

Knowledge Management

Ernie Wittwer

Introductions

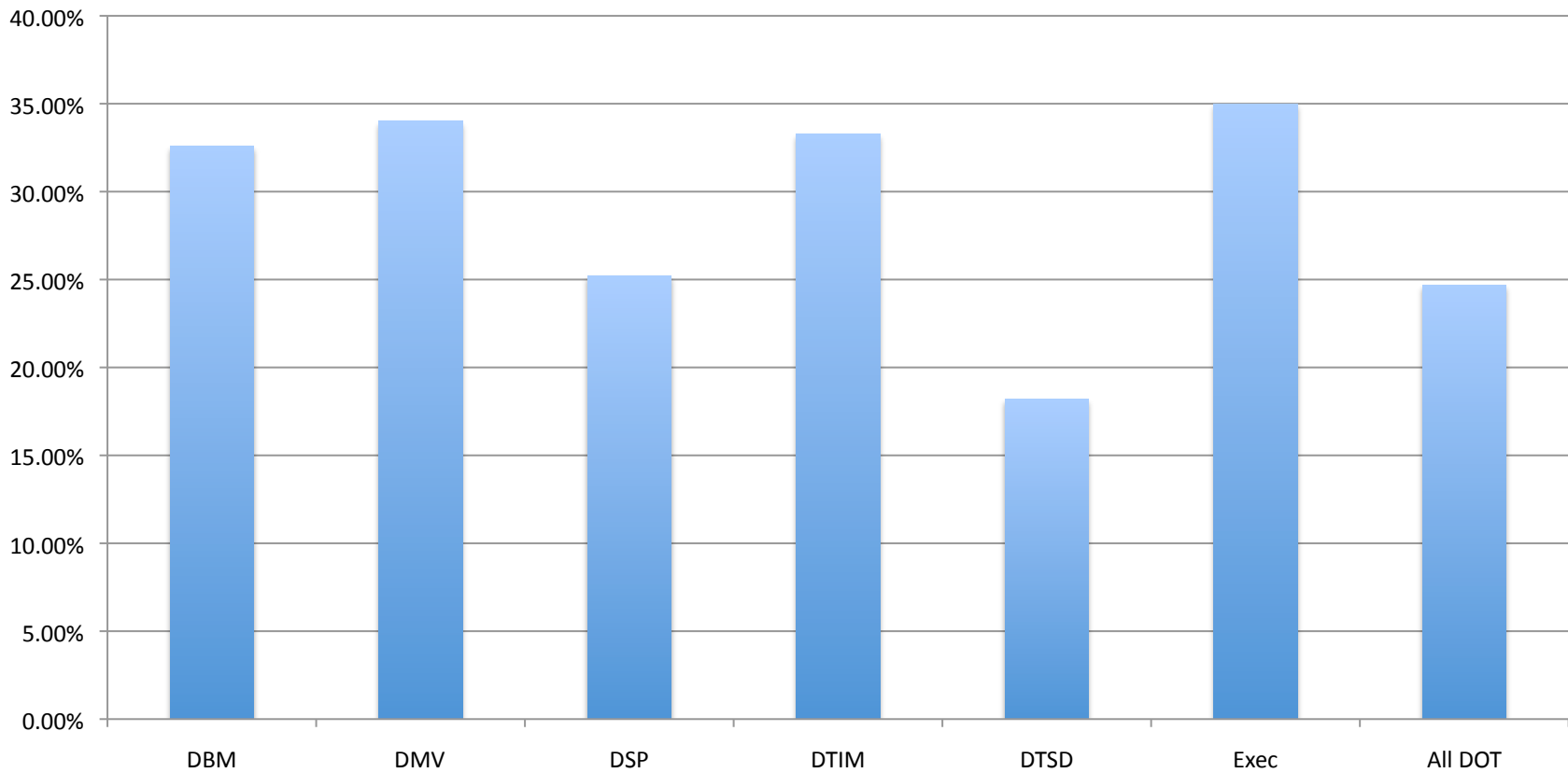
- Name
- Organization
- Title & Job
- What do you know about knowledge mgt.?

Agenda

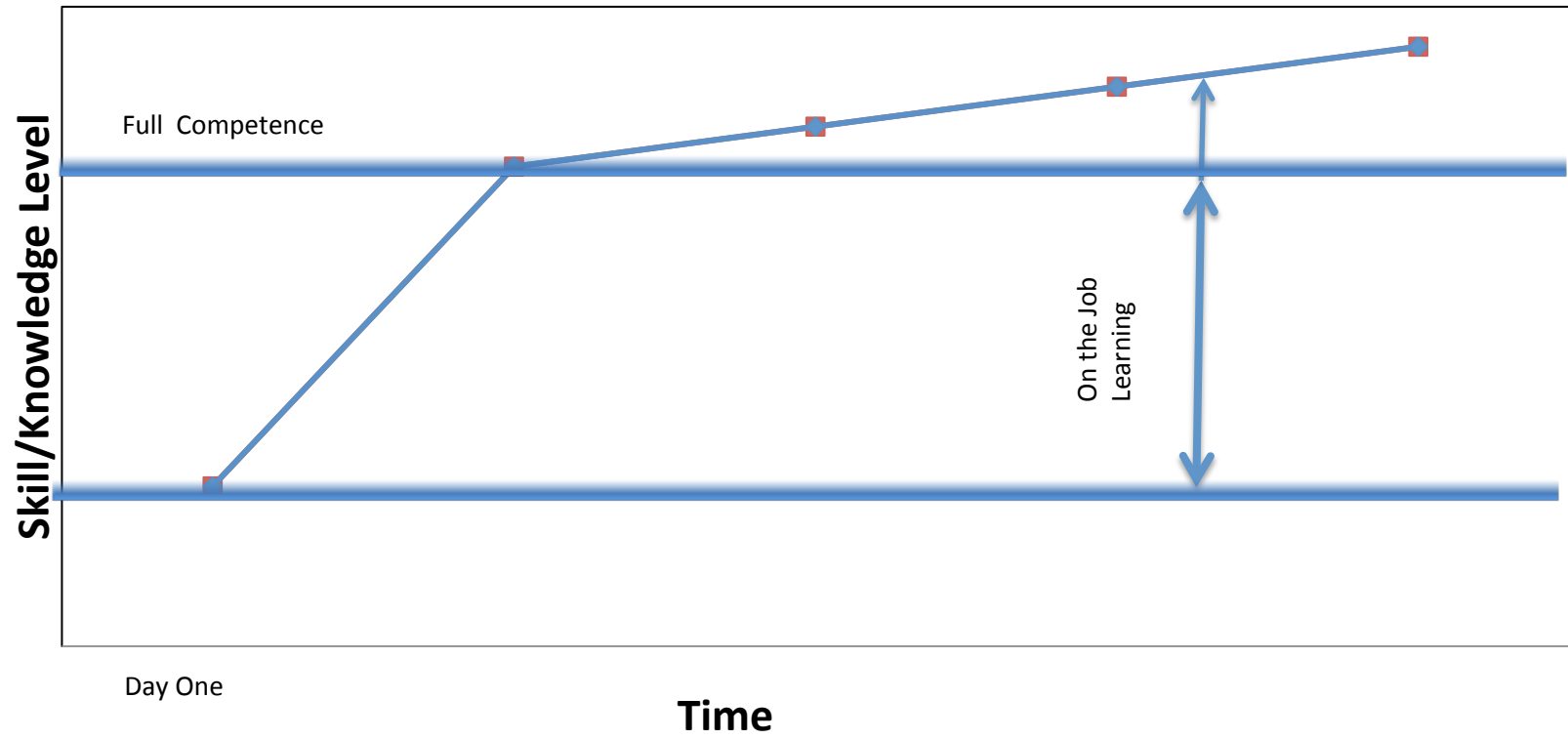
- Introduction to knowledge management
- What key knowledge exists in freight staff?
- Tools for transferring knowledge
- Which tools would you use & why?
- What can your agency do?
- Adjourn

What's the Problem?

Eligible for Retirement By 2015



Learning

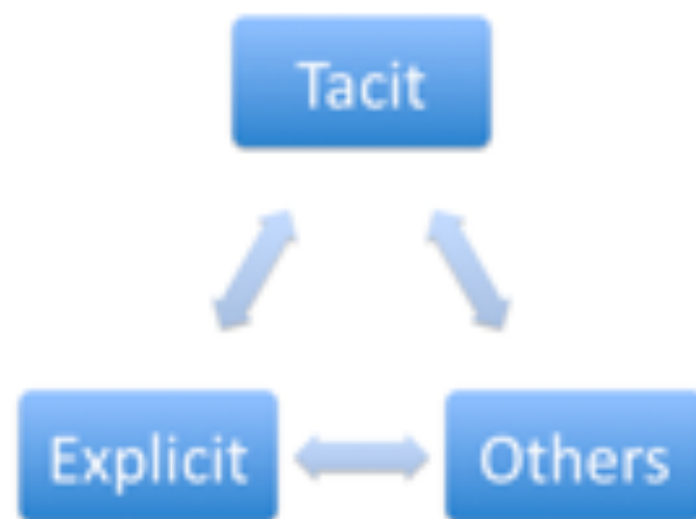


Knowledge Management

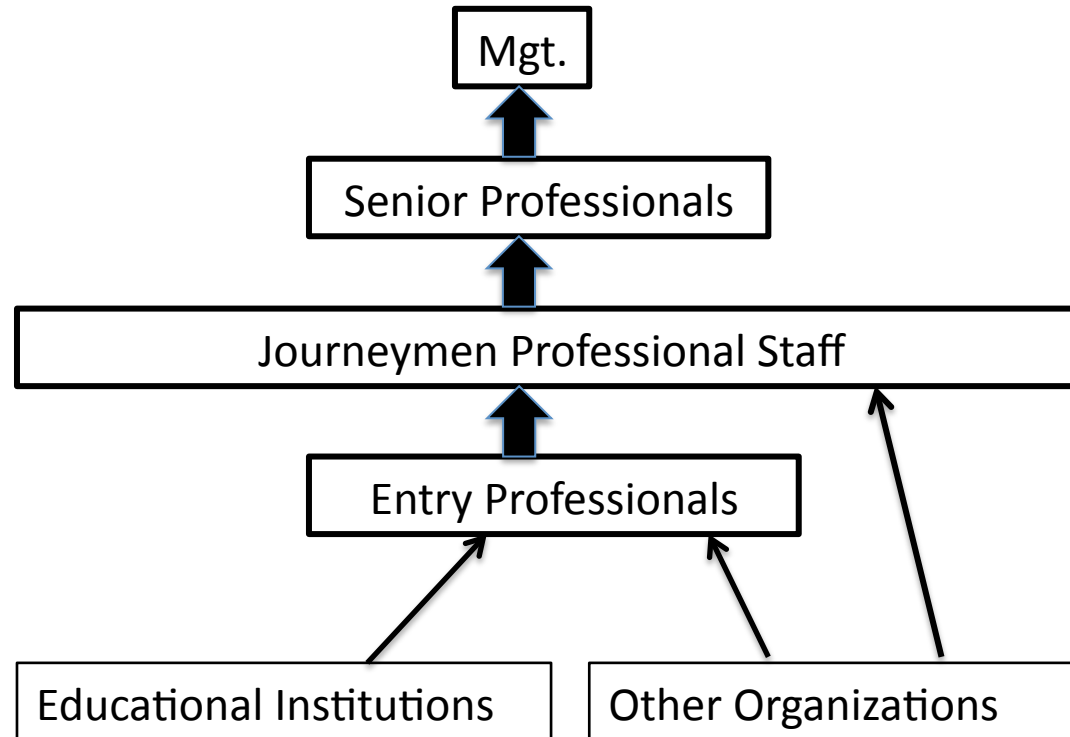
A Definition:

...a trans-disciplinary approach to improving organizational outcomes and learning, through maximizing the use of knowledge. It involves the design, implementation, and review of social and technological activities and processes to improve the creating, sharing, and applying or using of knowledge.

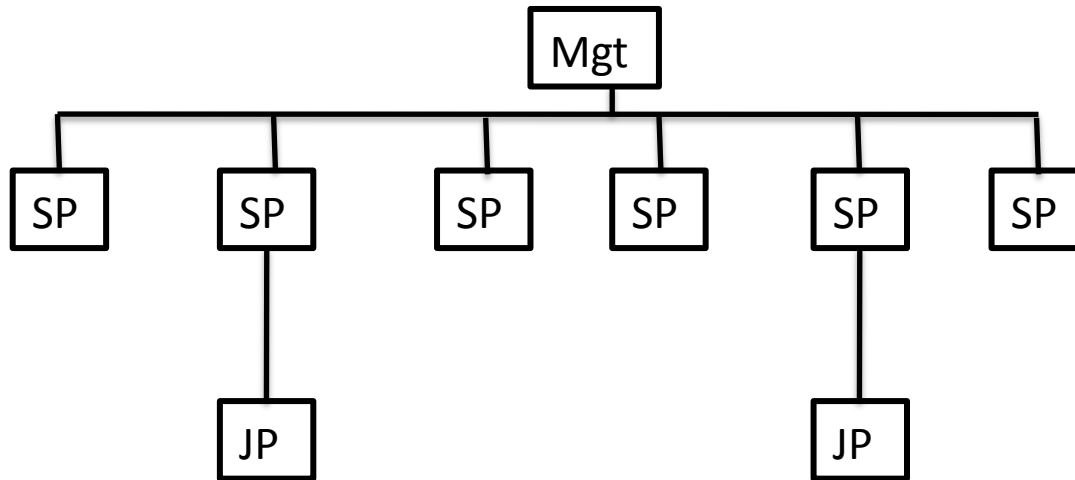
Sharing Tacit Knowledge



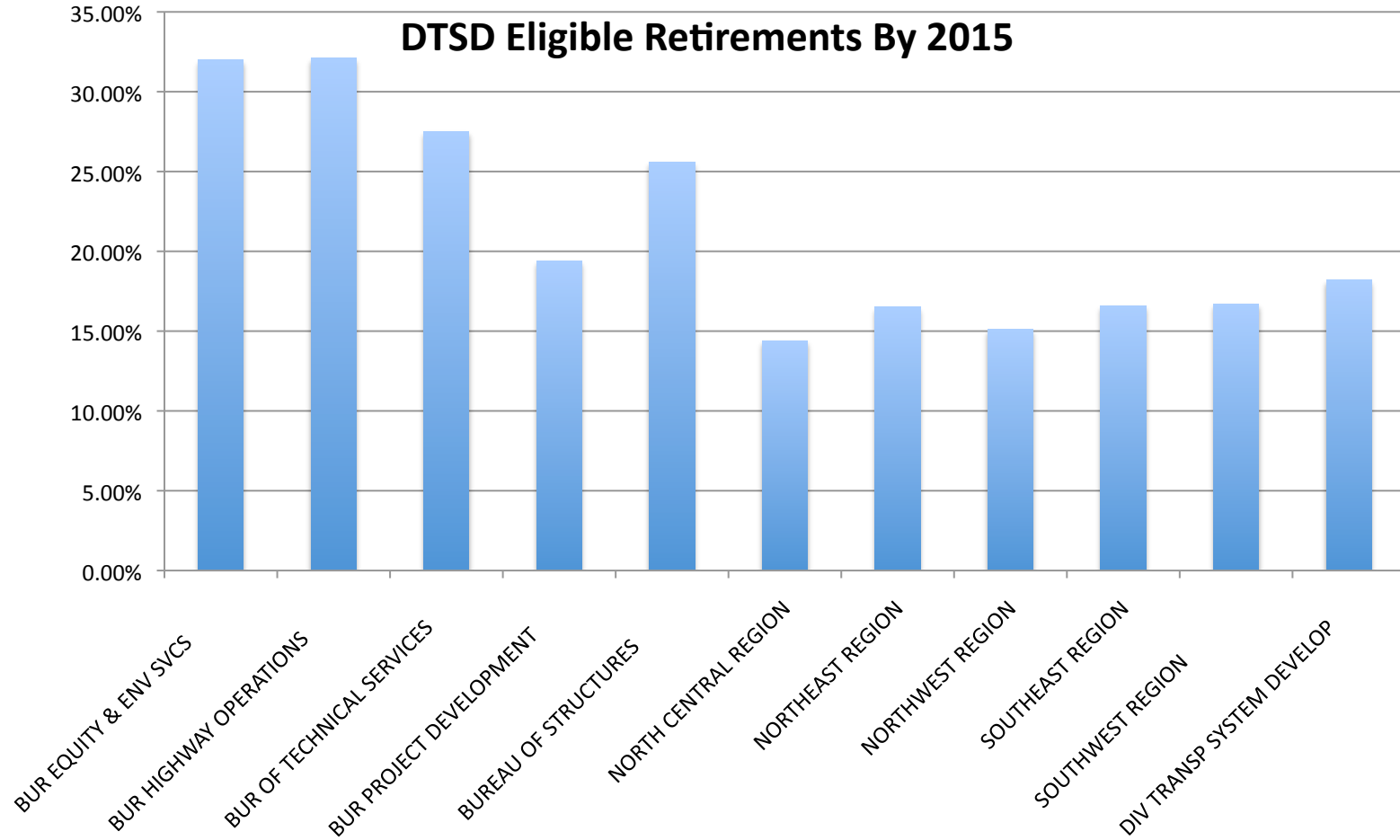
Traditional Organization



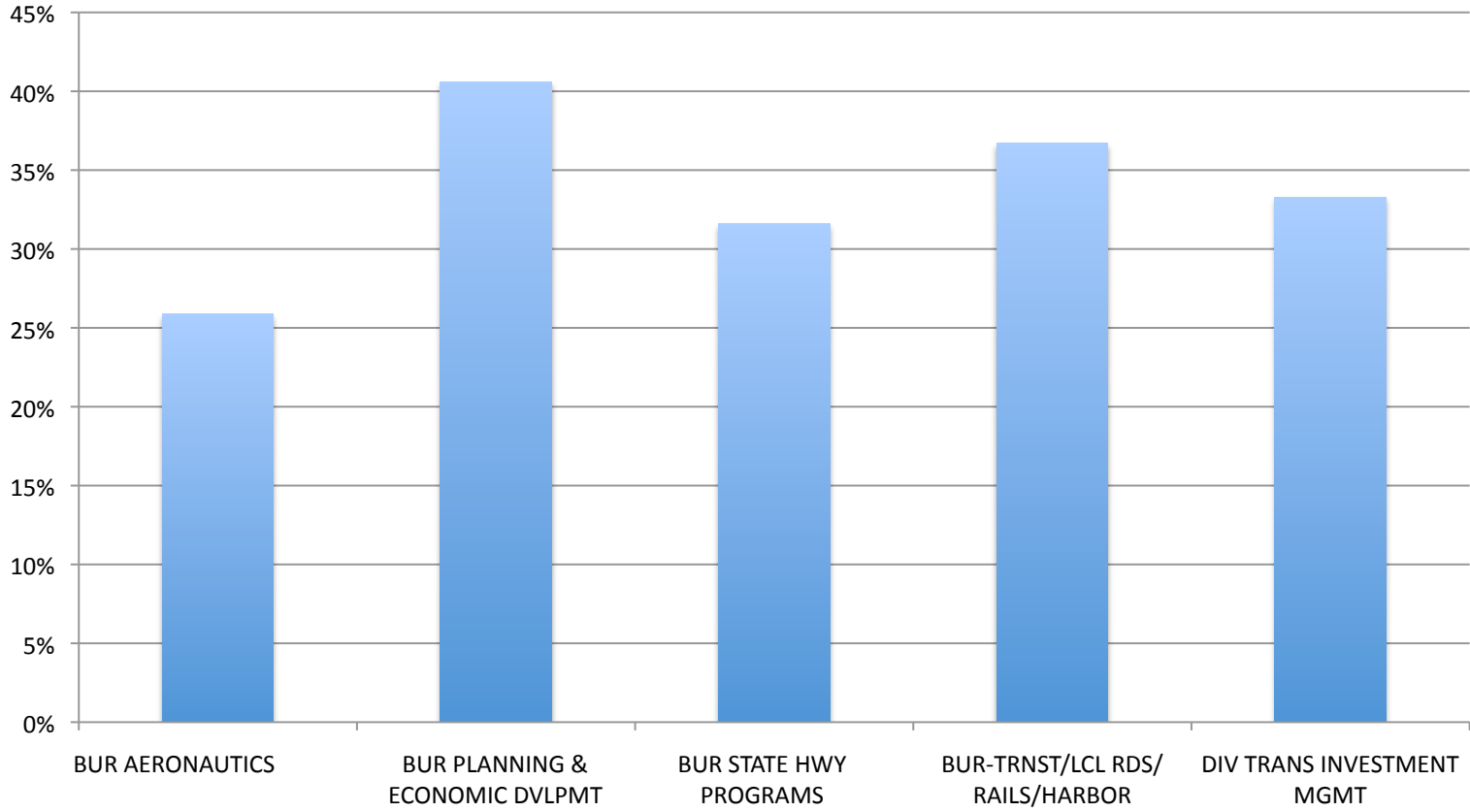
Specialist Organization



DTSD Eligible Retirements By 2015



DTIM Eligible Retirements By 2015



Focusing on Key Positions and Knowledge



Questions to Determine Key positions

- Who has unique KSAs?
- Who would be most missed?
- Who is the “go-to” person?
- Who is the natural group leader?
- Who is responsible for the most unique or complex assignments?

The Future?

- What KSAs will others in the organization hold?
- How are the tools and technologies of the organization changing?
- Will programs be delivered in the same manner?
- Are the expectations of the organization changing?

Deciding on the Significant

KSA	Importance	Difficulty	Priority
Knowledge of FRA Track Inspection Standards			
Knowledge of AREMA standards			
Experience in developing and managing RR track rehab projects			
Management skills			
Written and verbal skills			
Experience negotiating			
Experience in inspecting RR construction project and determining compliance with standards			
Ability to recommend appropriate methods to ensure cost effective solutions to RR project needs			
Ability to review project proposals for compliance with department standards and objectives			
<ul style="list-style-type: none"> • KSAs = Knowledge, skills, and abilities. • Importance = importance to the success of the person in the job in first 12 months. • Difficulty = Difficulty a new person would have in learning this KSA. • Rate importance and difficulty from 1 to 5, with 5 being the most important and most difficult. • Sum difficulty and importance to calculate priority. 			

For Discussion

- Do staff in freight have unique knowledge?
- List a few of them
- Is that knowledge Tacit or Explicit?
- How was it acquired?

Tools

Strategy/Knowledge Type	Task	Process	Technical	Analytic	Standards	Program	People	Organization	Leadership	Supervisory/Mg
Videotaping	*									
Annotated Templates	*	*								
Process Documentation	*	*								
Job Rotation	*	*	*	*	*	*	*	*		
Communities of Practice	*	*	*	*	*	*				
Double Filling Positions	*	*	*	*	*	*	*	*		
Retiree Job Banks	*	*	*	*	*	*	*	*	*	*
Phased Retirement	*	*	*	*	*	*	*	*	*	*
Cross Training	*	*	*	*	*	*	*	*		
Information Repository	*	*	*		*	*				
Mentoring/Coaching	*	*		*	*	*				
Social Network Analysis		*					*			
Business Process Mapping		*								
Expert Interviews		*				*		*		
After-Action Reviews		*				*	*			
Internet Conferencing			*			*	*	*	*	
On-the-Job Training			*	*	*	*		*	*	*
Encourage Mingling				*		*	*	*		
Last Lecture						*		*		
Story Telling						*	*	*	*	
Exit Interviews								*		
Leadership Programs									*	
Share Fairs						*		*		
War Stories						*	*	*		

Which Tool?

- What is the objective?
- What type of knowledge?
- What things is the knowledge about?
- What skills and resources are available?

Questions for Implementation

- Is the purpose of this knowledge management activity clear to employees?
- Is the time available for employees to do the activities?
- Are the resources available?
- Is management on board?

Some Possible Barriers

- Time and priority
- Management statements versus actions
- Knowledge is power
- Apathy
- Not invented here
- Rewards system
- Cultures and subcultures
- Lack of a common language

A Training Program

Railroad Training		
Experience	Resource	Objective
Extension RR Engineering classes	Contact name	Gain basic RR engineering concepts
AREMA Classes	Contact name	Gain specific RR engineering and rehab concepts. Define most important areas
Wis Southern RR	Contact name	Gain field experience with RR operations
CP (class 1 RR)	Contact name	Bigger gangs/Union work
State RR systems	Contact name	Understand extent of the state RR systems
State RR Programs	Contact name	Understand objectives and operations of RR programs
Rehab philosophy and approach	Contact name	Understand the trade-offs in RR investment
Visit regional offices	Contact names	Understand the role of regions in rail programs

Knowledge Repository

Date	Program			Action	Party	Comment
	A	B	C			
2/7/10	x			Prepare budget	Tim	Collaborate with department budget office on biennial budget request
3/15/10		x		Solicit projects	Jane	Solicit projects from eligible applicants for 2 year program
4/21/10		x		Select projects for funding	Jane	Follow process in trans 240 to evaluate and select projects

A Process Matrix

Activity	Task Dependency	Railroads	Contact Role RR Commissions
Review and analyze Rehabilitation, construction and spur track proposals			
Review bid documents for track projects			

For Discussion

- What tools would you chose to transfer freight knowledge?
- Why?
- What steps would you take to begin?
- What barriers would concern you?
- What can your agency do?
 - In freight?
 - More broadly

Contacts

Ernie Wittwer

608-986-2609

ewittwer@countrysspeed.com

[http://www.wistrans.org/cfire/research/projects/
04-03/](http://www.wistrans.org/cfire/research/projects/04-03/)