

Responses to Sunset Public Hearing Questions for the
Tennessee Emergency Communications Board
Created by Section 7-86-302, *Tennessee Code Annotated*
(Sunset termination June 2014)

1. **Provide a brief introduction to the Emergency Communications Board, including information about its purpose, statutory duties, and staff.**

- The Tennessee Emergency Communications Board (Board or TECB), which administers the State’s 911 system, is a self-funded agency that is administratively attached to the Department of Commerce and Insurance.¹ The TECB is funded by an emergency telephone service charge on users and subscribers of non-wireline phone service.
- The TECB was created “for the purpose of assisting emergency communications district boards of directors in the area of management, operations, and accountability, and establishing emergency communications for all citizens of the state.”²
- By law, the TECB is authorized to “administer the deployment of 911 service for emerging communications technologies, including but not limited to IP-enabled service, that are capable of connecting users dialing or entering the digits 911 to public safety answering points.”³
- In 2006, the national 911 professional organization, the National Emergency Number Association (NENA), issued an “urgent” call to upgrade the country’s 911 infrastructure. NENA explained that the traditional analog network was rapidly becoming antiquated with developments in technology and was being tasked with performing functions it was not designed or intended to do.
- Recognizing the seriousness of the NENA report, the TECB has been accumulating reserves for the purpose of modernizing Tennessee’s aging 911 infrastructure since 2006. The modernization project, referred to as Next Generation 911 (“NG911”), is converting Tennessee’s 911 system from analog to digital. The State’s traditional 911 infrastructure is being replaced with an internet protocol (“IP”) platform that will improve 911 call delivery, enhance interoperability and increase the ease of communication between ECDs. Tennessee is at the forefront of NG911 development and is leading the nation in deploying a fully integrated statewide NG911 network. As digital technology expands all states will eventually need to upgrade their infrastructures to fully provide 911 connectivity to their citizens.
- The TECB is also tasked with “implementing statewide wireless enhanced 911 service”⁴ and has provided standards and funding to assure that all 911 centers affiliated with Tennessee’s 100 emergency communications districts (ECDs) are Phase II ready, meaning that each possesses the equipment and technology to automatically plot the location of 911 calls from properly equipped

¹ Tenn. Code Ann. § 7-86-302(a).

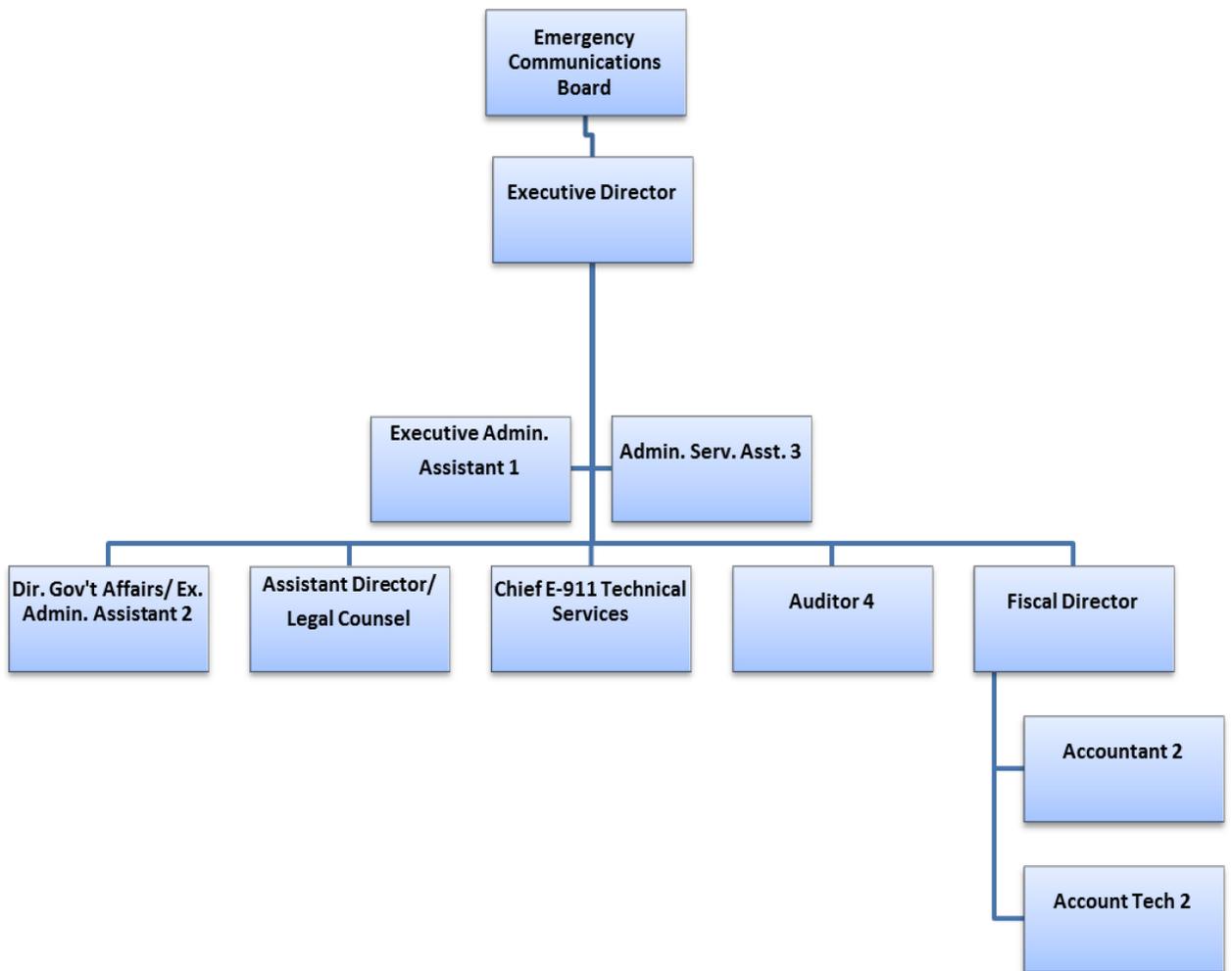
² Tenn. Code Ann. §§ 7-86-302(a).

³ Tenn. Code Ann. § 7-86-306(a)(8).

⁴ Tenn. Code Ann. § 7-86-303(d)(3)(A).

non-wireline devices such as cell phones. Tennessee was the third state in the nation to reach this milestone in April 2005. Tennessee’s ECDs, which provide or facilitate 911 service to the public, are in compliance with all applicable E-911 directives issued by the Federal Communications Commission.

- The TECB establishes technical, operational, financial and dispatcher training standards for the ECDs and provides them with funding, technical service and oversight.⁵
- The TECB received an award in 2005 as the “best state or regional program in the nation” from the E-911 Institute, which serves the E911 Caucus in Congress.
- The TECB is served by a ten member staff:



⁵ See Tenn. Code Ann. § 7-86-306(a).

2. **Provide a list of current members of the board. For each member please indicate who appointed the member, how the member’s presence on the board complies with Section 20-9-604, *Tennessee Code Annotated*,⁶ and/or the membership requirements of Public Chapter 438, Acts of 2013, and the member’s county of principal residence. Please indicate each member’s race and gender and which members, if any, are 60 years of age or older.**

Tenn. Code Ann. § 7-86-302 governs the membership of the TECB. It requires that the Board be composed of nine members, meeting the following criteria: one member of the general public, one member designated by the Comptroller of the Treasury, one member representing county government,⁷ one member representing city government and five members who are current directors of emergency communications districts or serving members of emergency communications district boards of directors. All members except the Comptroller’s designee are appointed by the Governor.

Mark Archer	Gov. Bredesen	Henry County	Caucasian	Male
Barbara Blanton*	Gov. Haslam	Bedford County	Caucasian	Female
The Hon. Hal Buttram*	Gov. Bredesen	McMinn County	Caucasian	Male
Ike Lowry*	Gov. Bredesen	Sullivan County	Caucasian	Male
Rachel Newton	Comptroller	Davidson County	Caucasian	Female
Randy Porter	Gov. Haslam	Putnam County	Caucasian	Male
Freddie Rich*	Gov. Bredesen	Maury County	Caucasian	Male
Steve Smith	Gov. Bredesen	Rutherford County	Caucasian	Male
James L. Sneed	Gov. Bredesen	Tipton County	African-American	Male

*Signifies age 60 or over, upon information and belief.

3. **What were the board’s revenues (by source) and expenditures (by object) for fiscal year 2012 and to date for 2013? Does the board carry a fund balance and, if so, what is the total of that fund balance? If expenditures exceeded revenues, and the board does not carry a fund balance, what was the source of the revenue for the excess expenditures?**

Attached is a copy of an accounting report showing a breakdown of the TECB’s revenues (by source) and expenditures (by object) for fiscal year 2012 and to date through May 31, 2013. Also included is a projection of revenues and expenditures for the full 2013 fiscal year and a 7-year budget projection for the Next Generation 911 (NG911) project.

As authorized by Tenn. Code Ann. § 7-86-303(d), the TECB carries a fund balance. The TECB has been accumulating a fund balance to cover projected expenditures associated with the NG911 project since 2006. The Board has determined that sufficient reserves have been accumulated for the project and deployment has progressed to the point that the fund balance is being utilized; it will be reduced by

⁶ Tenn. Code Ann. § 20-9-604 applies to the creation of the Tennessee Board of Court Reporting. The membership and terms of the TECB are governed by Tenn. Code Ann. § 7-86-302, which will be utilized in responding to this question.

⁷ The Governor appoints the representative of county government from a list of three nominees submitted by the County Services Association, the representative of city government from a list of three nominee submitted by the Tennessee Municipal League and the representatives of emergency communications districts from a list of three nominees per position submitted by the Tennessee Emergency Number Association or from a nominating resolution adopted by an ECD.

an anticipated and planned over-expenditure of about \$15 million in fiscal year 2012-2013 to cover NG911 non-recurring costs.

As of June 30, 2012 the fund balance was \$90,670,993. A significant portion of the fund balance (about \$55 million) is obligated to local emergency communications districts for equipment upgrades associated with the NG911 project. In fiscal year 2013, expenditures of almost \$77 million will exceed revenues of almost \$62 million. The fund balance is projected to decrease to about \$75 million at the close of fiscal year 2012-2013.

4. **How many times did the board meet during fiscal year 2012 and to date for 2013, and how many members were present at each meeting? How and when were members notified of meetings? Does the board have a formal member attendance policy? If so, please attach a copy of the policy.**

Tenn. Code Ann. § 7-86-302(e) requires the Board to meet at least quarterly. The Board held four meetings in fiscal year 2012 and four meetings in fiscal year 2013.

The dates of each meeting are announced at the close of the prior meeting, 30 days prior to each meeting notices are posted on the TECB website and are distributed to an extensive email list which includes the members. An agenda, with the time and date of the meeting, is similarly posted and distributed by email ten days before each meeting. The members are sent a meeting packet with information about the agenda items eight days prior to each meeting. The TECB does not have a formal member attendance policy.

Meetings:

August 25, 2011	8 members present
October 27, 2011	5 members present
February 2, 2012	7 members present
May 17, 2012	6 members present
August 30, 2012	8 members present
October 25, 2012	6 members present
February 7, 2013	6 members present
May 16, 2013	6 members present

5. **At the time of the last sunset hearing of the board in October 2012, the board was instructed to report the results of a survey that was underway at the time of the hearing. Was the survey conducted? Was it completed? If completed, please attach the results of the survey. If it has not been conducted or completed, please explain why it has not been.**

The survey was completed but the responses to it were not sufficiently complete to provide a reliable basis for analyzing the actual costs of 911. Moreover, many of the costs reported in the survey were inconsistent with those shown in the annual audit reports of the districts. Staff attempted to clarify the responses by calling each district; however, many districts were unable to provide adequate or

satisfactory data. Some districts could not calculate the costs of donated facilities and services from local governments. The results of the survey are attached.

6. What type of performance measures does the board use to measure the success of its activities and how well has the board performed when measured against those standards?

The Board identified the following Performance Standards for inclusion in the fiscal year 2013-2014 budget:

1. Provide sufficient oversight to assist emergency communications districts (ECDs) in emerging from financial distress as defined by Tenn. Code Ann. § 7-86-304(d).
2. Ensure that every ECD is an integral component of the statewide Next Generation 911 Internet Protocol (IP) platform.

The following Performance Measures were used to gauge the TECB's success in meeting the above mentioned Standards:

1. The number of ECDs deemed financially distressed pursuant to Tenn. Code Ann. § 7-86-304(d) for over 24 months.

Two ECDs are currently financially distressed: Sequatchie and Hawkins County ECDs. Sequatchie County ECD was deemed financially distressed in August 2011 and Hawkins County ECD was deemed distressed in May 2012. Bradley County ECD had three consecutive years of negative changes in net assets, but after a financial evaluation, the Board deemed it "at risk" pursuant to TECB Policy No. 16 in January 2013.⁸

Tenn. Code Ann. § 6-76-304(d) deems ECDs with three consecutive years of negative changes in net asset as shown by their annual audits to be financially distressed and subject to the supervision and evaluation of the TECB. Distressed districts must achieve two consecutive years of positive changes in net assets to emerge from distress; at risk districts emerge after one year of positive changes in net assets. Pursuant to TECB Policy No. 16, districts with one year of negative changes in net assets receive a letter explaining financial distress from the TECB, districts with two years of negative changes are required to meet with TECB staff and discuss options for avoiding distress and districts with three years negative changes must appear before the Board during an open meeting. TECB staff attends every ECD board meeting held by distressed ECDs, which must obtain TECB permission to spend over \$5,000. No ECD has been deemed distressed since Hawkins County ECD, during the May 17, 2012 meeting. Both Sequatchie County ECD and Hawkins County ECD had positive

⁸ Policy No. 16's criteria for distinguishing between distressed and at risk districts include the following:

1. The ECD's fund balance in relation to its most recent operating budget.
2. Amount of the negative changes in net assets for the three years which determined the ECD as financially distressed in relation to revenue received by the ECD for those years.
3. Increase or decrease in the cash flow.
4. Source of cash resources which paid for excessive expenditures.
5. Recurring or non-recurring nature of expenditures which caused negative change.
6. Effect of recording depreciation expense on change in net assets.

changes in net assets in fiscal year 2011-2012 and are projecting positive changes in net assets for fiscal year 2012-2013. Assuming their projections are correct, both ECDs will emerge from financial distress status.

2. Tennessee's 141 public safety answering points (PSAPs) will be connected to the Next Generation 911 IP infrastructure.

As of June 21, 2013:

- 130 PSAPs were connected to the NG911 over NetTN network. Each PSAP has a NetTN circuit, router, switch & firewall installed;
- 96 PSAPs are receiving Stage 1 wireless calls at the NG911 over NetTN ingress which are then delivered via CAMA (analog) trunks to the PSAP controller;
- 25 PSAPs are operating at Stage 2, receiving wireless calls via NG911 over NetTN into i3 capable controllers at the PSAP.

The estimated goal for fiscal year 2012-2013 reported in the budget document was 100 PSAPs connected to the NG911 over NetTN network.

Another measure of deployment is the volume of 911 calls being routed on NG911 over NetTN at Stage 1 & Stage 2. In May 2013, that number was 165,611.

7. **What were the major accomplishments of the board during fiscal year 2012 and to date for 2013? Specifically, what has the board accomplished to carry out each of the duties enumerated in Section 7-86-306, Tennessee Code Annotated?**

Major Accomplishments: During fiscal year 2012, the Board made significant progress in its project to modernize the State's aging 911 infrastructure. The project, known as Next Generation 911 ("NG911") or "911 over NetTN", is converting Tennessee's 911 system from analog to digital. The State's traditional 911 infrastructure is being replaced with an internet protocol ("IP") platform that will improve 911 call delivery, enhance interoperability and increase the ease of communication between ECDs. The new infrastructure is being deployed to fully comply with the i3 standards and recommendations issued by the National Emergency Number Association.

During fiscal year 2012, the core infrastructure was completed. It is fully redundant with routing centers located in Nashville and Knoxville. There are four aggregation points for carriers to connect to the network located in Nashville, Knoxville, Chattanooga and Memphis. Carriers are required to connect to at least two aggregation points to assure redundancy. Wireless carriers and PSAPs are currently being connected to the network. All wireless carriers operating in Tennessee have been contacted and are at some stage of deployment; five have completed their connectivity to the network. 130 of the State's 141 PSAPs have been connected to the network. Once the wireless deployment is completed, deployment of VoIP and then landline service will occur. The legacy network is being left in place during deployment for an added layer of redundancy.

As part of this project a uniform statewide GIS mapping system is also being deployed. Technicians have been stationed in each of the three Grand Divisions to assist local 911 employees with GIS mapping. During the 2012 fiscal year, gaps and overlaps in ESN boundaries (the boundaries responders use) have been eliminated. A website to assure that changes in ESN boundaries do not create gaps or overlaps was created and deployed. Gaps in ESN boundaries mean no responder is assigned to cover the area; overlaps mean that unnecessary responder resources could be dispatched to an emergency, with the risk of waste or insufficient resources for another emergency in a different location.

The GIS data developed for NG911 is carefully collected, monitored and tested on a very regular basis, and could be extremely useful to other governmental agencies that require accurate and up-to-date GIS data. Therefore, the TECB is making this data available at no cost to State and federal agencies through OIR/GIS Services. Sharing the GIS data with these agencies will make government more efficient and effective for our citizens.

The NG911 project has been under-budget every year since deployment commenced. At the end of fiscal year 2011- 2012, the project was \$30 million under budget. Accordingly, during its August 2012 meeting, the Board voted to provide that amount to the State's 100 emergency communications districts to assist with the cost of upgrading equipment for the NG911 project; \$300,000 was made available to each district.

In fiscal year 2012-2013, the project was \$5 million under budget and at its May 2013 meeting, the Board voted to distribute that amount to the districts to cover operational costs related to NG911. Each district received \$20,000 plus a population-based amount in the distribution.

Accomplishment of Duties Enumerated in Tenn. Code Ann. § 7-86-306(a):

- Pursuant to Tenn. Code Ann. § 7-86-306(a)(5), the Board adopted a budget during its August 2012 meeting.
- In May 2011, the TECB increased funding to the ECDs to create an incentive to upgrade and standardize their local GIS mapping systems in preparation for the NG911 deployment pursuant to Tenn. Code Ann. § 7-86-306(a)(8).
- During fiscal year 2012-2013, the TECB filled its Chief of 911 Technical Service position, which had been open since the retirement of the prior incumbent. During the interim, the TECB relied on technical consultants from L.R. Kimball & Associates to provide advisory technical assistance to the ECDs upon request pursuant to Tenn. Code Ann. § 7-86-306(a)(7).
- Acting pursuant to Tenn. Code Ann. § 7-86-306(a)(8), which authorizes the Board to deploy 911 for emerging technologies, as stated above, the TECB made considerable progress in deploying the Next Generation 911 project.
- During fiscal year 2012-2013, the TECB amended the dispatcher training standards to add 5 additional hours of initial training related to handling 911 calls reporting missing children and

added 2 hours of continuing education for such calls every 2 years pursuant to Tenn. Code Ann. § 7-86-205.

- Pursuant to Tenn. Code Ann. § 7-86-306(a)(9), during the 2011-2013 fiscal years, the Board adopted technical and operating standards requiring ECDs to:
 - Obtain insurance on equipment reimbursed by the TECB, though it does exclude ECDs without comprehensive insurance coverage from eligibility for assistance;
 - Assure sufficient trunking capacity is retained to take advantage of the added redundancy of NG911;
 - Provide written notice to any other ECD included in the alternate routing back up plans they are developing for NG911 (Policy No. 36);
 - Provide written notice that they are moving PSAP locations no later than 60 days prior to the move (so the NG911 connectivity can be timely moved).

- Pursuant to Tenn. Code Ann. §§ 7-86-306(a)(11) and 7-86-303(d)(2), the Board provides cost recovery at 5% of agreed costs to implement, operate, maintain and advance 911 service to three wireless telecommunications carriers, C-Spire, Cricket, and Sprint.

- During fiscal years 2011-2013, pursuant to Tenn. Code Ann. § 7-86-306(a)(12), at the request of Blount, Green, Hawkins, Hickman, Loudon and Obion County ECDs, the TECB raised the local monthly 911 service charges on landlines to the statutory maximum of \$1.50 per residential line and \$3.00 per business line. At the request of Hardin County ECD, the local rates were increased to \$1.00 for residential lines and \$2.50 for business lines.

12. Describe any items related to the board that require legislative attention and your proposed legislative changes.

A significant financial challenge that requires legislative attention arose in April 2013: Charter Fiberlink (Charter) stopped remitting 911 fees to the local ECDs as a landline provider and began to remit 911 fees to the TECB as a non-wireline VoIP service provider. No prior notification of this change was communicated to either the TECB or the ECDs. Charter's after-the-fact explanation was that it has ceased providing competitive voice telephone services and has affiliated with an entity to provide interconnected voice over internet protocol (VoIP) services.

This change in remittance procedure is significant because 911 fees on landlines (competitive voice telephone service) are remitted locally to the State's 100 emergency communications districts. Landline fees range from \$.45 to \$1.50 per line for residences and from \$1.64 to \$3.00 per line on businesses (up to a maximum of 100 lines per location). 911 fees on VoIP service (like all non-wireline 911 fees except prepaid) are remitted to the TECB at \$1.00 per user and subscriber per month, the same rate first set by the Board and ratified by the General Assembly in 1998. The ECDs received approximately 79% of 911 fees remitted to the TECB in fiscal year 2011-2012.

The Board is very concerned about this development. While landline remittances had already undergone a gradual decline as customers migrated to VoIP service, the Charter change in remittances alters the entire 911 funding landscape. As of May 2013, ECDs with Charter subscribers have received significantly less revenue. Some ECDs estimate they will receive \$200,000 less per year. A number of ECDs may have negative changes in net assets due to Charter's change in remitting 911 fees. This could negatively impact the quality and level of 911 service a district is able to provide.

Further, we have been told that other carriers are sure to follow Charter's lead. We have also been told that carriers will stop provisioning landline service and convert to VoIP. Thus, Charter may be the first of many carriers to alter their remittance procedures to the detriment of the ECDs. If this is the case, the current 911 funding model appears to be broken. It has been suggested that a way to address the immediate problem, at least temporarily, would be to require that VoIP be remitted locally at the current landline rates. This would have no impact on TECB operations, because all VoIP funds (less the 25 percent statutory distribution) are already distributed to the ECDs in GIS incentive funding. VoIP is replacing landlines; thus, the landline 911 fees were what users and subscribers had been paying. The change back to the landline rates could be viewed as revenue neutral.

The Board proposes to present this issue to its Policy Advisory Committee during its July 16 meeting and ask it to make recommendations to the TECB. As recommended by the Tennessee Advisory Commission on Intergovernmental Relations (TACIR), the Board formed this Committee to provide it with advice on policy issues. The Committee members represent a balance of interests, locations and demographics. It includes representatives of ECDs of various sizes and locations, county and municipal governments as well as representatives of associations of Police Chiefs, Fire Chiefs, Sheriffs and Rescue Squads and EMA.

The National 911 Program in the National Highway Traffic Safety Administration in the Department of Transportation is conducting a "blue ribbon" study of 911 funding led by a group of economists. This report purportedly will be completed during the third quarter of 2013 and may be helpful in addressing this problem.

13. Should the board be continued? To what extent and in what ways would the absence of the board endanger the public health, safety or welfare?

Tennessee is a national leader in 911 due to the statutory authority and leadership of the General Assembly in creating the Board and designating its powers and duties.⁹ The Board administers much of the State's 911 system, providing funding, technical, management and operational assistance, revenue and technical standards and the technology necessary to connect 911 callers to the "first first responders" -- the call takers and dispatchers who send help during emergencies. The Board should be continued so it can assure the level of uniform, statewide 911 service that Tennesseans have come to expect.

Since the Board was created in 1998, it has taken steps to assure that all 100 emergency communications districts in Tennessee, from the most populous to the most rural, can provide uniform statewide 911

⁹ Tenn. Code Ann. § 7-86-306(a).

service to our citizens. As the General Assembly has wisely recognized, uniform, statewide 911 service is a necessity¹⁰, especially in a mobile society.

Over the years, the Board has assiduously taken steps to assure that every district has sufficient funding to meet the standards set by the TECB. In setting standards, the Board is committed to avoiding unfunded mandates and has made available \$450,000 to each district for essential and necessary equipment.

Recognizing that there are certain expenses necessary to provide 911 service that exist no matter what size population is served, the Board also initiated a recurring operational funding program for the ECDs. This funding was meant to offset the gradual decrease in local landline revenue that has occurred as consumers replace landline service with wireless and VoIP and balance the disproportionality of the statutory distribution of 911 funding required by Tenn. Code Ann. § 7-86-303(d)(1). That law requires the TECB to distribute 25% of all revenue it receives from the emergency telephone service charge on users and subscribers of non-wireline telephone service¹¹ to the ECDs by the percentage of the ECD's population to that of the State.¹² This resulted in the more populous districts receiving a significantly greater share of the TECB funding. In fiscal year 2011-2012, the four ECDs with the largest populations received over 37% of the statutory funding, leaving the other 96 ECDs to share the remainder.

The recurring operational program was established in, 2006 and utilizes a two-tiered model, providing a uniform base amount to each ECD plus a population based component. The original amount of \$14 million and base amount of \$40,000 was increased to \$21.6 million with a total base amount of \$80,000 in September 2009. The increase in the ROF program funding was derived from a 95% reduction of the carrier cost recovery program which had been established pursuant to Tenn. Code Ann. § 7-86-306(a)(11)). The Board also provides funding to the ECDs for dispatcher training and GIS mapping maintenance. In the 2011-2012 fiscal year, 86% of the Board's total expenditures (or 79% of its revenues) were paid directly to ECDs in support of equipment purchases and operations. Revenues not paid to ECDs were either spent on administration or reserved for NG911 implementation.

The Board has also made it a priority to assure that the districts remain financially stable. TECB Policy No. 16 requires TECB staff to provide information and financial counseling to districts with negative changes in net assets. Districts with three consecutive years of negative changes in net assets as shown by their annual audits are deemed financially distressed pursuant to Tenn. Code Ann. § 7-86-304(d). Since the Board's creation, fewer and fewer ECDs have been deemed financially distressed pursuant to Tenn. Code Ann. § 7-86-304(d). Currently only two of the 100 ECDs are financially distressed and it appears they will both emerge from distress upon the release of their next annual audits.

Deployment of 911 service, enhanced 911 service and the NG911 project is tied to the existence of a statewide body to advocate for 911. States without state 911 boards, like Alaska, Colorado, Louisiana Missouri and Wyoming still do not have statewide Phase 2 service.

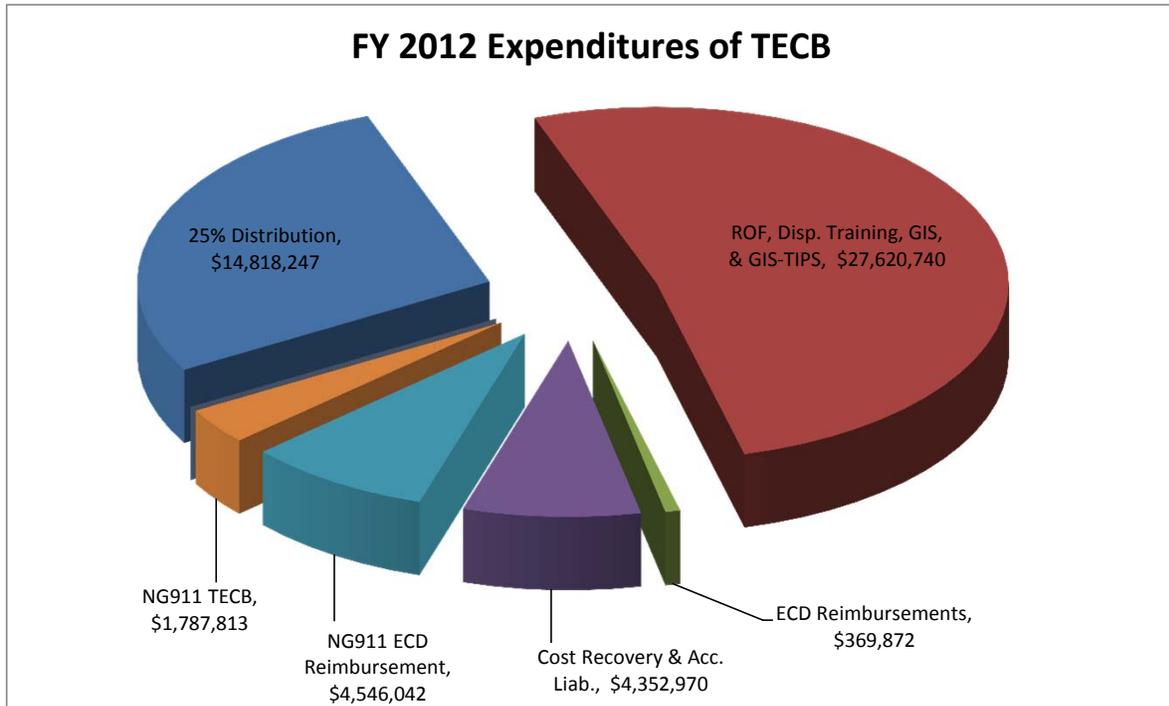
¹⁰ Tenn. Code Ann. § 7-86-303(d)(3)(A).

¹¹ The Board is funded through a monthly emergency telephone service charge on the users and subscribers of non-wireline telecommunications service. The 911 service charge remains at the rate first set by the Board in 1998, \$1.00 per user and subscriber per month.

¹² Tenn. Code Ann. § 7-86-303(d)(1).

The creation of State boards to advocate and administer state 911 systems is recommended in the Wireless Communications and Public Safety Act of 1999. Further, a statewide governance 911 board is a key recommendation of the USDOT NG911 stakeholder group (page 4).
<http://www.911.gov/pdf/ModelNG911legis-110812.pdf>

**TENNESSEE EMERGENCY COMMUNICATIONS BOARD
NON-WIRELINE FINANCIAL SUPPORT AND EXPENDITURES**



Expenditures *

089120	25% Distribution	14,818,247	27.1%
089120	ROF, Disp. Training, GIS, & GIS-TIPS	27,620,740	50.5%
089140	ECD Equipment and ALI trunk lines	369,872	0.7%
089150	NG911 ECD Equipment	4,546,042	8.3%
089150	NG911 NetTN, GIS, and Management	1,787,813	3.3%
* 089130	Cost Recovery & Acc. Liab.	4,352,970	8.0%
089110	Administration	\$ 1,185,889	2.2%

Total Expenditures \$ 54,681,573

* Includes accrued liability payments to carriers from FY2010.

Cash payments and obligations from schedules are shown which may not agree with accrual basis.