided in this plan touch on the concept of "economic competitiveness", exploring the notion that there are assets which set us apart from the rest of the region. In addition to Rhode Island's innate strengths, another aspect of economic competitiveness includes the climate in which we do business. This section looks at several aspects of our state's business climate including regulations, data and information exchange, and conditions for our entrepreneurs and small businesses.

STATE AND LOCAL REGULATIONS

Few services provided by governments are more important than administering regulations that protect the public's health, safety and welfare. Unfortunately, as regulatory frameworks grow over time, incremental change can have unintended consequences and regulations can become cumbersome, confusing, and expensive to follow. For example, it is not unusual for licensing requirements

Some Key Findings from the Office of Regulatory Reform

- Rhode Island has over 1,600 state regulations administered through over 70 entities.
- Respondents identified 66 regulations for amendment and 29 for repeal (over one-third of which have already been repealed).
- Half of respondents to a Small Business Survey distributed by the ORR estimated their cost of regulatory compliance at greater than \$2,000 annually and one-third of respondents indicated a need to hire an outside consultant just to understand how to comply with state regulations.
- Health insurance costs were consistently identified as the primary challenge to business, followed by state, then federal regulations. Local ordinances ranked low on the concern list for small businesses, but there is often confusion about which ordinances are state-level and which are local.
- As of Period Two, the top impacts on small business are audit, inspection, and enforcement activities
- ORR estimates that one-third of state regulation is written at or above a college reading level.

and fees to become barriers to businesses trying to enter or expand. In other instances, multi-layered permitting requirements can increase the cost and time required for development or redevelopment projects to reach construction. In the context of this plan, regulatory reform is not presented as an opportunity to "roll back" standards that protect our residents and our environment. There are undoubtedly regulations that are unnecessary and overly burdensome, and that do not achieve the goal they are meant to accomplish. Most of our regulations, however, serve a valid and vital role in protecting public health, safety and welfare. Where the state clearly has room to improve is in the transparency and clarity of its regulations and processes, reducing redundant or contrary regulations, and providing a clear and consistently interpreted process for enforcing regulations. Across the board, Rhode Island's regulations should be designed to promote what we want to achieve, where we want to achieve it, as clearly as possible, and implemented in a predictable and timely fashion.

Regulatory barriers in Rhode Island have been identified and discussed in a number of recent reports, including Economy RI and Moving the Needle, and confirmed repeatedly during the interview and focus group component of the RhodeMap RI plan development.101 According to Moving the Needle, Rhode Island is one of the most heavily regulated states in the nation, representing an immediate challenge for local and state government. However, Economy RI does note that Rhode Island is "in sync or slightly ahead" of other states in the process of overhauling its regulatory structure. In 2012, the Office of Management and Budget's (OMB) Office of Regulatory Reform (ORR), pursuant to an Executive Order, initiated a comprehensive review and streamlining of state regulations that impact Rhode Island businesses. ORR will identify regulations that can be repealed or revised to better serve business, with a particular focus on small business. Status reports have been released from ORR, up through the Period Three Regulatory Look Back Report in March 2014. ORR also conducted a survey of small

¹⁰¹ Fourth Economy Partners, Economy RI: Economic Data Analysis and Assessment, 2013 and Senate Policy Office, Moving the Needle,

businesses, which was updated in early 2014. The Period Four report is expected to be released in fall 2014 and a final report listing the regulations submitted and reviewed, as well as ORR's recommendations, is estimated to be released in late fall 2014.

In addition to the comprehensive regulatory review, ORR also has the authority to intervene in regulatory or permitting matters before state agencies and municipal boards, commissions, agencies and subdivisions for the purpose of assuring efficient and consistent

"Encouraging business growth in Rhode Island means that government must strive to work in partnership with small business. ORR recommends that regulatory entities provide accommodations that focus on business-specific performance standards or multi-tier enforcement. This approach, rather than 'one-size-fits-all,' is the best way to begin partnerships and realize economic improvement."

> Period Two Regulatory Look Back

implementation of rules and regulations. Finally, ORR has a Regulatory Ombudsman on staff to assist businesses with navigating complex or confusing regulatory issues. Currently, ORR is operating with a very small staff given its sizable charges and duties. What's more, Rhode

Island's regulatory challenges are even broader than what ORR is currently charged to do. Investment in additional staff and expertise will be required for the State to succeed in its regulatory reform efforts.

State Regulatory Challenges

As a small state, Rhode Island's state government is in a position to administer a greater number of regulations than other state governments. In other areas of the country, driven by the size of jurisdictions, county or even local government absorbs some of the functions the State of Rhode Island takes on. This can be an advantage as it can facilitate a greater level of consistency in administration and enforcement. However, it can also be a challenge by straining the resources of the State, which is always under pressure to streamline its operations.

State regulations represent different challenges to different industries. For example, the defense industry is more affected by Federal regulation while the construction industry is highly susceptible to the standards, administration and enforcement of building and fire codes. When looking at business profiles, the complexity and costs associated with Rhode Island's state regulations affect small businesses and new businesses disproportionately. This raises the priority of regulatory reform since Rhode Island is unquestionably a "small business state." The following section identifies the regulatory barriers most frequently cited during the development of this economic development plan.

THE STATE BUILDING CODE

The standards within the statewide building code apply to all 39 cities and towns, however, local building permitting processes and administration still vary widely from one municipality to another. 102. Meeting the building code is further complicated because, anecdotally, its implementation varies among code enforcement officials, some of whom work in the same community. While the Senate approved a measure in 2012 to amend the rehabilitation code to be more flexible, local code enforcement generally has not followed suit. The cost and time necessary to comply with these varied, and at times inconsistent, building permit requirements can be a major administrative burden on businesses. According to ORR, one of the challenges in reforming both the building code and the fire code (discussed below) is that the former is based on International Code Council standards and the latter on National Fire Protection Association Standards; the state is making efforts to resolve these conflicts.

FIRE CODE

Similar to the building code, the statewide fire code has been noted as a significant burden to businesses looking to locate or expand in Rhode Island, and specifically in rehabilitating the state's older building stock. One

102 Senate Policy Office, Moving the Needle, 2013.



company interviewed as part of the RhodeMap RI process spent \$1 million of its \$6 million rehabilitation budget solely for a fire suppression system. The Fire Code was made significantly stricter in response to the tragic Station Night Club fire in West Warwick. While no one questions the importance of safety, there is widespread belief that the fire code could be more flexible while still maintaining safety. Also, like the building code, respondents indicate the fire code is inconsistently enforced.

MULTIPLE AGENCIES WITH SIMILAR GOALS
ORR is expected to uncover and address issues of regulatory overlap. One such example frequently cited is the need for development projects, depending on location, to go through multiple environmental reviews, including those for the Coastal Resources Management Council, Department of Environmental Management, and the Narragansett Bay Commission. While no one questions the importance of protecting the state's environmental and natural resources, applicants contend that it creates a fragmented approach to development review. The parallel review paths increase the time and cost to seek approvals and may also provide different findings, despite having similar objectives.

PROCUREMENT

It is very difficult for new businesses, and in particular small businesses, to get involved in state procurement. The level of insurance, bonding and safeguards needed to protect citizens and state funds may be reasonable, but the high cost and high values are perceived to be excessive. In current practice, the state requires bonding for any project over \$50,000, but can ask for bonds on any project over \$5,000 according to the law. This requirement can be prohibitive for small projects that might be a "foot in the door" for smaller businesses obtaining state work. Furthermore, the state turnaround for bond credit is 60 to 90 days, which can be a barrier to new or small businesses with limited cash flow. Improvement of the state's payment system should also be a priority, to ensure that service providers are paid in a timely and predictable fashion. In order to grow small business and encourage greater competition among state contracts, the state will need to examine removing these barriers.

Local Regulatory Challenges

Local ordinances ranked lower on the concern list for small businesses in the ORR survey. However, there was some concern about the administration of local regulations, particularly related to development review affecting the construction industry. Local regulations that matter most in this regard are those related to zoning and land development.

During the RhodeMap RI engagement process, it was more difficult to narrow down regulatory barriers at the local level. One of the most prominent concerns relates

"The State process is predictable but frustrating; it could be better. However, the local process is unpredictable."

—RhodeMap RI Interview

to the oversight provided by well-meaning people who may not have the technical expertise to effectively

administer regulations. Local boards and commissions consist of dedicated volunteers, who often do not have a background in real estate development, engineering, planning or finance. As a result, they may not understand the impact of their decisions on the viability of an individual project.

According to the Rhode Island Builders Association (RIBA) and many others interviewed for RhodeMap RI, a developer's primary concerns are predictability and transparency. Local project reviews where the standards are subject to interpretation and that can stretch on for months do not provide the certainty desired for high levels of investment. Added time and cost of the regulatory approval process eventually gets passed on to the consumer and, for example, contributes to higher housing costs in the state. According to RIBA, approximately 30 to 40 percent of the cost of a new house in Rhode Island is attributed to regulation; nationally, that number ranges from 6 to 35 percent.

Another important aspect of local regulation that needs to be addressed in Rhode Island deals directly with what can and cannot be built. This issue is certainly not unique to Rhode Island municipalities, but there are far too many local ordinances that do not meet the needs of residents and business owners in terms of their understandability, and clear, consistent implementation. Higher density housing, particularly in suburban and rural areas, should be allowed at different scales in every Rhode Island community. More sophisticated standards for home-based and farm-based business will help

entrepreneurs in rural communities. Clear performance standards for industrial use will allow Rhode Island to capture more opportunities for the leaner, smaller, and cleaner industries that are becoming more of the norm. Finally, zoning codes are needed that can actually help, rather than act as a hurdle, to revitalize and strengthen our historic village centers to increase housing choice and commerce.

The Office of Regulatory Reform does not currently have the charge or the staff capacity to review local regulations and assist municipalities in developing more streamlined, efficient, and consistent regulations and processes. This should be part of the consideration as that office grows.

IMPACTS ON CONSTRUCTION

While the construction industry is certainly not the only industry faced with regulatory barriers in Rhode Island, these issues were a dominant theme when investigating place-based strategies for economic development. Construction-related regulations affect the cost and quality of housing; the ability of urban communities to experience economic growth, through rehabilitation of older industrial buildings; and have implications for employing more people in the State. The construction industry provides entry level and career growth opportunities in well-paying jobs to a diverse workforce, and represents one of the easier opportunities to employ people with low levels of education or skill by boosting training programs in the trades. Focusing on increasing the construction pipeline in the State as an economic development strategy will create more jobs and, by building more housing, provide more affordable housing in the communities where it's most needed.

DATA, INFORMATION AND **COMPETITIVENESS**

The ability to record, display, transfer, and access essential economic data can play a vital role in attracting business, coordinating regionally, and making smart investments. Examples of important data categories include land use, environmental constraints, real estate (parcel based), program performance, and available infrastructure. "[When] properly collected and analyzed, data gives organizations or agencies insight into their service, customers, and performance. It provides a critical resource, linking activities and functions to strategic planning, organizational goals, and management."103

Identifying, tracking and maintaining accurate data will be essential to evaluating the implementation of this economic development strategy and will hold state and local governments accountable for meeting the plans' goals and policy objectives.

Economic Data in Rhode Island

LAND USE, ENVIRONMENTAL AND REAL ESTATE DATA Land use data are integral to establishing a place-based economic development strategy, as they provide the framework for identifying where to target economic development opportunities based on existing and future conditions. This includes zoning, existing and future land use data, and property assessment data. Within Rhode Island there exists a lack of consistency and availability of land use data that would inform such a strategy. A lack

Rhode Island's existing data collection resources:

- > Rl.gov
- > Office of Digital Excellence
- > RI Geographic Information System (RIGIS)
- > ProvPlan (RI Data Hub)
- > Broadband RI
- > Statewide e-permitting portal (forthcoming)

of technical and human resources makes it difficult, and for some impossible, to keep this data current. Rhode Island has a state Geographic Information System (GIS)

operated through the University of Rhode Island, and ProvPlan has the RI Data Hub and Community Profiles websites, which both serve as clearinghouses for various land use-related data. These databases provide very good information to make "planning level" decisions. However, the type of property information investors and local planners need for economic development is more detailed. A handful of municipalities in the state have the capacity to visualize all of the properties in their borders and access key statistics related to those properties. Because of our small size, it is realistic to consider a statewide GIS parcel database which could be used by developers, local planners, state-level preservationists, utilities, economic development agencies, and many others. Such a database will be critical for tracking and understanding the actual results of the state's land use policies.

¹⁰³ National Partnership for Reinventing Government, Balancing Measures: Best Practices in Performance Management, 1999.

INFRASTRUCTURE DATA

Data related to infrastructure can provide a competitive edge to both the state and municipalities. States with municipalities largely developed over a century ago, certainly every state in New England, often struggle to understand their own infrastructure networks. Old storm drains, sewer lines, and water lines have been patched, repaired and replaced over the course of many decades. Even repairs and installations made in recent years may not have been properly recorded. Developers, Public Works Departments, and safety officials need to repeatedly "rediscover" the state of infrastructure that may need to be repaired or upgraded. Beyond these older systems, the location and capacity of broadband, gas, electricity and other systems is often an unknown for many sites in Rhode Island municipalities. From the perspective of redevelopment, literally tens of thousands of dollars can be required just developing good plans that show the existence and capacity of existing utilities. The ability to map and access information related to infrastructure can therefore play an important role in facilitating investment. Adding to the urgency of this issue are the increasing impacts related to climate change, which are discussed in more detail under Goal 5.

REGULATORY DATA

The Office of Regulatory Reform (ORR) is collecting performance data on all regulations in the state in order to estimate the economic impact of each regulation (e.g., the time and cost to a user). During this review, ORR discovered that the quality of data provided to them varies significantly among agencies. 104 Again, this may be a result of limited resources (staff) and time afforded to collecting and preparing the data for the ORR's review. However, some agencies simply have better data collection methodology. For example, the Department of Labor and Training very effectively collects and tracks data, primarily as a result of its participation in Federal programs. ORR was able to refine their questions in the hopes of getting better quality reporting in the latest round of analysis. However, the collection and analysis of regulatory data will necessarily need to be improved in order to be used as a performance measure and evaluate the economic impact of regulations on business in Rhode Island.

E-Government

A primary objective of any e-government initiative is to build electronic platforms to submit, receive, track and approve applications. This type of system can greatly streamline local permitting, especially for

small renovation or expansion activities, licensing, and scheduling inspections. Unfortunately, it is not guaranteed that business owners and developers will have access to the system or understand how it is operated. The recent release of healthcare.gov, the national healthcare online marketplace, is a prime example of how many people still have poor access or understanding of the Internet. 105 In 2013, Rhode Island established the Office of Digital Excellence within the Department of Administration to: manage all new technology infrastructure projects and upgrades for state agencies; expand and improve the quality of state technology services; promote greater access to government; and improve the State's websites to provide timely information to online users. This office is rolling out a number of web-based resources to collect and disseminate data, including a new e-permitting platform. It will play a key role in collecting data, as a web-based, seamless portal for data will be most effective and efficient.

Importance of Data for Measuring Performance

The success of Rhode Island's economic development strategy will be evaluated based on a set of performance measures aligned with the state's primary goals.

Collecting performance data increases accountability of a plan and provides a baseline of information from which trend data and success/failure rates can be derived. Performance measurement will also allow the state to make policy adjustments, in the event certain goals are not met or as a result of changing external factors. In short, performance measures will help the state make policy decisions.

In order to measure performance effectively, the state will need to collect or have access to the relevant data. According to best practice in performance measurement, the most important criteria in identifying metrics are: 107

- Focus on outcomes rather than outputs (e.g., jobs created v. people served)
- Use SMART metrics (Specific—Measurable— Achievable—Relevant—Time-based)
- Identify Metrics that Matter, such as quality jobs.

104 Project interview



¹⁰⁵ Project interview

 ¹⁰⁶ National Partnership for Reinventing Government, Balancing Measures: Best Practices in Performance Management, 1999.
 107 EDAC, Performance Measures in Economic Development, 2011.

Government Service

In Rhode Island, as with other states, there are no meaningful data to measure the general level of service provided by government employees to developers or the general public. Indeed, it is difficult to measure

"Improving customer service to Rhode Island businesses is a top goal at DEM. As part of this effort, we are engaging DEM employees to identify and prioritize areas for improvement, and looking at both the quality of permit submissions and at DEM responsiveness. We are engaged in an ongoing effort to cut out unnecessary steps and increase efficiency. Our focus in implementing Lean is to use a proven approach to eliminate things that are wasteful and don't provide meaningful value to our decision-making processes."

—RIDEM Director Janet Coit

professionalism, alacrity, and a basic willingness to "go the extra mile." However people remember clearly what it feels like to receive excellent service—when the staff person on the other side of the counter was invested in helping you achieve your task. During RhodeMap RI, many stories were told about experiences

with state and local government employees that were both positive and negative. Regardless of the perspective, everyone who had a story to share agreed that the importance of high quality government service cannot be understated. Efforts are already underway in Rhode Island to improve government service. Most notably, RIDEM engaged professionals to help train their Lean Team to foster a new culture of reducing waste and increasing efficiency.

Public Health

Improved population health and job creation are mutually-supportive interests. A healthy population can result in improved economic growth and long term health care system savings. Conversely, poor health and illness is an economic burden to individuals, companies, and regions. An unhealthy population generates costs in preventable health care expenditures, higher premiums from insurance companies and healthcare costs to business, and greater public expenditures. These expenditures come at the expense of other investments, such as in education, transportation, housing and other infrastructure (see sidebar). Businesses also benefit from locating in a region with a healthier population because their costs are lower and productivity is higher.

Economic development strategies can create the overarching socioeconomic, cultural, and environmental conditions that influence population health. Creating a business climate and supporting public investments that contribute to good-paying jobs can create an economically thriving community that strengthens education, social networks, and community resources, which in turn contributes to good health outcomes. Encouraging communities that are walkable and safe with access to recreation opportunities, healthy homes and healthy food can also lead to improved outcomes.

One example of a recent effort to improve access to and affordability of healthcare is HealthSource RI. This program is a new way to buy commercial insurance plans, and also serves as a third-party resource for information about health insurance plans, including how health coverage is structured, how it is priced, and what employers and their employees can expect to

Public Health and the Economy in RI

- > The nutritional quality of food consumed by the population is directly related to the prevalence of obesity in the population. Being overweight or obese reduces a population's life expectancy by 4-8 years; currently 63% of Rhode Island residents are overweight or obese.
- > Low socioeconomic standing can decrease a population's life expectancy by 5-7 years; at least 14% of all Rhode Island residents live below the poverty line. A one year improvement in a population's life expectancy is attributed to a 4% increase in economic output.
- > Diet-related chronic disease is a major factor driving the cost of healthcare in Rhode Island and across the United States. Countries with lower rates

- of obesity typically have lower healthcare spending and higher life expectancy. The higher the cost of healthcare, the lower the GDP.
- > Healthcare is one of the highest costs of operating a business. The average cost to insure a family of four is approximately \$15,000 per year. This cost prohibits many employers from expanding their operations, and the health of the population is a deciding factor in where to locate a business.
- > Increasing the overall health of the state population to make Rhode Island the healthiest state in the US is critical to attracting businesses to operate in the state and represents a crucial strategy to keeping existing employers both in the state, and viable in the national/international marketplace.



receive for their health insurance dollars. By publishing rate information one year in advance, Health Source RI makes it possible for Rhode Island small employers to know and budget for their health insurance costs for the year, allowing predictability and controlled costs for employers. The goal of the program is to drive down costs, as well as help smaller employers attract and retain quality employees, by negotiating with carriers to offer a range of plans at affordable rates.

This plan acknowledges the critical influence of health care and health status in building and maintaining a healthy economy, and supports the exploration of ideas and initiatives to improve health care access and delivery, slow the rise of health care costs, and enhance the health status of all Rhode Island residents.

Rhode Island's Property Tax

Rhode Island's property tax burden has consistently been one of the highest in the country—a characteristic demonstrated by national data on tax collections, as well as business climate rankings. According to analysis by the RI Public Expenditure Council, Rhode Island's FY 2011 (the most recent year for which comparable data is available) property tax collections of \$52.61 per \$1,000 of personal income were 42.0 percent higher than the national average of \$36.96, ranking Rhode Island's property tax collections per share of personal income the fourth highest in the nation. On a per capita basis, Rhode Island's FY 2011 property tax collections ranked 7th in the nation. Moreover, the state relies more on

108 RI Public Expenditure Council. How Rhode Island Compares. 2013

property taxes to fund government services than the rest of the country. In FY 2011, the property tax accounted for 44.7 percent of total tax collections in Rhode Island, compared to 33.1 percent of total tax collections nationally.

Rhode Island's continued reliance on the property tax is a significant contributor to the state's persistently high ranking when it comes to overall tax burdens. Further, the state's high property taxes are frequently cited as a negative factor within business climate rankings. A March 2010 report by the Council on State Taxation (COST) and Ernst & Young indicated that property taxes collected in Rhode Island accounted for over half of the taxes paid by businesses in FY 2009, compared to 36.5 percent nationally. The Tax Foundation, which ranked Rhode Island's business climate 46th in their 2014 State Business Tax Climate Index, ranked the state's property tax climate 46th, the worst ranking the state received in the report with the exception of the unemployment insurance tax ranking.

Rhode Island is not unique in the Northeast in having a high property tax burden. On a per capita basis, all of our neighbors in New England are ranked in the top ten. We are unique, however, in the wide range of tax rates applied to different types of property in this state. This discourages businesses on location decisions and creates uncertainty as to future property tax burden. Transparency, predictability, and consistency are needed in our property tax system, first and foremost. In some of our municipalities, property taxes are so high that development rarely happens without some sort of tax treaty or incentive, a complicated and unpredictable process that does not always benefit either the municipality or the developer. In the long term, Rhode Island should find a way to help diversify the revenues and lower the costs of its municipalities, so that they are in a position to lower property taxes without harming their ability to provide for the health, safety, and welfare of their residents. Another key theme for tax policy in general is data and accountability. Any changes to the tax policy system should set clear goals, track the actual results, and be adjusted if they don't produce the desired results.

ENTREPRENEURS AND SMALL BUSINESS DEVELOPMENT

Entrepreneurship is intimately related to economic development and vital to the progress of any regional economy. Entrepreneurs can help Rhode Island's communities by providing jobs, conducting business locally, creating and participating in entrepreneurial networks, and investing in community projects. In many cases, entrepreneurship leads to new small business development that will add to the already enormous number in the state. Considering the impact of entrepreneurship and small business development, Rhode Island could potentially experience considerable benefits by improving the conditions for expanding entrepreneurial and small business efforts within the state.

Policies and strategies in this plan related to entrepreneurship refers to the creation of a new firm or business enterprise and fall into two categories: entrepreneurs, who set up small businesses much like other existing small businesses (for example, a new restaurant or hair salon); and "innovative" entrepreneurs, seeking to test and create new ideas, often in the technology sector. It should also be noted that most new businesses will remain small, reflective of the finding that three-quarters of people who start companies say that they want to keep their companies small enough to manage themselves. 109 Regardless of the aforementioned categories, entrepreneurial ventures and small business formation can provide employment, build self-confidence, increase quality of life, generate income, and lead to other economic impacts—all of which are desirable outcomes for the state's economic future.

The Economic Power of Entrepreneurs

The evidence is very clear that business formation and young firms are a crucial component of job creation. A 2010 study by the National Bureau of Economic Research found that since 1980, nearly all net job creation in the United States is attributable to firms less than five years old.¹¹⁰ Further, a 2009 Kauffmann Foundation study found that of the 12 million jobs created in the United States in 2007, nearly 8 million were created by firms

109 Economist. What Exactly is an Entrepreneur? 2014. 110 Haltiwanger, Jarmin, Miranda. 2010.

between one and five years old.¹¹¹ A key takeaway in the context of economic development policy is that young firms contribute more to net job growth than larger more well-established firms. In addition to creating businesses that hire people, entrepreneurs also pay taxes and contribute to an increase in demand for products and services that in turn support other jobs and businesses with indirect and induced economic impacts. Finally, according to Economy RI, entrepreneurs can bring "fresh new ideas and innovations to the marketplace, replacing those of less innovative incumbents, and thus raising living standards."112

Small business ownership and new business creation are two areas in which Rhode Island performs fairly well. The State ranked 14th out of all states in small business ownership rates and as high as 9th in new business creation. 113 However, the same report indicates that Rhode Island ranks 39th in entrepreneurial activity, likely due to the barriers discussed below.

Highlighted below, Rhode Island has experienced post-recession growth in the creation of firms—a positive trend, albeit insufficient, for unemployment reduction and economic growth. While employee per firm and overall job creation from start-ups has declined, particularly since the onset of the economic downturn, businesses less than oneyear old created nearly 9,500 jobs in 2012 alone.

Rhode Island has significant assets and opportunities to expand entrepreneurial efforts within the state, including its fast-growing immigrant population. According to the Immigration Policy Center, there were 6,478 new immigrant business owners (first-generation) in Rhode Island between 2006 and 2010. By 2010, 14.4 percent of all businesses in Rhode Island were owned by immigrants, resulting in a total net business income of \$360 million, equivalent to 13 percent of the state's net business income. 114 Immigrants also substantially contribute to innovation industries within Rhode Island, as 45 percent of STEM graduates and 68 percent of graduates earning PhDs in engineering were foreignborn as of 2009.

Attracting and keeping entrepreneurial immigrants and native-born residents alike will be crucial to Rhode Island's economy over the coming years and the growing

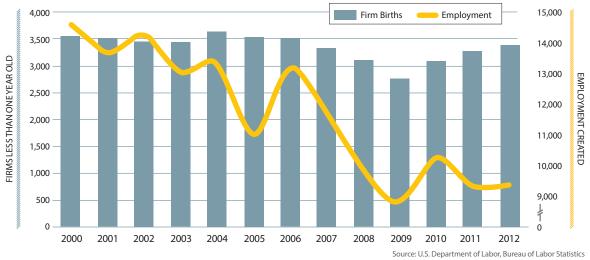
¹¹¹ Stangler and Litan. 2009.

¹¹² Fourth Economy Partners, Economy RI: Economic Development Data Analysis & Assessment, February 2013.

¹¹³ Fourth Economy Partners, 2013.

¹¹⁴ http://www.immigrationpolicy.org/just-facts/rhode-island-immigrant-entrepreneurs-and-welcoming-initiatives-ocean-state

Private Sector Establishment Births in Rhode Island



community of color population in Rhode Island should be welcomed and encouraged to pursue entrepreneurial ventures.

Barriers to a Competitive Small Business and Entrepreneurial Climate

ACCESS TO CAPITAL

Business lending activity in Rhode Island, and particularly small business lending, fares poorly relative to other states, a trend which the state must improve if the potential benefits of entrepreneurialism are to be realized. If Rhode Island is to improve its rate of business formation, the state must seek to increase access to entrepreneurial finance and address the extent to which collateral constraints restrict entrepreneurial activity. 115 Models from other communities demonstrate the need for local capital to both serve the role of providing early support and also inspire entrepreneurs to "take the leap." Locally-based seed capital supports the early stages of company formation and also often provides assistance in connecting the entrepreneurs to needed services. Once rooted in Rhode Island, these young companies can attract capital from outside the region.

REGULATORY COMPLIANCE

As discussed in greater length previously, regulation should be simplified and lightened for small and young firms to reduce unnecessary barriers to entry. Current regulatory arrangements can often result in regressive consequences, in that wealthier and larger firms can afford regulatory compliance at a much lower marginal cost. Entrepreneurialism and start-ups throughout Rhode Island would benefit from a reversal of this trend.

CULTURAL BARRIERS

Significant institutional and legal barriers to entrepreneurship exist in Rhode Island in relation to the potential impact of economic outcomes. Particular attention should be paid to minority-owned businesses and immigrant populations. These populations can produce significant entrepreneurial activity but typically experience higher barriers to starting a firm including lower collateral and difficulty accessing business planning assistance due to cultural or language differences.

DATA COLLECTION

Commerce RI One-Stop Shop: Overcoming Barriers
Commerce RI is developing an online platform
to support small business development within
the Latino market. This portal will be a one-stopshopping resource that connects Latino business
owners to statewide programs and services,
including access to capital and financial literacy.
Information will be delivered in both English and
Spanish. This is a significant step toward better
serving Latino business owners facing language and
cultural barriers.

Commerce RI will work in partnership with private, public, quasi-public, and non-profit sectors in order to:

- Connect Latino business owners to resources and opportunities
- · Foster mentorship, coaching, and role modeling
- Share best practices and success stories

Commerce RI will work with partner organizations across sectors to engage the Latino business community with outreach events and promotional campaigns, ultimately building a climate in which businesses share their experiences to support each other. Programs such as this can be expanded to help overcome barriers for small business owners of all kinds all over the state.

¹¹⁵ Based on national research from the National Bureau of Economic Research, Housing Collateral and Entrepreneurship.

Facilitating the success of entrepreneurs in Rhode Island will require a more substantial data collection effort by relevant agencies to successfully determine the extent to which favorable entrepreneurial policies are working. This includes an adequate tracking of jobs created by firm, location and industry data, tax and revenue information, and other metrics that could be used to analyze whether or not entrepreneurial incentives have achieved any measure of success.

TECHNICAL ASSISTANCE

The process of starting a firm should be less burdensome and simplified to those seeking an entrepreneurial venture. Regulatory compliance assistance would be a move in the right direction. Additionally, business incubators that provide space and access to business services such as attorneys and accountants have demonstrated success.

Takeaways

REGULATORY REFORM

Regulatory reform is central to both the short and longterm success of Rhode Island's economy. At the state level, Rhode Island's regulatory structure is large and complex. This is driven by several factors including the existing environmental constraints present in much of our landscape and the fact that our state government assumes more permitting duties because of our small size. Important issues to be addressed include:

- State regulatory agencies have, in some cases, jurisdictions and regulations that overlap. This can create confusion and conflicting requirements.
- Rhode Island has made strides to address state regulations on a comprehensive level. This is an enormous undertaking and the state must commit to long-term investment to see this project completed.
- The state Building Code and the Fire Code require reform on many levels. In the short-term, tools are required to provide greater consistency to the way in which the codes are interpreted and enforced. Longer term efforts are required to bring greater consistency between the two sets of standards and to balance the need for safety with the viability of redevelopment.
- Local zoning and land development regulations should be made as clear, transparent, and predictable as possible. Resources should be made available to local governments that provide sustained training in local regulatory best practices.
- A "culture of customer service" needs to grow in

both state and local government agencies. Hiring and training should proceed with the goal of creating a statewide staff that is invested in the success of our residents and business owners.

COMPETITIVENESS

Creating a business climate that will be viewed as "competitive" by those considering investment in Rhode Island will require immediate investment as well as a long term commitment. Factors that should be addressed as part of a comprehensive economic development strategy include:

 Rhode Island has several existing repositories for land use, infrastructure, and environmental data which can be accessed fairly easily by government agencies and private sector developers. However, the state

should take advantage of its small size and begin the development of a statewide GIS that provides data rich enough to guide both permitting and investment decisions at their early stages.

Rhode Island Integrated Tax System

Rhode Island's Office of Digital Excellence, in partnership with the Division of Taxation, successfully deployed Phase 1 of the new STAARS Integrated Tax System on time and on budget in July of 2014.

STAARS represents the conversion of a significant number of offline systems and databases into a single modern online system. The project is slated for completion in 2016, which will give individual and corporate taxpayers a single system and process to manage all of their tax needs with the

The

implementation of sweeping regulatory reform at the state level will require patience, commitment, and steady funding.

- Using technology for basic e-government applications can help Rhode Island streamline permit review and track activity over time.
- A culture of customer service must be fostered in both state and local governments with the ability to reward high level performance.

ENTREPRENEURS AND SMALL BUSINESS GROWTH
The employment and wages generated by new businesses are surely a vital engine of economic growth, particularly in Rhode Island. Rhode Island's economy has much to gain from supporting the creation of new firms, as well as more generally ensuring an environment favorable for residents to conceive and pursue new ideas and



economic opportunities. Issues Rhode Island should address include:

- Existing programs for entrepreneurial and small business loans should be expanded and connecting these programs more strategically to urban core areas can help facilitate innovation in these areas. A 2014 study found that a full "three-quarters of all the economic development dollars awarded and disclosed by state and local governments have gone to just 965 large corporations"—leaving little toward the small businesses and start-ups that are arguably in greater need of funds and could make better use of them.¹¹⁶ Capacity building in the entrepreneurial community can make it easier for people to understand some of the basic aspects of starting, permitting and running a business. This could be particularly effective with immigrant communities, which already show high levels of business starts and untapped business potential.
- Investment and performance in entrepreneurial and small business activity should be tracked to the extent possible to better understand the current and future contribution of these entities to the overall state economy.

Moving Forward

To address the opportunities and challenges described above, and to achieve the sixth and final Goal of this Economic Development Plan, the State has adopted five overarching policies.

116 Matera, Phillip, Subsidizing the Corporate One Percent, 2014.

Policy 1: Accelerate the impact of regulatory reform throughout state and local government.

 a. Promote the establishment of a statewide building and fire inspection service that can be enlisted at the request of developers in designated growth centers or other priority development areas.

Rhode Island, like other states, has state-level building and fire codes that are generally enforced at the local level. Throughout the RhodeMap RI process, stakeholders from diverse interests (e.g., state officials, local planners, housing advocates, builders, and small business owners) overwhelmingly agreed that the current system is not functioning well. The recurring observation is that local enforcement officers (sometimes within the same community) are interpreting and enforcing the state codes differently. This leads to delays during construction that can be very costly to developers, who need to have space occupied as soon as possible in order to generate revenue.

The existing enforcement allows conflicts or problems with local enforcement to be "sent up" to the state at the request of local officials. This usually occurs only after considerable time has been lost and frustrations are high. One approach to partially addressing this problem would be to adjust the statewide process to allow for developers to request state level review at the outset of their project. The ability for developers to make this request would be reserved for projects that meet a series of criteria that have yet to be determined. But factors that could be considered include:

- Location. Is the project within a designated Growth Center?
- Housing. Does the project provide for housing diversity, including subsidized affordable units?
- Scale. Does the project meet a certain size threshold (this threshold might vary depending on the location of the project)?
- Complexity. Does the project include the use of other tools that add layers of complexity (e.g., TDR, Historic Tax Credits, TIF, etc.)
- Investigate new governance models and tools including Management Districts, County Government, Revenue Sharing, Functional Regionalization, etc.
 - Rhode Island municipalities bear a heavy local burden when it comes to administering regulations,

maintaining infrastructure, and providing many local services. The structure of government in Rhode Island (and across New England) is heavily rooted in local rule with very few examples of regional bodies that yield any real power or administer programs of major significance. However, there are isolated instances in Rhode Island where small cooperative arrangements are in place to create efficiencies between municipalities. Shared school systems in rural areas and water/sewer utilities in South County, the Blackstone Valley and elsewhere demonstrate that inter-municipal agreements are a part of Rhode Island's everyday operations and there may be opportunities to expand on these.

To be able to determine whether different governance models could apply to Rhode Island, assistance from the academic community would be beneficial. Dedicating research time to this issue could provide the depth of analysis needed to identify promising models, appropriate services and geographic areas that might benefit or that could be used to pilot a particular model.

 Improve "customer service" in state and local government while providing higher quality development along with a faster and more predictable permitting process.

On the most basic level, creating a culture of "customer service" in government was a recurring theme from citizens and developers alike. It is essential to move applicants through the zoning and permitting processes as efficiently as possible without compromising any compliance issues. From that point, applying and interpreting standards consistently within individual or multiple offices will create a more predictable environment for everyone involved.

Municipalities should also strive to ensure that their standard and "by-right" processes are designed to reflect and encourage what they want to occur, thereby reducing time consuming, expensive, and confusing variances and special exceptions.

The Statewide Planning program, in coordination with the Office of Regulatory Reform and the RI League of Cities and Towns, should compile a manual of "best practices" designed to make local zoning and permitting processes more predictable, consistent, equitable, cost effective, and efficient while reinforcing

local jurisdiction, encouraging community-supported projects, preserving local resources, and maintaining the standard of review for the environment, public health, etc.

d. Explore enabling legislation that would allow municipalities to combine their planning and zoning review processes.

The Statewide Planning Program, in coordination with the RI League of Cities and Towns and others, should explore options for shortening local development review processes without sacrificing the integrity of the intent of these reviews to promote public health, safety, and welfare. One option may be enabling legislation that would allow municipalities to "optin" to combing their planning and zoning review processes.

e. Implement the state- or region-wide, uniform, electronic building permitting system for cities and towns

The Rhode Island Office of Digital Excellence, in partnership with the Office of Regulatory Reform, is commencing work with a number of municipalities on a statewide ePermit application which will standardize the process for development permits. Rhode Island should deploy a statewide platform for the application and issuance of building, electrical, plumbing, and mechanical permits online by the end of 2015. Upon completion of this effort, the participants should identify other opportunities for the state and municipalities to work together on regulatory reform efforts at the local level.

f. Continue support for the ongoing work of the Office of Regulatory Reform (ORR)

All state agencies are currently in compliance with the State's regulatory review reporting. From this review, over 250 changes to the regulatory environment were identified. To date, about two-thirds of these changes are complete. The next periodic review is scheduled to start in January 2017. While the review is complete, a number of burdensome regulations remain. Through its annual small business surveys, ORR has identified those considered to be most burdensome by the small business community. Many of these contain elements directly from law (e.g., business corporate tax, unemployment and temporary disability insurance). ORR has recommended, and should be supported in, a broader effort to work with agencies to streamline and improve burdensome regulations. ORR should also be supported in its efforts to develop a webbased government business service map, develop best practices for regulations, and improve the use of cost-benefit analysis.

- g. Adopt new legislation to facilitate the use of different small business models like co-ops both for preserving existing and creating new business.
- h. Continue to evaluate and update the state
 Fire Code to reduce the cost and burden
 of providing fire suppression in new and
 redeveloped properties, without compromising
 safety.
- i. Build on recent efforts to create interagency cooperation for permitting and formalize a structure for collaborative permitting within all of RIDEM's divisions (e.g., wetlands, site remediation, wastewater, etc.) as well as with CRMC. Use these lessons to update processes for other state agencies that manage permitting.

Policy 2: Make Rhode Island's tax structure more simple, competitive, equitable and predictable.

a. Evaluate the impact of recent changes in corporate and estate tax.

Effective for tax years beginning on or after January 1, 2015 the corporate tax rate will be reduced from 9% to 7% of net income. Modification to the more complicated estate tax will also yield lower burdens to the tax payer. Reforms of this nature have been in high demand for some time in Rhode Island as residents and business owners debate the various elements of regional economic competitiveness. It will be important for Rhode Island to monitor the performance of these tax cuts in an attempt to assess the degree to which they affect revenue and investment over time.

b. Analyze and reform the unemployment insurance (UI) system.

In March 2009 the RI Employment Security fund became insolvent and Rhode Island had to begin borrowing from the federal government in order to continue to pay benefits to unemployed workers. A thorough analysis of the UI tax and benefit structure was conducted over the next two years and recommendations were developed that were enacted into law in 2011. The 2011 law changes made

it possible for Rhode Island to fully repay its federal UI loans in November 2014. This will reduce the amount of both federal and state UI taxes employers will pay in 2015 by some \$50 million. In addition, these changes will enable the Employment Security Fund to continue to build up reserves so the state can avoid future borrowing.

This past recession also made it clear that RI's existing UI Benefits and Tax System was unable to handle the high volume of claims filed during a major recession in a timely manner. Long wait times and customer complaints followed as the system struggled to deal with very high unemployment levels. Like many systems around the country, Rhode Island's current system is some 30 years old and based on a programming language which is becoming obsolete. This system has been patched together over the years and desperately needs to be modernized.

In 2012, RI formed a Consortium (MRM) with the states of Mississippi and Maine to develop a new common UI Benefits and Tax System. In September 2012, the MRM Consortium received a federal grant to develop the system. The new system will be housed in a cloud environment and be administered by a nonprofit corporation to be created by the three states.

The current schedule is for RI to go live with the benefits portion of its system in August 2016 with the Tax portion to follow at the end of 2017. At that point the state should have a modernized, efficient UI Tax and Benefits system in place.

Commerce RI, RIPEC, and RIDLT should work together to advocate for these reforms to the unemployment insurance system to make it both sustainable and competitive.

c. Adjust sales tax rate to be competitive within the region.

Make the sales tax regionally competitive either through changes to the rate or base. This would neutralize the benefit of making out-of-state purchases, i.e., support buying local. The State is currently losing \$70MM in potential revenue. Any proposal to reduce the sales tax rate should include the broadening of the base, and at a minimum be revenue neutral if not revenue positive.

d. Analyze and reform the property tax system

The State should consider the creation of a permanent commission on property taxation to establish a system of universal, understandable and fair standards for the municipal taxation of property throughout the state. The Commission could study and evaluate property tax issues including, but not limited to:

- Property tax rate classification strategies;
- Special property tax exemptions;
- · The property value revaluation cycle;
- · Uniformity of depreciation schedules applied to personal property; and
- The tax appeal process and resulting litigation.
- e. Clearly define expected or desired outcomes of tax incentive programs. Continually monitor performance and adjust as required.

At both the local and the state level, Rhode Island has seen too many incentives issued to developers or corporations without a clear understanding of what the outcomes were supposed to be. Further, disputes have occurred between government agencies and beneficiaries as to when the terms of a particular incentive expire. In many cases, these disputes occur due to inadequate record keeping and general mismanagement over the course of different administrations.

Moving forward, at the state and local level, Rhode Island agencies must provide incentives in a manner that makes it clear to everyone involved (including the general public) what the terms of a particular incentive are. Understanding these expectations will allow performance to be measured over time and, if the expected outcomes are not being achieved, all parties can be held accountable. For example, recipients should be required to provide regular reports on their progress, and the incentive terms should include clear recourse for the government to rescind incentives when the terms and promised outcomes are not being met. Measures should also be taken to ensure that the incentive is not contributing to negative outcomes for local residents—options may include conducting a racial impact assessment or a health impact assessment.

Policy 3: Support small business activities to enhance operations and access to capital.

a. Create a network of "one-stop-shop" business community centers where trained personnel can educate business owners about licensing, regulations, financing, taxes and other essential aspects of running a business. Pilot efforts within low-income communities.

The idea of centralizing resources and creating "onestop-shops" was a recurring theme in RhodeMap for many different issues. With regard to entrepreneurship and start-ups, the administrative, permitting and financial intricacies related to getting a business off the ground are particularly important. The RI Secretary of State's office and website currently serves as a hub of information on how to start a business, what permits are necessary, etc. The state should enhance and expand this effort by providing additional resources to the Secretary of State's office or a group like Commerce RI to establish a network of business community centers, both in-person and virtual, where potential business owners can seek technical assistance and advice. The exact number and location of these community centers remains to be determined.

Cultural differences, language barriers, or the business' small size can make accessing capital, meeting regulatory requirements, and acquiring formal business training particularly challenging for entrepreneurs in low income communities and communities of color. Launching or expanding a robust website and piloting a small number of locations in areas of high foot traffic in lower income communities may be an effective way to test the concept. It would also be important to ensure multilingual access on line and in as many of the centers as possible. The centers may also develop a network of small business mentors that can serve as a resource for startups. Regardless of the scale and location of the pilot locations, an aggressive and sustained marketing campaign would be necessary to generate as much awareness as possible.

 b. Create an investment credit designed to attract and accelerate private investment in high-growth companies, paired with new or expanded capital resources and services to make projects financing ready.

Many innovation economy stakeholders have identified availability and/or access to capital to start and grow their business as being a significant impediment to job growth in the State. In addition, there is not enough capital to seed initiatives that will support these businesses and provide business ecosystem services. Tools for capitalization that could be considered include:

· Sector Growth TIF

The State of Kansas employed this model in 2004 in its Economic Growth Act. The basic premise is that a baseline of taxes paid by wages of an industry sector's workforce is created. An estimate of what growth in that sector will provide in additional tax revenue is created, which is in turn bonded, with the State's general fund serving as the guarantor. Kansas used the Bioscience and Health sectors as the base.

For example, a formula might look like this:

- > 2013 tax revenue from Sector X = \$170,000MM.
- > 2014 tax revenue from Sector X = \$180,000MM, or \$10MM more.
- > Some percentage of the \$10MM is pegged to pay off the bond/debt service.
- > Hypothetically, approximately \$5MM of the growth amount per year for 10 years would be targeted, creating a \$50MM fund.

This fund would be managed by a board/authority and could be used to leverage private capital through matched-investment vehicles.

Tax Credit Sale Approach to Fund Creation
In recent years this approach is becoming
increasingly attractive to states as it can create
immediate pools of capital, with credits being
utilized over a longer time horizon. Pennsylvania
passed legislation in 2013 creating this type
of effort, which operates under the name
Innovate PA. Their actions were modeled after
Maryland and Tennessee, which were program
enhancements on models seen in Colorado, Texas,
Louisiana, New York, Missouri, and more.

The program sets an amount of tax credits to sell to private institutional taxpayers such as Insurance Companies and Utilities. The pool of credits is then sold at some discount via an auction or brokerage to qualified buyers. Typically states are receiving 75 to 85 cents on the dollar for the credits. The proceeds from the sale are then managed as a fund by a state controlled or sponsored entity.

For example, a formula might look like this:

- > \$100MM in tax credits is offered by the State, with a first tax credit redemption date of 2018 (the total redemption amount can be limited).
- > Credits would sell for \$.80 on the \$1, generating \$80MM in revenue.
- > The fund would then be professionally managed, and could be leveraged, by outside investors via the support of other private/public funds.

As with all tax credits and incentives, these or similar efforts must set clear goals, track effectiveness, and change course if the outcomes desired are not being achieved (see Goal 6, Policy 2, Strategy e).

c. Explore a re-launch of a RI-based Community Development Financial Institution (CDFI). This organization could partner with Commerce RI to administer and increase access to micro-loan funding.

The mission of the CDFI Fund is "to increase economic opportunity and promote community development investments for underserved populations and in distressed communities in the United States." If the Rhode Island based CDFI were re-established, these funds could be used to increase access to capital and local economic growth in programs that directly build capacity, provide access to New Markets Tax Credits, provide loans and financial services, and issue bonds to support more ambitious CDFI projects.

d. Convene and educate industry associations about offering group purchasing services to Rhode Island businesses.

Every dollar that a small business saves in purchasing adds a dollar to their bottom line. However, small businesses have no procurement leverage. Industry associations should offer pooled sourcing/procurement services to support Rhode Island's small businesses, with support from a third party if necessary.

resource that can connect suppliers and services through a web-based platform. An important focus of the Economic Development Plan is the concept of capturing as much opportunity as possible across complementary sectors. In some cases, there will be legitimate gaps and industries in Rhode Island may need to shop elsewhere for parts or other essentials. In other cases, simple tools to facilitate awareness of complementary operations can help to keep commerce within our borders. A central, easily accessible database that helps suppliers and services connect represents a short-term strategy that could have measurable impact. Such a tool would also help state and local government seeking to source locally, where it is feasible and cost effective, as a

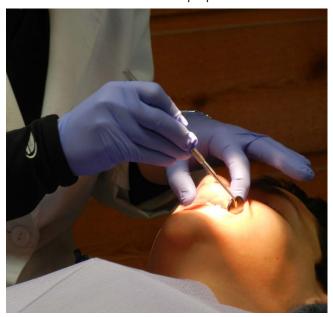
e. Create a central database as an in-state

Policy 4: Foster a healthier Rhode Island population and economy where access to care and quality of care are paramount, the health of our population is among the highest in the nation, and the increasing costs of health care are contained.

means of supporting local businesses.

a. Develop a network of neighborhood health stations throughout Rhode Island to bring routine health care services closer to those who need them most.

The Rhode Island Department of Health (DOH) has promoted an idea for significantly reducing medical care and insurance costs while improving the health of Rhode Island residents. This proposal calls for



creating a network of neighborhood health stations, where neighborhood residents could receive the majority of their health care services. Estimates of annual costs of providing all routine preventative health services, including immunizations, as well as chronic disease management and management of most acute illnesses, are equivalent to the current administrative costs of health insurance, about \$800/ person/year. Creation of a primary care trust fund could finance a transition to this type of system. Neighborhood health centers can be an anchor for growth centers and villages throughout the state, and should be accounted for in local zoning. DOH should study the potential impacts of this strategy on the current healthcare delivery system, and develop pilot neighborhood health centers that can test and evaluate the approach.

- b. Continue to enhance the role of consumer information and choice in healthcare for small employers, helping leverage their collective power to drive down the cost of health care in Rhode Island and reduce its drain on the state's economy.
- c. Develop strategies and resources to reduce the prevalence and economic impact of preventable chronic disease, and improve the health of the State population to create a healthier workforce.

Policy 5: Promote Rhode Island internationally.

a. Attract new businesses and investment through partnerships with private sector representatives and federal programs designed to attract foreign investment.

As this plan clearly establishes, Rhode Island's immigrant population is one of our strongest economic assets. Our State recognized this recently by establishing the State's first Regional Center under the Federal Immigrant Investor Program, known as "EB-5." Regional Centers are used to identify investment opportunities that will create jobs in local communities, often in partnership with economic development agencies. They also assist in marketing those investment opportunities to investors from around the world and ensure that the investment

offering complies with federal and state securities laws and SEC regulations as well as specific EB-5 requirements. According to the Association to Invest in U.S.A.:

A comprehensive peer-reviewed economic study found that during fiscal year 2012, investments made through the EB-5 program contributed \$3.39 billion to U.S. GDP and supported over 42,000 U.S. jobs. This is more than a 100 percent increase from the average annual impact result reported in 2011. And, these jobs were created at no cost to taxpayers. The Congressional Budget Office has scored the program as revenue neutral, with administrative costs paid for by applicant fees.¹¹⁷

Another potential program to pursue is the US Commercial Services Select USA program. This federal program serves as an economic gateway to the U.S. for potential foreign investors. Web-based tools include clickable maps that would allow users to choose a state like Rhode Island and immediately get access to critical economic information as well as points of contact to learn more.

b. Explore the feasibility of an overseas trade office. 118

The establishment of overseas trade offices is becoming much more common in state economic development strategies, especially those looking to facilitate international export trade. According to the Council of State Governments Knowledge Center, as of April 2013, 39 states maintained overseas offices. The number of offices maintained by individual states varied between one and 15 locations. Notably, none of the New England state maintained an overseas office as of the April 2013 report; however, Vermont did report that it officially contracts with the State Chamber of Commerce to work closely with China.

Rhode Island's exports have been strong in many international markets including (but not limited to) Canada, Germany, Mexico, and Turkey. In terms of foreign investment, approximately 9,300 jobs within the state are attributable to companies based in the United Kingdom; 4,100 to companies based in

France; 1,200 to companies based in Japan; 1,100 to companies based in Switzerland; and 1,000 to German companies.¹¹⁹

c. Establish a Foreign Direct Investment program that identifies international companies to locate to Rhode Island.

Foreign Direct Investment (FDI) is a term used to describe a situation where a company situated in one country is controlled by a company or individuals in another country. The United States is the world's largest recipient of FDI and many states look to capitalize on the potential for foreign investment to create jobs. Rhode Island could consider actively pursuing FDI by aggressively marketing its competitive advantages to foreign investors. Specifically, Rhode Island's strategic location and infrastructure assets to foreign companies who are looking for access points into the U.S. marketplace.

Performance Measures for Developing a Competitive Advantage

The following performance measures will be tracked by the State to measure progress toward achieving Goal 6 of this Economic Development Plan. These performance measures will be tracked over time and presented in an annual "report card" by Statewide Planning.¹²⁰

- Overall job growth statewide (RI Department of Labor and Training)
- Average annual household cost of health care (RI Department of Health)
- Maintenance of all indicators related to STAC Benchmarking (Commerce RI)

¹¹⁹ David Thomas, Business Roundtable

¹²⁰ Some of the selected performance measures may not be available on an annual basis, which would be reflected in the report card document.

¹¹⁷ https://iiusa.org/blog/wp-content/uploads/2014/06/About-the-EB5-program.pdf

¹¹⁸ The Council of State Governments defines an "overseas office" as an office whose purpose is to promote and facilitate international trade and/or investment between and among foreign parties and private or public interests within the state represented. The office must have a physical presence located in a foreign country that is funded at least partially by the state government represented. The office may serve the interests of the state government represented part or full-time and several states may share the same office location

1 2 3

4

IMPLEMENTING THE PLAN

Principles of Implementation

At the close of the RhodeMap RI process, the plans and policy documents that will lead the State forward toward a more sustainable future also serve to document a stronger approach to plan implementation. Through discussion with dozens of focus groups, over 50 project interviews, and 100-plus committee members, a series of principles emerged relative to implementation that will help guide those responsible for bringing this vision to reality.

Data-Informed Decision Making & Accountability

Liberating non-personal public data creates enormous opportunities for government to positively impact the lives of citizens. It also empowers agencies to track their own success against stated goals and identify areas for

College & University Research Collaborative

This collaborative, consisting of several private colleges and universities in Rhode Island, is a tool for putting these institutions' best researchers to work developing data on crucial economic issues for policymakers in the General Assembly and Governor's Office as well as the general public. This is an example of how research and data can be harnessed to inform economic policy and decision making. More info: http://collaborativeri.org/

improvement. In a time of unprecedented digital openness, many government organizations keep data in proprietary databases or published in cumbersome formats that make access and analysis difficult. In the past, this

has prevented public entities from more effectively using information stored in databases, spreadsheets, and other tools to inform their decision making.

Despite access to data, many public entities still base decisions largely on instinct. Such "gut" decision making can be costly and inefficient, resulting in:

- · Slow delivery of government services
- Misalignment between public services and citizen needs
- Difficulty in tying investments to measurable results
- Lower levels of transparency and accountability
- Public perception that government is broken or corrupt

Rhode Island has made progress on this front in the last few years with the creation of the Office of Management & Budget and the introduction of Performance Management into state government, as well as the creation of the Office of Digital Excellence and the enhancement of technological tools available so state government can do its work more effectively and efficiently. The Office of Performance Management, for example, works to improve government efficiency by streamlining processes, promoting innovation, and encouraging greater interagency cooperation. It performs data analysis and other research to inform budget and policy decisions.

Continuing these efforts will be a key component of holding state government accountable for its actions and investments—ensuring that we get the results we are looking for. One caveat is that data should not be a strait jacket that alone drives decision making—there are many legitimate qualitative things to consider when making decisions. But data is a key part of any larger information gathering and community outreach initiative to understand the full context of an issue. This plan includes a great number of policies and strategy recommendations that will involve state investments. It should be taken as a given that all of these policies and strategies be implemented with accountability measures built in. At a minimum, this means the following:

- Set Goals: Before making any investments or starting a new program or policy, clearly define what the desired outcomes are and what should be achieved if successful.
- Collect Data: Collect the data needed to justify state spending, investments, and policies. Make this data clear, consistent, easy to track, and fully accessible to the public.
- Be Accountable: Use data to track outcomes of policies and programs to make sure we are achieving our goals. If there are other partners in these programs and investments, actively track their progress as well, and make sure they are adhering to any agreements made. If programs, policies, and investments are not producing the desired outcomes, the state must hold itself and its partners accountable.
- Act Equitably. All State agencies should work to remove barriers and eliminate disparities that limit the ability of some to fulfill their potential. This involves tracking data on race, income, neighborhoods, educational attainment, public

- health, etc. so that we know that our policies, programs and investments are offering fairness and increasing opportunity for all.
- Innovate: The status quo will not move us forward. The State needs to be able to try new things—even if that means we sometimes fail. If we set our expectations in advance, determine the data we need to track success or failure, and hold ourselves and our partners accountable, we can explore new policies and actions, see whether or not they are doing what we want them to, and change course accordingly. Relying on data-informed decision making should not result in only trying things that have been proven to work already.

Coordinated Governance and Decision Making

The issues addressed by this plan require collaboration, particularly in changing the way major investment decisions are made and coordinated across all levels of government in Rhode Island.

COORDINATING INVESTMENT DECISIONS

To implement this plan, barriers between and among federal and state programs must be dismantled to help ensure they respond to the needs of communities. State agencies should work together to streamline grant requirements and to align their goals, project selection criteria, performance criteria, and funding. Achieving the goals of this plan requires making substantial interagency investments in capital improvements like "green" sustainable infrastructure and affordable housing near transit, all of which require coordination of programs such as Transportation, Housing, and Environment. Rhode Island agencies and organizations should continue to advocate for similar efforts with their federal funding partners where alignment is a problem.

INCREASING EFFICIENCIES

Government agencies also need to operate more efficiently and with more of a customer service orientation. Accounts of wasteful, duplicative, or unfriendly government processes, whether real or perceived, at the state or local level, are common. The unintended consequences of outdated policies and bureaucracies include higher government costs and less accountability. To be better able to implement and pay for the goals and policies in this plan, state agencies and municipal governments should take a hard look at their policies, programs, funding, and regulations. With 39

municipalities and many state agencies providing services to residents, businesses, and visitors of Rhode Island, increasing efficiency and good customer service depends on better coordination, communication, and where appropriate, consolidation of services.

IMPLEMENTATION GOVERNANCE

Our communities are interdependent and our leaders, at both the state and local levels, will have to work together to create sustainable prosperity. This starts with strong leadership at the gubernatorial level—particularly staying the course with clear policy directives, and making sure state agency heads are coordinating and aligning their work. The Governor, agency heads, and state staff must strive to speak with a common voice, and advocate to the General Assembly for necessary changes to achieve the vision of this plan. The General Assembly itself, of course, will be responsible for legislation required for implementation, and is a key partner in moving forward. Along with strong leadership comes a need for active listening—being mindful of the concerns and ideas of all Rhode Islanders, whether business owners, workers,

students, or retirees. Government alone cannot solve our most pressing problems—every person, business, and organization in the state has a part to play. Almost every strategy in this plan needs or would strongly

Social Equity Principles

The principles outlined in Appendix A of this document reflect the recommendations of the Social Equity Advisory Committee (SEAC) regarding designing an inclusive, diverse process and ensuring all goals, strategies and policies of RhodeMap RI widen opportunities for all and reduce disparities. All offices, groups, and individuals responsible for implementing the strategies in this plan are challenged to do so through this lens of equity.

benefit from public-private partnerships or collaboration with non-profits and community groups. It is important to note, however, that any public-private partnership pursued by any level of government in the state should avoid models that put investment risks on the backs of taxpayers. Partnerships should be designed in such a way that the public receives a clear benefit that the government could not alone provide, while the private partner takes on the risks, as well as any additional rewards, from the project. No one person or business or industry or institution can get the state's economy where it needs to be—we need to tap the energy, talent, and skills of all Rhode Islanders.

Part of truly working together means that existing leaders

and governance bodies need to actively reach out to and be reflective of the diversity of the state overall. The state should strive to make sure that voices from communities not traditionally at the governance table, including lower-income people, people of color, people with disabilities, and other dimensions of diversity, are both heard and considered in decision making, and also have a representative seat on boards, commissions, and other positions of leadership.

The Rhode Island State Planning Council (SPC) already plays a large role in coordinating planning efforts among state agencies, municipalities, and organizations. At a minimum, the SPC can conduct and report on an implementation review of this plan twice a year. Moving forward, the SPC or some other body may be used by the Governor to ensure that state investments are aligned and coordinated as discussed above. Another possibility would be to reinstate the Governor's Growth Planning Council, disbanded in 2004. Either way, the state needs an entity that can encourage cross-agency coordination and ensure that state agencies are held accountable for implementing the plans.

The state legislature passed a bill in 2013 calling for a new economic development planning council led by a new Secretary of Commerce starting in 2015. The Secretary of Commerce is scheduled to head a new Executive Office of Commerce, which would assume the duties of the state Department of Business Regulation and the Office Housing & Community Development, and also serve as the Executive Director of the RI Commerce Corporation. The Office would be the state's lead agency for economic development throughout Rhode Island for the following purposes: To promote and encourage the preservation, expansion, and sound development of new and existing industry, business, commerce, agriculture, tourism, and recreational facilities in the state, which will promote the economic development of the state and the creation of opportunities for economic stability and employment through a business climate that fosters opportunity for all Rhode Islanders. The Secretary of Commerce will also serve as the Executive Director of the RI Commerce Corporation and the vice-chair of the Rhode Island Human Resource Investment Council, responsible for the planning of labor and training activities in the state.

The Economic Development Planning Council would consist of no fewer than 17 members, including the Secretary of Commerce, the Directors of five state agencies, two state education commissioners, one appointee each of the Rhode Island House and Senate, and seven members appointed by the Governor representing municipalities, businesses, non-profits, and private sector unions. This body, working with staff from the RI Commerce Corporation and the RI Division of Planning, would continue to develop and update an economic development plan and policy direction every four years, which would then be reviewed by the General Assembly and approved by the Governor. As this body evolves, it should serve as a place for better coordinating economic development decisions in the state.

FUNDING

With few exceptions, everything in this plan requires funding, whether through new revenues or reallocation of existing revenues, whether from public funds or private funds. As stated at the very beginning of the document, this plan does not serve as a budget for the state. The Governor's Office, General Assembly, Office of Management & Budget, and others will continue to play that role, exploring and analyzing our options, and making these very difficult decisions. Federal funding for many different initiatives is drying up, and it is not sustainable to overly rely on federal funding into the future. As stated earlier, it is also not sustainable for so many municipalities to overly rely on property taxes. While bonding is a valid and sometimes necessary way for the state to invest in things it could not otherwise, it adds to our debt burden and also cannot be overly relied upon. New solutions are clearly called for.

While this plan does not present solutions to the issue of funding, it does advocate for the exploration of new and more locally driven sources, large and small. Everything should be on the table, from comprehensive tax reform to public-private partnerships. This plan simply asks that as with other economic development decision making, our leaders approach the State's budget with clear goals, data, accountability, innovation, and equity.

Implementation Matrix

The following pages contain a summary table of all the strategies included in this plan. This table should be used to find particular strategies of interest, and then go to the main body of the plan to read the details. They are organized by Goal and Policy, and include the following information for each:

PRIORITY

Each strategy is assigned as one of three types:

- High Priority—These strategies represent the actions
 that are likely to have the greatest collective positive
 impact on the State's economy over the next several
 years. They will be joined with the top strategies from
 the state's new Housing plan, as well as those of the
 state's existing plans for Land Use, Transportation, and
 Water to form the back bone of the State's Regional
 Plan for Sustainable Development.
- Medium Priority—These strategies were identified
 as priority strategies through careful consideration
 of the research and discussions that occurred as part
 of the RhodeMap RI process. The factors that made
 these strategies rise to the top were not always the
 same, but included consideration of potential impact,
 complexity, cost, the presence of a readily identifiable
 champion, and others. A brief description is provided
 for each of these strategies.
- Lower Priority—Although these strategies were not assigned higher priority levels, their value was recognized and the State wanted to ensure they were maintained in the plan. In many cases, different conditions related to funding, political leadership, the identification of a new champion, or other factors could easily elevate these strategies to a higher priority.

LEAD

Identifies the agency or organization most likely to take the lead on implementation.

PARTNER(S)

Identifies the additional agencies, organizations, and others who may partner with the leads to get things done.

COST

This is a very rough estimate of the expected costs of implementing each strategy:

- Low = Under \$250,000
- Medium = \$250,000—\$1,000,000
- High = Over \$1,000,000

TIMELINE

Identifies the time frame for when each strategy might be started in earnest. Many strategies will be ongoing in nature, or may take many years longer to fully realize than is noted here.

- Short Term = Within 1–2 years
- Mid-Term = 2-5 years
- Long Term = 5 or more years

RI RISING ECONOMIC DEVELPMENT PLAN:

Draft Implementation Matrix

A Note on Social Equity Principles

The principles outlined in Appendix A are those of the RI Rising Social Equity Advisory Committee (SEAC). They are not an official policy statement of this plan, the State Planning Council or the State of Rhode Island but appear as a means of further communicating the SEAC's recommendations for reducing disparities and widening opportunities for all. The SEAC asks all offices, groups, and individuals responsible for implementing this plan to take these thoughts and approaches into consideration when making decisions.

Refer to Part 3 of the Economic Development plan for the full detail of each strategy.

TOP-PRIORITY STRATEGIES (These also appear in the full list beLow, highlighted in blue).

1	Enact and empower a single, seamless, and cohesive workforce training system in Rhode Island, overseen by the Governor's Workforce Board as recommended in Rhode to Work [Goal 1, Policy 1a]	High	GWB	Rhode Island Foundation, Industry associations	Low	Short- term
2.	Actively engage with employer organizations and industry partners to develop new internship, externship, and apprenticeship programs based on need, impact, and capacity. [Goal 1, Policy 3a]	High	GWB	Commerce RI, DLT	Medium	Short- term
3.	Identify and scale solutions for employing those with barriers to employment. [Goal 2, Policy 2b]	High	GWB	SEG, BHDDH, RI Coalitions for the Homeless, GWB, DLT, non-profits	High	Short- term
4.	Create a Rhode Island Center for Design and Manufacturing. [Goal 3, Policy 4a]	High	Commerce RI	RIMA, DESIGNxRI, Polaris	Medium	Short- term
5.	Create a steady and predictable funding mechanism for state-level tourism promotion, programming, and coordination. [Goal 3, Policy 6a]	High	Commerce RI	Tourism Councils, Chambers of Commerce, Rhode Island Foundation	High	Short- term
6.	Create a state-level urban redevelopment initiative designed to increase capacity and streamline redevelopment within urban communities. [Goal 4, Policy 1a]	High	Executive Office of Commerce	Division of Planning, Commerce RI, Municipalities	High	Short- term
7.	Consider providing additional incentives within programs and tools such as the Historic Preservation Investment Tax Credit, Enterprise Zone Program, Tax Increment Financing, etc. when they are applied to approved Growth Centers. [Goal 4, Policy 1a]	High	Governor/ General Assembly	Office of Taxation	High	Long- term
8.	Create a sustainable, permanent funding mechanism for repairing Rhode Island's roads and bridges and for maintainning and expanding public transportation, freight and rail infrastructure. [Goal 4, Policy 1g]	High Priority	RIPTA/RIDOT	Division of Planning, Coalition for Transportation Choice	High	Short- term
9.	Implement the relevant recommendations of A Resilient RI: Being Practical About Climate Change (Jun 2014), Economic Intersections of Rhode Island (Feb 2014), Understanding the Opportunities and Impact of Climate Change (Apr 2014) and associated strategies as referred to in this Economic Development Plan. [Goal 5, Policy 4a]	High	Commerce RI	RI Executive Climate Change Coordinating Council	See EC3 Report	See EC3 Report
10	Promote the establishment of a statewide building and fire inspection service that can be enlisted at the request of developers in designated growth centers or other priority development areas. [Goal 6, Policy 1a]	High	State Building Code Commission, Office of State Fire Marshal	DOA, Municipalities, RIBA	Medium	Short- term
11	Create a network of "one-stop-shop" business community centers where trained personnel can educate business owners about licensing, regulations, financing, taxes and other essential aspects of running a business. Pilot efforts within Low income communities. [Goal 6, Policy 3a]	High	Commerce RI	Secretary of State, SBA	High	Short- term

GOAL	SHORT TERM within 2 year	ars • MID TERM 2-	-5 years • LONG TERM 5 year	s plus ←	
ГО	ow = under \$250K • мес	огим = \$250K-1	M • HIGH = above \$1M	\leftarrow	
1	PRIORITY	LEAD	PARTNER(S)	COST	TIMELINE
Provide educationa 21st-century workfor POLICY 1: PROVIDE OPPORTUNITIES FOR	orce			RETAIN	
QUALIFIED TALENT. 1a. Enact and empower a single, seamless, and cohesive workforce training system Rhode Island, overseen by the Governor Workforce Board as recommended in Rh to Work	r's	GWB	Rhode Island Foundation, Industry associations	Low	Short- term
1b. Expand STEAM education programs by promoting system-wide industry-acade coordination.	Medium mic	RIDE	RISD, RISCA	Medium	Mid- term
 Expand and increase the number of university-business engagement center modeled after University of Rhode Islan recent successful efforts. 		Board of Higher Education, AICU	Commerce RI, URI, Other universities	High	Mid- term
POLICY 2: SUPPORT REFORM OF THE EDUNECESSARY FOR SUCCESS.	CATION SYSTEM TO B	ETTER PROVID	E THE KNOWLEDGE AND	SKILLS	
2a. Provide a competitive advantage to the generation of our workforce by preparir our children to enter the educational system. Efforts should include promotin and expanding programs that improve early childhood literacy, and advocating universal access to pre-kindergarten (pr	ng ng g for	RIDE	Education advocates, Providence Talks, Rhode Island Foundation	High	Mid- term
2b. Re-envision and improve English Langua Learners (ELL) programming and instruction urban core districts, and districts with high ELL populations through the creation of a statewide inter-district ELL task force to leverage and centralize established be practices.	ction I ion e	RIDE	Latino Policy Institute, local school districts	Low	Mid- term
2c. Continue the momentum to improve K-1 education for workforce education by expanding career awareness and couns for in-school and out-of-school youth.		RIDE	DLT, GWB, Local school districts	Medium	Short- term
2d. Access the full potential of Rhode Island university institutions, including commund technical colleges, to help prepare workforce. Provide academic support fo those students who are not adequately prepared for higher education.	unity our	RIDE	DLT, AICU, RI Universities	High	Mid- term
2e. Transform adult education by increasing access and developing programs in line state workforce priorities.		RIDE	Industry representatives, RI Universities, GWB, DLT	Medium	Short- term

			years • LONG TERM 5 year • HIGH = above \$1M	rs plus	
	PRIORITY	LEAD	PARTNER(S)	COST	TIMELINE
POLICY 3: SUPPORT APPRENTICESHIPS AND INT	ERNSHIPS TO INC	CREASE ACCESS	TO EXPERIENTIAL LEAI	RNING.	
3a. Actively engage with employer organizations and industry partners to develop new internship, externship, and apprenticeship programs based on need, impact, and capacity.	High	GWB	Commerce RI, DLT	Medium	Short- term
 Support and enhance the bRldge.jobs program, including opening it up to high school students. 	Medium	RISLA	GWB, AICU	Medium	Short- term
3c. Execute a strategic expansion of the occupations and industries that qualify for the apprenticeship tax credit.	Medium	GWB	RISCA, Industry representatives	High	Mid- term

GOAL SHORT TERM within 2 years • MID TERM 2-5 years • LONG TERM 5 years plus LOW = under $$250K \cdot MEDIUM = $250K-1M \cdot HIGH = above $1M$ **PRIORITY** LEAD PARTNER(S) COST TIMELINE Foster an inclusive economy that targets opportunity to typically underserved populations. POLICY 1: DEVELOP AN URBAN CORE STRATEGY TO ENCOURAGE JOB CREATION AND OTHER OPPORTUNITIES IN AREAS OF HIGHER CONCENTRATION OF UNEMPLOYMENT TO BENEFIT THOSE WHO LIVE THERE. 1a. Encourage major financial and other anchor financial and anchor Medium Commerce RI Low Shortinstitutions to support community economic institutions, AICU, term development initiatives such as promoting municipalities, Rhode local purchasing, local hiring and business Island Foundation incubation. 1b. Develop or strengthen programs targeted business community, Short-Medium Commerce RI High towards the specific needs of businesses Center for Women term in Low-income communities with efforts and Enterprise, SBA directed at businesses owned by women and people of color. 1c. Develop a process for negotiating Division of Planning, Medium Executive Low Short-Community Benefit Agreements for projects Office of Municipalities term of state significance that receive state Commerce or local subsidies, to guarantee that a project's positive economic impacts (jobs, neighborhood improvements, etc.) will benefit current residents. 1d. Develop a means for giving preference Executive Treasury Office, Mid-Low Low to banks seeking to do business with the Office of Financial Institutions term State if they demonstrate an effective and Commerce equitable a strong small business lending track record for small businesses within Rhode Island, including businesses run by people of color and women. 1e. Expand and coordinate the service centers Low Office of LISC, other non-High Midthroughout the state that provide career and the General profits term personal financial education and assistance Treasurer, for Low-to-moderate income individuals. DLT POLICY 2: PROMOTE OPPORTUNITIES FOR WORKFORCE TRAINING THAT LEADS TO UPWARD MOBILITY, PARTICULARLY FOR DISADVANTAGED POPULATIONS THAT HAVE FACED BARRIERS TO EMPLOYMENT. 2a. Recognize an increasingly multi-cultural Medium GWB, DLT all residents Medium Shortworkforce by promoting language diversity term in public and private sectors and placing programs and resources where they are needed most. 2b. Identify and scale solutions for employing **GWB** SEG, BHDDH, RI High High Shortthose with barriers to employment. Coalitions for the term Homeless, GWB, DLT, non-profits POLICY 3. INCREASE DIVERSITY IN THE STATE WORKFORCE AND STATE CONTRACTING. 3a. Diversify the state workforce at all levels Medium Goverall state agencies Low shortso that the racial, ethnic, and gender nor,State term composition of staff is reflective of the state Office of as a whole. Diversity 3b. Integrate child care facilities into public Medium DHS all service agencies High Longservice and job training facilities. term 3c. Provide access to economic development Medium Executive Secretary of State/ Medium Midprograms in Spanish and other languages Office of Municipalities term as appropriate. Commerce 3d. Intensify efforts to promote hiring DOA Medium State agencies Low shortand apprenticeship programs within term minority populations for state and local infrastructure projects.

GOAL					
	TTERM within 2 yea	ars • MID TERM 2-5	years • LONG TERM 5 year	rs plus ←	
LOW =	under \$250К • мес	лим = \$250K-1N	1 • ніGн = above \$1M		
3	PRIORITY	LEAD	PARTNER(S)	COST	TIMELINE
Support industries and	investments th	at play to Rho	ode Island's strengtl	hs.	
POLICY 1. DEVELOP AND ENHANCE RHODE ISI ECONOMY.	AND'S SUSTAINA	BLE AND INNOV	/ATIVE MARITIME AND	DEFENSE	
 Establish a Marine and Cybersecurity Cente to showcase the cybersecurity capabilities already within the state. 	r Medium	SENEDIA, The Collaborative	Commerce RI, RIEMA, DBR, BRWCT	High	Short- term
1b. Create a standing defense industry task force to report to the Governor and identify real-time and longer operational challenges in a proactive manner.		SENEDIA, The Collaborative	Commerce RI	Low	Short- term
 Create a private-public Rhode Island Shipping Association (Ship RI) to provide a platform for collaborating around key opportunities to increase logistics and export support for RI businesses. 	Medium	Commerce RI, private partners	Division of Planning, Dept. of Transportation, Ports, Airport Corp., RI Trucking Assoc., BRWCT	Low	Short- term
1d. Provide guidance to host communities on how to retain these areas with infrastructure for waterfront industry in the face of market pressures for alternative uses (e.g., resort, hotel, residential, etc.)	•	CRMC	Division of Planning, Commerce RI, Cities and Towns, BRWCT	Low	Short- term
 Increase investment in Logistics and Export Assistance to support shipping activity and ports. 	Low	Commerce RI	Ports, Freight advisory committee, BRWCT	High	Long- term
POLICY 2. STRENGTHEN AND SUPPORT RHOD AGRICULTURE, AQUACULTURE AND FISHING, F				HICH SPAN	
2a. Formalize the food and beverage industry within economic and workforce development systems.	Medium	Commerce RI	RI Food Policy Council, RINLA, Ag Parnership, IFNPAC, DEM Division of Agriculture, GWB	Low	Short- term
2b. Review state policies to reduce/eliminate barriers to increased sales of food that is grown, raised, caught and/or processed in RI to state institutions and state and municipal agencies.	Medium	RI Food Policy Council, IFNPAC	DOA, Institutions, IFNPAC, DEM Division of Agriculture	Low	Short- term
2c. Comprehensively reform existing state regulations related to food safety, production, processing and sales.	Medium	Department of Health	ORR, DEM, IFNPAC	Medium	Short- term
2d. Conduct a statewide comprehensive needs assessment and feasibility study to determine existing food system infrastructure, and identify areas for system improvement in the areas of safety, growing, harvesting, catching processing, distribution, access, and recovery	,	DEM	RI Food Policy Council, IFNPAC, BRWCT	Medium	Short- term
2e. Comprehensively reform existing state policies and regulations related to food waste, encouraging diversion of food from the waste stream.	Low	DEM, RIRRC	Division of Planning	Low	Short- term
2f. Continue to identify and protect land for urban, suburban, and rural agriculture and increase access to land and water for agriand aquaculture.	Low	DEM	Division of Planning, Municipalities, BRWCT	High	Short- term
2g. Provide technical assistance to local governments for implementing DEM's Community Guidance to Maintain Working Farms and Forests.	Low	DEM	Division of Planning, Municipalities	Low	Short- term

SHORT TERM within 2 years • MID TERM 2–5 years • LONG TERM 5 years plus

LOW = under \$250K • MEDIUM = \$250K–1M • HIGH = above \$1M

	LOW = unde	er \$250K • MEDI	им = \$250K-1M ·	∙ HIGH = above \$1M		
		PRIORITY	LEAD	PARTNER(S)	COST	TIMELINE
POLICY 3. INVEST IN ARTS AND CUL	TURE TO BUILE	ON RHODE I	SLAND'S IDENTI	TY AS A CULTURAL DES	TINATION.	
3a. Empower and fund the Rhode Isla Council for the Arts (RISCA) to se state's central investment agency and culture, supporting work that partnerships, revitalizes commun creates jobs, and increases partic cultural activities by Rhode Islandand visitors.	rve as the y in the arts at increases nities, helps cipation in	Medium	RISCA	Commerce RI	Medium	Short- term
3b. Develop a comprehensive statew cultural assets.	vide map of	Medium	Division of Planning	RISCA	Low	Short- term
3c. Explore the development of a Un Cultural Fund that could support of functions related to arts prese expansion.	t a number	Low	RISCA	Commerce RI	Low	Mid- term
POLICY 4. FUEL THE MANUFACTURI	NG RENAISSAI	NCE AND REIN	IVEST IN RHODE	ISLAND'S UNIQUE BUIL	T ENVIRONMI	ENT.
4a. Create a Rhode Island Center for and Manufacturing.	Design	High	Commerce RI	RIMA, DESIGNxRI, Polaris, RISCA	Medium	Short- term
4b. Claim Rhode Island's position as of the "maker movement" by devaction plan to support business	eloping an	Medium	Commerce RI	Mnfg. Ren. AS220, DesignxRl, RISCA	Low	Short- term
4c. Work with Commerce RI, the Ene Efficiency and Resource Manage Council, and National Grid to ago target manufacturing expansion opportunities, including expand commercial and industrial efficie programs and seeking expansion revolving loan pool.	ment gressively ing ency	Medium	Commerce RI, OER	National Grid, Industry	Low	Short- term
4d. Work together to develop pad-re sites that can support new dema manufacturing facilities.		Medium	Commerce RI	Division of Planning, DEM, CRMC, Municipalities, property owners	High	Mid- term
POLICY 5. TRANSITION TO A KNOWL MORE SUSTAINABLE OUTCOMES.	_EDGE-, INNOV	ATION-, AND	TECHNOLOGY-D	PRIVEN ECONOMY GEAF	RED TO GREEN	IER,
5a. Pursue collaborations with our ur and hospitals to continue innova fields of design, ocean science, b public health, translational resea neuroscience and medtech indu	ation in the vioscience, rch,	Medium Priority	Commerce RI, GWB	Universities, Hospitals	Low	Short- term
5b. Support development of sector-k incubation and applied research and the development of wet lab niche space.	facilities	Medium	Commerce RI	SEG, Founders League, SBA, SBDC Business, Tech Collective, MedMates	High	Mid- term
5c. Continue to advance the CleanTe through procurement efforts, rei energy fund investment and reg collaboration.	newable	Medium	OER, DOA, Commerce RI	Industries	High	Long- term
5d. Create programs that will suppor paying clean-technology jobs, in establishing career pathways to that people traditionally underrein these fields, including women color, and Low-income population access to these jobs.	icluding ensure epresented , people of	Low	Commerce RI	Industries	High	Long- term

	SHORT TERM within 2 years • MID TERM 2–5 years • LONG TERM 5 years plus LOW = under \$250K • MEDIUM = \$250K–1M • HIGH = above \$1M						
Low = und	der \$250K • MED	іим = \$250K–1М 	• HIGH = above \$1M				
	PRIORITY	LEAD	PARTNER(S)	COST	TIMELINE		
5e. Support collaboration between the State's research enterprises, including academic, government and private partners, in order to increase the level of research funding coming into the state. Build on current efforts of STAC, through their use of the EPSCOR program.	Low	Commerce RI	AICU, STAC	Low	Short- term		
POLICY 6. EXPAND THE ECONOMIC POTENTIAL O THE STATE AS AN ATTRACTIVE, UNIQUE DESTINA CONSERVATION AND PROMOTION OF OUR NATU	TION ON THE N	ATIONAL AND C	SLOBAL TOURISM MAP T				
6a. Create a steady and predictable funding mechanism for state-level tourism promotion, programming, and coordination.	High	Commerce RI	Tourism Councils, Chambers of Commerce, Rhode Island Foundation	High	Short- term		
6b. Develop a state brand that is widely recognizable to promote and expand tourism and promote RI arts, culture, products and places.	Medium	Commerce RI	RISCA, Industry associations, Tourism Councils	Medium	Short- term		
6c. Engage the arts, culture, historic preservation, and environmental communities in place-making efforts.	Medium	Commerce RI	CVBs, RISCA, RICH, RIHPHC, RI Citizens for the Arts, Design X RI, etc.	Low	Short- term		

6041											
GOAL	SHORTTER	м within 2 yea	ars • MID TERM 2-5	years • LONG TERM 5 years	plus	us					
	LOW = unc	der \$250К • ме	DIUM = \$250K-1	M • HIGH = above \$1M	\leftarrow						
		PRIORITY	LEAD	PARTNER(S)	COST	TIMELIN					
Create great	t places by coo	– rdinating e	conomic, hou	Ising and transporta	tion						
investments											
POLICY 1. SUPPORT STATE INVESTRIORITY REDEVELOPMENT ARE			O PROVIDE TECH	HNICAL ASSISTANCE FOO	CUSED ON HIG	iH					
a. Create a state-level urban red initiative designed to increase avoid displacement, and strea redevelopment within urban	e capacity, amline	High	Executive Office of Commerce	Division of Planning, Commerce RI, Cities and Towns	High	Short- term					
 b. Consider using tools like "tax to redevelop older industrial sites, both to attract new inve- provide clear direct benefits t the host community. 	buildings and estment and	Medium	Executive Office of Commerce	Commerce RI, GrowSmart, municipalities, Division of Planning, Taxation, RIPEC, RIBA	High	Short- term					
c. Restore the Historic Preservat Investment Tax Credit with ac funding to spur targeted dev including residential develop	dequate elopment,	Medium	Executive Office of Commerce	Commerce RI, GrowSmart, municipalities, Division of Planning, Taxation, RIPEC, RIBA	High	Short- term					
d. Revitalize the state's Enterprise Program to re-establish it as a redevelopment tool that incre benefit to businesses that pro- local employment.	nn effective eases the	Medium	Executive Office of Commerce	Commerce RI, GrowSmart, municipalities, Division of Planning, Taxation, RIPEC, RIBA	High	Short- term					
e. Consider exempting Growth from the state's tax levy cap to disincentives for public and p investment.	o remove	Medium	Executive Office of Commerce	Department of Revenue, Commerce RI, GrowSmart, municipalities, Division of Planning, Taxation, RIPEC, RIBA	High	Short- term					
f. Provide incentives to rehability foreclosed/vacant properties homeownership opportunities the use of "sweat equity" progresidents to perform the world	into rental and es and explore grams for local	Low	Executive Office of Commerce	Community Development Corporations, RISCA	High	Short- term					
g. Consider providing additiona within programs and tools su Historic Preservation Investm Credit, Enterprise Zone Progra Increment Financing, etc. who applied to approved Growth	Il incentives ch as the ent Tax am, Tax en they are	High	Governor/ General Assembly	Office of Taxation	High	Long- term					
POLICY 2. INCREASE THE CAPACI AND GROWTH CENTERS.	TY OF COMMUNI	TIES TO CREA	TE AND REVITA	LIZE MIXED-USE, WALKA	BLE VILLAGE						
P.a. Provide technical assistance for identification and implement Growth Centers, including Grovisualization techniques.	ation of	Medium	Division of Planning	Municipalities	Low	Short- term					
2b. Adopt mixed-use developmer which incorporates village-lik services, and housing options age, mixed-income residentia and includes by-right multi-fa other denser housing models suburban centers.	te amenities, s for a mixed- al population, amily or	Medium	Municipali- ties	GrowSmart, Cities and Towns, Division of Planning	Low	Short- term					

	SHORT TERI	ุ่ง within 2 yea	rs • MID TERM 2-5	years • LONG TERM 5 years	plus	
	LOW = unde	er \$250K • MEDI	им = \$250K-1M	• нідн = above \$1М		
		PRIORITY	LEAD	PARTNER(S)	COST	TIMELINE
2c. Provide guidance and funding to communities for the incorporation pedestrian, bicycle and transit and into redevelopment opportunities redevelopment of suburban retandoption of Transfer of Development legislation.	on of nenities es, the il strips and	Medium	Division of Planning	GrowSmart, RIDOT	High	Short- term
2d. Adopt revised state legislation fo Transfer of Development Rights (facilitate strategic, increased ecol acticity and housing developmen RIDEM draft legislation as a starti	TDR) to nomic nt. Use	Low	Division of Planning	RIBA, GrowSmart, Land Trusts, DEM, Municipalities, Division of Planning	Low	Mid- term
POLICY 3. PROMOTE ALTERNATIVE T	RANSPORTATIO	ON THAT CON	NECTS PEOPLE	TO HOUSING, JOBS AND	SERVICES.	
3a. In updating the State's transporta approach future transit investme eye toward increasing workforce and health, strengthening our to industry, and reducing environm impacts.	nts with an mobility urism	Medium	RIPTA	Division of Planning, Department of Transportation, Coalition for Transportation Choice	Low	Mid- term
3b. In updating the State's transporta plan, support the connection of I paths and greenways across the create region-wide bike trails, pri investment in bike paths that wo Low-income communities.	oike state to oritizing	Medium	Division of Planning	Department of Transportation, RIPTA, State Planning Council	Low	Mid- term
3c. Focus on in-state and regional co rail service at T.F. Green InterLink that enhances air-to-rail opportu airline passengers, while investig business development opportun additional potential stops in Rho leveraging the state's central loca the Northeast Corridor between New York City.	facility nities for ating the ities of de Island, ition along	Medium	RIDOT	Division of Planning, MBTA,Amtrak,T.F. Green	Medium	Short- term

	SHORT TER	м within 2 yea	rs • MID TERM 2–5	years • LONG TERM 5 years	plus	
	LOW = unde	er \$250K • MED	ıим = \$250K–1M	• HIGH = above \$1M	\leftarrow	
		PRIORITY	LEAD	PARTNER(S)	COST	TIMELINE
POLICY 4. EDUCATE AND EMPOWER AND ADAPTATION.	STATE AND LO	CAL GOVERN	MENT TO INCRE	ASE CLIMATE CHANGE	PREPAREDNES	S
4a. Implement the relevant recommend of A Resilient RI: Being Practical Al Climate Change (Jun 2014), Econo Intersections of Rhode Island (Feb Understanding the Opportunities Impact of Climate Change (Apr 20 associated strategies as referred to Economic Development Plan	oout omic o 2014), o and o14) and	High	Commerce RI	RI Executive Climate Change Coordinating Council	See EC3 Report	See EC3 Report
4b. Use the State's Hazard Mitigation (2014) as a platform for agencies a municipalities to perform more ta assessments of economic centers infrastructure assets, or individual resources.	and rgeted ,	Medium	RIEMA, mu- nicipalities	pertinent state agences	High	Short- term
4c. Actively advocate for amendment to federal policies that would allo infrastructure repair/replacement grants to be used not just to rebu things were, but to be stronger ar resilient.	w funds/ ild the way	Medium	Division of Planning	FHA, HUD, RIDOT	Low	Mid- term
4d. Align academic research around is of resiliency in order to provide St local governments with the best cadaptation and mitigation tools.	ate and	Medium	EC4	CRMC, Division of Planning, Municipalities, Universities, BRWCT	Low	Mid- term
POLICY 5.STRENGTHEN REGIONAL EG	CONOMIC RES	ILIENCE AND	HARNESS OPPO	RTUNITIES FOR INNOVA	ATION.	
5a. Identify test sites, both land and w facilities, to support piloting resilie related product innovation.		Medium	Commerce RI	Division of Planning, DEM, CRMC	Low	Mid- term
5b. Develop policy and practical supp the 'Green Economy'.	ort around	Medium	Commerce RI	industry	Low	Short- term
5c. Expand availability of business corplanning and access to different smodels.		Medium	Commerce RI	SBA, URI's small business development center	Low	Short- term
5d. Attract private capital for long-terr sustainable financing for energy erenewable energy and infrastruct (transportation, drinking water, w stormwater, etc).	efficiency, ure	Medium	Executive Office of Commerce	OER, RIDOT, DEM, WMB, Rhode Island Foundation, CRMC	Low	Long- term
5d. Ensure the future prosperity of Rho Island's ports through the develop of detailed vulnerability assessme long-term infrastructure investme	oment ents and	Low	Ports	URI, DEM, BRWCT	Medium	Mid- term

Low

Commerce RI Division of Plannng

5f. Perform employment center vulnerability mapping to better understand the potential benefits of protecting these areas with infrastructure investment.

Midterm

Low

SHORT TERM within 2 years • MID TERM 2–5 years • LONG TERM 5 years plus

LOW = under $$250K \cdot MEDIUM = $250K-1M \cdot HIGH = above $1M$

PRIORITY PARTNER(S) TIMELINE

Make Rhode Island a state where our companies, our workers, and the state as a whole can develop a competitive advantage.

POLICY 1. ACCELERATE THE IMPACT OF REGULATORY REFORM THROUGHOUT STATE AND LOCAL GOVERNMENT.

1a. Promote the establishment of a statewide building and fire inspection service that can be enlisted at the request of developers in designated growth centers or other priority development areas.	J	•	DOA, Municipalities, RIBA	 Short- term
 Investigate new governance models and tools including Management Districts, County Government, Revenue Sharing, 	Medium	General	RIPEC, AICU, Rhode Island Foundation, BRWCT	 Mid- term

Division of

Island Foundation,

		Planning,			
		Department			
		of Revenue			
1c. Improve "customer service" in state and	Medium	DOA	Commerce RI,	Medium	Mid-
local government while promoting higher	:	:	municipalities Rhode	:	term

more predictable permitting process.			RILOCAI		
1d. Explore enabling legislation that would	Medium	DOA	RILOCAT	Low	Mid-
alLow municipalities to combine their					term
planning and zoning review processes.					

planning and zorning review processes.	:	:	:	:	:
1e. Implement the state- or region-wide,	Medium	DOA, Office	Municipalities,	Medium	Short-
uniform, electronic building permitting		of Digital	State Building Code		term
system for cities and towns.	:	Excellence	Commission, RIBA		

	system for cities and towns.	:	Executive	. COMMINISSION, MIDI	:	:
1f.		Medium	DOA	ORR, RIBA	Medium	Short-
	the Office of Regulatory Reform (ORR)	:				term
10	Adopt new legislation to facilitate the use of	Low	Evecutive	•	Low	Mid-

1g. Adopt new legislation to facilitate the use of	Low	Executive	:	Low	Mid-
different small business models like co-ops		Office of			term
both for preserving existing and creating		Commerce			
new business.					

1h. Continue to evaluate and update the	Low	ORR	RIBA, Office of the	Low	Short-
state Fire Code to reduce the cost and			Sate Fire Marshal,		term
burden of providing fire suppression in			Municipalities		
new and redeveloped properties, without			•		
compromising safety.					
	•	:	?	:	7

1i.	Build on recent efforts to create interagency	Low	DEM, CRMC	DOA	Low	Short-
	cooperation for permitting and formalize a	:	:			term
	structure for collaborative permitting within					
	all of RIDEM's divisions (e.g., wetlands, site	:	:			
	remediation, wastewater, etc.) as well as	:	:			

POLICY 2. MAKE RHODE ISLAND'S TAX STRUCTURE MORE SIMPLE, COMPETITIVE, EQUITABLE, AND PREDICTABLE.

2a. Evaluate the impact of recent changes in corporate and estate tax.	Medium	Dept. of Revenue	Commerce RI, RIPEC	Low	Short- term
2b. Analyze and reform the unemployment insurance system.	Medium	DLT	Commerce RI, RIPEC	Low	Short- term
2c. Adjust sales tax rate to be competitive within the region.	Medium	Dept. of Revenue	Commerce RI, RIPEC	Low	Short- term
2d. Analyze and reform the property tax system.	Medium	Dept. of Revenue	Division of Planning, RI League of Cities and Towns	High	Mid- term
2e. Clearly define expected or desired outcomes of tax incentive programs. Continually monitor performance and adjust as required.	Medium	Executive Office of Commerce	RIPEC, Department of Revenue	Low	Mid- term

with CRMC.

GOAL

Functional Regionalization, etc.

quality development along with a faster and

	SHORT TERM within 2 years • MID TERM 2–5 years • LONG TERM 5 years plus						
	LOW = under \$250K • MEDIUM = \$250K−1M • HIGH = above \$1M						
		PRIORITY	LEAD	PARTNER(S)	COST	TIMELINE	
POLICY 3. SUPPORT SMALL BUSINES	SS ACTIVITIES T	O ENHANCE (DPERATIONS AN	D ACCESS TO CAPITAL.			
3a. Create a network of "one-stop-sh business community centers who personnel can educate business about licensing, regulations, fina taxes and other essential aspects running a business. Pilot efforts vincome communities.	ere trained owners ncing, of	High	Commerce RI	Secretary of State, SBA	High	Short- term	
3b. Create an investment credit designattract and accelerate private investigation high growth companies, paired vexpanded capital resources and make projects financing ready.	estment in vith new or	Medium	Commerce RI	Department of Revenue	High	Short- term	
3c. Explore a re-launch of a RI-based Community Development Financ Institution (CDFI). This organizati partner with Commerce RI to adr increase access to micro-loan fur	on could minister and	Medium	Commerce RI	Rhode Island Foundation, Financial Institutions	Medium	Mid- term	
3d. Convene and educate industry as about offering group purchasing Rhode Island businesses.		Medium	Commerce RI	Industry associations	Low	Mid- term	
3e. Create a central database as an in resource that can connect suppli services through a web-based pl	ers and	Medium	Commerce RI	Industry	Medium	Short- term	
POLICY 4. FOSTER A HEALTHIER RHO OF CARE ARE PARAMOUNT, THE HEA INCREASING COSTS OF HEALTH CAR	ALTH OF OUR P	OPULATION I				,	
4a. Develop a network of neighborh stations throughout Rhode Island routine health care services close who need them most.	d to bring	Medium	Dept of Health	health care providers	High	Long- term	
4b Continue to enhance the role of information and choice in health small employers, helping leverage collective power to drive down thealth care in Rhode Island and drain on the state's economy.	care for ge their he cost of	Low	Health- Source RI	DOH	Medium	Long- term	
4c Develop strategies and resources the prevalence and economic impreventable chronic disease, and the health of the State population a healthier workforce."	pact of I improve	Medium	Department of Health	Healthcare Providers, Hospitals, etc	Medium	Short- term	
POLICY 5. PROMOTE RI INTERNATIO	NALLY.						
5a. Attract new businesses and invest through partnership with private representatives, EB5 Centers, and Commercial Services Select USA	e sector H US	Medium	Commerce RI	Regional EDOs	High	Short- term	
5b. Explore the feasibility of an oversoffice.	seas trade	Medium	Commerce RI		Low	Short- term	
5c. Establish a Foreign Direct Investr program that identifies internati companies to locate to Rhode Isl	onal	Medium	Governor, General Assembly	Commerce RI	High	Mid- term	

Glossary of Acronyms

ACRONYM	FULL NAME
AICU	Rhode Island Association of Independent Colleges and Universities
BHDDH	Rhode Island Department of Behavioral Healthcare, Development Disabilities and Hospitals
BRWCT	RI Bays, Rivers, and Watersheds Coordination Team
Commerce RI	Rhode Island Commerce Department
CRMC	Rhode Island Coastal Resources Management Council
CVBs	Convention and Visitor Bureaus
DBR	Rhode Island Department of Business Regulation
DEM	Rhode Island Department of Environmental Management
DHS	Rhode Island Department of Human Services
DLT	Rhode Island Department of Labor and Training
DOA	Rhode Island Department of Administration
EC3/EC4	Rhode Island Executive Climate Change Coordinating Council
FHA	US Federal Highway Administration
GWB	Governor's Workforce Board
HUD	US Department of Housing and Urban Development
IFNPAC	Interagency Food and Nutrition Policy Advisory Council
LISC	Local Initiatives Support Corporation
MBTA	Massachusetts Bay Transportation Authority
OER	Office of Energy Resources
ORR	Office of Regulatory Reform
OSHEAN	Ocean State Higher Education Economic Development and Administrative Network details a continuous con
Regional EDOs	Regional economic development organizations
RIBA	Rhode Island Builders Association
RICH	Rhode Island Council for the Humanities
RIDE	Rhode Island Department of Education
RIDOT	Rhode Island Department of Transportation
RIEMA	Rhode Island Emergency Management Agency
RIHPHC	Rhode Island Historic Preservation and Heritage Commission
RILOCAT	Rhode Island League of Cities & Towns
RIMA	Rhode Island Manufacturers Association
RINLA	Rhode Island Nursery and Landscape Association
RIPEC	Rhode Island Public Expenditure Council
RIPTA	Rhode Island Public Transit Authority
RISCA	Rhode Island State Council on the Arts
RISD	Rhode Island School of Design
RISLA	Rhode Island Student Loan Authority
SBA	Small Business Association
SBDC Business	Rhode Island Small Business Development Center
SEG	Social Enterprise Greenhouse
SENEDIA	Southeastern New England Defense Industry Alliance
URI	University of Rhode Island

REPORT COVER & EXECUTIVE SUMMARY

- Top row, left: By Portland General Electric [CC BY-ND 2.0], via Flickr
- Top row, middle: By U.S. Navy [CC BY 2.0], via Flickr
- Top row, right: Courtesy of the Providence Warwick Convention and Visitors Bureau

EXECUTIVE SUMMARY

- Page iii: By Timothy Burling [CC by 2.0], via Flickr
- · Page iv: Courtesy of the Southside Community Land Trust
- - > Upper left: By Elvert Barnes [CC by 2.0], via Flickr
 - > Upper right: By Kairon Gnothi (Opportunity Knocks) [CC BY-NC 2.0], via
 - > By Jeffrey Zeldman [CC BY-NC-ND 2.0]
 - > Lower right: By Chip Griffin [CC by 2.0],
- Page x: By Bob Lyon [CC by 2.0], via Flickr
- · Page xii: By U.S. Navy [CC BY 2.0], via Flickr
- Page ix Courtesy of the Southside Community Land Trust

MAIN DOCUMENT

- · Page 1: By H.C. Williams [CC BY 2.0], via Flickr
- Page 2: By Adavyd [CC BY-SA 3.0], via Wikimedia Commons
- Page 8:
 - > Upper: By Kenneth C. Zirkel (own work) [CC-BY-SA-3.0], via Wikimedia Commons
 - > Lower: Courtesy of Marcus Mitchell
- Page 40:
 - > Upper left: By lamolx [CC BY 2.0], via
 - > Upper right: Courtesy of the Providence Warwick Convention and Visitors Bureau
 - > Lower right: By Chip Griffin [CC BY 2.0], via Flickr
- · Page 47: Courtesy of Pine Street Inn
- Page 48 By Tadas 1980 (Own work) [CC BY-SA 3.0], via Wikimedia Commons
- Page 51: By Matt Cloutler [CC by 2.0], via Flickr
- Page 52: By Jeremy Wilburn [CC BY-NC-ND 2.01, via Flickr
- Page 54: By WoodleyWonderworks [CC BY 2.0], via Flickr
- Page 55: By Harris County Public Library [CC BY-NC-SA 2.0], via Flickr
- Page 56: By Berkeley Lab [CC BY-NC-ND 2.0], via Flickr
- · Page 59: By DC Central Kitchen[CC BY 2.0], via Flickr
- Page 63 By Kenneth C. Zirkel (own work) [CC BY-SA 3.0], via Wikimedia Commons
- · Page 68: By Chris Connors [CC BY 2.0], via
- Page 69: By Bryan Poclus [CC BY 2.0], via

· Page 71: By Ben Alman [CC BY-SA 2.0], via

- Page 73: By Mike Linksvayer [CC BY 2.0], via Flickr
- Page 78: By Spanaut [CC BY-NC-SA 2.0], via Flickr
- Page 81 By Kenneth C. Zirkel (own work) [CC-BY-SA-3.0], via Wikimedia Commons
- Page 83: by Doug Kerr [CC BY-SA 2.0], via
- Page 88: By Pi.1415926535 (own work) [CC-BY-SA-3.0] via Wikimedia Commons
- Page 90: By daawn (Flickr: Dame Farm, Snake Den Park) [CC-BY-SA-2.0], via Wikimedia Commons
- Page 94: By JacobKlinger (own work) [CC BY-SA 3.0], via Wikimedia Commons
- Page 98: By Pi.1415926535 (own work) [CC-BY-3.0], via Wikimedia Commons
- Page 102: By Eutrophication&Hypoxia (Photo Credit: Chris Deacutis, Integration & Application Network, University of Maryland Center for Environmental Science, ian. umeces.edu/imagelibrary) [CC BY 2.0], via
- Page 106: By Jef Nickerson (Flickr: Kinsley Avenue) [CĆ-BY-SA-2.0], via Wikimedia Commons
- Page 108: Matt Hintsa [CC BY-NC-ND 2.0], via Flickr
- Page 126: By Doug Kerr from Albany, NY, United States (Newport, Rhode Island Uploaded by Fæ) [CC-BY-SA-2.0], via Wikimedia Commons

Photo Credits

CREATIVE COMMONS LICENSES

Many of the images in this report are licensed for use under the Creative Commons framework, which requires us to include links to the license language itself. Abbreviations for the appropriate license refer to these links:

CC BY 2.0

https://creativecommons.org/licenses/by/2.0/

CC BY-NC 2.0

https://creativecommons.org/licenses/by-

nc/2.0/

CC BY-ND 2.0

https://creativecommons.org/licenses/bynd/2.0/

CC BY-NC-ND 2.0

https://creativecommons.org/licenses/by-ncnd/2.0/

CC BY-NC-SA 2.0

https://creativecommons.org/licenses/by-ncsa/2.0/

CC BY-SA 3.0

http://creativecommons.org/licenses/bysa/3.0/deed.en