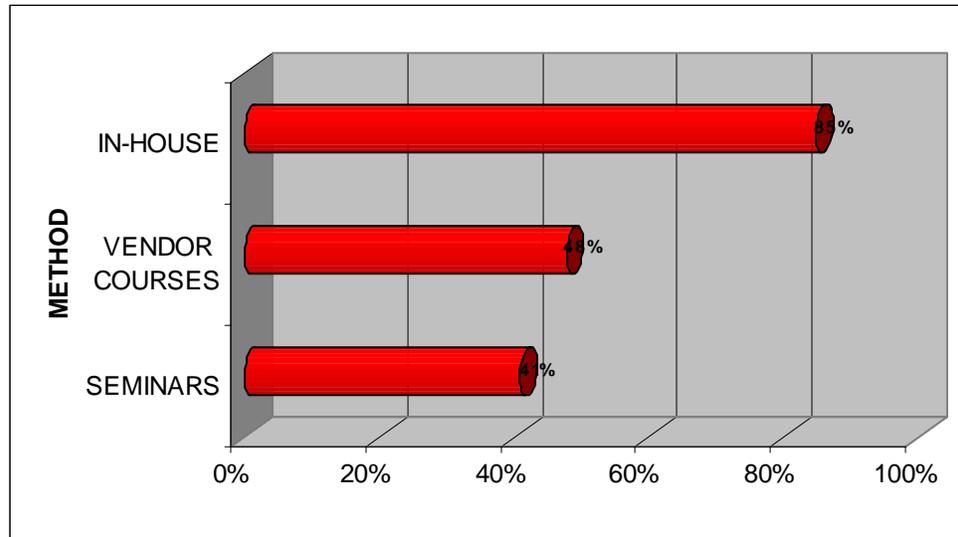


likely due to the serious budget issues with sending people to training. Chart 11 shows the respondent's preferences:

**Chart 11 – Training Delivery Preferences**



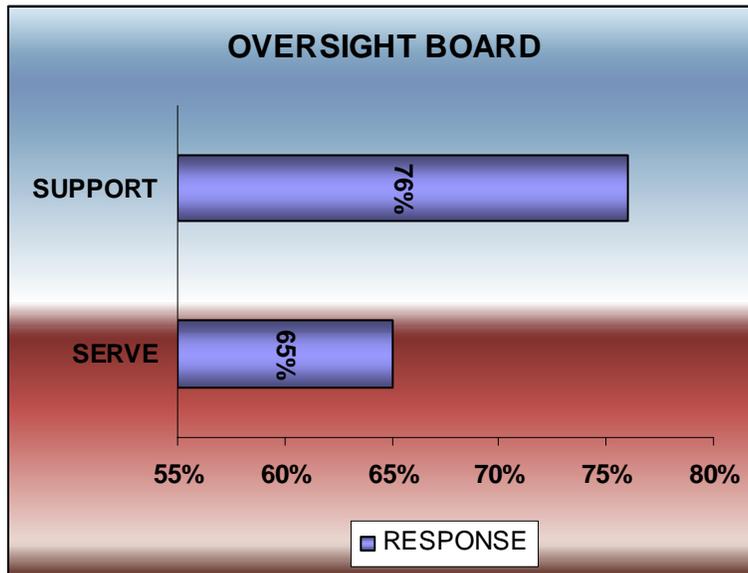
It was clear that in-house or peer training was favored overwhelmingly by participants. There were a significant number of other write-in answers provided but they were widely scattered and reached no significant level.

### **3.6 Governance**

It was apparent from survey answers that there is a high level of support for a governance structure. A total of **76%** of the respondents supported the concept of a regional or statewide oversight board, and **65%** of the respondents indicated that they felt that their agencies would serve on an oversight board, as shown in Chart 12:



**Chart 12 – Governance Position**



This sets the stage well for further questions about the structure and roles of a potential governance body.

**3.6.1 Assignment of Functions for Oversight Board**

To the questions which functions to assign or not assign to an oversight board, survey respondents were consistent in their answers, as shown in Table 8 below. The same question was asked in different ways, and the responses clearly corroborated each other.

**Table 8 - Functions that would be assigned to Oversight Board**

FUNCTION	Would Assign	Would NOT Assign
Interoperability Compliance	74%	10%
Technical Design Approval (Standards)	58%	24%
Funding Approval (and allocation)	45%	39%
Purchase approval	13%	68%

Respondents didn't vary in assigning functions in their answers. Their answers reflect a desire to maintain independence in the detailed decision making of purchasing a system.



### 3.6.2 Local Commitment to Act

If the State takes a “do-nothing” approach to improving interoperability, users indicated that they will act on their own, as shown in Table 9 below. Counties and local jurisdictions will:

**Table 9 – Actions by Local Jurisdictions If State Does Nothing**

ACTION	RESPONSE
Join a Regional System	54%
Purchase their own equipment	28%
Do Nothing	14%

*FE*s experience with other State government projects of this nature indicates that the overall costs of a series of ‘do-nothing’ scenarios is substantially higher than a coordinated approach.

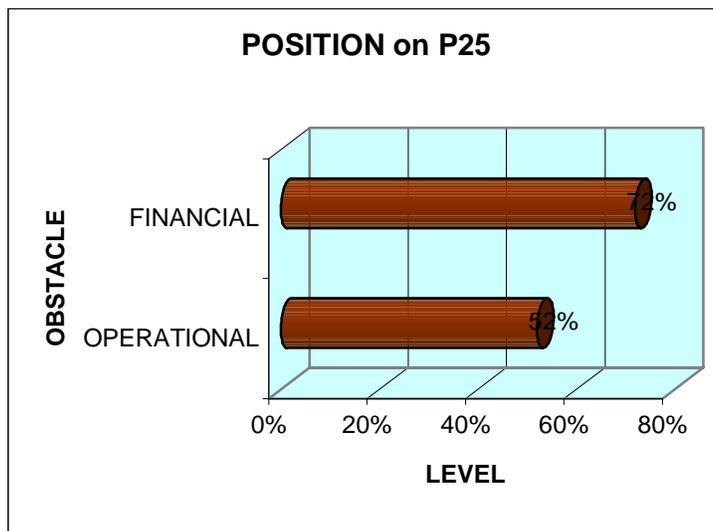
### 3.7 P25 Standards

The Department of Homeland Security highly recommends that any new radio equipment, purchased with Federal grant funding, be compatible with the P25 suite of standards.

Responses from participants shown in Chart 13 indicate significant obstacles to implementing the P25 suite of standards.

- **52%** indicated P25 standards would be a significant operational obstacle
- **72%** see P25 as a significant financial obstacle

**Chart 13 – P25 as an Obstacle**



Respondents provided data that is very similar to what FE is hearing from State and large local clients. While this perception has historically been true, it is believed that there are a number of vendors that will provide enough cost incentive to change the overall perspective in this area. Training and education will be important in gaining consensus on this issue.



## 4 State Agency Survey Results

A total of 12 responses were received from state agency users, and as a group were dominated by law enforcement users, as shown in the following list of responding agencies:

Agency	Responses
University of WI Police	4
Dept. of Agriculture	2
Dept. of Natural Resources	2
Capital Police	1
Dept. of Justice	1
Dept. of Public Health & Families	1
State Patrol	1

The answers provided were very similar and validate those from local jurisdictions. The ranking of answers to specific questions tracked closely to the larger survey pool.

State participants' answer that were of interest follow:

- One difference was that 78% of participants do not have budget responsibilities. This is a reversal of response from the locals.
- In terms of funding required to join a common system, of those responding 71% (5/7) would need at least 80% outside funding to join a common system. The remaining answers were 10% (1) and 20% (1). This represented only a minority of the responses though, in that 56% of the respondents did not answer this question.
- On the question of having an oversight board, state users were unanimously in favor of it. Further 78% felt that their Agency would participate on an oversight board.
- As with local responders, state responders were most reluctant to give funding or purchase approval to an oversight board.
- Funding was the number one challenge to performing their job well.
- In terms of their current system being "state of the art," no one considered their system to be ahead.
- The loss of grant funding would also have serious impact on state users.



## 5 Observations and Conclusions

Wisconsin is planning and preparing for improvements in public safety mobile radio interoperability. An important aspect of the planning process is to evaluate the people at work in PSMR for current opinions and experience.

As part of the statewide plan, technical and operational capabilities must be viewed in terms of what level they are at presently. Then this information may be related and integrated with technical architecture recommendations in the Statewide Plan.

### *5.1 Profile of Responses*

Wisconsin has very good levels of experience in public safety and public safety mobile radio. Having a strong base to build on will serve the State well. Responses to the survey were well distributed across the public safety disciplines. This broad profile of respondents provides reinforcement to the outcomes from the survey. From a practical standpoint, Wisconsin is well positioned to deal with new technology and operations.

Survey responses show experience levels in technology and supervision to be more than adequate to deal with new systems. It is worth noting that the public safety community has a great deal of experience but is also bringing in new resources reflected by the numbers of respondents with less than five years experience.

### *5.2 Funding*

Many survey participants had budgetary responsibilities for communications within their organizations. This brings a higher credibility to their responses in the area of Funding, as they are personally active in the funding processes and can speak from first-hand knowledge.

Respondents indicated that the allocation of funds should be focused on 'System Performance' and 'Improving interoperability' above all. This is consistent with the goals of the statewide planning process. These choices are important because they are driven by the needs of the stakeholders. Having common attainable goals supported by the various groups of interest will be a critical success factor for Wisconsin.

Critical funding priorities, now and in the future were centered on:



- Radios
- Equipment
- Staffing
- Interoperability
- Mobile Data Systems
- Training

The availability of grant funds, either federal or state, will have a major impact on reaching a goal of improving PSMR interoperability. Further credence is lent by the fact that respondents view outside funding as a very influential factor in the decision to join a common statewide radio system.

### **5.3 Systems**

More than half of current radio systems in Wisconsin serve multiple agencies. A major number of those systems are also multi-jurisdictional. One would expect that because of these factors that there is already a fair amount of interoperability today. In fact, a surprising number of respondents indicated that there was at least an acceptable level of interoperability when they are involved in incidents or planned exercises. Additionally, respondents rated interoperability and coverage within their municipality and adjacent municipalities most highly. This will influence the design developed in Phase III of this project to focus heavily on the standards for achieving this consistently on a statewide basis as well as for developing methods for handling the other areas of interoperability, such as large-scale crises.

### **5.4 Challenges to Job Performance and Interoperability**

Survey responses clearly and decidedly cite funding, above all, as the biggest challenge faced by participants in doing their job well, and achieving interoperability.

These answers reinforce prior results from this survey. Funding and its impact on providing efficient interoperable PSMR is something that **FE** has consistently seen in other states and jurisdictions.

### **5.5 Training**

A total of 69% of respondents feel that they are adequately trained, according to their own self-rating. Preference for in-house training reflects



the fraternal nature of the public safety service providers. In performing their duties, it is intrinsic to trust and count on fellow members of the services.

Responses also showed high levels of acceptance of vendor training and seminars.

Wisconsin will need to deal with training on new digital systems, which will replace the analog technology going forward. Should Wisconsin opt to install a new statewide radio system there must be a plan to provide and measure results of user and systems training.

## 5.6 Governance

There was support from the vast majority of participants for having an oversight board in Wisconsin. This indicates that the respondents view the concept of PSMR governance as a very positive one, which bodes well for success in achieving interoperability.

Respondents' views were clear in terms of what functions to assign to an oversight board, specifically compliance management, technical design/standards, and allocation of funding. Control of purchases was the least likely function that respondents would give up.

There is a bias towards fostering improvement, even if only on a local basis, among the survey participants. Many will move forward, if the state does nothing, to join a regional system or purchase their own equipment. While the respondents indicated a high degree of interoperability at the local and regional levels today, there is still a realization by members of the PSMR community that something must be done to improve interoperability.

## 5.7 P25

The suite of standards known as P25 has created concern among PSMR users in Wisconsin. Respondents provide the view that P25 is a significant technical and financial obstacle. *FE* believes that there is a perceptual problem that can be addressed by end-user education.

A growing number of manufacturers are bringing P25 compliant systems and radios to the market. Increased competition has already caused a reduction in prices. As P25 moves towards completion of the standards process, compliance will come to mean direct interoperability between systems and end-user radios.



## 5.8 Recommendations

Wisconsin must balance results of this survey in the decision process of how to improve PSMR interoperability. To do so the state should consider that:

- It has a broad base of trained people
- Significant funding must come from state and/or federal sources
- There are a fair number of interoperable systems already in place with experienced users and managers
- There's support for a governance model that protects end user decisions
- Training will be necessary and should have measured outcomes

Finally, if Wisconsin chooses to build a common PSMR interoperable infrastructure it will have to address the following issues:

- Provide uniform operations
- Move technology base towards 'State of the Art'
- Have a basis for standardized training for all users and operators
- Have a funding model to support end-user buy-in
- Allow development of an integrated Incident Command Structure
- Create a Governance body that can provide a decision making group for items such as;
  - Funding mechanisms
  - Policy
  - Operational Procedures
  - Technical and interoperability compliance
  - Accountability
  - Statewide umbrella purchasing contracts for users to buy from it a discount.

The Technical Skills and Leadership Survey results analysis will be incorporated into the considerations for both the Phase III design and standards as well as the implementation considerations.



## 6 Appendix A – Skills and Leadership Survey Form

### Statewide Needs Assessment and Plan for the Improvement of Public Safety Radio Communications Systems in Wisconsin



*The Wisconsin Interoperability Study Skills and Leadership Survey has closed. Please contact the Program Manager, Peter LaVenia (302 697-7788 or [plavenia@fedeng.com](mailto:plavenia@fedeng.com)) if you have questions.*

#### Technical Skills and Leadership Survey

1. Name:

2. Title:

3. Organization:

4. Location:

5. Email address:

6. Telephone:

7. How many years have you worked in Public Safety?

8. In the performance of your duties relative to public safety mobile radio (PSMR), how many years of experience do you have?

9. How many years of PSMR experience do you have in a supervisory role?

10. How many years of PSMR experience do you have in a technical role?

11. What are the primary sources of PSMR training that you have had? (Check all that apply)

Vendor provided courses

Seminars

Professional courses



- Technical or Community College
- 4 yr. College
- In house training

Other

**12. Do you feel that your level of training is adequate to perform your job satisfactorily?**

- Yes
- No

**13. As applied to radio communications, how well do you understand the following terms? (Where 1 = not at all, 3 = well, 5 = expert)**

Ranking	(1)	(2)	(3)	(4)	(5)
Coverage	<input type="radio"/>				
Radio transmission	<input type="radio"/>				
Interoperability	<input type="radio"/>				
End-user equipment	<input type="radio"/>				
Cross-band repeaters	<input type="radio"/>				

**14. Which type of radio system do you currently use?**

- Single agency/jurisdiction
- Multi-agency
- Multi-jurisdiction
- Statewide

Other



15. During incidents or exercises, including other jurisdictions and/or services, how well was your agency's radio system able to talk to the other participants? (Rate on a five point scale, where 1 = not at all to 5 = completely interoperable)

- 1
- 2
- 3
- 4
- 5

16. Do you participate in or regularly attend any of the following meetings? (Check all that apply )

- CISC - Communications Interoperability Steering Committee
- WICORTS - Wisconsin Interoperability Committee on Radio & Tower System
- 700 MHz Regional Planning Committee
- 800 MHz Regional Planning Committee
- Emergency Management Planning Committee
- Public Health/EMS Planning Committee

Other

17. Are you responsible for your department's PSMR annual budget?

- Yes
- No

18. Assess your current PSMR system relative to 'state of the art'. (Where 1 = behind, 3 = on, 5 = ahead)



- 1
- 2
- 3
- 4
- 5

19. Where would you LIKE your PSMR system to be relative to 'state of the art'? (Where 1 = behind, 3 = on, 5 = ahead)

- 1
- 2
- 3
- 4
- 5

20. What effects do the following challenges have on your ability to perform your job well? (Where 1 = not at all to 5 = major impact)

Ranking	(1)	(2)	(3)	(4)	(5)
Staffing	<input type="radio"/>				
Technology	<input type="radio"/>				
Funding	<input type="radio"/>				
Training	<input type="radio"/>				
Recognition	<input type="radio"/>				
Political/Turf issues	<input type="radio"/>				

21. Do you feel that a regional or statewide oversight boards are appropriate?



Yes

No

**22. What functions would you assign to them? (Check as many as you feel apply)**

Funding approval

Technical design approval

Interoperability compliance

Purchase approval

Other

**23. What functions would you NOT assign to them? (Check as many as you feel apply)**

Funding approval

Technical design approval

Interoperability compliance

Purchase approval

Other

**24. Would your agency be willing to participate on such a board?**

Yes

No

**25. What do you feel should be considered in the allocation of funds? (Rate importance, where 1 = Least to 5 = Most)**



Ranking	(1)	(2)	(3)	(4)	(5)
Age of system	<input type="radio"/>				
Improve interoperability	<input type="radio"/>				
Population served	<input type="radio"/>				
Area covered	<input type="radio"/>				
System performance	<input type="radio"/>				

26. Is there anything not listed in the above question which should be considered in the allocation of funds? (Please rate with level of importance)

27. What are your most critical funding priorities now? (Please add up to 3)

28. What are your most critical funding priorities in the next 3-5 years? (Please add up to 3)

29. What type of training would benefit you the most?



30. What issue(s) will most effect the achievement of PSMR interoperability throughout Wisconsin? (Please add up to 3)

31. Is there anything that you feel was not covered in this survey that you consider pertinent?

32. What % of your total funding would be necessary for you to receive from grants and/or State support for your entity to agree to participate in a statewide common PSMR system?

33. To what degree do you perceive that Project 25 standards create an operational obstacle to your entity adopting them?

- High
- Medium
- Low



**34. To what degree do you perceive that Project 25 standards create a financial obstacle to your entity adopting them?**

- High
- Medium
- Low

**35. What will your approach be to improving interoperability for your entity if the State were to take a 'do-nothing' approach?**

- Do nothing.
- Participate in a regional effort.
- Purchase new radios/systems on your own.

**36. How critical is it for your entity to receive grant money from the State or Federal government to be able to improve your interoperability?**

- Very
- Somewhat
- Not

**37. Please indicate the importance of the following types of interoperability and coverage:**

Ranking	Low	Medium	High
Seamless coverage within your municipality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seamless coverage within adjacent municipalities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seamless coverage across the state	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved interoperability with other agencies within your municipality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



**Statewide Needs Assessment and Plan for the Improvement of Public Safety Radio Communications Systems in Wisconsin**  
Skills and Leadership Survey Results

Improved interoperability with adjacent municipalities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved interoperability with State agencies (for local municipalitie	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved interoperability with local municipal agencies (for State age	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved interoperability with Federal agencies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Click here to submit survey](#)

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