



# Florida League of Cities Center for Municipal Research and Innovation Research Article Journal | 2016 Edition

Through the **Partners in Municipal Research (PMR)** program, the **Center for Municipal Research & Innovation** serves as a link between Florida's public policy researchers and municipal governments, bridging the gap between academics and public policy makers and administrators. The PMR program currently has 14 participating researchers at eight research institutes in the southeast region. One component of the Partners in Municipal Research program is a regular research column in the League's *Quality Cities* magazine from our research institute partners. The following is a compilation of those articles published in 2016.

Begun in 2011, the Florida League of Cities' Center for Municipal Research & Innovation is the central source for local government research at the League. Through the center, Florida's city officials have access to municipal resources and data as well as a number of programs and publications, including two annual research symposiums, a statewide research forum for our research partners, regular research articles in the League's *Quality Cities* magazine and a quarterly e-newsletter.

The cornerstone of the center's research is the annual CityStats survey covering municipal operations, budgets, policies and services. The CityStats survey forms the basis for the online Find A Peer City database tool and the annual State of the Cities report. Contact Research Analyst Liane Schrader with the center for more information.

Florida League of Cities Center for Municipal Research and Innovation  
P.O. Box 1757, Tallahassee, FL 32302-1757  
[www.floridaleagueofcities.com/ResearchMaterial.aspx](http://www.floridaleagueofcities.com/ResearchMaterial.aspx)



## ENVIRONMENT

# Adapting to Rising Tides

Sea-level rise studied for City of St. Augustine

by Jerry Murphy

University of Florida Resilient Communities Initiative

Between August and November 2015, the **University of Florida Resilient Communities Initiative (UFRCI)** and the **City of St. Augustine** entered into an interlocal agreement for ongoing planning assistance. The first work assignment the city requested was a study and white paper examining how sea-level rise (SLR) would affect its resources through 2100. This report, titled *“Adapting to Rising Tides”* (ART), was presented to the City Commission and released to the public in conjunction with the City Commission regular meeting on April 11, 2016.

Like every other coastal Florida community – and coastal and low-lying areas everywhere on Earth – St. Augustine will increasingly be affected by relative SLR from 0.25 to 6.67 feet in the next 15 to 85 years. How St. Augustine prepares to address the impacts of the SLR is paramount for its future.

The ART report provides an introduction to the SLR issue, an

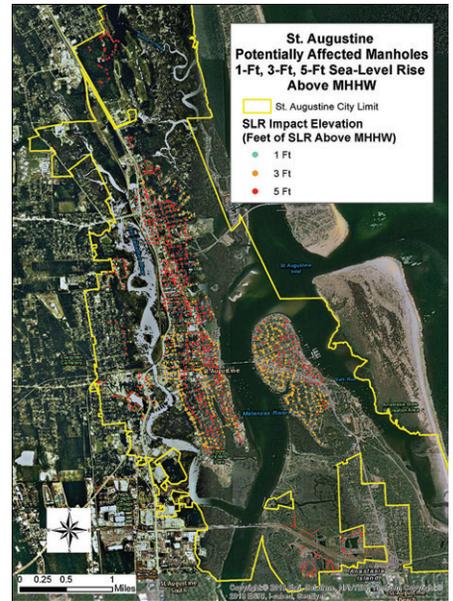
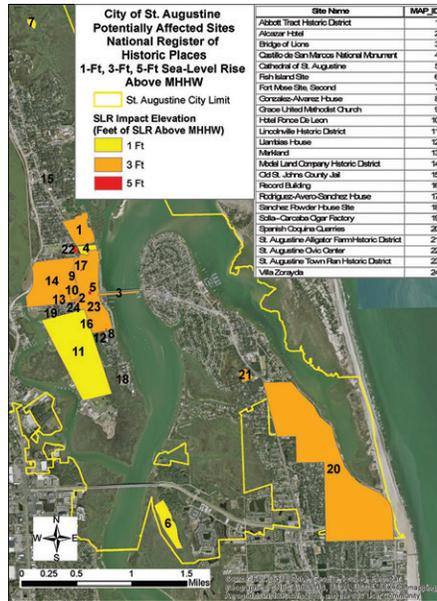
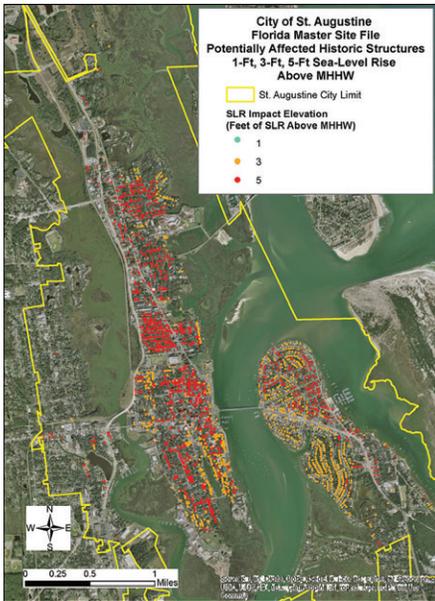
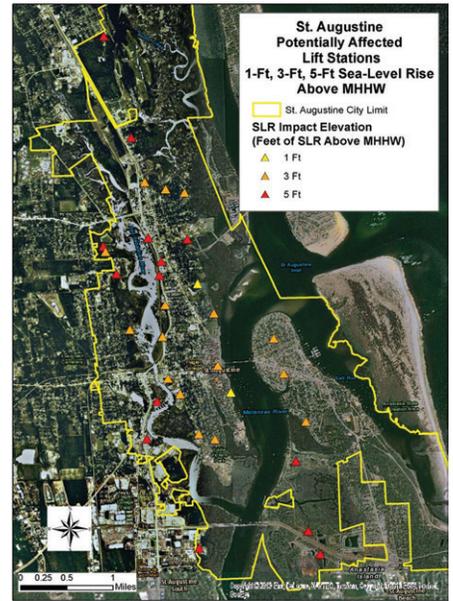
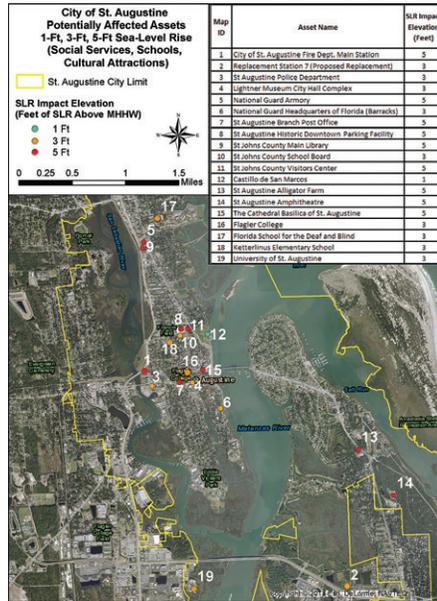
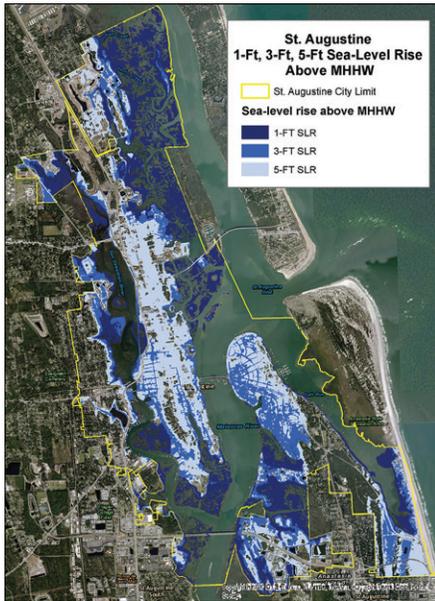
examination of SLR trends and projections, and maps the local impacts these projections indicate the city will be facing given its geographic context. ART then concludes with Next Steps: Community Adaptation Strategies and Tools for the city to consider for the near- and longer-term future. The report provides the basis for citywide policy discussions.

**Comprehensive Plan Amendments.** ART suggests the City of St. Augustine explore potential changes to its comprehensive plan resulting from these citywide discussions. The UFRCI believes the results of citywide discussions can, in turn, generate implementation priorities that can be included in the Capital Improvements Element and Capital Improvements Program of the city’s comprehensive plan. Because these aspects of the plan guide the city’s budgetary investment priorities, the Capital Improvements Element is a

first step toward implementation of SLR adaptation activities and where policies begin to become programmatic.

**Intergovernmental Collaboration, Cooperation and Coordination.** The city does not, nor should it have to, face its SLR challenges alone. The city is part of a larger web of local, regional, state and federal agencies. While the citywide SLR adaptation discussion proceeds with jurisdictional concerns and considerations foremost, the city will probably be best served collaborating with these other entities at every level, including its ongoing partnership with UFRCI. The city’s historical prominence places it in a unique position in global conversations and actions to adapt to SLR.

**Potential Impacts, Strategies and Next Steps.** The ART concludes with overviews of potential local impacts derived from geospatial mapping and



MAPS COURTESY OF THE UNIVERSITY OF FLORIDA, ADAPTING TO RISING TIDES

modeling, examples and summaries of contemporary adaptation and mitigation strategies being deployed to address these impacts.

Appendices with extensive hyperlinks to resources provide access to more detailed information. The appendices are a snapshot of what is a continually evolving body of work. The strategies focus on cultural and historic resources; infrastructure; natural resources; public health; and vulnerable populations.

The Next Steps section provides a suggested roadmap for further study and to develop and implement city policies, procedures and projects. It includes a summary and compilation of current

strategies being considered, developed and employed at the local and regional scale on a global basis.

As rising tides force the governing bodies of coastal jurisdictions to make difficult decisions and allocate finite resources to respond to the challenges of SLR, the policy and the planning efforts that support them are unlikely to be definitive or resolved. The effort should be ongoing and recurring as new information and greater knowledge is gained as to the ongoing effects of SLR, and as strategies are utilized and tested for their successes.

ART provides the background material to spark a community discussion and lay

the framework to better equip the city to respond to SLR challenges in the most resilient manner. Adaptive, participatory community planning and implementation of these and similar strategies and tools – as they evolve – can help mitigate these impacts. If nothing is done, the impacts are poised to jeopardize local economies and the standard of living currently enjoyed by residents, visitors, businesses and institutions.

Jerry Murphy, JD, AICP, CFM, is project coordinator for the University of Florida Resilient Communities Initiative. Email him at [murphyge@dcp.ufl.edu](mailto:murphyge@dcp.ufl.edu) or visit [frci.dcp.ufl.edu/](http://frci.dcp.ufl.edu/) to learn more about the initiative.



## PARTNERSHIPS

# LocalGov Lab

Collaborations among local governments

by Richard Feiock  
Florida State University

For close to a decade, collaboration has been touted as a panacea to address a range of urban and regional management and governance issues, yet it remains underutilized.

For more cities to engage in collaboration, and for collaborative efforts to be sustainable, we need to better understand possible barriers to these partnerships, such as policy, organizational and community, and how they can be overcome.

The **Local Governance Research Laboratory (LocalGov Lab)** at Florida State University has undertaken a research effort to study those barriers among cities nationally, and in Florida. The research finds that:

- » Collaborative processes need to be systematically matched to the nature of the problem, the affected governments and their capacities,

and existing institutions for resolving the issues.

- » Collaborative approaches are most beneficial where authority and service responsibilities are fragmented among governments. This is common in urban areas in the United States because responsibilities for land use, development and planning are held by individual local governments, but the concerns they address, such as pollution, transportation, environmental protection and economic development, are regional in scale.
- » Coordination of service delivery activities across jurisdictions that produce economies of scale in production, and internalize costs and benefits that spillover their borders can make all participants significantly better off.

So, why isn't it practiced by more local governments? The research points to two factors: 1) uncounted costs of collaboration and 2) perceived risks of collaboration.

Successful collaboration requires local governments to overcome a collective action problem, or issue, in which the benefits to a community depend on the contributions of others. Costs of collaboration are influenced by similarities and differences of partnering governments. The more similar the governments are, the more likely the collective choices will correspond with the preferences of residents in each of the partnering governments. Similarity in forms of government also stimulate collaborations. In addition, collaboration costs are significantly reduced by administrative capacity and supportive state and federal programs and policy.

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However, if the potential partner communities are diverse and different from each other, the collective choices are politically risky because decisions to resolve an issue might deviate from each government's own preferences.

The salience of collaboration costs and risk are born out of LocalGov Lab's national studies of city economic development, energy sustainability collaborations, and research on implementation networks for Energy Efficiency and Conservation Block grants.

The lab's ongoing work with Florida cities, supported by National Science Foundation, examines a range of collaboration arrangements including informal networks, interlocal agreements, contracts, partnerships, associations and districts. This research includes studies of collaborations on waste recycling among Florida cities, social network analysis of economic development agreements among cities in Central Florida, statewide surveys of Florida cities' collaborations related to sustainability, and the influence of metropolitan planning organization plans on city land use decisions.

This research will bring recommendations on how cities and regions in Florida overcome collective action barriers to collaboration and help increase local and regional collaboration efforts.



Richard C. Feiock, Ph.D., is a professor of public administration at Florida State University, director of the Local Governance

Research Lab, and managing editor of FSU's *Public Administration Review*. 

*The FSU Jerry Collins Local Governance Research Laboratory, founded in 2000, is housed in the Askew School of Public Administration and Policy. The lab is a team of scholars pursuing research that seeks to improve our understanding of local governments and governance institutions in metropolitan regions.*



**[localgov.fsu.edu](http://localgov.fsu.edu)** for more information on the FSU Local Governance Laboratory.



## EDUCATION

# MPA Graduates

Do they have the IT skills local government needs?

by P. Cary Christian  
and Trenton J. Davis  
Georgia Southern University

**T**he answer to the question above is, not likely.

Master of Public Administration programs are accredited by the Network of Schools of Public Policy, Affairs, and Administration (NASPAA). Until new standards were issued in 2009, NASPAA required the inclusion of dedicated information technology courses within the MPA curricula. Even though public managers are ever more in need of IT skills, the 2009 standards removed this requirement.

There is a rapidly increasing demand for e-government initiatives to deliver public services, provide information and increase transparency. Governments are seeing increasing complexity in interoperable and linked systems that nontechnical managers must oversee. There is increased need for information

to support performance management systems, and today's managers must become more sophisticated purchasers of IT services and systems.

Based on these needs and the lack of any requirement for IT training in MPA programs, the authors investigated the following three questions:

**1.** What is the status of IT in current MPA program curricula?

**2.** Does the perception of the importance of IT in MPA curricula vary between MPA graduates and employers?

**3.** Do current MPA curricula adequately address the importance of IT in the careers of those trained?

To answer these questions, the authors surveyed both MPA graduates and those government organizations that employ MPA graduates. The study focused primarily on city governments

in Florida and Georgia with assistance from the Florida League of Cities and the Georgia Municipal Association in the administration of the surveys.

### **WHAT IS THE CURRENT STATUS OF MPA PROGRAM CURRICULA?**

MPA programs at 170 NASPAA member schools were reviewed for the inclusion of IT-related coursework within either the core required courses or offered as an elective. Only 26 programs (15.29 percent) required an information technology class within their core requirements for the degree. Only 33 programs (19.41 percent) offered a general elective class in IT. Seven programs (4.12 percent) offered a concentration in IT. There was virtually no difference in IT offerings when compared to the state of offerings documented in a 1989 study when IT skills were first required by NASPAA standards.

### **DOES THE PERCEPTION OF THE IMPORTANCE OF IT IN MPA CURRICULA VARY BETWEEN MPA GRADUATES AND EMPLOYERS?**

In separate surveys of 174 MPA graduates and 93 municipal governments, both MPA graduates and employers were asked how important it is to have certain IT skills. Sixteen different technology skills were ranked by the respondents.

There is general agreement between the MPA graduates and employer respondents with respect to general computer literacy and the management functions related to policies and procedures, records retention and system security.

The only real disconnect is the very low ranking of understanding management issues related to e-government initiatives by the MPA graduates who ranked this item 15th versus 7th by the employers (68.6 percent of employers ranked this item either important or critical versus 46.6 percent of the MPA graduates). It is likely that senior managers have a better grasp of how poorly structured and managed e-government initiatives can damage reputation and create costly liability. City managers represent the majority of respondents in this survey and 80 percent of those responding to this

question rated this skill as important or critical.

### **DO CURRENT MPA CURRICULA ADEQUATELY ADDRESS THE IMPORTANCE OF IT?**

When MPA graduates were asked to indicate the extent to which they perceive that their MPA program provided them needed IT knowledge and skills, 12.1 percent strongly disagreed, 26 percent disagreed, 32.4 somewhat agreed and 15.6 percent agreed. Only 3.5 percent strongly agreed and 10.4 percent agreed for some skills and disagreed for others.

The results indicate that graduates of MPA programs may not be obtaining sufficient training with respect to IT from their MPA programs. This is not surprising given that only 15 percent of MPA programs require students to take an IT course.

There is also the implication here that students are obtaining some IT skills from courses other than IT courses, such as through general management courses or from statistics or program evaluation courses.

### **IF NOT FROM THE MPA PROGRAM, WHERE DID THE GRADUATES LEARN NEEDED IT SKILLS?**

Students who do not learn appropriate IT skills in their MPA programs and do not already possess the skills they require must develop them on their own after entering the job market. Some learned these skills through classes offered by their employer (26 respondents), while others (19 respondents) received additional training paid for by their employer. However, many respondents commented that having to learn these skills on the job or through independent study was a burden and imposed significant difficulties.

The large number of MPA program alumni who were required to take some action to obtain needed IT skills for their jobs is an indication that they are not graduating with minimum required IT skills. An overwhelming majority of respondents indicated that those skills should be included in the MPA core curriculum and that in hindsight they would have taken an IT course whether it was required or not.

### **CONCLUSION**

The inclusion of IT courses in MPA curricula has not changed much over the last 30 years. Only slightly more than 15 percent of NASPAA member schools require a general IT course as part of the core curriculum, with fewer yet offering a concentration in IT. It would appear that this is a rather glaring omission given the central role of technology in public services delivery.

Beyond a desire for general computer literacy, employers have indicated solid support for information management training regarding the role of organizational policies and procedures in containing security threats, issues related to records retention and legal requirements related to privacy issues. Employers also want their employees to be capable of evaluating technology implementations, contribute to multi-disciplinary implementation teams and participate in needs assessments, business process analyses and feasibility studies.

As a whole, the findings indicate that MPA programs may not be keeping pace with the IT needs of their graduates. Ultimately, the inclusion of IT training in the MPA curriculum, whether in broad based IT management theory or in application training (e.g., geographic information systems) will lead to graduates who are more capable public managers.

P. Cary Christian, Ph.D., is an assistant professor at the Institute for Public and Nonprofit Studies at Georgia Southern University. His research focuses on budgeting and finance, information technology, tax evasion and trade-based money laundering.

Trenton J. Davis, Ph.D., is associate professor and director of the Institute for Public and Nonprofit Studies at Georgia Southern University. His research focuses on employee motivation, organizational change, compensation systems and small group behavior.

For the complete study, visit the *Journal of Public Affairs Education* at [naspaa.org/JPAEMessenger/Article/VOL22-2/04\\_Christian%20Davis.pdf](http://naspaa.org/JPAEMessenger/Article/VOL22-2/04_Christian%20Davis.pdf) 



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ROCKET SCIENCE

# NASA Technology Transfer

Bringing NASA technology down to Earth

by G. Michael Lester  
Kennedy Space Center



**D**id you know NASA has developed over a thousand patented and patent-pending space technologies that have many uses right here on Earth? These technologies include robotics, environmental remediation, corrosion control, biotech, software and many more that offer potential uses in municipal government applications.

Through its **Technology Transfer Program**, NASA legally transfers these technologies to U.S. entrepreneurs, industry, universities and government organizations so they can be repurposed for other applications.

For this article, NASA's Kennedy Space Center (KSC) did a quick survey of the available NASA patents to see which we thought may be useful to local governments. Here are just a few that we found:

- >> **Ammonia Recovery System from Wastewater** – a design for a regenerable system to capture and remove ammonia from human wastewater. KSC researchers developed the design for eventual use on the International Space Station; however, we believe the system is scalable for larger municipal, industrial and agricultural wastewater needs.



## There's More Space in Your Life Than You think!

Hundreds of patented NASA technologies have been transferred to the public through **NASA's Technology Transfer Program**. And some of these technologies are impacting our everyday lives, with one in particular being used right here in our own "backyard."



**KSC's EZVI** is a patented environmental remediation technology that removes specific chemical contaminants from groundwater. **EZVI** – the most licensed technology in NASA's history – has been transferred to nine companies that are using it in clean-up operations at **Port Canaveral, Cape Canaveral Air Force Station**, sites within 17 U.S. states, and in France and Japan. EZVI is only one example of a NASA technology that is now used in commercial applications. To read about other products and services derived from NASA research and technologies, visit NASA Spinoffs at [spinoff.nasa.gov/](http://spinoff.nasa.gov/).



### SPACE TECHNOLOGY MEETS MUNICIPAL INNOVATION

To learn more about NASA's Technology Transfer Program and how your city can take advantage of NASA's latest patented technologies, attend the Florida League of Cities Institute for Municipal Research and Innovation's Research Symposium. It is being held on Wednesday, August 17, prior to the 2016 Florida League of Cities Annual Conference at the Diplomat Resort in Hollywood. While there is no fee to attend the symposium, registration is required. See page 60 or call (850) 222-9684 for more information.

GRAPHICS COURTESY OF NASA

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- >> **Sorbent Polymer Extraction and Remediation System** – a method for the in-situ removal of Polychlorinated Biphenyls (PCBs) from contaminated sediments under and near bodies of water. The design eliminates the need for dredging or capping of the sediment, and the system may be able to treat other contaminants such as pesticides. The prototype system was developed to eventually treat contaminated areas at KSC and other NASA locations.
- >> **Dynamic Weather Routes Tool** – a ground-based automated aircraft flight tool to identify corrections to preselected weather avoidance routes for aircraft approaching airports. The tool can reduce delays due to weather and save fuel.



Several other technologies that may meet city needs include:

- >> **Electronic Firefighter Escape Trail** for firefighter safety information and location.
- >> **Carbon Nanotube-based Sensors** for structural health monitoring of bridges and other structures.
- >> **Fire-resistant, Lightweight, Electrical Insulation Material** for medium to high voltage power systems.



Find more information about these technologies by using the NASA Technology Transfer Portal ([technology.nasa.gov/](http://technology.nasa.gov/)). This search engine allows the public to directly and quickly search our patent database for information about NASA technologies that fall within their interest areas. This information includes a brief description of the technology, the patent number (if the patent has issued), possible commercial applications and who to contact within NASA to get more information. In addition, the portal provides a high-level description of the licensing process – i.e., the legal process we use to grant an organization the right to use our technology and transfer the technology design and specifications to them.



The technologies listed above are a few examples of those that NASA believes may meet various city needs. However, no one knows your unique city technology needs better than you. That's why the portal was created – to allow you to use your unique knowledge to search NASA's large and diverse patent database to quickly determine if there are NASA patents worth your consideration.

G. Michael Lester is technology transfer partnership manager for the Kennedy Space Center Technology Transfer Office.



## TRENDS

# The Asset Limited, Income Constrained, Employed

Meeting ALICE beyond poverty

by **Lars Gilberts**  
**United Way of Broward County**

**P**overty has been the primary measure of need in our communities for the last half century. However, for more than 40 years, this standard has stagnated, and so have the conversations tied to it. Without a way to accurately see and understand the multitude of households who work hard but fall short, our cities, businesses, nonprofits and philanthropies will continue to struggle to address community and family stability.

Florida's 32 United Ways commissioned Rutgers University to conduct the ALICE Report to provide us with a new way of seeing who is truly **Asset Limited, Income Constrained, Employed (ALICE)**. ALICE is a household with an income above the federal poverty level (FPL), but below a basic survival threshold (called the ALICE threshold).

The ALICE Report findings include the following:

- » At least 30 percent of the households in every county in Florida earns less than their county's ALICE threshold.
- » ALICE is not confined to any one ethnicity, age, gender or geography.
- » 3.2 million Florida households (45 percent) are living below the FPL (1.1 million) or are ALICE (2.1 million).
- » 48 percent of Floridians are considered liquid asset poor, meaning they do not have enough money in checking,

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**In Florida there are 3.2 million households – 45 percent of the state's total – with income below the realistic cost of basic necessities.**

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savings or retirement accounts to live for three months at the poverty level.

» The average cost of living increased by at least 12 percent during the recession and housing and food costs have continued to rise precipitously since the recession.

» With wages stagnating, an additional 9 percent of Florida households have fallen and stayed below the ALICE threshold during the Great Recession. Poverty continues to increase in many Florida cities, even as unemployment falls because the large ALICE population is highly vulnerable to otherwise "survivable" emergencies.

Often, those who are ALICE are our retail clerks, home health aides, restaurant servers, childcare workers and even teachers and municipal workers. Each county has a unique ALICE budget that only includes the five basic household necessities: survival level housing, childcare, food, transportation, and out-of-pocket health care costs.

When a household does not have enough income, difficult choices must be made. ALICE households may be forced to use substandard child care, or go without health care, healthy food or car insurance. Despite working one or more jobs, these individuals and their families are at risk of falling into poverty and putting greater stress on employers, educational systems and social safety net services.

The Pew Research Center reported in December 2015 that for the first time in more than 40 years, middle-income Americans no longer make up the majority of the population. While this is a national trend, the magnitude of this problem in Florida is daunting with Florida renters being the most cost burdened in the country. Renters in Florida pay more than 30 percent of their income for housing. As more baby boomers flock to Florida and more lower paying jobs are created to support their needs, the demand for affordable workforce housing will become even greater, putting ALICE households at even greater risk.

In all but five of Florida's 67 counties, childcare costs for two children exceed the average rent of a two bedroom apartment. With generally low wages, ever-increasing housing costs and budget-breaking childcare expenses, Florida's families are hard pressed to survive, let alone contribute to their community's economic and civic development.

**More than three-fourths (87 percent) of Florida's municipalities have more than 30 percent of households living on an income below the ALICE threshold.**

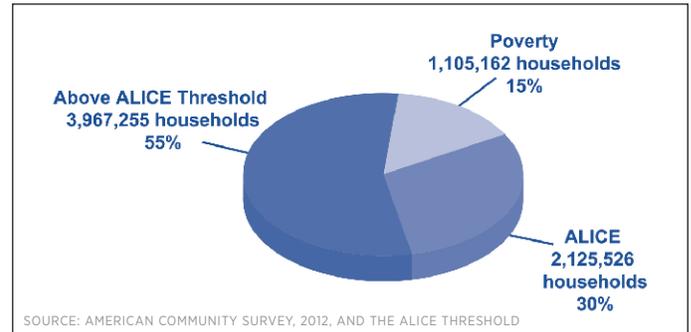
There are no quick comprehensive fixes; however, collaboration between government officials and leaders within the business community is essential. Florida's United Ways have actively been identifying low- and no-cost solutions that cities, businesses, financial institutions and charities can utilize. Issues of zoning, benefits, housing, business development, etc., are more complex yet United Way is committed to bringing all sides together to find and implement efficient and effective solutions.

United Ways believe the key to ensure all families have access to real opportunities relies on Awareness, Access and Advocacy. Local government officials are essential to this process.

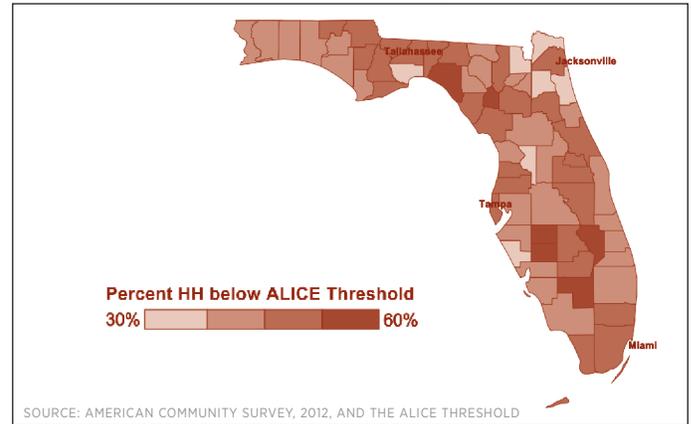
- >> **Awareness** - communities, organizations and leaders need to be aware that the old model of poverty, middle class and wealth no longer work. There is a large population working hard, living above poverty but falling short of a stable middle class.
- >> **Access** - millions of families can benefit from existing services, such as free tax preparation, and by having housing authorities report their residents' rent payments so they build the credit they need to rent in the open market. These benefits stabilize families with existing resources and systems.
- >> **Advocacy** - existing systems have their limits, and we need leaders in business, education and government to see that ALICE's success is their success.

To learn what the ALICE Report says about your community and what solutions exist to address your local needs, visit [uwof.org/ALICE](http://uwof.org/ALICE), connect with your local United Way or contact Statewide ALICE Director Lars Gilberts at [lgilberts@unitedwaybroward.org](mailto:lgilberts@unitedwaybroward.org).

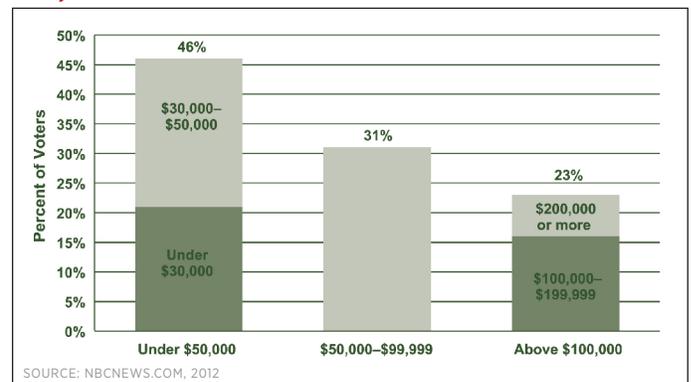
### HOUSEHOLD INCOME, FLORIDA, 2012



### PERCENT OF HOUSEHOLDS BELOW THE ALICE THRESHOLD BY COUNTY, FLORIDA, 2012



### FLORIDA VOTERS BY ANNUAL INCOME, U.S., 2012 PRESIDENTIAL ELECTION



### NUMBER OF JOBS BY HOURLY WAGE, FLORIDA, 2012

