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**MINUTES OF THE
 TENNESSEE ADVISORY COMMISSION
 ON INTERGOVERNMENTAL RELATIONS**

December 11, 2019

Meeting Called to Order

The Tennessee Advisory Commission on Intergovernmental Relations met in House Hearing Room I of the Cordell Hull Building at 1:00 p.m., Chairman Mike Carter presiding.

Present 19	Absent 6
Mayor Rogers Anderson	Mayor Jill Holland
Assistant Commissioner Sammie Arnold	County Executive Jeff Huffman
Mayor Tom Bickers	Representative Susan Lynn
Mayor Buddy Bradshaw	Representative Antonio Parkinson
Mayor Kevin D. Brooks	Senator Bo Watson
Representative Mike Carter	Senator Ken Yager
Mr. Calvin Clifton	
Representative John Crawford	
Deputy Commissioner Paula Davis	
County Clerk Mary Gaither	
Mayor Brent Greer	
Representative Harold Love Jr.	
Senator Jon Lundberg	
Mayor A. Keith McDonald	
Mr. Jeff Peach	
Senator Katrina Robinson	
Mayor Larry Waters	
Comptroller Justin Wilson ¹	
Senator Jeff Yarbro	

¹ Lauren Spires represented Justin Wilson.
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1. Call to Order and Approval of the Minutes

Chairman Mike CARTER called the meeting to order at 1:00 p.m., dispensed with the calling of the roll, and then requested and received approval of the minutes of the September 2019 meeting.

2. Commission and Staff Update

Executive Director Cliff LIPPARD began the update by informing the members of the passing of two prominent Tennesseans, Charles 'Bones' Seivers, who helped establish the Tennessee Municipal Bond Fund in 1985 and led it until his retirement in 2019, and Dr. Ed Young, who advocated for local governments before the General Assembly and contributed to a number of TACIR reports.

Dr. LIPPARD then asked the members to congratulate Commission member Mayor Rogers Anderson, who was recently awarded the Robert (Bob) Wormsley Outstanding County Official of the Year Award by the Tennessee County Services Association.

Next, Dr. LIPPARD informed the members that in response to the Commission's direction at the September meeting, Chairman Carter has requested an opinion from the Attorney General on the question, "Whose approval is required for changing the data sources in the TACIR fiscal capacity model used to equalize funding through the BEP funding formula?" Dr. LIPPARD said that staff remains in communication with the Attorney General's office and will notify the members once an opinion is rendered.

Turning to staff updates, Dr. LIPPARD informed the members that Senior Research Associate Nathan Shaver would be leaving TACIR at the end of the week to accept a position as an attorney with the Tennessee Education Lottery Corporation.

Next, Dr. LIPPARD noted that Dr. Chris Klein has joined the Commission as a part-time senior research consultant. Dr. Klein recently retired from service as a professor of economics at Middle Tennessee State University, where he taught since 2002. Before joining MTSU, Dr. Klein served as the chief of the Economic Analysis Division of the Tennessee Regulatory Authority. He holds a PhD in Economics from the University of North Carolina at Chapel Hill.

Dr. LIPPARD concluded by acknowledging that Deputy Executive Director Melissa Brown had recently graduated from the Tennessee Government Executive Institute, and the day before the meeting, Office Manager April Scivally graduated from the Human Resources Master Series. Dr. LIPPARD also informed the members that Ms. Scivally had received a promotion the day before.

Following the updates, Chairman Mike CARTER informed the members that without objection, consideration of the report on counties with multi-school systems, found at tab 4, would be deferred until the January meeting to give staff time to consider and incorporate additional feedback from the Tennessee Municipal League, several city managers, Mayor McDonald, and others.

3. Public Chapter 228, Acts of 2017 (Status of Broadband Internet Deployment, Availability, and Adoption)—Panel

The Commission heard presentations from

- James STEGEMAN, president of CostQuest Associates, who provided information on the economic barriers to expanding broadband access, and
- Crystal IVEY, broadband director for the Tennessee Department of Economic and Community Development, who provided an update on the state's broadband accessibility grant program.

Mr. STEGEMAN said that it would cost around \$500 million—\$2,500 per location—to provide broadband to all the communities in Tennessee that are unserved, based on the cost of deploying a fiber-to-the-home network. In response to Senator Jon LUNDBERG's question about whether this is the cost of deploying fiber to every home in Tennessee that currently lacks a fiber connection, Mr. STEGEMAN clarified that it is the cost of providing fiber only to those homes and businesses in census blocks designated as unserved in the Federal Communications Commission's (FCC) coverage data. He acknowledged that this does not include every home or business that lacks access to broadband because the FCC designates an entire census block as served even if only one home or business in that block has service. He said this limitation is a source of constituent complaints and has been a key driver of recent FCC proceedings to collect more precise coverage data, though he said that improved federal data likely won't be available for another two years. Chairman Mike CARTER said that broadband access is the number one issue in his district and that the problem is greater and will cost more than the FCC data portray. Mr. STEGEMAN added that some states are undertaking their own mapping efforts in part to guide their efforts to fund broadband expansion. [Note: Ms. Ivey later clarified in her presentation that Tennessee is not among the states undertaking its own mapping effort.]

Mr. STEGEMAN said he uses 2% of a provider's per-location capital cost as a rule of thumb for determining the monthly revenue needed per subscriber to make a business case for serving a community, allowing a provider to make a return on its investment and cover operating costs. At a statewide average deployment cost of \$2,500 per unserved location for a fiber-to-the-home network, the required monthly revenue per subscriber needed to make a business case for Tennessee's unserved areas would be \$50. However, this assumes that 100% of potential subscribers in those areas actually subscribe to broadband service. Many providers only achieve subscription rates of 30% to 40%, and when these lower subscription rates are accounted for, the revenue needed per subscriber increases to more than \$100 per month, which Mr. STEGEMAN said would typically be unachievable and, therefore, make it unviable to serve those areas.

Mr. STEGEMAN said that especially in rural areas, the key barrier to making broadband economically viable is the number of potential subscribers per mile of road—which he referred to as linear density. Below 15 subscribers per road mile, it becomes challenging for providers to make a business case for deploying a broadband network. He said that most unserved areas of Tennessee are uneconomical to serve based on their linear densities—including some areas

where the revenue needed per subscriber per month to support a fiber-to-the-home network would be more than \$500.

Mr. STEGEMAN said that one way to overcome the cost barrier for providers in unserved areas is for governments to provide funding to subsidize the cost of providing service. He described funding received by providers in Tennessee through a variety of FCC programs—including the Connect America Fund, Phase II (CAF II); high-cost loop support; broadband loop support; and the alternative cost model. In response to Mayor Kevin BROOKS' question about whether the Electric Power Board of Chattanooga (EPB) receives any ongoing funding through these FCC programs, Mr. STEGEMAN said he would have to follow-up after the meeting. [Note: Eligibility for funding through the FCC programs described in Mr. Stegeman's presentation has been limited to legacy telephone companies. As a result, municipal electric utilities like EPB—as well as legacy cable companies—have not received any funding through them. EPB did receive a \$111 million grant from the US Department of Energy in 2010, which funded a portion of the construction of the network it uses to provide broadband in its service area.]

Mr. STEGEMAN said that the FCC is planning to award another round of funding for unserved areas through its new Remote Digital Opportunity Fund (RDOF) based on those areas that were eligible for CAF II. Although final eligibility and funding details have not been determined, the FCC plans to award RDOF funding by the end of 2020 through a reverse auction process. He said it is important for the state to be aware of the RDOF proceedings to ensure that it is treated fairly and maximize the amount of funding for unserved areas in Tennessee. He said that in terms of FCC funding received, Tennessee is middle of the pack compared to other states.

Mr. STEGEMAN described other barriers to expanding broadband coverage. Some of these barriers include the need to improve rates of broadband adoption among those with access to service—for example through digital literacy training—while others are related to regulatory processes. In particular, he said that charging for access to public rights-of-way can create hurdles for providers because it adds to the cost of construction. He also said that obtaining access to utility poles can be a barrier as the time it takes to determine which entities own which poles and then have the necessary work performed to ready those poles for new wireline attachments can account for 80% of the time and cost of the pole attachment process.

Mayor Tom BICKERS said one of the frustrations of local officials in Tennessee is that coverage gaps persist despite the grants that providers have received to expand coverage and the efforts of the state to reduce local regulation, for example by authorizing state-issued cable franchises. He acknowledged that regulations can add to the cost of broadband deployment, but he said that some regulations—such as those requiring providers to repave road cuts made when placing fiber underground—are necessary to repair and preserve infrastructure disturbed by the deployment process. He said it is important that any government incentives for providers be tied to coverage expansion.

Mr. STEGEMAN also described the limitations of some of the infrastructure used to provide service. He said that the copper telephone wires used to provide service by many telephone companies can provide speeds of 25 megabits per second or more but only over short distances. Fixed wireless and traditional satellite service also have speed constraints, and satellite can suffer from latency issues that create difficulties for voice communication and other real-time

applications. He said that the faster speeds provided by 5G mobile service will be primarily for urban and suburban areas only. In response to Mayor Keith MCDONALD's question about the infrastructure used by incumbent cable or telephone companies, Mr. STEGEMAN said that cable companies typically provide service over networks that include both fiber-optic and coaxial cable whereas telephone companies use either fiber networks or, particularly in rural areas, their existing copper telephone wires. He said that cable companies tend to provide service mostly in urban and suburban areas and that in rural areas telephone companies may be the only wireline option.

Ms. IVEY provided an overview of the state's grant program for expanding broadband access in unserved areas. Several members expressed concerns about whether the definitions of served and unserved used in the FCC coverage data could affect eligibility for grants through the state program. Chairman CARTER said that one issue affecting his district is the possibility that a census block may be ineligible for funding through the state grant program if even one home in the census block has access to service. He asked whether the state might use different eligibility standards that account for the percentage of homes in a census block that are served or unserved. Mayor MCDONALD said that the logic behind the FCC's one-home-served-all-homes-served definition doesn't make sense, and he asked whether the state was required to use the FCC's coverage data for its grant program. Ms. IVEY responded that some states are developing their own coverage maps, but Tennessee is not. Instead, she said that although the state's initial eligibility determination is based on the FCC's data, there is a challenge process that allows grant applicants to demonstrate that areas designated as served in the FCC data are in fact unserved and eligible for state funding, including the unserved portions of partially served census blocks. She said the state does not want to penalize areas where the FCC data overstate the extent of coverage.

Ms. IVEY said that through the first two rounds of grant applications, the state has funded approximately 20% of the projects applied for, awarding \$25 million total over those rounds compared with funding requests totaling \$135 million. Chairman CARTER said it would be helpful to know how much money has been awarded and where it is going; he asked for a list of communities where grants have been awarded and the number of previously unserved Tennesseans getting broadband as a result. Ms. IVEY said she would provide this information after the meeting. [Note: This information was distributed to members on December 20, 2019.] She said that for the third round, the state had received \$62 million in requests—including a 50% increase in projects located in distressed counties—for \$20 million in funding. She said awards are expected to be announced in March 2020. The Department of Economic and Community Development (ECD) has requested \$25 million for the program in its budget request for fiscal year 2020-21. Ms. IVEY said that ECD has also partnered with the Tennessee State Library and Archives to award a total of \$250,000 to libraries in 48 counties to help fund digital literacy training for residents.

Chairman CARTER said that the state continues to spend large sums of money on expanding coverage but that the results aren't always easy to see. Ms. IVEY said that the state's grant program includes a 50-50 funding match requirement for providers. She said that other sources of funding for broadband expansion in Tennessee include the Appalachian Regional

Commission, which has provided more broadband grants to Tennessee than any state except Kentucky, as well as grants and loans from the US Department of Agriculture.

Ms. IVEY said that the Tennessee Broadband Accessibility Act of 2017, which created the grant program, also authorized electric cooperatives to provide broadband and that 13 of the state's 23 electric co-ops have active broadband projects. Mayor Brent GREER said that one concern with electric utilities and cooperatives providing service in areas already served by existing providers is that it may inhibit the ability of those existing providers to expand coverage.

In response to Mayor WATERS' question about what the state is doing and what local governments can do to reach out to providers, Ms. IVEY said that the state continues to talk with providers. She said that local governments are encouraged to open communications with providers as well. Other things local governments can do include supporting digital literacy training opportunities and other measures to increase broadband adoption rates in their communities. She said that 54 communities have also applied to ECD to be designated as Broadband Ready Communities, meaning they have adopted a checklist of permitting and zoning procedures designed to signal providers that they have removed regulatory barriers to broadband investment. Senator LUNDBERG asked whether any of the elements necessary for the Broadband Ready Community designation address pole attachment concerns raised in Mr. Stegeman's presentation. Ms. IVEY responded that the designation requires local governments to establish a single point of contact for providers, which should help address this issue.

4. Senate Joint Resolution 593 (Multi-School Systems Counties)—Final Report for Approval
Presentation and action deferred until the Commission's January 2020 meeting.

**5. House Bill 971/Senate Bill 1075 (Local Revenue and Services)—Second Interim Report
Executive Summary for Discussion**

Senior Research Associate Michael MOUNT and Research Associate Emma JOHNSON presented the executive summary and supporting attachments for review and comment. The second interim report is being prepared in response to the Commission's local government members recommendation on January 31, 2019, that the Commission research public K-12 education services and funding in Tennessee to identify what services local governments provide, and how those services are funded. On February 1, 2019, the Commission approved an amended research plan to produce a second interim report focusing on K-12 education services and funding as part of the Commission's comprehensive study of the duties of cities and counties under state law and the funds the state provides to comply, which was requested by the House Finance, Ways and Means Committee during its discussion of House Bill 971 by Representative Sargent in the 110th General Assembly. The full report will be presented at the January Commission meeting.

Mr. MOUNT and Ms. JOHNSON summarized the report's findings and its recommendation, explaining that meeting local needs and the requirements imposed by the state and federal governments often requires more resources than the Basic Education Program (BEP) funding formula alone provides, and that the Basic Education Program Review Committee (BEPRC) was created in 1992 to make recommendations on needed revisions, additions, and deletions to the

BEP formula. The report includes a recommendation that a comprehensive review of the components be made by the BEPRC or other designated state and local officials and other stakeholders to ensure that the BEP funding formula supports a commonly accepted basic level of education. Mayor WATERS said he fully supports a comprehensive review of the BEP.

Mayor Keith MCDONALD said the BEP is fully funded but overall, public education is not, noting that the BEP only funds 81% of the teacher positions needed to meet class size requirements and just under 85% of the actual costs of employing teachers based on the average teacher salary. He said we should fund the required positions and the required salary levels. In response to Senator Jon LUNDBERG's question as to whether the number of positions for which the BEP generates funding is the baseline, Ms. JOHNSON said that is correct.

Regarding the survey TACIR staff conducted on out-of-district students, Mayor Tom BICKERS said there is a perception that out-of-district policies of some school systems is having an economic impact on county schools. He asked about BEP money being redirected for out-of-district students, and Executive Deputy Director Melissa BROWN said that students are counted where they go to school and BEP money follows students wherever they are served. Mayor BICKERS asked whether the survey responses captured most of the multi-system counties. Mr. MOUNT said that the survey did not identify respondents, but that information may be determined by identifying the systems with tuition revenue as indicated in the Department of Education's Annual Statistical Report.

In response to Mayor Rogers ANDERSON's question as to whether there is any research that shows the number of students with an individual education program (IEP) who have to go to another school system or state for services that the student's school system does not provide, Ms. JOHNSON said she was not aware of that research but staff would look into it. Mayor ANDERSON asked where the funding comes from for these students, and Deputy Director BROWN said in the past there was federal excess services money, but that we would follow up with the Department of Education.

6. Senate Joint Resolution 344 (Illegal Tire dumps)—Draft Report for Review and Comment

Senior Research Associate Bob MOREO presented the draft report for review and comment, and noted the report is in response to a request from Senators Dickerson and Southerland to study Senate Joint Resolution 344 regarding the effects of illegal waste tire dumps in Tennessee. After the General Assembly adjourned without voting on the resolution, Senator Dickerson, with support from Senate Energy, Agriculture, and Natural Resources Committee Chairman Southerland, sent a letter formally requesting that TACIR study the joint resolution, which the Commission voted to do at its May 2019 meeting.

Mr. MOREO said that illegally dumped tires are problematic because exposed tires provide an ideal breeding ground for insects that spread dangerous diseases, the tires present a significant fire hazard, and the tires are difficult and expensive to clean up. The draft report found that Tennessee's existing waste tire program has been successful at diverting tires from landfills and recycling them, and that many of the worst illegal tire piles have been cleaned up, but the existing waste tire program doesn't specifically address illegal dumping issues.

Mr. MOREO said that most other states require tire haulers to obtain permits and require tire businesses to use only permitted waste tire haulers. The draft report recommends that Tennessee should require waste tire haulers to obtain a permit and provide proof of financial assurance as a condition of permit approval. In response to a comment by Mayor Buddy BRADSHAW, Mr. MOREO clarified that permitting waste tire haulers would allow law enforcement officers to stop someone with a large number of tires to check their permit. Mr. MOREO said that, because county governments in Tennessee are each responsible for their waste tire management, the draft report recommends clarifying and possibly amending the law that currently governs how counties can use the money they get from tire disposal fees. He said this could help counties fund more efforts to target illegal dumping proactively.

Mayor Brent GREER asked whether the report recommends changing how the law defines beneficial end-use. Mr. MOREO said the draft does not; however, the current law does permit waste tires to be landfilled if the county documents that sending the tires for a beneficial end-use is cost-prohibitive. Mr. MOREO acknowledged that staff heard from several counties that they feel the current law is too restrictive. Therefore, the report recommends amending the law to give counties more flexibility with how they can spend tire-fee revenue. Mayor GREER said that his county couldn't use tire-fee revenue to dispose of tires from an illegal dumpsite in any way other than for beneficial end-use. He requested that Mr. MOREO include information from several solid waste directors about possible changes to the law in the final report.

Chairman CARTER adjourned the meeting at 3:13 p.m.



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**MINUTES OF THE
 TENNESSEE ADVISORY COMMISSION
 ON INTERGOVERNMENTAL RELATIONS**

December 12, 2019

Meeting Called to Order

The Tennessee Advisory Commission on Intergovernmental Relations met in House Hearing Room I of the Cordell Hull Building 8:30 a.m., Chairman Mike CARTER, presiding.

Present 17	Absent 8
Mayor Rogers Anderson	Mayor Jill Holland
Assistant Commissioner Sammie Arnold	County Executive Jeff Huffman
Mayor Tom Bickers	Senator Jon Lundberg
Mayor Buddy Bradshaw	Representative Susan Lynn
Mayor Kevin D. Brooks	Representative Harold Love, Jr.
Representative Mike Carter	Representative Antonio Parkinson
Mr. Calvin Clifton	Senator Katrina Robinson
Representative John Crawford	Senator Ken Yager
Deputy Commissioner Paula Davis	
County Clerk Mary Gaither	
Mayor Brent Greer	
Mayor A. Keith McDonald	
Mr. Jeff Peach	
Mayor Larry Waters	
Senator Bo Watson	
Comptroller Justin Wilson ¹	
Senator Jeff Yarbrow	

¹ Lauren Spires represented Justin Wilson.
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7. Public Chapter 827, Acts of 2018 Global Positioning System Monitoring) – Panel

Senior Research Associate Jennifer BARRIE said staff made several changes to the draft report, highlighted in the docket book, in response to questions and concerns expressed by Commission members at the last meeting, including providing updated information about the Memphis evaluation study, the electronic monitoring indigency fund, and available technology and cost. Ms. BARRIE introduced a panel of experts with knowledge of domestic violence and pretrial GPS monitoring, including:

- Deputy Chief Don CROWE with the Memphis Police Department, who spoke about the Memphis and Shelby County GPS monitoring pilot program, its implementation, results, and recommendations proposed by the program evaluation;
- Mr. Leo CARSON, vice president strategic sales with Sentinel Offender Services, who discussed types of current and future technology, its capabilities, and cost;
- Ms. Kathy WALSH, executive director of the Tennessee Coalition to End Domestic and Sexual Violence, who presented the victim's perspective and the importance of a victim advocate, coordinated community response, 24/7 monitoring, and lethality assessments; and
- Mr. Patrick FROGGE, executive director of the Tennessee District Public Defenders Conference, who spoke about the issue of indigency and his concerns about determining which defendants are assigned GPS devices.

Several Commission members had questions about costs and funding. In response to Representative John CRAWFORD's question about the cost of smartphone apps for victims, Mr. CARSON said the cost of victims' apps is integrated into the \$4-\$10 daily cost for monitoring. In response to Mayor Tom BICKERS question about state funding other than grant funding, Ms. BARRIE said that the electronic monitoring indigency fund can now be used to pay for GPS monitoring, and the state will match local governments' financial commitment for alcohol and GPS monitoring of indigents. However, ignition interlock devices are 100% state-funded, and only any excess funds from the ignition interlock account are used for other types of alcohol and GPS monitoring. In response to Senator YARBRO's question about indigency, Mr. FROGGE said that the court makes the indigency determination, and judges complete an affidavit of indigency. Mr. CARSON added that sometimes a sliding fee scale is used in defendant-pay programs. In response to Mr. Jeff PEACH's question about government versus contractor monitoring, Chief CROWE said that for their pilot program they chose the lowest cost option with Sentinel, but it has been very labor-intensive and stressful for the Memphis Police Department and Shelby County pretrial services staff.

Members asked a few questions about buffer and exclusion zones. In response to Representative CRAWFORD's question about dead spots and gaps in coverage, Mr. CARSON said that current technology uses GPS satellite, cellular, or wi-fi signals to track and report location information, and new advanced technology will be released next year that will have the ability in the absence of those signals to use the zones stored in the device to calculate locations. He said monitoring is 24/7, and when the buffer zone is breached the person monitoring gets an alert and starts communicating with both the victim and defendant and monitoring the

defendant's movement. In response to Mayor BICKERS' question about protecting victims and information about their location when setting exclusion zones, Chief CROWE explained the process the Memphis and Shelby County program uses to communicate with victims to create the zones and said that even without the victim's address, it is still useful to monitor a defendant. Senator Jeff YARBRO asked how they handled complications with the buffer and exclusion zones, such as when a defendant lives in the same neighborhood as the victim or is passing through on the interstate. Chief CROWE explained the process developed over time their investigators use when monitoring to determine whether the defendant is intentionally going near the victim and whether to trigger an investigation.

Mayor BICKERS said he is concerned about releasing domestic violence defendants, as opposed to other types of defendants, to alleviate jail conditions and other problems. He said how we identify who participates in a GPS program is important and had several questions about the Memphis and Shelby County program. He asked Chief CROWE how the program decides which defendants are appropriate to monitor. Chief CROWE said they developed an assessment and scoring sheet, and the program evaluation recommended the use of an assessment going forward. He said law enforcement officers conduct and score the Maryland lethality assessment (LAP) in the field. [Clarification: The program developed a three-part scoring tool that incorporated the Maryland LAP, a victim statement, and a pretrial assessment tool, and pretrial services staff made the recommendation for GPS based on the resulting weighted score.] In response to Mayor BICKERS' question about the number of times victims were re-assaulted by defendants released with GPS, Chief CROWE said the number was relatively low. In response to a question about when victim advocates are involved, Chief CROWE said an advocate is engaged the next day, or if the LAP score is high, the law enforcement officer immediately calls an advocate from the field to talk with high-risk victims and arrange transportation, shelter, and other services. Shelby County has victim advocates available to be engaged early in the process, and Chief CROWE agrees that advocate involvement would be an important part of any program the state adopts. Mayor BICKERS also asked whether Memphis and Shelby County use GPS when orders of protection are entered in the court in either civil or criminal cases. Chief CROWE responded that during the pilot program they assigned GPS to people who were criminally charged, and it did not correspond with orders of protection. However, the program evaluation does recommend including orders of protection.

Some members expressed concerns about how GPS data is managed. Senator YARBRO asked who owns the data, how it is stored and used, and how long it is stored and used. Chief CROWE explained that Sentinel stores the data, and the Memphis Police Department has used the data to solve other crimes, such as robberies. Mr. CARSON added that Sentinel archives the data indefinitely and considers it to belong to the end-user customer, in this case the Memphis Police Department, who can access it online or receive a data file. The company notifies the government entity if it receives a subpoena for the data, although this rarely happens. Defendants wearing devices do not have access to the data, and victims who use smart phone apps only see the defendant's location when the buffer zone has been breached. Mr. PEACH mentioned that the data could be subject to open records, and the State of Tennessee might want to consider making it confidential.

Chairman Mike CARTER said that he and Representative G.A. Hardaway are working on legislation.

8. House Bill 635/Senate Bill 600 (Local Government Procurement and the Acceptance of Online Bids and Offers)—Draft Report for Review and Comment

Senior Research Associate Nathan SHAVER presented the draft report for review and comment, and noted that the report was prepared in response to a March 2019 motion passed by the House Local Government Committee requesting a study of House Bill 635 by Representative Travis, which would have amended a state law addressing the local government procurement process. Mr. SHAVER said that current state law provides that Tennessee's local governments may receive bids and other offers electronically. House Bill 635 would have amended the current law to make it mandatory for local governments to accept electronic bids and other offers and required that local governments provide a "secure electronic interactive system" to accept those electronic bids and offers.

Mr. SHAVER said that while many of Tennessee's local governments use an online service to notify vendors of their purchasing opportunities to bid on, only a handful of Tennessee's larger local governments currently accept online bids through a secure online system, as the bill would have required. The draft report explains that all Tennessee procurement stakeholders interviewed for the study were opposed to making it mandatory, instead of optional, for local governments to receive online bids and other offers and to provide a "secure electronic interactive system." He said the Tennessee Association of Public Purchasing (TAPP) provided a letter, shown in appendix B, which lists several reasons for opposing the bill, such as the potential cost to either the local governments or the vendors doing business with the local governments, and that they see the bill is an "unfunded mandate."

Mr. SHAVER explained that the draft report included two recommendations. He said that the first recommendation is that while recognizing the potential benefits of receiving online bids and other offers, the Commission does not recommend making electronic procurement mandatory for Tennessee's local governments. He said the draft report explains that some states, such as Maryland and Virginia, have state-level e-procurement systems that they allow their local governments the option to use to receive online bids and other offers. Mr. SHAVER explained that Tennessee's state-level e-procurement software system is operated through the state's Edison system, which would need to be upgraded to provide local governments the ability to use it to receive electronic bids. The state officials responsible for Edison estimate that it would cost approximately \$100,000 to update the Edison system so that local governments could have the option to use it to receive online bids. He said that the second recommendation is that if lawmakers want the state to have an e-procurement system that local governments could have the option to use to receive online bids and other offers, like Maryland and Virginia, they should consider upgrading the state's current Edison system. He noted that TAPP's president supports the recommendations.

Mayor Keith MCDONALD commended the staff on the draft report and noted that while House Bill 635 exempted some smaller local governments from the requirements of the bill, he cautioned that the law could later be amended to apply to all local governments. He also cautioned that while some companies offering online bidding services to local governments

currently do not charge fees to local governments, those companies may later change their fee structure. He noted that he likes the permissive language, as current law provides, and is against mandating online bidding.

Senator Jeff YARBRO said he thinks the report was well done and asked whether there was any discussion about data security with the bill. Mr. SHAVER responded that although the bill would have required local governments to provide a “secure electronic interactive system” it did not define what it means to be secure, and that it was an issue worthy of consideration.

Chairman Mike CARTER said he appreciates the draft report and that he does not think the state should tell local governments how to do business. He noted that final report will be presented at the next Commission meeting in January 2020.

9. Senate Bill 1114/House Bill 1120 (Community Resilience to Natural Catastrophes and Extreme Weather)—Update

Senior Research Associate Tyler CARPENTER explained that as amended, House Bill 1120 by Representative Freeman and Senate Bill 1114 by Senator Yarbrow would have created a state government task force on community resilience—the ability to prepare and plan for, absorb, recover from, and more successfully adapt to disasters, chronic stresses, and acute shocks, including any hurricane, tornado, storm, high water, recurrent flooding, wind-driven water, earthquake, fire, landslide, mudslide, snowstorm, or drought. However, the legislation was not passed, and the issue of community resilience was referred to TACIR for study. The sponsors request that staff a) identify different natural catastrophes and extreme weather risks across the state, b) document the current status of community resilience planning in Tennessee at the state and local level, c) identify best practices for community resiliency planning, and d) determine the cost of action and inaction related to community resiliency.

Mr. CARPENTER explained that TACIR contracted with 3 Sigma Consultants, LLC to identify natural catastrophe and extreme weather risks, as well as the cost of action and inaction related to community resilience. The Commission then heard from a representative of 3 Sigma, Janey CAMP, PhD, who provided an update to the Commission regarding risks and costs related to natural catastrophes and extreme weather events in Tennessee. Dr. CAMP explained that 3 Sigma staff analyzed extreme weather and earthquake risks across Tennessee and used natural hazards, historical events, future event scenarios, and data on critical infrastructure assets to develop an impact assessment with the cost of action to promote community resilience versus the cost of inaction.

Dr. CAMP explained that resilience is about how a community responds to, recovers and bounces back from a disruptive event like extreme weather and earthquakes, which is the focus of the 3 Sigma work. Dr. CAMP acknowledged that most Tennesseans are likely aware of the seismic zone along the New Madrid fault in West Tennessee; however, she pointed out that there is also a significant seismic zone in East Tennessee. She explained that although the seismic zone in West Tennessee has the potential to generate more peak ground acceleration (i.e., release more energy), the seismic zone in East Tennessee has more frequent, small earthquakes. Senator Jeff YARBRO asked, for clarification on the map titled, *Projected Seismic Hazard Map for Tennessee Based on Estimated Peak Ground Acceleration* and the meaning of the

various colored zones—whether red indicated a higher probability of an earthquake or a higher amount of potential damage. Dr. CAMP clarified that the colors on the map indicated potential energy with brown and red zones in West Tennessee showing the zones where peak ground acceleration would be highest. Mayor Keith MCDONALD stated that predicting earthquakes based on probability estimations is uncertain at best. Mayor MCDONALD suggested that Dr. Camp use the resources of the Center for Earthquake Research and Information (CERI) at the University of Memphis. Dr. Camp said her team is using data from the US Geological Survey, but is working with CERI on another project and has worked with them in the past.

Dr. CAMP discussed that to move from projecting natural catastrophes and extreme weather risks to estimating the cost of not implementing resilience strategies, requires an inventory of critical infrastructure that may be exposed to these events. She said as the population grows there will be additional exposure, which was considered when projecting future costs of inaction. Dr. CAMP then referred to a study by the National Institute of Building Sciences (NIBS) that demonstrated the cost savings related to implementing hazard mitigation strategies. This study revealed that implementing hazard mitigation strategies has the potential to provide a return on investment as high as \$12 for each dollar invested.

Dr. CAMP concluded with a summary of the key points derived from the work to date on natural catastrophe and extreme weather risks, as well as the cost of action versus inaction. She stated that Tennessee is exposed to a variety of natural hazard events on an annual basis. All locations in the state are exposed to multiple natural hazards. The frequency and severity of these events are expected to increase in the future. The cost of inaction is at least several hundred million dollars a year, an amount that is could nearly double by mid-century. Available risk mitigation actions that the state could undertake show a return-on-investment of anywhere from 3:1 to 12:1. And that prudent investment of risk mitigation resources could save hundreds of millions of dollars a year in expected disaster costs.

Mayor MCDONALD said that mitigation, particularly for earthquakes, deals primarily with building codes and that many builders feel their responsibility is to build to a standard that protects from loss of life, but not loss of property. Dr. CAMP replied that protecting human health and safety is the top priority; however, that there is no guarantee that a minimum standard would be protective for children, the elderly, or the disabled. Additionally, she said that making a small investment when structures are built saves in damage and disruption if an event occurs, as well as costs of inspection, debris removal, landfill costs, and other incidentals that are often incurred by local governments. Mr. Calvin CLIFTON asked whether water distribution systems or wastewater collection systems are included in critical infrastructure. Dr. CAMP said many utilities do not have complete maps of their distribution and collection systems; therefore this type of infrastructure was not included because the information is not available. Mayor Tom BICKERS asked whether communication and technology strategies should be considered so that citizens have the information they need to enhance their safety. Dr. CAMP agreed that the communication network is critical infrastructure. She elaborated that education is an important component of mitigation and that educating the public is low-hanging fruit that would be less expensive than retrofitting infrastructure and would provide a good return on investment.

Senator YARBRO asked how we can prioritize investment so that we get the best results depending on the risks that an area faces? Dr. CAMP acknowledged that it is not possible to build our way out of risk exposure and infrastructure is not always the answer. For example, building houses in a bend of a river is not appropriate no matter what level of engineering is applied. She said that the research provides insights into the risks that each county is facing and that communities can use this information to make decisions on where to invest based on their priorities.

Mayor Rogers ANDERSON asked how people should prepare for water and food distribution. Dr. CAMP said that she agreed that water is critical and that planning for water and food should be part of the local hazard mitigation and resilience planning process, but identifying backup water and food options was beyond the scope of this project. She said most water supply facilities do keep a surplus of potable water in tanks, so water supply plants are one way to identify the water resources that are available. Mayor ANDERSON said many citizens are on well water and may not have a backup system. Dr. CAMP agreed that this is a vulnerability that the government and citizens should consider. Chairman Mike CARTER said he wants the report include recommendations on how we help citizens prepare for an interruption of water and food supplies because of a disaster. Executive Director Cliff LIPPARD said that TACIR staff will use the natural catastrophes and extreme weather risk data and information on costs that were prepared by 3 Sigma, but that the study will go beyond this and provide best practices and strategies that local governments and citizens can use to promote resilience.

Other Business

The next meeting is scheduled for January 16-17, 2020. Chairman CARTER adjourned the meeting at 10:31 a.m.