



A Vision for Statewide Next Generation Public Safety Communications

Glenn M. Cannon, Esq.
Director, PA Emergency Management Agency

9-1-1 in Pennsylvania

-  9-1-1 services in Pennsylvania have been successful at providing exceptional service to the residents:
 -  Counties are committed to meeting the challenges of public safety
 -  Public Safety Answering Points (PSAPs) provide exceptional service
 -  First Responders are well trained and well equipped
 -  9-1-1 operation has worked well under the current environment
-  Limitations exist that reduce the effectiveness of 9-1-1 Service delivery and future sustainability

Challenges We Face

 To change the way we operate the program and to improve the operation of 9-1-1 throughout Pennsylvania

 Lack of Standardization

 Limits interoperability

 Funding constraints

 Limits what can be done

 Duplication of technology

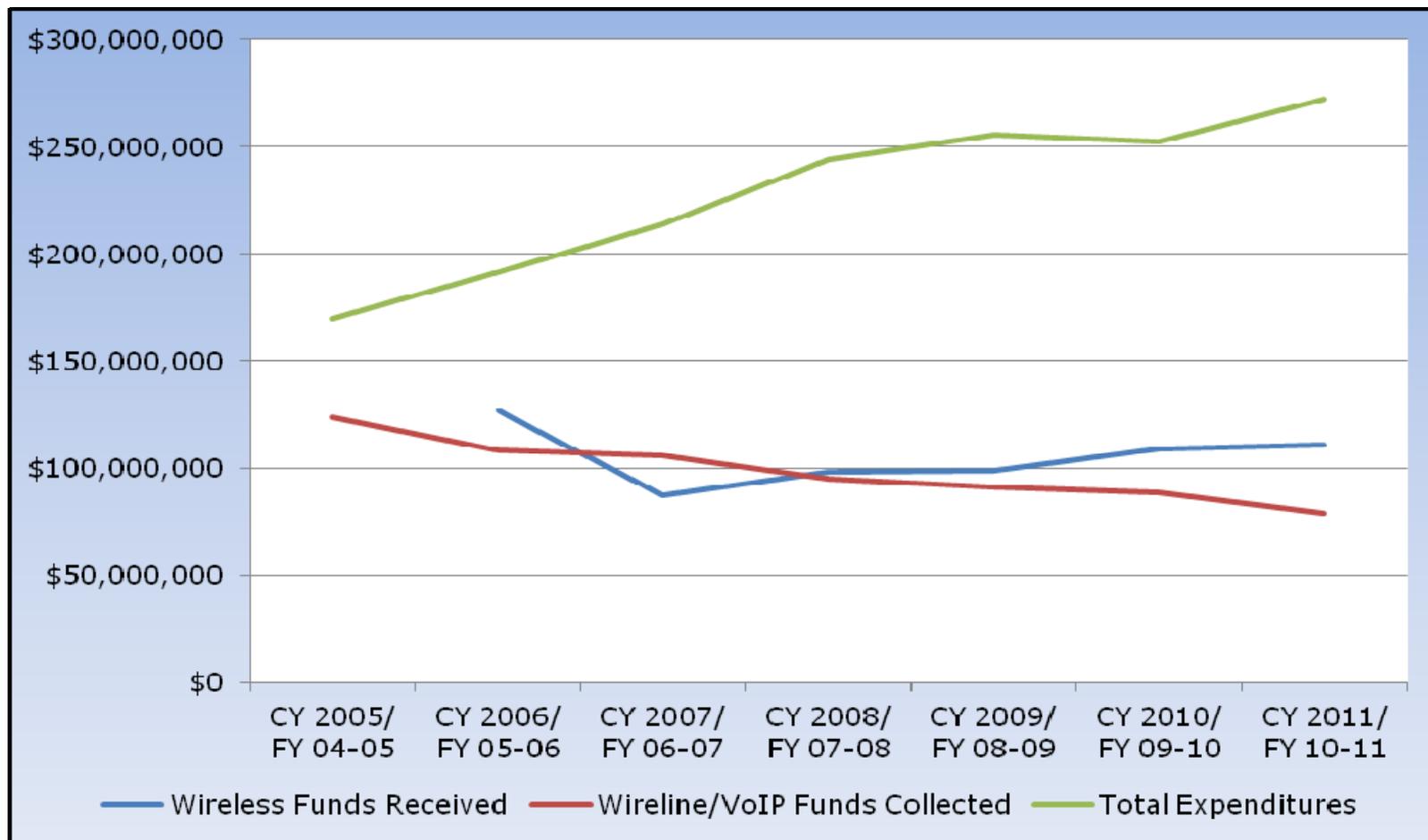
 Makes us inefficient

 Competition for funding

 Threatens program bankruptcy



Revenue vs. Expenditures



Recent 9-1-1 Funding Amounts

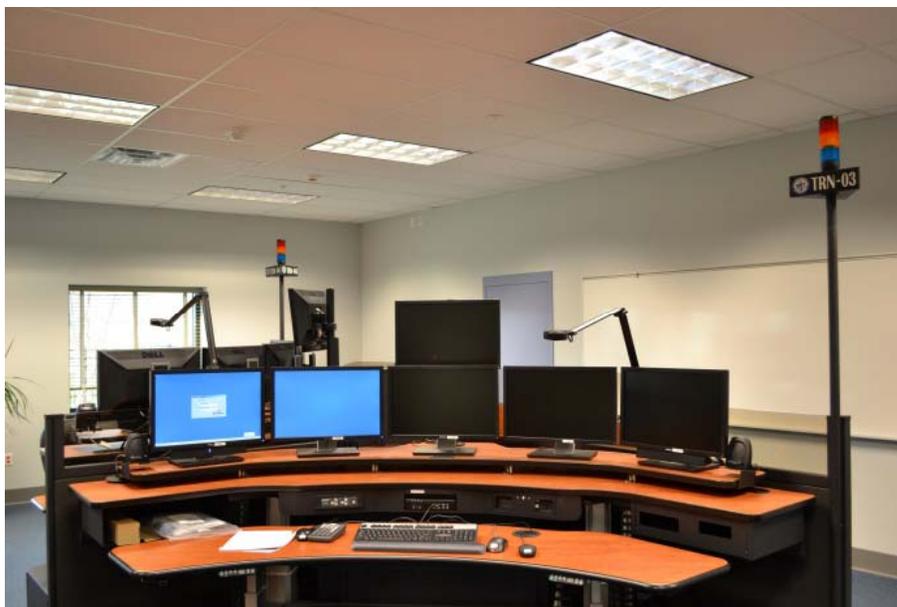
Wireline	2009	2010	2011
Funding	\$79.4m	\$72.2m	\$63.9m

Voice over IP	2009	2010	2011
Funding	\$10.5m	\$14.4m	\$17.4m

Wireless	2010-11	2011-12	2012-13
Approved	\$126.1m	\$142.4m	171.3m
Funded	\$111.0m	\$110.7m	\$103.3m
Unfunded	\$15.1m	\$31.7m	\$68.0m

9-1-1 Revenues and Expenses

Year	Revenues	Expenses
2009	\$199.1m	\$255.9m
2010	\$197.0m	\$252.4m
2011	\$192.4m	\$272.6m

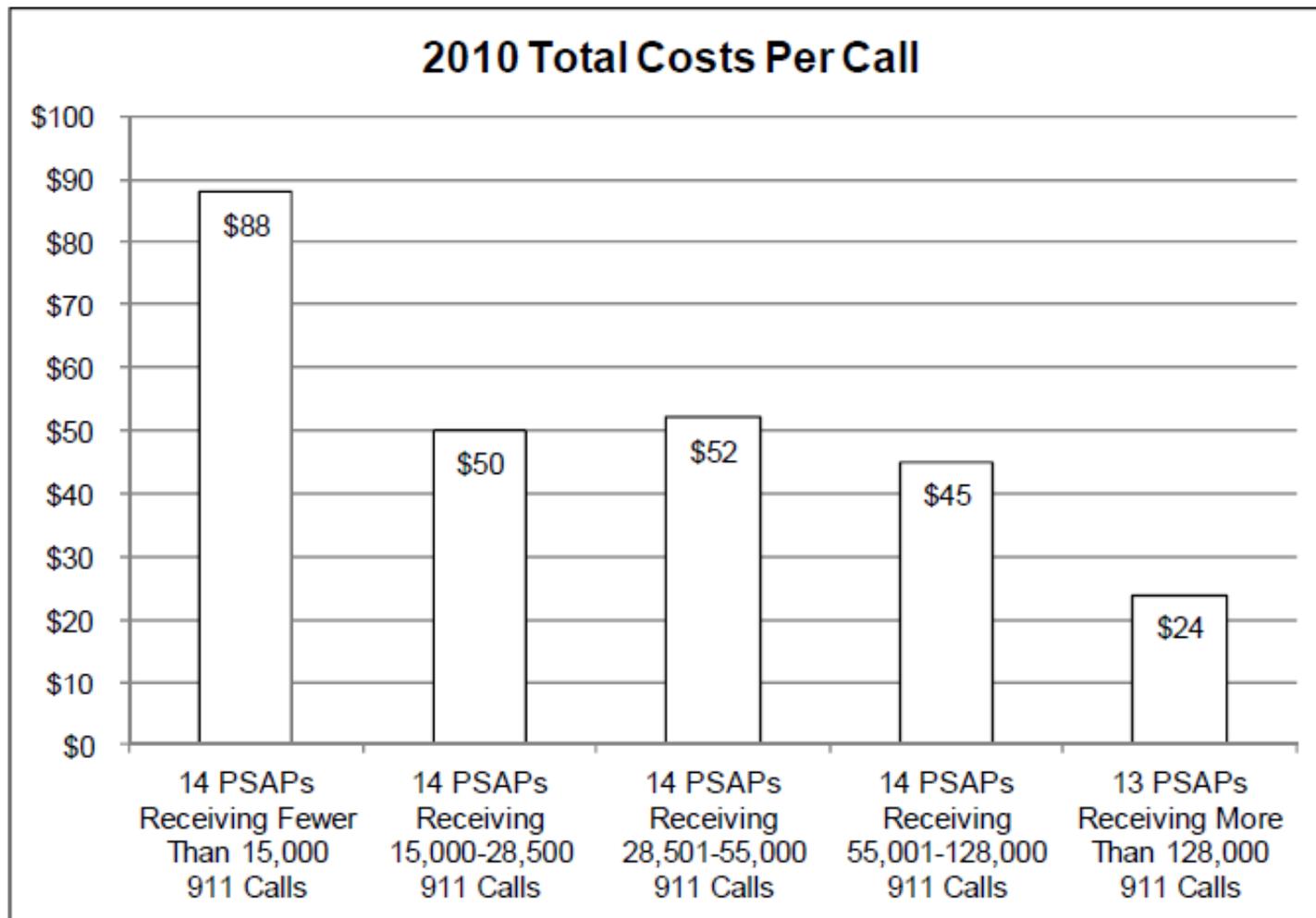


Fiscal Year 2012-13 Wireless Funding

Requested amount before wireless calculations	\$294.2m
Requested amount after wireless calculations	\$206.1m
Approved amount (83 percent of requested amount)	\$171.3m
Funded amount	\$103.3m
Funding shortfall	\$68.0m



Cost Variance from the LBFC



Misconceptions

-  Pennsylvania has relatively high 9-1-1 surcharge rates
 -  Funding consists of Wireline, Wireless, and Voice over Internet Protocol (VoIP)
 -  Each is regulated uniquely
 -  Wireline and VoIP funds can be applied to call delivery, call processing, and call dispatch
 -  Wireless is limited to wireless call processing related delivery and processing
-  Wireless money is fully distributed
 -  All available funds are distributed
 -  Eligible items far exceed funds available

Vision for Success

-  Funding limitations have introduced areas for improvement at every level
-  Heighten the importance of sharing 9-1-1 resources to avoid costs and improve capabilities
-  Implement a best practices model that eliminates duplication and removes silos
-  Support greater accountability
 -  Strategic vision
 -  Increased operational restraint over the distribution and expenditure of funds

Legislative Budget and Finance Committee Report

-  Act 2010-118 required the Legislative Budget and Finance Committee (LBFC) to conduct a study of Pennsylvania's statewide 9-1-1 system
-  Scope included ten objectives, including:
 -  Current funding
 -  Issues the Commonwealth will need to consider when incorporating Next Generation 9-1-1 (NG9-1-1)
-  Report offers constructive recommendations
 -  Legislative changes will be necessary to carry out all of the required modifications

Legislative Budget and Finance Committee Report

-  PEMA generally agrees with the findings and recommendations in this report
-  The report calls for 18 changes to the way 9-1-1 service is administered in the Commonwealth
-  The following recommendations would have the most impact:
 -  The General Assembly should amend the language to develop a formula for distributing wireless funds to counties that would include:
 -  A new distribution formula to be designed by PEMA that fixes the current system and encourages regionalized efforts
 -  Emphasis on larger, more regionalized PSAPs that appear to benefit from economies of scale
 -  Standardized key definitions and metrics

Additional Recommendations

-  Include changes to funding collection mechanisms as well as language that allows any device capable of calling 9-1-1 to be included in the fee structure
-  New statutes do not need to be created with every technology change
-  Apply a planned approach to regional and statewide sharing of infrastructure to further improve public safety capabilities in the future
-  Streamline and strengthen the administrative capabilities of the Bureau of 9-1-1 to improve oversight of the 9-1-1 program
-  Realignment would benefit the PSAPs if realignment provided them with a single contact within the Bureau where they could direct inquiries

Next Generation 9-1-1

- Most important is the recommendation to align the statutory authority of PEMA with NG9-1-1 technologies
- NG9-1-1 will provide opportunities to reduce cost while increasing capabilities
- Development of NG9-1-1 requires the use of centralized standards and statutory language, which should be provided to allow PEMA the ability to move in this direction
- PEMA Incentivize sharing of Next Generation capable systems, where possible
- PEMA Share infrastructure capabilities through an Emergency Services IP Network (ESInet)

What is NG9-1-1 ?

- 🇵🇸 NG9-1-1 is meant to support the following four core elements:
 - PEMA Fully replace Enhanced 9-1-1, with all capabilities and functions in place today
 - PEMA Add capabilities to support changes for current and new types of Communications Devices
 - PEMA Add flexibility for the PSAPs
 - PEMA Add capabilities to integrate and interoperate with emergency entities beyond the PSAP



Opportunities within NG9-1-1

-  NG9-1-1 creates new opportunities
 -  Enables interoperability between PSAPs and technologies
 -  Is designed with open standards
 -  Invites open competition
 -  Transitions from regulated to competitive service provider environment
 -  Is a catalyst for legislative change
 -  Promotes ability to share systems and costs

Areas for Improvement

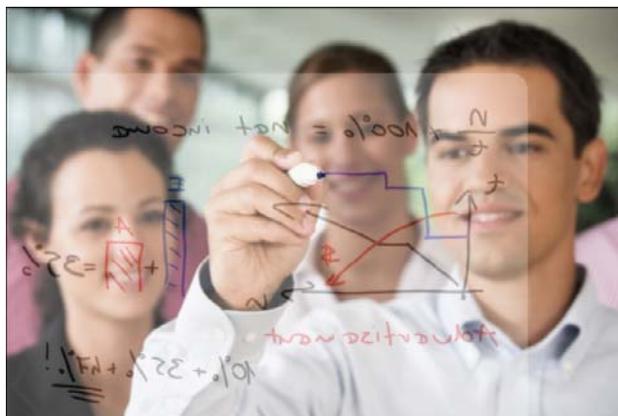
 NG9-1-1 is more than technology, it provides the opportunity to improve the program in four primary areas:

-  Funding
-  Operations
-  Standards and Technology
-  Governance and Policy



Improve Funding Models

- Formula based funding to simplify the funding and Application Process
- Incentivize regional and shared systems
- Reduce costs with shared infrastructure
- Eliminate unnecessary duplications
- Establish metrics for funding



Operations



Counties retain full operational control



Public Safety service levels



Policy and Procedures



Quality Assurance and Quality Control



Staffing Formulas



Virtual Redundancy



PSAP interoperability



Integration with
Emergency Management
Agencies (EMA)



Standards and Technology

-  The National Emergency Number Association (NENA) NG9-1-1 Transition Policy Implementation Handbook recommends:
 -  PSAP staffing and handling of 9-1-1 calls remains a local function
 -  NG9-1-1 will require state level planning and implementation coordination.
 -  ESInets may be developed and managed locally or regionally
 -  Require strong state level leadership and coordination to ensure conformance to applicable policies and industry based standards*

*NENA Next Generation 9-1-1 Transition Policy Implementation Handbook

Governance and Policy

-  Uniform NG9-1-1 planning, coordination, and implementation of standards across the state that reflects the following:
 -  Statewide scope
 -  Appropriate authority with regional representation
 -  Close collaboration with other emergency service functions and other relevant stakeholders
 -  Coordination within the state and with adjacent states and federal authorities
 -  The appropriate adoption of industry based rules, policies, and procedures necessary to support such deployment

Opportunities

-  Reduce costs by reducing excess capacity
 -  ESInet promotes systems sharing and redundancy
-  Avoid new costs
 -  NG9-1-1 technology will provide the opportunity to eliminate duplicate systems, while retaining necessary redundancy and moving toward combined communication platforms
-  Shared systems
 -  Deployment of common communications environments will strengthen interoperability among participants

Next Steps

-  Today, more of the opportunities and challenges that we expect to face will be explored as we plan to make a good 9-1-1 system even better
-  Thank you for your interest and support as we develop the roadmap to move forward together

Pennsylvania Emergency Management Agency

2605 Interstate Drive

Harrisburg, PA 17110

717-651-2007

PEMADirector@pa.gov

www.PEMA.state.pa.us