

**2014 Graham Center Civic Scholars Summary**  
Top Issues and Possible Solutions Concerning Aging Infrastructure  
in Florida's Counties and Regional Planning Councils

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## **Introduction**

Florida's infrastructure is a network of transportation systems and other physical structures that allow everyone access to places and things needed for livelihood, health, and enjoyment. There are avenues to housing, careers, healthcare, schooling, retail, and various forms of entertainment. Often, people take for granted the roadways, bridges, water distribution systems, and other structures that make modern life possible. Floridians whine about the inconveniences brought on by construction and the increases in taxes and fees due to infrastructure improvements. We tend to forget that infrastructure affects us on both an economic and personal level. Therefore, if our state's infrastructure isn't up to par then our quality and way of life are at risk. Unfortunately, this is the case, as Florida's aging infrastructure is decaying and is insufficient to support and maintain the standard of life that we have become accustomed to and deserve.

Hence, the Bob Graham Center for Public Service at the University of Florida (UF) decided to tackle the issue of aging infrastructure in Florida. Fifty Graham Center Civic Scholars were selected by the Bob Graham Center for Public Service for the spring semester of 2014 to interview officials in their assigned counties or regional planning councils (RPCs), gather research on the areas themselves, and assemble a comprehensive report. The objective of this project was to determine the three major infrastructure concerns affecting these counties or RPCs, why these issues existed, and what officials were doing to resolve them. From their interviews and research, the

scholars were able to learn a great deal about what the main issues were and also how complex the topic of infrastructure is.

Overall, there were a few issues that were consistent throughout the scholars' reports. The greatest obstacle in meeting infrastructure needs is obtaining the funding required. Furthermore, properly and effectively utilizing funds is an issue as management can sometimes have difficulty determining what should be done and how. Water supply and distribution infrastructure were also brought up regularly as concerns. Additionally, it was observed that the public at large is uneducated when it comes to infrastructure and how it's built and paid for. Lastly, the scholars reported that many of the roadways and bridges in the state are decaying and are quickly becoming defunct. These issues are further discussed in the following sections along with their possible solutions.

## **Top Issues and Possible Solutions**

### **Lack of Funding and Management**

By far, the number one issue that impacts Florida's infrastructure is the lack of funding required to maintain aging structures and construct new ones. Almost every Florida county and RPC investigated for this program cited a lack of funding as one of their top three critical issues. However, counties and RPCs try earnestly to attain money for their infrastructure needs. There are two taxes that contribute to infrastructure funding: gas taxes and ad valorem taxes. A gas tax is charged per gallon of gasoline pumped in Florida but is included with the price per gallon seen at gas stations. While the money generated via gas tax goes towards maintaining infrastructure, some of this revenue also goes to state and federal governments. Ad valorem taxes are fees based

on perceived value of property and are paid by land owners. There are also a number of grants provided by state and federal governments that help fund infrastructure maintenance and construction. For instance, small counties benefit greatly from programs such as SCRAP (Small County Rural Assistance Program), SCOP (Small County Outreach Program), and CIGP (County Infrastructure Grant Program).

Despite these taxes and grants, counties and RPCs still severely lack the revenue needed to adequately tackle infrastructure issues. Many counties and RPCs report that they are under budget by millions of dollars and because of this must pick and choose what to maintain or build and what to let decay further. Obviously, while these decisions are made with the public's best interest at mind they still pose a safety and health risk. For the purpose of generating more funding, counties and RPCs have proposed increasing or creating new taxes such as a penny tax or imposing additional tourism taxes. Additionally, counties are continuing to apply for as many grants as they are qualified for.

What is more, some counties are having trouble managing their aging infrastructure due to lack of agreement about what should be done. A few even experience difficulty identifying what should be done first. This indecision not only wastes time and worsens the decay of an area's infrastructure but also adds to the issue of funding. Not to mention, if a poor decision is made then valuable resources will have been wasted (Bentz 1997). In some counties with larger cities, both the county government and city government can clash in goal setting and fixing issues. This confrontation is especially problematic when that city's population makes up a large portion of the entire county's population. A lack of proper decision making and

cooperation can be remedied through coaching officials to have better problem solving capabilities and interpersonal skills. Moreover, it is imperative for citizens to elect officials that can critically analyze a given situation and are willing to work with one another in an efficient manner to serve his or her constituents in the first place. Unfortunately, this is always easier said than done, as some candidates may be elected boasting these characteristics yet fail to maintain them.

### **Water Supply & Distribution**

One of life's essentials is adequate drinking water. Without safe drinking water, citizens can become ill and even die if they do not receive proper medical treatment. However, for a number of Florida counties and RPCs water supply and quality is a major concern. Most of the water that people rely on for drinking, cooking, and other activities originates in aquifers, lakes, and rivers. Therefore, ensuring that these bodies of water remain healthful and uncontaminated is of primary concern.

Unfortunately, there are strains on the water supply that threaten the well-being of Floridians. Lakes, rivers, and aquifers can be contaminated by manmade pollutants such as fertilizers, industrial runoff, and pharmaceuticals. These compounds damage the surrounding environment which can have negative health and economic effects on residents nearby. Saltwater can also reach bodies of freshwater and reduce their condition further. Removing pollutants from water and using the desalination process adds difficulty and cost for water treatment plants. Already water treatment plants are under major strain to provide healthful drinking water due to lack of funding and rapid population growth. Furthermore, the water distribution systems are also beginning to show their age and must be replaced and expanded in many parts of the state. Yet,

once again a lack of capital continuously pushes repair and expansion of these distribution systems further and further into the future causing low water quality and, when pipes break, a complete lack of safe water or even water at all.

Essentially, the best way to protect water quality is to decrease the amount of contaminants that reach freshwater sources. Fertilizers should only be applied at appropriate times and only with the instructed amount and industrial runoff and pharmaceuticals should be monitored, diluted, and disposed of properly according to regulation and practice. Resolving the issue of advancing saltwater due to rising sea levels is tricky and currently can only be accomplished through desalination or global climate control activities. That said, other technologies are being developed that involve changing the permeability of surrounding rock in aquifers to inhibit saltwater intrusion (Spatafora 2008). Lastly, determining how municipalities can accumulate savings to update their water treatment plants and water distribution systems are addressed in the previous section of this summary, “Lack of Funding and Management”.

### **An Unaware, Growing Population**

While infrastructure connects Floridians to vital places and opportunities, many of them are unaware of or understand the sheer amount of funding required for maintaining and constructing it and where this money comes from. Some residents believe that their infrastructure is provided for them for free when in reality it's paid for by various taxes like the gas tax and ad valorem taxes and grants from state and federal governments. Many people are also unaware of the intricacies involved in the construction process that accounts for the long duration of many infrastructure projects along with possible complications such as unforeseen technical difficulties and

decreases in funding. In all honesty, it seems a lot of citizens don't truly comprehend the importance of safe, efficient, and reliable infrastructure. In many counties and RPCs facing a lack of funds, tax increases dedicated to improving infrastructure are routinely voted against by residents. Ironically, these citizens are asking for better roads, bridges, and improved services.

Consequently, the issue of the public being largely unaware of the statewide infrastructure dilemma can be resolved through educating them on its current condition and why it's important to improve it. Educating people can be done through facets such as television commercials, published articles in the local newspaper, and even in the classroom. It would be very beneficial for the youngest generation to begin learning about how vital their infrastructure is for their future. A child's understanding can alter how their parents, neighbors, and other community members vote and even affect them until they can take direct action themselves as an adult. Naturally, some adults are reluctant to spend additional money on taxes to improve infrastructure considering the economic hardships that the country is currently experiencing. Such a stance is understandable, yet updating the state's infrastructure may very well bring in jobs and spur economic recovery. Understanding how high quality infrastructure benefits local, state, and national economies could persuade Floridians to support tax increases in the hopes of lowering unemployment.

Moreover, Florida's population is growing with many counties experiencing population growth. While this increase in number of residents boosts tax revenue used to maintain and improve a county's infrastructure, it also creates more wear and tear on it. Furthermore, new citizens may exacerbate the issue of public unawareness on

infrastructure financing and improvement. Of course, this population influx could have the opposite effect and indeed help resolve the issue if these people are already educated on the obstacles surrounding infrastructure enhancements.

## **Defunct Public Transportation Systems**

Currently, the people of Florida are commuting on faulty roadways and bridges. Many of these public transportation systems were built during periods of rapid development throughout the 1950's, 60's, 70's, and 80's and are beginning to show their age and limitations. Roadways are literally crumbling away, both unpaved and paved. Unpaved roadways prove to have their own issues as they are more susceptible to deterioration due to traffic and weathering which produces potholes and even entire washouts of road. In spite of high maintenance costs, to pave these unpaved roads would require far more money which is already scarce for counties. Meanwhile, many paved roadways need to be repaved and expanded to handle the increasing population. Having roads that cannot handle heavy traffic is detrimental to Floridians on the economic level, as time and fuel is wasted from waiting in traffic jams or through other inconveniences caused by congestion (American Society of Civil Engineers 2013). Not to mention, the traffic along with the decaying conditions of the roadways are having a negative effect on people's safety as well. These hazardous driving conditions are leading to bodily injuries and death. Injury and death can have a negative impact on the state's welfare too. Many of those injured or killed in traffic accidents are laborers, entrepreneurs, and other employees that help support their families along with the economy on the local, state, and even national levels (Worley 2006).

Similarly, bridges are rusting away and also lack functionality to handle increasing population density. Numerous counties and RPCs are reporting that some of their bridges are structurally deficient and are approaching the end of their life expectancy. In fact, a lot of counties and RPCs are utilizing bridges that have passed their life expectancy and should be remodeled or replaced but can't be due to a lack of funding. These outdated bridges serve as a public safety concern as they run the risk of collapsing which not only would cause time inconveniences and monetary loss but also the loss of human life. Though, even a structurally sound bridge that is unable to efficiently handle increasing population density and the traffic that follows can serve as a hazard and limit economic capability.

In order to resolve the dilemma of the rapidly dating roads and bridges, efforts would have to be underway to fund maintenance and construction. Unfortunately, funding is already scarce enough and is the very reason why roads and bridges are currently failing to meet people's needs. With that said, the various methods to increase funding can be applied as previously discussed in the section "Lack of Funding and Management". Of course, there are other options for resolving this issue of upkeep. Carpooling can be promoted to reduce the amount of traffic. With fewer vehicles using roads and bridges, these structures remain in better condition. Nevertheless, this will also reduce the amount of funding received via the gas tax and hence reduce the amount of money that can be used for upkeep. Yet, as long as other forms of funding besides the gas tax are utilized, carpooling will still prove to be a viable solution. Another solution may be to increasingly put the issue of building and keeping up roads and bridges into the hands of private enterprises. Private companies can construct and

maintain roadways or bridges and gain profit through tolls or benefit if the newly built structure helps bolster their business through increased efficiency. This option can help mitigate some of the government's burden and improve roadway and bridge conditions sooner rather than later. Likewise, the government could establish and increase tolls for some of their roads and bridges. This action would generate some additional revenue to maintain structures and possibly reduce wear and tear on them since some people will find other routes or plans to avoid paying tolls.

## **Conclusion**

All in all, the top issues discussed in this summary are serious and must be resolved as soon as possible, but they are only the most prevalent ones throughout the state's counties and RPCs. There are many more dilemmas that plague certain areas such as damaging discharges from Lake Okeechobee (Okeechobee County), lack of alternative energy options (Hillsborough County and Withlacoochee RPC), and even the unavailability of broadband Internet in many rural zones (Southwest FL RPC). At first, it appears that finding solutions for Florida's aging infrastructure is seemingly impossible due to the vast diversity and complexity of the topic. However, Florida's residents can rest assure that these problems are being analyzed and fixed as best as they can given the available tools, funds, work ethic, and genius of state and local officials, engineers, concerned citizens, and students such as the Graham Center Civic Scholars.

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