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SOCIOECONOMICS OF SEA LEVEL RISE TECHNICAL PAPER 168

RHODE ISLAND
STATEWIDE
PLANNING
PROGRAM



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Executive Summary

The Division of Planning has previously conducted research on the impacts of sea level rise in the state: those efforts were geared towards identifying transportation infrastructure exposed in various sea level rise inundation scenarios. While infrastructure is a critical asset of the built environment, the people are the foundation of Rhode Island’s communities. As such, the Division created the Socioeconomics of Sea Level Rise project, which is unique due to its focus on the people exposed within 1, 3, 5 and 7 foot sea level rise (SLR) inundation scenarios. The purpose of this project is to inform Rhode Island communities about the people potentially impacted within each SLR scenario, and serve as a resource in sea level rise planning. Data included in this project can be used for capital improvement planning, transportation planning, and overall long-range planning in communities. Data presented within this project could also be used to target any available funds/resources via grants in the future.

The Socioeconomics of Sea Level Rise project uses the best available data in an effort to identify the social, economic and demographic characteristics of the populations located within the 1, 3, 5 and 7 foot SLR inundation zones in the state’s 21 coastal communities. Housing characteristics were also evaluated. There were a variety of data variables utilized to identify population characteristics within the inundation zones. Race, age, disability, employment, income, educational attainment, limited English proficiency and housing tenure data represent a portion of the data variables applied to the population estimates within each SLR inundation zone. The variables also identify federally protected Title VI and Environmental Justice (EJ) populations located within each inundation scenario.

Some key trends were identified within the project analysis component. As sea levels rise, coverage of inundated land increases, and consequently, the number of residential units and potentially impacted populations located within each sea level rise inundation scenario increases.

Three key areas of the project’s methodology included data generation, compilation and analysis. Major steps in the project included:

- Utilizing the sea level rise inundation zones developed by Coastal Resources Management Council (CRMC) in GIS
- Overlaying the Rhode Island Geographic Information System (RIGIS) “Sites – E-911” shapefile with the sea level rise inundation zones to identify the number and types of residential units within each inundation zone
- Applying Census data to residential units within each scenario to calculate an estimated number of occupied residential units, and develop estimates for social, economic, demographic and housing variables
- Multiplying the number of estimated occupied units by the municipality’s average household size to generate population estimates

Coastal communities were evaluated individually and collectively and community factsheets were prepared for 20 of the 21 communities. The City of Pawtucket did not have any residential units located within any of the SLR inundation zones, therefore, there was not a base value to utilize for a population estimate calculation. A “RI (21) Coastal” community factsheet was prepared for the collective coastal communities and represents a summary of the data generated, including subtotals for each community. The factsheets include several data variables, with a focus on Title VI and EJ populations. Additional demographic, social, economic and housing variables are also available as tables in this report for each community.

Overview

PROJECT OBJECTIVES

The Socioeconomics of Sea Level Rise project aims to communicate the estimated population and characteristics of the people located within the 1, 3, 5 and 7 foot sea level rise inundation zones in Rhode Island's 21 coastal communities.

Utilizing select residential unit counts from the e-911 dataset as well as the 2010 Decennial Census dataset, staff were able to calculate the percentage of *occupied housing units* located within each sea level rise scenario in each community. It was critical to perform this calculation in an effort to develop a *population estimate*, based on the number of occupied units.

The project also includes the full count of the residential and commercial units located in each sea level rise scenario retrieved from the RIGIS e-911 dataset. Full counts of residential units were used in the calculation of the *occupied housing unit* values for each community and scenario. Full commercial unit counts were key in generating data for the "workers per commercial unit" variable.

The information shared in this report and accompanying factsheets can be useful in the following ways:

- Data can be used by local officials for capital improvement planning, transportation planning, and overall long-range planning in communities
- Data can potentially be used to target any available funds/resources via grants in the future

DATA SOURCES

Key data sources in the project include the following:

- CRMC's STORMTOOLS sea level rise GIS shapefiles
 - Utilizing STORMTOOLS GIS layers, the Division of Planning was able to pair the 1, 3, 5 and 7 foot sea level rise inundation zones with the coastal geographies in the state.
- RIGIS - Sites - e-911 shapefile
 - The e-911 GIS layer served a critical role in the project. The Division was able to identify the number, and type (single family, multifamily, and mobile homes) of residential units within each community for each sea level rise scenario. Housing units are classified in the e-911 shapefile based on residential type. Division staff evaluated all of the housing unit types, and selected the following based on best available data. Each housing unit type is accompanied by the e-911 code:
 - R1 = Single Family Units
 - R2 = Multifamily Units
 - R3 = Mobile Home UnitsIt should be noted that there are additional residential codes within the e-911 shapefile. However, R1, R2 and R3 were selected as they were presumably the most applicable to the project.
 - Commercial units were also mapped utilizing the e-911 shapefile. Commercial units served as a variable in generating employee estimates for the *job data* estimates. All categories of commercial units were included within the mapping project:
 - C1 = Commercial

- CF = Commercial farm
 - CL = Commercial lodging
 - C9 = Commercial, other
- RIGIS Census 2010: Summary File 1 (SF1) Indicators shapefile
 - This GIS dataset includes a selection of housing and population indicators that were derived from the 2010 Census Summary File 1, published by the U.S. Census Bureau and summarized down to the census block level of geography. This dataset served as a key tool in creating variable percentages for many of the demographic and housing variables, including race, age, and occupied and vacant housing unit counts.
- Census Bureau – American Community Survey (ACS) Estimates
 - Additional 2010 Decennial Census data and 2014 5-Year ACS estimates were used in the project to generate several social, demographic and economic characteristics for each community, such as race, age, employment and income.
- U.I. – Covered Employment and Wages data” from the RI Department of Labor and Training (DLT)
 - The data provided by DLT allowed staff to utilize employee count data and business unit data to develop an average number of employees per business unit and apply that average to the number of commercial units located within each inundation zone per community.

SIX DATA CATEGORIES

The six categories below include multiple data variables that were applied to the estimated population in each SLR inundation scenario and community:

1. Housing Units and Population
 - e-911 Housing Unit Total
 - e-911 Housing Unit Calculation
 - Population Calculation
2. Demographic
 - Race/Hispanic Ethnicity
 - Age
3. Social
 - Disability
 - Limited English Proficiency
 - Educational Attainment
4. Economic
 - Employment
 - Job Industry
 - Income
5. Housing
 - Housing Occupancy
 - Housing Tenure
6. Jobs
 - Employment and Business Unit Data
 - Workers Per Commercial Unit

See Table 3: Data Variable Source Table for a full list of variables and their respective sources.

Methodology

1. SELECTION OF COASTAL COMMUNITIES

The first step in the methodology was selecting the Rhode Island’s 21 coastal communities in GIS.

1. Barrington
2. New Shoreham (Block Island)
3. Bristol
4. Charlestown
5. Cranston
6. East Greenwich
7. East Providence
8. Jamestown
9. Little Compton
10. Middletown
11. Narragansett
12. Newport
13. North Kingstown
14. Pawtucket
15. Portsmouth
16. Providence
17. South Kingstown
18. Tiverton
19. Warren
20. Warwick
21. Westerly

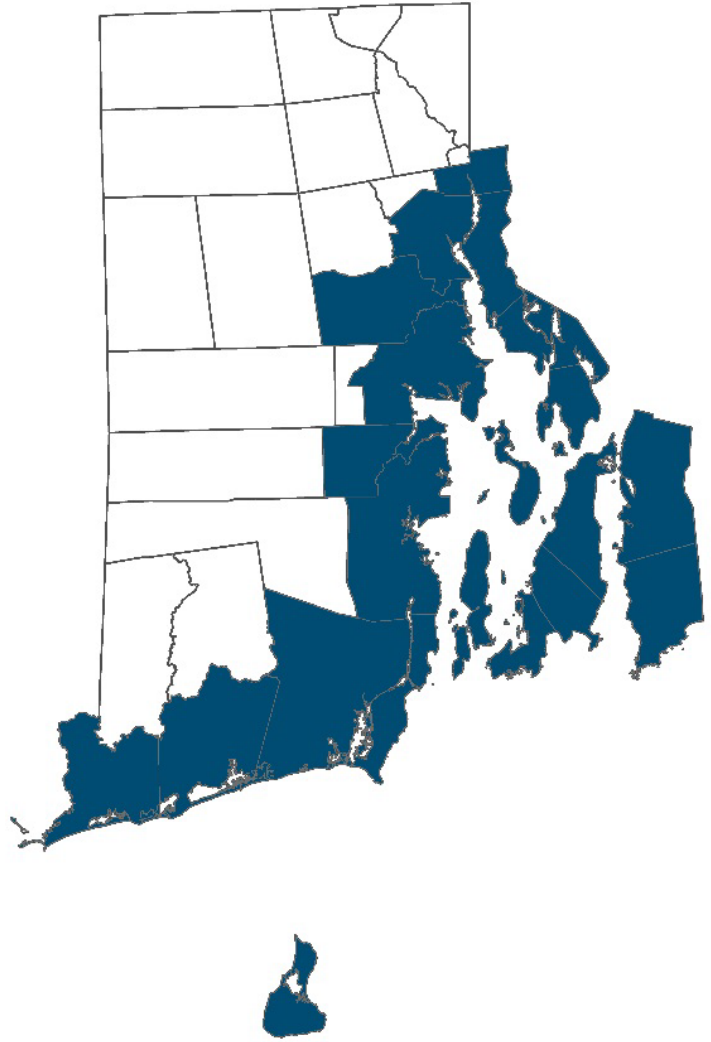


IMAGE 1: 21 Coastal Communities Highlighted in Dark Blue

2. MAPPING STORMTOOLS SEA LEVEL RISE GIS SHAPEFILES

The STORMTOOLS sea level rise shapefiles were utilized in an effort to identify the coastal inundation scenarios of 1, 3, 5 and 7 feet of projected sea level rise. Staff overlaid the SLR inundation zones with the coastal community selection and census geographies impacted by each SLR scenario.

3. SELECTION OF DATA VARIABLES

The Division of Planning staff worked collaboratively to select the demographic, social, economic, housing and job data variables that would be included within the project. Feedback on variable selection was solicited internally in the early stages of project development. Staff also presented to several groups,

representing a diverse range of professionals from various agencies including the RI State Planning Council, RI Technical Committee and Executive Climate Change Coordinating Council (EC4) to solicit variable and project feedback.

4. CENSUS BLOCK AND BLOCK GROUP GEOGRAPHIES

Using the downloaded RIGIS Census 2010 Block dataset and Block Group dataset from the Census Bureau, staff, using GIS analysis, selected the blocks and block groups that were “touched” by the 1, 3, 5 and 7 foot sea level rise zones.

This GIS selection of blocks and block groups intersecting each sea level rise scenario was essential in generating data for each sea level rise scenario.

5. RIGIS CENSUS 2010: SF 1 INDICATORS AND BLOCK GROUP DATA COMPILATION & GENERATION

After mapping the sea level rise inundation zones and the block and block group geographies associated with each sea level rise scenario, staff needed to “join” the downloaded variable tables to the appropriate census geography. As noted earlier, the RIGIS Census 2010 SF 1 Indicators shapefile included block level data. The Census 2010 block level dataset is beneficial as the values represent 100% data, or data that does not contain any margin of error. The data is derived from the Census “short form” questions asked of every person and housing unit, and includes sex, age, race and Hispanic origin, and ownership versus rental status, etc. Block level data is a key resource in generating the most accurate estimates for general population characteristics at the smallest level of census geography.

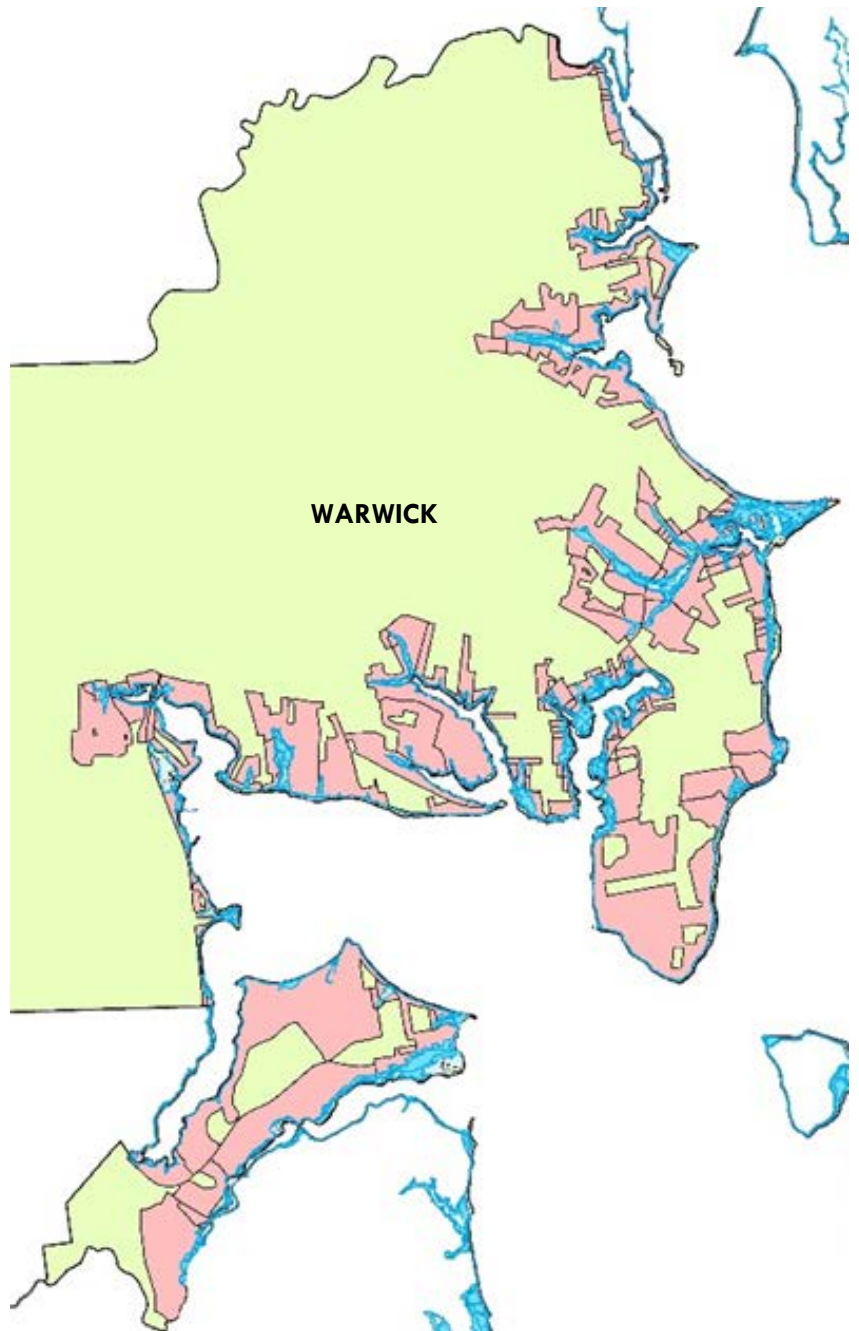


IMAGE 2: Methodology Step 4 – Supporting graphic

The image above is a map of the City of Warwick and a 5FT. sea level rise inundation scenario (blue). The pink blocks represent the census blocks intersecting the 5FT SLR scenario. The pink census blocks were then selected and data was used to develop percentages of populations present within the pink blocks: this method was used for each inundation scenario in each coastal community.

In order to identify the social and economic characteristics of the populations potentially impacted by sea level rise, information was collected through the American Community Survey (ACS) from a subset of the population in the form of “estimates” and was available at the next census geography, the Block Group. The ACS estimates were used for the majority of the economic and housing data variables—for example, educational attainment data, and household income data were extracted from the ACS, configured into tables that were then imported into GIS and joined with the selected block groups within each sea level rise scenario.

6. HOUSING UNIT IDENTIFICATION AND OCCUPIED HOUSING UNIT CALCULATION

The RIGIS e-911 point dataset was overlaid in the mapping project and again using GIS geoprocessing tools, all points that were “touched” by or included within the various sea level rise zones were “selected” and saved as a new GIS dataset. Staff further refined the selection set by choosing those units that were classified as single family, multifamily or mobile home units. Each selection of residential units was identified and mapped within each coastal community per SLR scenario, and served as the base number in an occupied housing unit calculation. Multifamily units selected were multiplied by 2, presuming each multifamily structure has a minimum of 2 units, or two households.

7. OCCUPIED HOUSING UNIT CALCULATION

Staff used the “total housing units” field within the RIGIS Census dataset, and the “occupied housing units” field to calculate a percentage of occupied units for the blocks within each sea level rise scenario for each municipality. This calculated percentage of occupied housing units was then multiplied by the number of residential units from the e-911 points dataset mentioned above to create an *Occupied Housing Units* calculation for each sea level rise zone and municipality. The methodology called for a targeted analysis

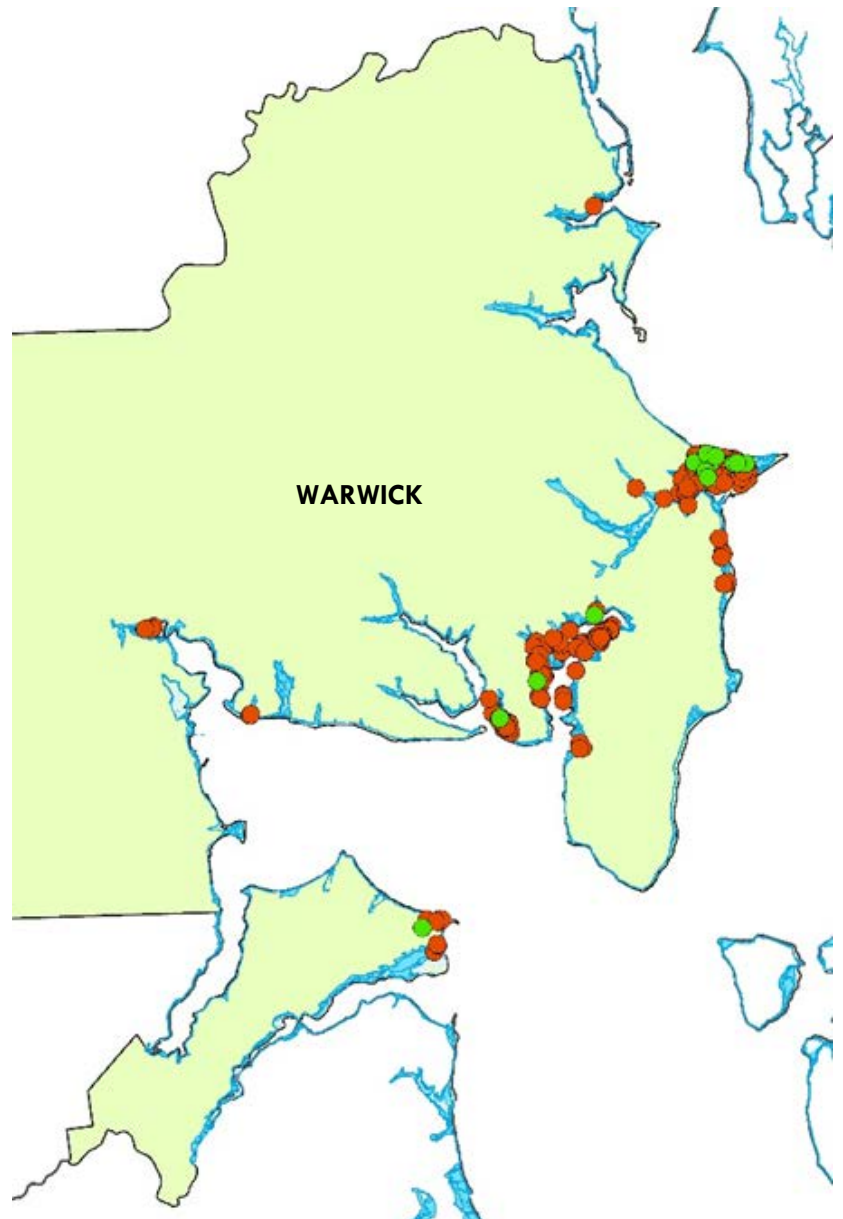


IMAGE 3: Methodology Step 8 – Supporting graphic

The image above is a map of the City of Warwick and a 5FT. sea level rise inundation scenario (blue). The orange points represent the single family units located with the inundation scenario, while the green dots represent the multi-family units within the inundation scenario. In applicable communities, purple dots represent mobile home units.

based on the number of homes included within each inundation scenario utilizing the e-911 dataset to its fullest potential.

8. POPULATION ESTIMATE CALCULATION

The next step in the methodology was to create a *Population Estimate* within each sea level rise zone. Staff created a formula which included multiplying the estimated *Occupied Housing Units* by the average household size for the inundation scenarios in each community. Staff elected to use municipal level data for the average household size in an effort to get the best household size estimate that is representative of the municipality as a whole. After multiplying the number of estimated *Occupied Housing Units* by the municipal average household size, a *Population Estimate* was generated for each inundation scenario in each community.

9. APPLYING BLOCK AND BLOCK GROUP DATA VARIABLES TO POPULATION ESTIMATES

Block level data was used as frequently as possible based on its availability per data variable. Estimates were generated for select demographic and housing data.

When block level data was not available for certain data variables, staff generated estimates for select demographic, social, economic and household characteristics at the block group level using 2014 5-year American Community Survey estimates for each SLR scenario per community. The population and housing characteristic estimates were generated using the same approach explained in step 7, “Occupied Housing Calculation.”

Percentages were calculated for each variable utilizing the variable and the corresponding “universe,” or total per variable. For example, to determine the percent Hispanic population within the Census blocks selected within a given SLR inundation scenario, staff used the Hispanic population within Census blocks, and divided that population value by the total population within those select blocks to generate a percentage of the Hispanic population within the select blocks. This step was repeated for each block and block group variable utilizing the same methodology.

10. DEVELOPING JOB DATA

Due to internal interest and input from the solicitation process, Division staff wanted to provide estimates for the number of jobs located within each sea level rise scenario. Multiple approaches were evaluated, but ultimately, staff decided to use a method based on the strength of the RIGIS e-911 point dataset. The total number of *Commercial* points could be “selected” within the inundation zones within each community. The next step involved collecting the most current *Quarterly Census of U.I.-Covered Employment and Wages, City and Town Report, 2016 1st Quarter* data from the RI Department of Labor and Training (DLT) to come up with an average number of employees per business or “unit” for each municipality. Averages were then applied to the number of Commercial points selected from the e-911 dataset to generate a conservative estimate for the number of jobs that could be impacted at each sea level rise scenario for coastal communities.

A note on the Quarterly Census of Employment Wages & Unemployment Insurance (UI)

The source of the data provided by the RI Department of Labor and Training (DLT) is the Quarterly Census of Employment and Wages (QCEW) program. The QCEW program extracts its data from quarterly tax reports submitted by employers subject to Rhode Island's Employment Security and the Temporary

Disability Insurance Acts. The information is supplemented with data collected from government agencies and businesses with multiple locations. Businesses with multiple locations voluntarily provide the physical location of each establishment located in Rhode Island; if this information is not provided, the employment is allocated to the city or town where the main Rhode Island business is located.

11. DATA COMPILATION, ANALYSIS AND DELIVERABLES

Once data was generated for all of the variables in each community, staff determined which data would be included within the primary deliverables for the project: the Coastal Community Factsheets, Coastal Community Data Profiles and the RI (21) Coastal Profile. The factsheets, are intended to present a current snapshot of coastal inundation population characteristics. Many of the variables included pertain to the protected Title VI and Environmental Justice populations. The Community Data Profiles serve as full appendix tables which include all of the data variables utilized for the project, and includes variable that were not featured in the factsheets. The report serves as a resource in explaining the methodology of the project, as well as project deliverables.

RI (21) COASTAL PROFILE

Data presented in the RI (21) Coastal Profile represents a sum of all of the coastal community data variables. Corresponding values per community were added together to create combined values. Once values were determined, percentages were calculated based on variable values and their corresponding totals.

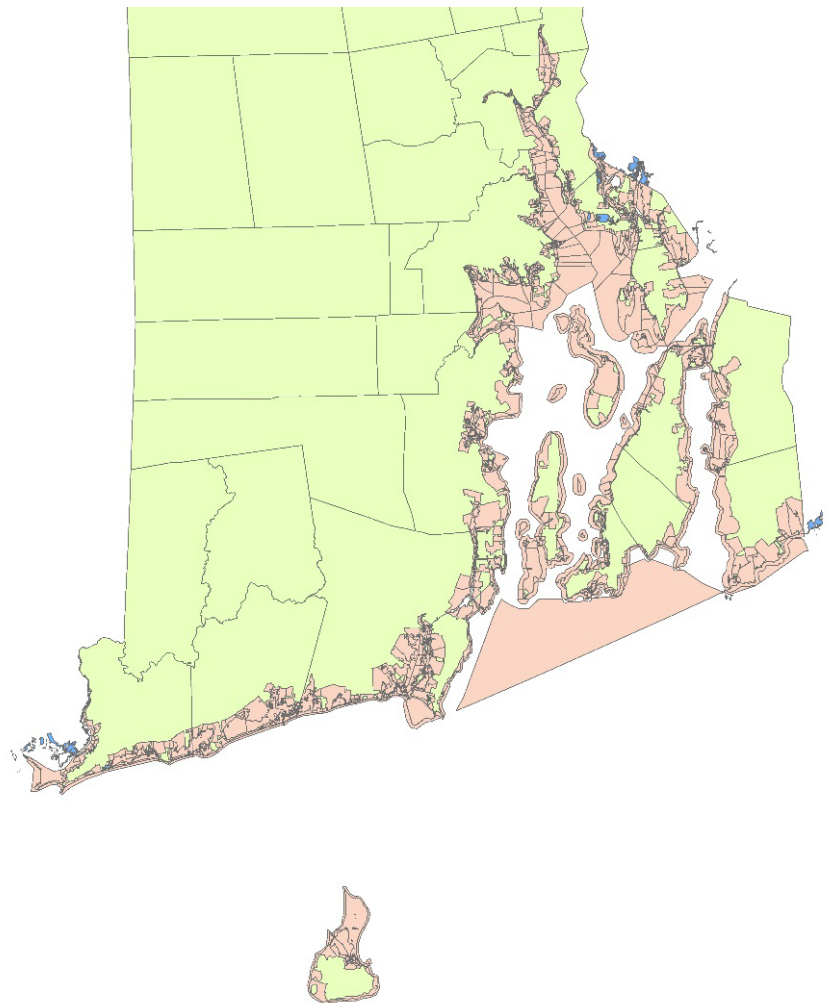


IMAGE 4: RI 21 Coastal Blocks – 5FT. SLR Scenario

The 21 Coastal Community blocks located within the 5FT scenario are highlighted in pink.

Project Deliverables

COASTAL COMMUNITY FACTSHEETS

The Division has created a total of 21 Coastal Community Factsheets. The first 20 feature factsheets for the state's 20 coastal communities with e-911 residential units identified within any of the SLR inundation scenarios. Of the 21 coastal communities in the state, the City of Pawtucket was the sole municipality without any residential units identified within the various SLR scenarios. Given the scope of the methodology, a factsheet was not developed for Pawtucket, as residential units serve as the core for data generation. The final factsheet (21/21) is the RI (21) Coastal Community factsheet, and features summary data from each of the coastal communities evaluated.

Factsheets were developed by extracting data from a large spreadsheet with data generated for each variable within each community.

Reading Coastal Community Factsheets

Image 5 displays the front page of Warwick, RI's Coastal Community factsheet. Please see the text below corresponding to the numbered sections highlighted on the factsheet image for a brief explanation.

Front Page

1. Project Overview & Methodology

This portion of the factsheet contains a project overview and synopsis of the methodology.

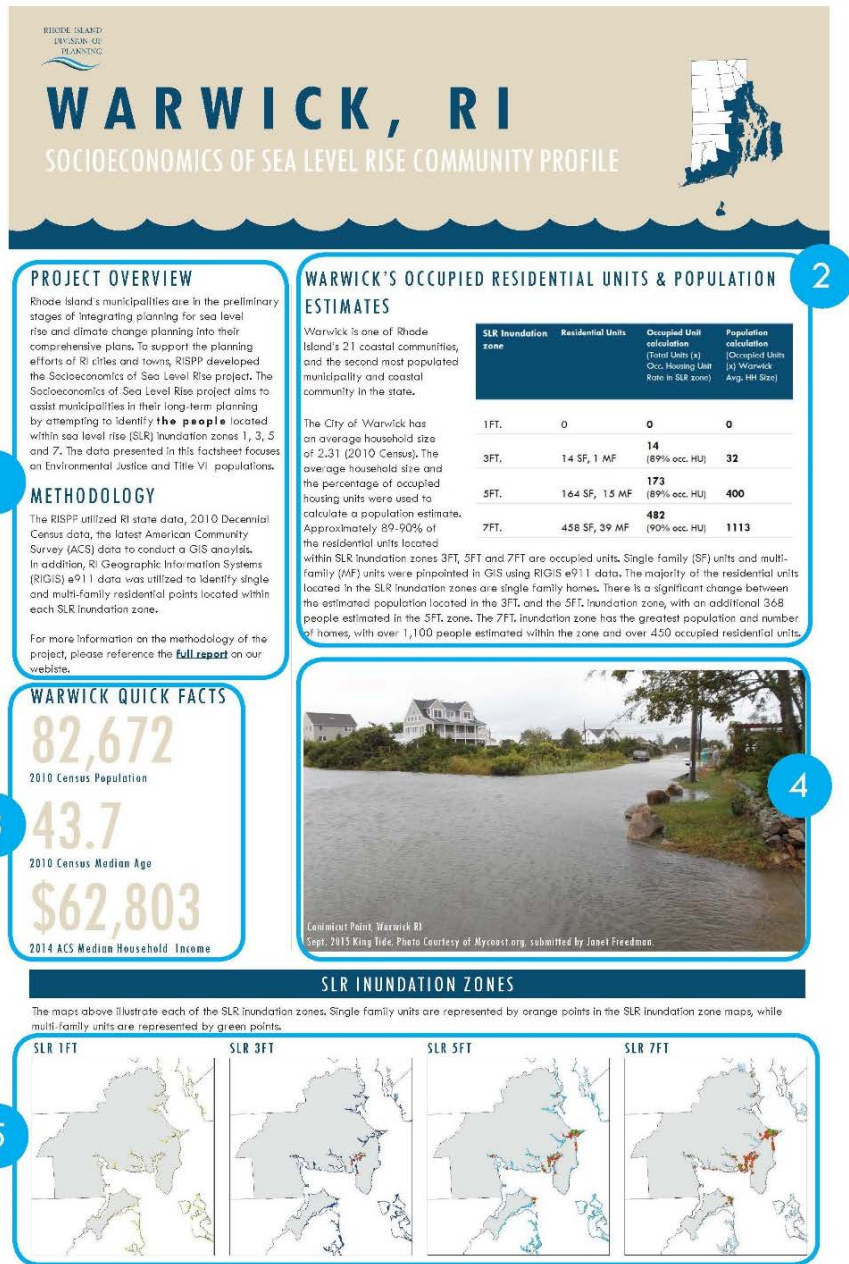


IMAGE 5: Front Page: Coastal Community Factsheet Template

2. Occupied Residential Units and Population Estimates

Section two of the factsheet includes some details on the municipality as well as a table featuring the total number of e-911 units per SLR inundation scenario, the estimated number of occupied units and the population estimates per scenario.

3. Quick Facts

The quick facts section of the fact sheet highlights three current condition variables within each municipality. The 2010 Census population is displayed first, followed by the median age, and the 2014 American Community Survey estimated median household income.

4. High Tide Photos from Mycoast.org

Each fact sheet contains one photo of the front page. The photos, accessed on Mycoast.org depict high-tide conditions for each coastal municipality. Mycoast.org is a platform in which users may upload King Tide, or high tide reports, as well as storm damage reports with accompanying photos.

5. Sea Level Rise Inundation zone maps

For each SLR inundation zone, a map was produced displaying each SLR inundation scenario and RIGIS e-911 residential point selection set. Maps are presented in the following order with the corresponding inundation color on each map: SLR 1 (Yellow), SLR 3 (Dark Blue), SLR 5 (Medium Blue), SLR 7 (Light Blue).

PROJECT OVERVIEW
Rhode Island's municipalities are in the preliminary stages of integrating planning for sea level rise and climate change planning into their comprehensive plans. To support the planning efforts of RI cities and towns, RISPP developed the Socioeconomics of Sea Level Rise project. The Socioeconomics of Sea Level Rise project aims to assist municipalities in their long-term planning by attempting to identify **the people** located within sea level rise (SLR) inundation zones 1, 3, 5 and 7. The data presented in this factsheet focuses on Environmental Justice and Title VI populations.

METHODOLOGY
The RISPP utilized RI state data, 2010 Decennial Census data, the latest American Community Survey (ACS) data to conduct a GIS analysis. In addition, RI Geographic Information Systems (RIGIS) e911 data was utilized to identify single and multi-family residential points located within each SLR inundation zone.
For more information on the methodology of the project, please reference the **full report** on our website.

WARWICK'S OCCUPIED RESIDENTIAL UNITS & POPULATION ESTIMATES
Warwick is one of Rhode Island's 21 coastal communities, and the second most populated municipality and coastal community in the state.
The City of Warwick has an average household size of 2.31 (2010 Census). The average household size and the percentage of occupied housing units were used to calculate a population estimate. Approximately 89.90% of the residential units located within SLR inundation zones 3FT, 5FT and 7FT are occupied units. Single family (SF) units and multi-family (MF) units were pinpointed in GIS using RIGIS e911 data. The majority of the residential units located in the SLR inundation zones are single family homes. There is a significant change between the estimated population located in the 3FT, and the 5FT, inundation zone, with an additional 368 people estimated in the 5FT, zone. The 7FT, inundation zone has the greatest population and number of homes, with over 1,100 people estimated within the zone and over 450 occupied residential units.

SLR Inundation zone	Residential Units	Occupied Unit calculation (Total Units (x) Occ. Housing Unit Rate in SLR zone)	Population calculation (Occupied Units (x) Warwick Avg. HH Size)
1FT.	0	0	0
3FT.	14 SF, 1 MF	14 (89% occ. HU)	32
5FT.	164 SF, 15 MF	173 (89% occ. HU)	400
7FT.	458 SF, 39 MF	482 (90% occ. HU)	1113

WARWICK QUICK FACTS
82,672
2010 Census Population
43.7
2010 Census Median Age
\$62,803
2014 ACS Median Household Income

SLR INUNDATION ZONES
The maps above illustrate each of the SLR inundation zones. Single family units are represented by orange points in the SLR inundation zone maps, while multi-family units are represented by green points.

WARWICK, RI
SOCIOECONOMICS OF SEA LEVEL RISE COMMUNITY PROFILE

IMAGE 5: Front Page: Coastal Community Factsheet Template

Back Page

1. SLR Inundation Zone Heading

Each factsheet is structured in a way that users may view the data per scenario horizontally or, view all of the different variables per scenario vertically.

2. Race & Age Data

Data variables for race and age are located in this column. The following race categories are included within the factsheet: White, Black, American/Alaska Native, Asian, Hispanic, and minority. For the age data, staff selected age ≥75 data in an effort to highlight the federally protected aging population.

3. Social Characteristics

The select social characteristics include Individuals with Disabilities, Limited English Proficiency (LEP) households, unemployment data, poverty data and Social Security Income (SSI) data.

4. Household Income

Each pie chart represents the percentage of household income brackets per sea level rise scenario. Note that while percentages may differ slightly, the number of households increase per scenario – suggesting greater representation in each category due to the increase in the number of households. To compare data and view more household income variables, please refer to the community data profiles

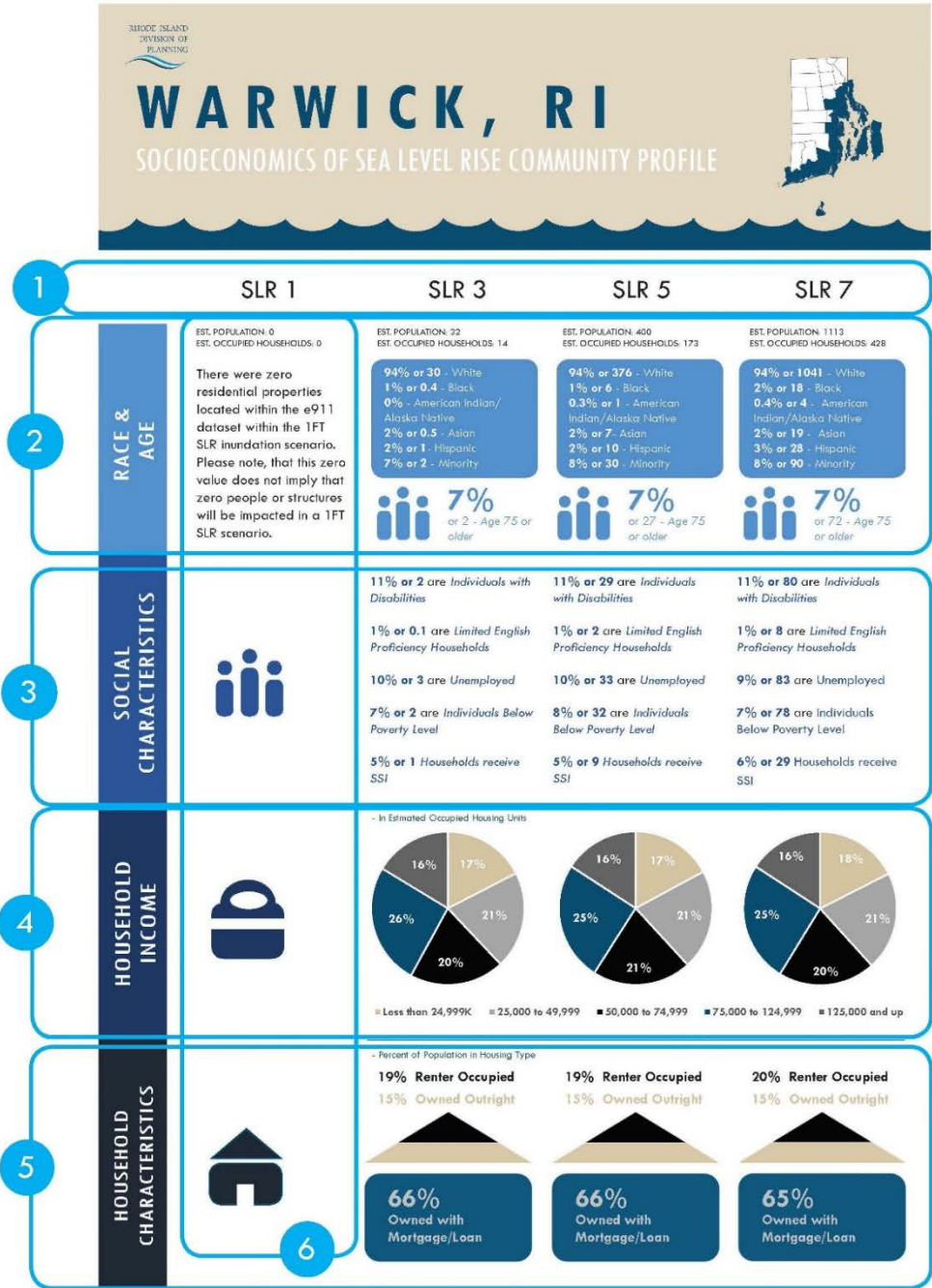


IMAGE 6: Back Page: Coastal Community Factsheet Template

5. Household Characteristics

The single variable presented in the factsheet for household characteristics is the housing tenure variable, which details the percentage of the population in the following unit types: owned with a mortgage or loan, owned outright and renter-occupied. The blue on the lower portion of the home represents homes owned with a mortgage or loan. The vertical height of the home's fill color is based on the percentage value. The same fill patterns are applicable to the "owned outright" percentages in tan, and the "renter occupied" percentages in black.

6. Placeholder text and graphics

The generation of data was dependent upon the presence of occupied housing units. If a community did not have any occupied housing units within a scenario, placeholder graphics and text were included within the space.

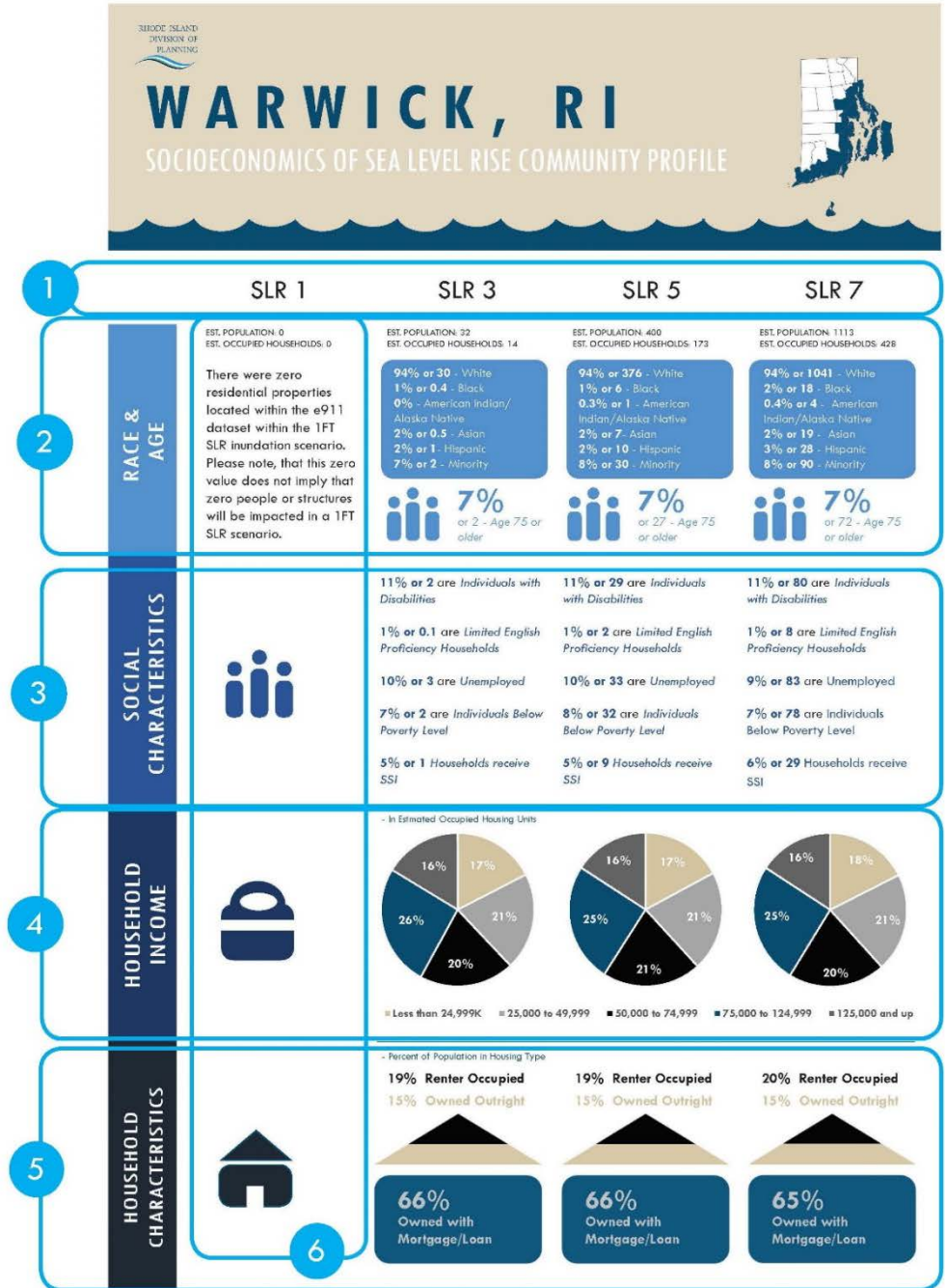


IMAGE 6: Back Page: Coastal Community Factsheet Template

COASTAL COMMUNITY DATA PROFILES

The data profiles are extensive, and contain all of the social, economic, demographic and housing variables generated for each coastal community and sea level rise scenario. There is also a RI (21) Coastal Data Profile, which includes sum total data generated per each coastal community data profile. The Data Profiles can be viewed on the Division website.

Coastal Data Profiles

Image 7 represents one of the coastal data profiles. Please see the text below corresponding to the numbered sections highlighted on the data profile for a brief explanation.

1. Data Categories

There are six categories which include data variables that were applied to the estimated population and occupied housing units in each SLR inundation scenario. Data categories are listed vertically. Corresponding variables per category are highlighted across the width of the corresponding heading.

2. Data Variables

Data variables are highlighted across the width of the corresponding heading as depicted in Image 7, item 1.

3. Housing Unit & Population Estimates

Housing unit counts and population estimates are featured at the top right of each state data profile.

WARWICK (CITY, TOWNSHIP, VILLAGE)

*No Records: Units with 0 SLR Scenario

Variable Name	Sea Level Rise (SLR)					
	SLR 3	SLR 5	SLR 7	SLR 9	SLR 12	
Housing Unit Total	14	154	194	482	458	
Single-Family (S1) Units	14	154	194	482	458	
Multifamily (M2) Units with Calculation (*)	0	0	0	0	0	
Mobile Home (M3) Units	0	0	0	0	0	
Total Units: Single Family (S1), Multifamily (M2), Mobile Home (M3)	14	154	194	482	458	
Occupied Housing Unit Calculation	SLR 3	SLR 5	SLR 7	SLR 9	SLR 12	
Total Units: Single Family (S1), Multifamily (M2), Mobile Home (M3)	16	100%	194	100%	536	100%
Estimated Occupied Units - Count and Percentage	14	87%	173	89%	482	90%
Population Calculation	SLR 3	SLR 5	SLR 7	SLR 9	SLR 12	
Estimated Occupied Units	14	100%	173	100%	482	100%
Population (Estimated Occupied Units x) Municipal Avg. Household Size (2017)	14*2.31=32	173*2.31=400	173*2.31=400	482*2.31=1113	482*2.31=1113	
Demographic	SLR 3	SLR 5	SLR 7	SLR 9	SLR 12	
Total Population (in Occupied Housing Units)	32	100%	400	100%	1113	100%
White	30	94%	376	94%	1041	94%
Black or African American	0	0%	0	0%	0	0%
American Indian and Alaska Native	0	0%	1	0.2%	4	0.4%
Asian	0	0%	7	2%	19	2%
Some Other Race	0	0%	5	1%	8	1%
Hispanic	1	2%	10	2%	28	3%
Non-Hispanic, White Population	30	93%	376	92%	1023	92%
Hispanic Population (Total Population minus Non-Hispanic, White Population)	2	7%	23	6%	90	8%
Social	SLR 3	SLR 5	SLR 7	SLR 9	SLR 12	
Total Population (in Occupied Housing Units)	32	100%	400	100%	1113	100%
Young Children (<5)	1	4%	17	4%	48	4%
School-Age Children (5-17)	4	12%	55	14%	150	14%
Age 18-24	2	7%	25	7%	80	7%
Age 25-44	7	23%	97	24%	282	25%
Age 45-64	11	34%	135	35%	379	34%
Age 65-74	3	10%	34	9%	92	8%
Age 75+	2	7%	27	7%	73	7%
Population 16-64 (For Individuals with a disability variable)	21	65%	260	65%	723	65%
Population 25+ (For educational attainment variable)	24	75%	300	75%	826	74%
Population 25+ (For employment variable)	27	83%	332	83%	924	83%
Population 25+ (For age 25 in group variable)	5	17%	64	16%	165	15%
Disability	2	7%	27	7%	73	7%
Total Population (in Occupied Housing Units, age 16-64)	21	100%	260	100%	723	100%
Individuals with Disabilities	2	11%	25	11%	80	11%
Economic	SLR 3	SLR 5	SLR 7	SLR 9	SLR 12	
Estimated Occupied Housing Units	14	100%	173	100%	482	100%
Limited English Proficiency Households	0	0%	0	0%	0	0%
Educational Attainment	SLR 3	SLR 5	SLR 7	SLR 9	SLR 12	
Total Population (in Occupied Housing Units, age 25+)	24	100%	300	100%	826	100%
Less than High School Diploma or Equivalent	2	11%	21	10%	61	10%
High School Diploma or GED	7	27%	66	29%	242	29%
Professional School	0	0%	0	0%	0	0%
Associate's/Bachelor's	3	11%	51	20%	249	30%
Master's/PhD	2	10%	25	9%	77	9%
Other (Some College)	5	20%	55	20%	165	20%
Employment	SLR 3	SLR 5	SLR 7	SLR 9	SLR 12	
Total Population (in Occupied Housing Units, age 21+)	27	100%	332	100%	924	100%
Employed	24	90%	294	90%	841	91%
Unemployed	3	10%	33	10%	83	9%
Job Industry	SLR 3	SLR 5	SLR 7	SLR 9	SLR 12	
Total Population (age 21+ and employed)	24	100%	299	100%	841	100%
Agric,forestry,fishing & mining,rainig	0	0%	1	0%	4	0%
Construction	1	5%	15	5%	43	5%
Manufacturing	3	11%	33	11%	92	11%
Wholesale trade	0	0%	0	0%	0	0%
Retail trade	3	12%	36	12%	102	12%
Transportation & warehousing, utilities	0	0%	1	0%	3	0%
Information	0	0%	0	0%	0	0%
Finance & insurance,real estate,rental & leasing	2	7%	21	7%	58	7%
Professional,scientific,management,administrative,waste management services	2	10%	29	10%	81	10%
Education services,health care,social assistance	3	11%	33	10%	93	11%
Arts,entertainment,accommodation,food services	3	11%	33	11%	90	11%
Other services (except public administration)	1	4%	13	4%	37	4%
Public administration	1	4%	13	4%	38	4%
Income	SLR 3	SLR 5	SLR 7	SLR 9	SLR 12	
Estimated Occupied Housing Units	14	100%	173	100%	482	100%
Less than \$24,999	2	17%	30	17%	84	18%
\$25,000 to 49,999	3	21%	36	21%	100	21%
\$50,000 to 74,999	3	20%	34	21%	99	20%
\$75,000 to 124,999	4	28%	45	25%	123	25%
\$125,000 and greater	2	15%	27	16%	76	16%
Total Population (in Occupied Housing Units)	32	100%	400	100%	1113	100%
Income Below Poverty Level	2	7%	32	8%	78	7%
Income Above Poverty Level	30	93%	368	92%	1035	93%
Estimated Occupied Housing Units	14	100%	173	100%	482	100%
With Social Security Income (SSI) Households	1	5%	5	5%	29	6%
With Social Security Income (SSI) Households	1	5%	16	5%	45	5%
Housing Occupancy	SLR 3	SLR 5	SLR 7	SLR 9	SLR 12	
Total Housing Units	16	100%	194	100%	536	100%
Owner-Occupied Housing Units	14	89%	173	89%	482	91%
Vacant Housing Units	2	11%	21	11%	54	10%
Estimated Occupied Housing Units	14	100%	173	100%	482	100%
Owner-Occupied Housing Units	12	87%	140	81%	376	78%
Renter-Occupied Housing Units	2	17%	33	19%	106	22%
Total Population (in Occupied Housing Units)	32	100%	400	100%	1113	100%
Population in Group Quarters	0	0%	0	0%	0	0%
Total Population (age 25+)	5	100%	64	100%	165	100%
Age 25 in Group Quarters*	0	0%	0	0%	0	0%
Housing Tenure*	SLR 3	SLR 5	SLR 7	SLR 9	SLR 12	
Total Population (in Occupied Housing Units)	32	100%	400	100%	1113	100%
Population in Property Owned with mortgage or loan	21	65%	266	65%	726	65%
Population in Property Owned Free and clear	5	17%	60	15%	161	15%
Population in Rented Occupied Units	4	13%	74	18%	226	20%
Jobs	SLR 3	SLR 5	SLR 7	SLR 9	SLR 12	
Employment and Business Unit Data						Count
Average Employment - Municipality						4072
Number of Units (Business - Private and Government)						308
Average Number of Workers per Unit (Business - Private and Government)						15
Workers Per Commercial Unit	SLR 3	SLR 5	SLR 7	SLR 9	SLR 12	
# of Commercial Unit Total	0	0	0	0	0	
Average Number of Workers/Jobs per Commercial Unit	123		261			566

IMAGE 7: Single Page Coastal Data Profile

4. Sea Level Rise Scenario – Count and Percentage

Population and housing unit counts and percentages are listed for each sea level rise scenario.

5. Job Data Counts

The data featured in this area of the data profile features counts per SLR inundation scenario, excluding percentages.

WARWICK

No. Residents: Units in the 17 SLR Scenario

Housing Units & Population	Sea Level Rise (SLR)				Count & Percentage
	SLR 3	SLR 3 %	SLR 5	SLR 7	
Housing Units					
2011 Estimated Unit Total	14	100%	14	14	459
Single Family (R1) Units	14	100%	14	14	462
Multi-Family (R2) Units with Condominium (C)	0	0%	0	0	0
Mobile Home (R3) Units	0	0%	0	0	0
Total Units: Single Family (R1), Multi-Family (R2), Mobile Home (R3)	14	100%	14	14	536
Population					
2011 Occupied Housing Unit Calculation	14	100%	14	14	482
Total Units: Single Family (R1), Multi-Family (R2), Mobile Home (R3)	14	100%	14	14	536
Estimated Occupied Units - Count and Percentage	14	100%	14	14	482
Population Calculation	14	100%	173	100%	482
Estimated Occupied Units	14	100%	173	100%	482
Population Estimate: Occupied Units (x) Municipal Avg. Household Size (2.51)	14	100%	173	100%	482
Demographic					
Total Population (in Occupied Housing Units)	32	100%	400	100%	1113
White	30	94%	374	94%	1041
Black or African American	0	0%	0	0%	0
American Indian and Alaska Native	0	0%	0	0%	0
Asian	0	0%	0	0%	0
Some Other Race	0	0%	0	0%	0
Hispanic	1	3%	10	3%	29
Non-Hispanic White Population	30	94%	374	94%	1023
Already Population (Total Population minus Non-Hispanic White Population)	2	6%	26	6%	80
Age					
Total Population (in Occupied Housing Units)	32	100%	400	100%	1113
Young Children (0-5)	1	3%	17	4%	48
School-Age Children (5-17)	4	13%	47	12%	150
Age 18-24	2	7%	28	7%	80
Age 25-44	7	23%	97	24%	282
Age 45-64	11	34%	135	34%	379
Age 65-74	3	10%	36	9%	92
Age 75+	2	7%	27	7%	72
Population 16-64 (F) - Individuals with a disability variable*	21	65%	260	65%	723
Population 25 (F) - Individuals with a disability variable*	24	75%	300	75%	806
Population 216 (F) - Employment variable*	27	83%	332	83%	924
Population 25 (F) - Age 25 in group quarters variable*	5	17%	64	16%	152
Disability					
Total Population (in Occupied Housing Units, age 16-64)	21	100%	260	100%	723
Individuals with Disabilities	2	11%	25	11%	80
Educational Attainment					
Total Population (in Occupied Housing Units, age 25+)	14	100%	173	100%	482
Less than a High School Diploma or Equivalent	2	15%	31	18%	138
High School Diploma or GED	7	27%	88	29%	242
Professional School	0	0%	0	0%	0
Associate's (Bachelor's)	3	21%	41	24%	249
Bachelor's/PhD	2	15%	28	16%	177
Other (Some College)	5	29%	55	29%	357
Economic					
Employment					
Total Population (in Occupied Housing Units, age 216)	27	100%	331	100%	924
Employed	24	89%	295	90%	811
Unemployed	3	10%	36	10%	83
Job Industry					
Total Population (age 216 and employed)	24	100%	299	100%	841
Agriculture, Forestry, Fishing & Hunting, Mining	0	0%	1	0%	4
Construction	1	4%	15	5%	43
Manufacturing	3	11%	35	11%	92
Wholesale Trade	0	0%	7	2%	21
Retail Trade	3	12%	36	12%	102
Transportation & Warehousing, Utilities	0	0%	11	4%	31
Information	0	0%	5	2%	14
Finance & Insurance, Real Estate, Rental & Leasing	2	7%	21	7%	58
Professional, Scientific, Management, Administrative, Waste Management Services	2	7%	25	8%	81
Education, Health Services, Social Assistance	5	20%	61	21%	227
Arts, Entertainment, Recreation, Accommodation & Food Services	3	11%	35	11%	92
Other Services (except Public Administration)	1	4%	12	4%	37
Public Administration	1	4%	15	4%	38
Income					
Estimated Occupied Housing Units	14	100%	173	100%	482
Less than \$24,999	2	17%	30	17%	84
\$25,000 to 49,999	3	21%	36	21%	100
\$50,000 to 74,999	3	20%	36	21%	99
\$75,000 to 124,999	4	29%	42	25%	123
\$125,000 and greater	2	15%	27	16%	76
Total Population (in Occupied Housing Units)	32	100%	400	100%	1113
Income Below Poverty Level	2	7%	32	8%	78
Income Above Poverty Level	30	93%	368	92%	1035
Estimated Occupied Housing Units	14	100%	173	100%	482
With Social Security Income (SSI) Household	1	5%	5	5%	29
Without Social Security Income (SSI) Household	13	95%	168	95%	453
Housing					
Total Housing Units	16	100%	194	100%	536
Owner-Occupied Housing Units	14	89%	175	89%	482
Vacant Housing Units	2	11%	21	11%	54
Estimated Occupied Housing Units	14	100%	173	100%	482
Owner-Occupied Housing Units	12	83%	140	81%	376
Renter-Occupied Housing Units	2	17%	33	19%	106
Total Population (in Occupied Housing Units)	32	100%	400	100%	1113
Population in Group Quarters	0	0%	0	0%	0
Total Population (age 25+)	14	100%	173	100%	482
Age 25 in Group Quarters*	0	0%	0	0%	0
Housing Tenure*	0	0%	0	0%	0
Total Population (in Occupied Housing Units)	32	100%	400	100%	1113
Population in Property Owned with a mortgage or loan	21	65%	266	67%	726
Population in Property Owned free and clear	5	15%	60	15%	161
Population in Renter-Occupied Units	4	10%	76	10%	204
Jobs					
Employment and Business Unit Data					
Average Employment - Municipality					477
Number of Units - Business - Private and Government					308
Average Number of Workers per Unit - Business - Private and Government					15
Workers Per Commercial Unit	SLR 3	SLR 5	SLR 7	SLR 7	
W11 - Commercial Unit Total	0	0	17	0	
Average Number of Workers/Job per Commercial Unit	123	261	536	536	

IMAGE 7: Single Page Coastal Data Profile

Findings

As sea levels rise, the size of the estimated population located within the inundation zones increase as well. There is a significant increase among the population estimates between 3FT and 5FT, as well as 5FT and 7FT.

Many of the variable percentages remained relatively steady throughout each inundation scenario. This suggests that the percentage of a population (any given variable) is likely to have a similar representation in another sea level rise inundation scenario of the same variable. While the percentages of the population variables remained relatively similar throughout scenarios, the population per scenario increases, which suggests increased presence despite a similar percentage value.

After compiling each coastal community data profile, staff evaluated the sum totals presented within the RI (21) Coastal profile. The following are some overall finds within the coastal communities as a whole:

MAJORITY POPULATIONS REPRESENTED PER SEA LEVEL RISE (SLR) SCENARIO

Staff compiled general findings based on the RI (21) Coastal data profile. The findings below represent the majority of the populations represented per listed category.

Race: The majority of the population present in each SLR scenario is White, with about 94-98% representation in each SLR scenario.

Age: The 45-64 age cohort represents the majority of the population present in each SLR scenario.

Education: Approximately 33-36% of the population in each SLR scenario has an Associate's or Bachelor's degree, which comprises the majority of the population in each SLR scenario.

Employment: The majority of the population (88-92%) in each SLR scenario is employed.

Income: Over 90% of the population in each scenario is living above the poverty level. In the 1FT and 3FT SLR scenarios, the majority of the occupied housing units (27% and 24%, respectively) earn greater than or equal to \$125,000 annually. In the 5FT and 7FT SLR scenarios, the majority of occupied housing units, or 23%, earn between \$75,000-124,999 annually.

Housing Occupancy: Approximately 58-67% of housing units are occupied in each SLR scenario. Of those occupied housing units, greater than or equal to 67% are owner-occupied units. The majority of housing units in each scenario are owned with a mortgage or loan.

Commercial Units/Jobs: In the 7FT sea level rise scenario, there are 807 commercial units and approximately 11,947 workers located within the scenario. The majority of the jobs in each scenario (28-29%) are in the educational services, health care and social assistance industry.

To view the full RI (21) Coastal data profile, as well individual coastal community data profiles, please visit the Division of Planning's website.

COMPARING DATA PERCENTAGES: 3FT SLR AND RI STATEWIDE DATA

When evaluating the data within the RI (21) Coastal data profile, staff also wanted to evaluate the statewide current socioeconomic conditions in comparison with sea level rise inundation zones. When comparing data, staff evaluated the percentages of each population present per variable. The 3FT SLR inundation scenario was selected to compare with current state data due to its anticipated occurrence in about 30 years – a common planning horizon, or timeframe, for planners. The statewide data presented represents the state as a whole, and allows readers to view the socioeconomic characteristics of the state alongside the socioeconomic characteristics of the coastal geography impacted in the 3FT SLR scenario.

3FT SLR SCENARIO – RI (21) COASTAL	CURRENT RI STATEWIDE DATA – ALL MUNICIPALITIES
RACE & HISPANIC ETHNICITY	
96% White 2% Hispanic 5% Minority	81% White 12% Hispanic 24% Minority
AGE (LARGEST REPRESENTATION)	
34% Age 45-64	28% Age 45-64
DISABILITY	
7% Individuals with Disabilities	10% Individuals with Disabilities
LIMITED ENGLISH PROFICIENCY (LEP) HOUSEHOLDS	
7% Limited English Proficiency	9% Limited English Proficiency
EDUCATIONAL ATTAINMENT	
34% Associates/Bachelor's	28% Associates/Bachelor's
EMPLOYMENT	
7% Unemployed	9% Unemployed
JOB INDUSTRY	
Top Industry: 28% Educational services, health care, social assistance	Top Industry: 36% Management, business, science and arts
HOUSEHOLD INCOME	
Most housing units (24%) earn \$125,000 and greater annually	Most housing units (23%) earn less than \$24,999 annually
Population: 9% Below Poverty Level	Population: 14% Below Poverty Level
HOUSING OCCUPANCY	
Housing Units: 58% Occupied	Housing Units: 89% Occupied
69% Owner Occupied	61% Owner Occupied
HOUSING TENURE	
Population in Property Owned with mortgage or loan: 62% Population in Property Owned free and clear: 20% Population in Renter-Occupied Units: 18%	Population in Property Owned with mortgage or loan: 52% Population in Property Owned free and clear: 13% Population in Renter-Occupied Units: 35%

Key Finds: Comparing Data Percentages: 3FT SLR and RI Statewide Data

There are some key socioeconomic differences that were identified among the populations when comparing 3FT coastal SLR scenario data from the collective 21 coastal communities with statewide data.

When evaluating race, there is a significant increase in the representation of Hispanics and minorities in the state overall than in the 3FT coastal SLR scenario. The 45-64 age cohort represents more than a third of the population in the 3FT coastal SLR scenario for all coastal communities, while that cohort represents 28% of the population. There are fewer LEP households and individuals with disabilities living in the 3FT coastal SLR scenario than the state overall. Approximately 6% more of the population has an Associate's or Bachelor's degree in the 3FT coastal SLR scenario than in the state. There is also a lower percentage of the population that is unemployed within the 3FT coastal SLR scenario in comparison with all residents in the state.

There are also some interesting findings located in the job industry, household income, housing occupancy and housing tenure categories. First, the top industry in the state overall is management, business, science and arts. However, in the 3FT coastal SLR scenario, the top industry is educational services, health care, and social assistance.

There is a significant difference in household income when comparing the 3FT coastal SLR scenario households with the state households. While the majority of households (24%) in the 3FT scenario earn \$125,000 or more, the majority of households in the state (23%) earn less than \$24,999 annually. Of the five different income brackets evaluated, the two aforementioned income brackets represent the highest and lowest of the variable set.

In terms of housing occupancy, 89% of the housing units in the state are occupied, while 58% of housing units are occupied in the 3FT coastal scenario; this finding suggests that there are additional vacancies in the coastal residential units. However, there is more of a rental population presence in the state overall (35%) than in the 3FT coastal SLR scenario (18%).

Readers may also compare the state data in the table above (second column) with corresponding percentages in any of the coastal municipalities as well for a further, targeted analysis.

TOTAL RESIDENTIAL UNITS

As a part of the methodology, staff identified all residential units located within each coastal community for each sea level rise scenario, (1, 3, 5, 7FT.), before applying an occupancy rate to each scenario.

The following are the sum total of residential units of the 21 coastal communities per inundation scenario. Please note, the table below represents a full tally of the single, multifamily and mobile home units per SLR scenario. Calculations for multifamily units (the multiplication by 2) and occupied housing unit calculations have not been applied:

TABLE 1: TOTAL RESIDENTIAL UNITS – 21 COASTAL					
SLR SCENARIO	R1: SINGLE FAMILY	R2: MULTIFAMILY	R3: MOBILE HOME	TOTAL	PERCENT CHANGE
1FT	9	1	1	11	2927.27% (1-3FT)
3FT	300	18	15	333	467.87% (3-5FT)
5FT	1646	203	42	1891	117.82% (5-7FT)
7FT	3642	430	47	4119	

When evaluating the total coastal residential units, the greatest percent change between the number of units identified and the sea level rise inundation zones occurs between the 1FT sea level rise scenario and 3FT SLR scenario at a 2,927% increase (11 residential units at 1FT, 333 residential units at 3FT). Subsequent percent changes between 3FT and 5FT, as well as 5FT and 7FT scenarios are positive, but decline when viewed in succession. There is a 467% increase between the 3FT and 5FT scenario (333 residential units at 3FT, 1891 residential units at 5FT) and a 117% increase between the 5FT and 7FT inundation zones (1891 residential units at 5FT, 4119 residential units at 7FT). While values, counts and percentages vary within each community, one trend remains; as the sea level rise inundation zone height increases, the number of residential units identified within each inundation zone increases as well. Consequently, the number of people identified within each inundation zone increases, leaving more exposed to sea level rise.

SPECIFIC COASTAL COMMUNITY FINDINGS

When evaluating each community, it is important to do so individually. As different geographies included within each scenario are unique, so is the data located within – which yield specific, tailored profiles. Therefore, comparing community data variables (ex. more individuals with disabilities in one community than another) would not take all factors of calculation into consideration.

The types of assessments that can be made are comparisons among the number of residential units per community. The community with the most e-911 residential units within the 1 and 3FT sea level rise scenarios is South Kingstown. The community with the most residential units within the 5 and 7FT scenarios is Westerly. See Table 2: Total e-911 Housing Units per Community for a full chart with all coastal communities and the number of e-911 residential units per SLR inundation scenarios.

TABLE 2: TOTAL E-911 HOUSING UNITS PER COMMUNITY				
COMMUNITY	1FT	3FT	5FT	7FT
Barrington	0	19	85	263
Block Island - New Shoreham	0	3	10	19
Bristol	0	10	59	119
Charlestown	0	39	185	396
Cranston	0	1	8	22
East Greenwich	0	0	0	1
East Providence	0	0	0	5
Jamestown	0	0	8	28
Little Compton	0	0	5	12
Middletown	0	0	0	3
Narragansett	0	56	153	421
Newport	0	14	225	438
North Kingstown	1	7	84	235
Pawtucket	0	0	0	0
Portsmouth	0	13	103	216
Providence	0	0	0	2
South Kingstown	7	62	229	429
Tiverton	2	25	61	89
Warren	0	8	181	368
Warwick	0	15	179	497
Westerly	1	61	316	556
TOTAL	11	333	1891	4119

Key Points

As sea level rise inundation scenarios increase with intensity – two patterns emerge. The amount of land impacted expands, and consequently, the number of residential units located within each SLR scenario increases.

As the number of residential units increase with the heightened SLR scenarios, the estimated population located within each inundation zone increases as well.

It is key to note the population increase and the number of residential unit increases in relation to each of the variables. While the variable percentages may remain consistent throughout the scenarios (as many of the percentage rates do), the estimated population and residential units increase based on the number of occupied residential units.

Staff evaluated the population in the RI (21) coastal profile and concluded the following about the majority of the populations represented in various socioeconomic variables:

Key Characteristics of the Majority Population Residing in Coastal SLR Population: White, Age 45-64, Associate's/Bachelor's, Employed, Annual Household Income of \$75,000 or more, reside in owner-occupied units.

In the comparison of the 3FT coastal SLR scenario with the current statewide data variables, the following key information was collected:

- There is a more significant representation of Hispanics and minorities in the state overall than in the 3FT coastal SLR inundation zone
- The 45-64 age cohort has a higher percentage of representation than in the state's overall population.
- There are fewer LEP households and individuals with disabilities living in the 3FT coastal SLR scenario than the state overall
- There is also a lower percentage of the population that is unemployed within the 3FT coastal SLR scenario in comparison with all residents in the state.
- The 3FT coastal SLR scenario and the state household income brackets represent the highest and lowest values within the variable dataset. The majority of households (24%) in the 3FT scenario earn \$125,000 or more, while the majority of households in the state (23%) earn less than \$24,999 annually.

The information above was important for staff to collect in an effort to ascertain any key differences between current state populations and coastal populations.

HOW TO USE THIS INFORMATION

The Socioeconomics of Sea Level Rise project and its deliverables serve as tools in initiating action for sea level rise planning. The data in the project can be used in comprehensive plans, but also for a number of additional planning purposes including: capital improvement planning, transportation planning, and overall long-range planning in communities. Furthermore, the data featured in this project can potentially be used to target any available funds or resources via grants in the future. As Rhode Island's coastal communities are now encouraged to include sea level rise as a component in their comprehensive planning, the data generated from this project can inform the steps that may be taken based on the number of people estimated to be located in a given area, as well as the population's characteristics.

APPENDIX A

TABLE 3: DATA VARIABLE SOURCE TABLE

Variable Name	Variable Source
HOUSING UNITS AND POPULATION	
e911 Housing Unit Total R1 = Single Family Units R2 = Multifamily Units R3 = Mobile Home Units	RIGIS - Sites - e911 shapefile
e911 Housing Unit Calculation	RIGIS - Sites - e911 shapefile RIGIS Census 2010: Summary File 1 Indicators shapefile
Population Calculation	<ul style="list-style-type: none"> RIGIS - Sites - e911 shapefile RIGIS Census 2010: Summary File 1 Indicators shapefile Decennial Census (Average Household Size)
DEMOGRAPHIC	
Race	RIGIS Census 2010: Summary File 1 Indicators shapefile
Age	<ul style="list-style-type: none"> RIGIS Census 2010: Summary File 1 Indicators shapefile American Community Survey (ACS) estimates (16-64 Age bracket – Universe)
SOCIAL	
Individuals with Disabilities	ACS Table C23023 – Sex By Disability Status by Full-Time Work Status In The Past 12 Months for the Population 16 to 64 Years Universe: Population 16 to 64 years 2009-2013 5-Year estimates Note: The Individuals with Disabilities variable is the only ACS sourced table that was not available in the 5-year 2010-2014 5-Year estimates. Therefore, the 2009-2013 5-Year estimates were utilized.
Limited English Proficiency (LEP) Households	ACS Table B16002 – Household Language by Household Limited English Speaking Status Universe: Households 2010-2014 5-Year estimates
Educational Attainment	ACS Table B15003 – Educational Attainment for the Population 25 Years and Over Universe: Population 25 years and over 2010-2014 5-Year estimates
ECONOMIC	
Employment	ACS Table B23025 – Employment Status for the Population 16 Years and Over Universe: Population 16 years and over 2010-2014 5-Year estimates
Job Industry	ACS Table C24050 – Industry by Occupation for the Civilian Employed Population 16 Years and Over Universe: Civilian employed population 16 years and over 2010-2014 5-Year estimates
Income	<p>ACS Table B19001 – Household Income in the Past 12 Months (In 2014 Inflation-Adjusted Dollars) Universe: Households 2010-2014 5-Year estimates</p> <p>ACS Table B17021 – Poverty Status of Individuals in the Past 12 Months by Living Arrangement Universe: Population for whom poverty status is determined 2010-2014 5-Year estimates</p> <p>ACS Table B19056 – Supplemental Security Income (SSI) in the Past 12 Months for Households Universe: Households 2010-2014 5-Year estimates</p>
HOUSING	
Housing Occupancy	<ul style="list-style-type: none"> RIGIS - Sites - e911 shapefile RIGIS Census 2010: Summary File 1 Indicators shapefile ACS Table B09020 – Relationship by Household Type (Including Living Alone) for the Population 65 Years and Over Universe: Population 65 years and over/Total Population 2010-2014 5-Year estimates
Housing Tenure	ACS Table H11 – Total Population in Occupied Housing Units by Tenure Universe: Households 2010-2014 5-Year estimates
JOBS	
Employment and Business Unit Data	2010 Annual Census of U.I.-Covered Employment and Wages data” from the RI Department of Labor and Training (DLT)
Workers Per Commercial Unit Calculation	<ul style="list-style-type: none"> 2010 Annual Census of U.I.-Covered Employment and Wages data” from the RI Department of Labor and Training (DLT) RIGIS - Sites - e911 shapefile (Commercial Units) <ul style="list-style-type: none"> C1 = Commercial CF = Commercial farm CL = Commercial lodging C9 = Commercial, other