

Crisis of Inspiration:

The Relationship Between Nuclear Strategy and the Technical Minds Behind the Deterrent

Outline:

1. Stockpile Confidence
2. Sleepwalking
3. Urgency, not complacency

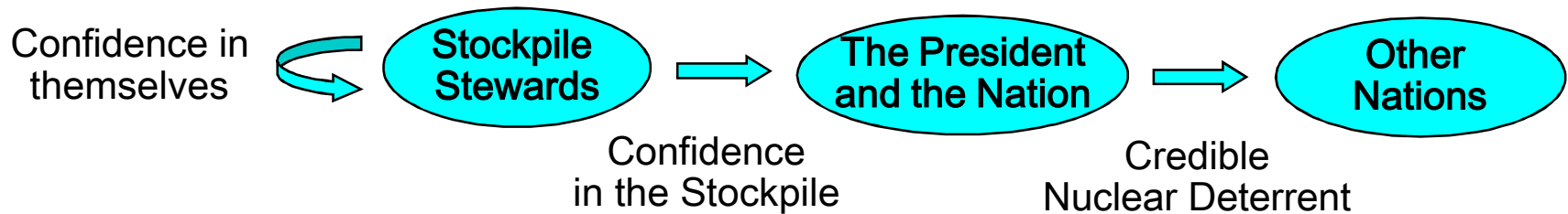
Lani Miyoshi Sanders
Sandia National Laboratories

June 26, 2007



Stockpile Confidence

Stockpile confidence today is ultimately about human judgment

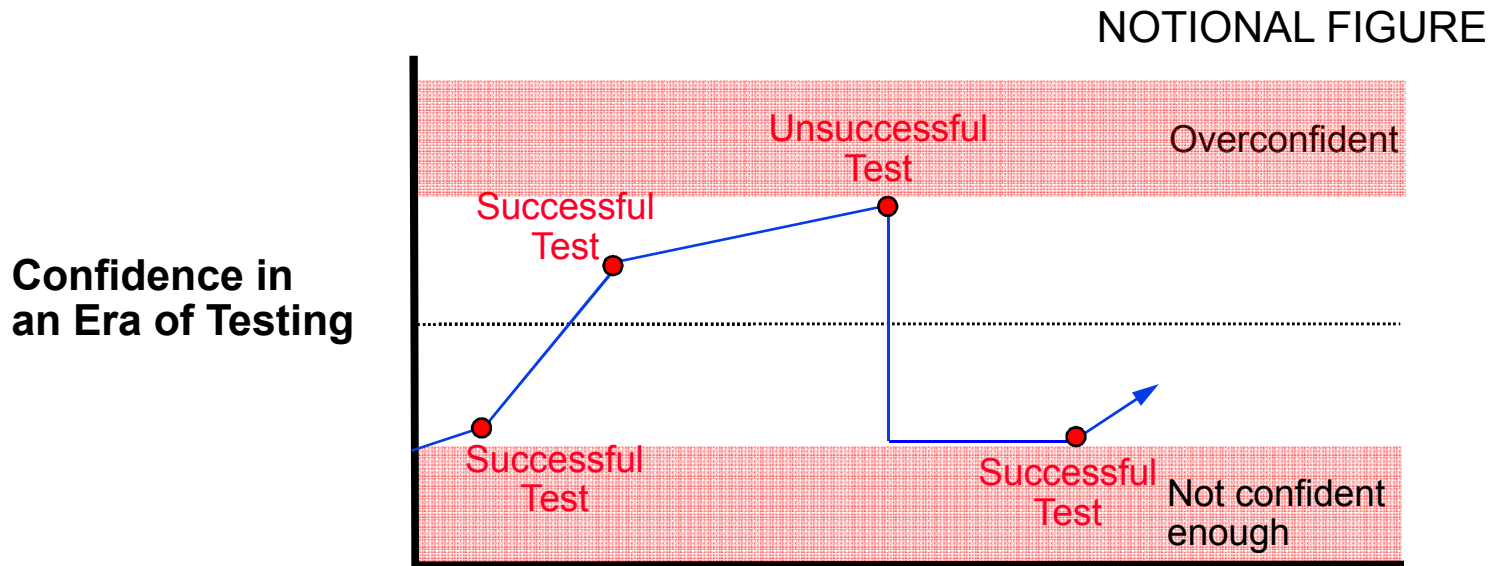


Inescapable uncertainties of the future necessitate the highest technical competence, credibility, and knowledge surpassing all others



Nuclear Testing:

A “Calibrator” of Stockpile Confidence



- Personal Accountability
 - Prediction → “Public” failure/success
 - Cost of test
- Humility sharpened by surprises

“This Panel has warned that a sense of false confidence or complacency may be the greatest danger facing the program in the long run.” – Foster Panel, 2002



Sleepwalking

The consensus is...no consensus

The Washington Post

“America is sleepwalking through history, armed with nuclear weapons...”
- Hamre, May 2005



DEFENSE SCIENCE
BOARD

“...little genuine debate aimed at forging a new consensus...”
December 2006

THE WALL STREET JOURNAL.

“A world free of nuclear weapons”
January 2007



ADVANCING SCIENCE, SERVING SOCIETY

“...no presidential or cabinet-level statement... that clearly lays out the role of nuclear weapons...”
April 2007



“What are nuclear weapons for?”
- Drell, June 2007

110TH CONGRESS <i>1st Session</i>	}	HOUSE OF REPRESENTATIVES	}	REPORT 110-185
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110TH CONGRESS <i>1st Session</i>	}	SENATE	}	REPORT 110-127
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“...policy vacuum”
June 2007

“...should have a more vigorous analysis and debate...”
June 2007

To a young scientist or engineer contemplating his/her career, what message does this send about a future devoted to ensuring the technical credibility of our nuclear deterrent?

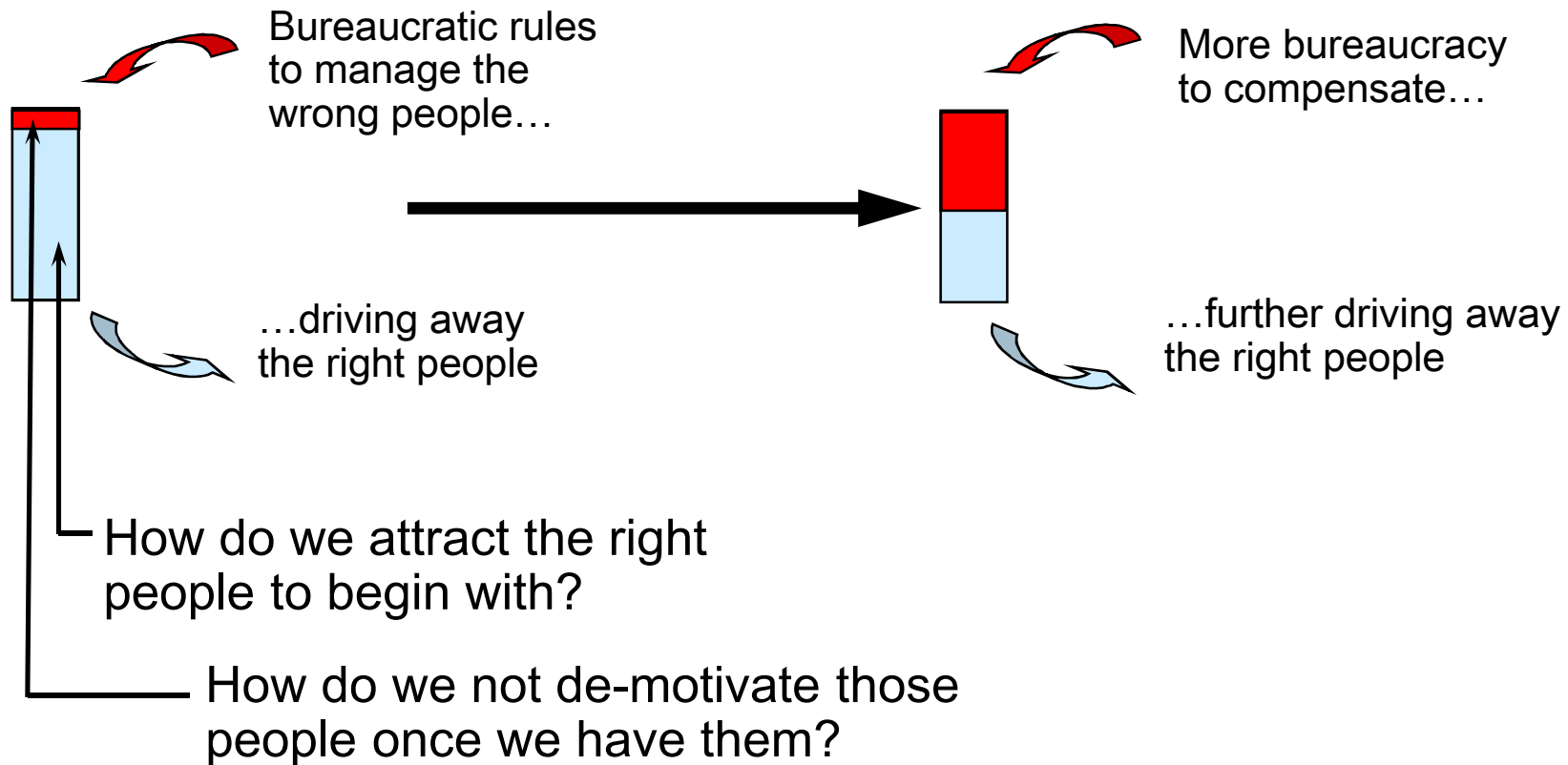


Jim Collins meets John Hamre

Sleepwalking does not get the “right people on the bus”

(...nor does it keep them on the bus)

■ percent wrong people
■ percent right people



“The only way to deliver to those who are achieving is to not burden them with the people who are not achieving”
– Paul Hazen, Wells Fargo, as quoted in *Good to Great*

Critical mass:

Who is already on the bus matters

Talent pool
(not the limiting factor)

Best and brightest

- Innate capabilities and intelligence
- Self-motivated
- Inner drive to be part of something great

People get on the bus
because of the people
already on the bus



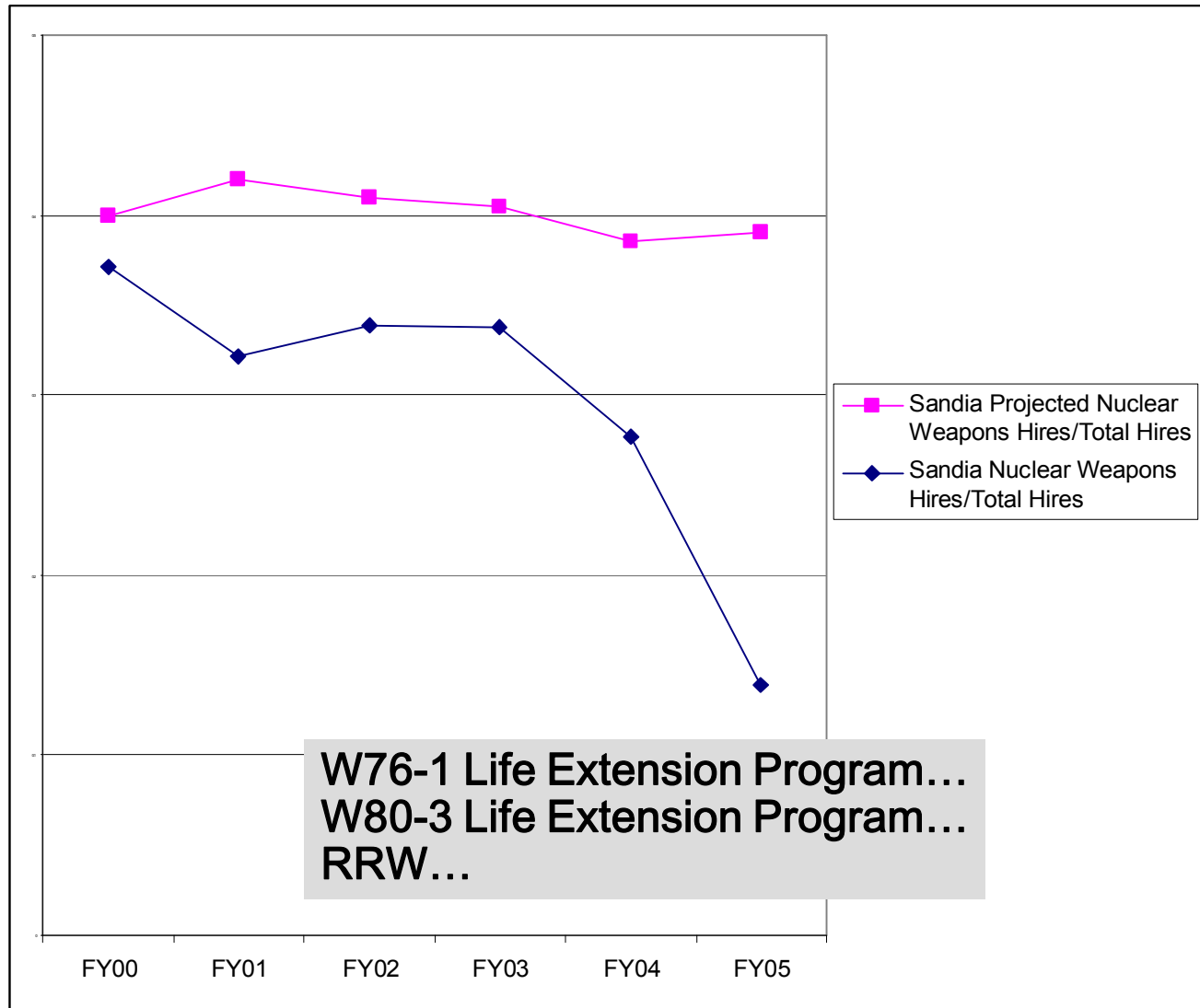
Get 'em on,
before the
experienced
people get off!

1999: Chiles Commission
anticipates retirement losses
from Nuclear Weapons
Complex **~60-150% higher**
than economy at large

Today: In 5 years, >40% of
Sandia tech staff will be
retirement eligible...
...in 10 years, >58%



Getting the right people on the bus: The work matters





The “War for Talent”*

The role of a coherent nuclear strategy

Chiles Commission, 1999

CONS

- Secrecy
- Dangers and risks
- Limited opportunities for peer interaction and review
- Downsizing
- “Sunset” industry
- No testing
- No “new designs”

...counter-balanced by...



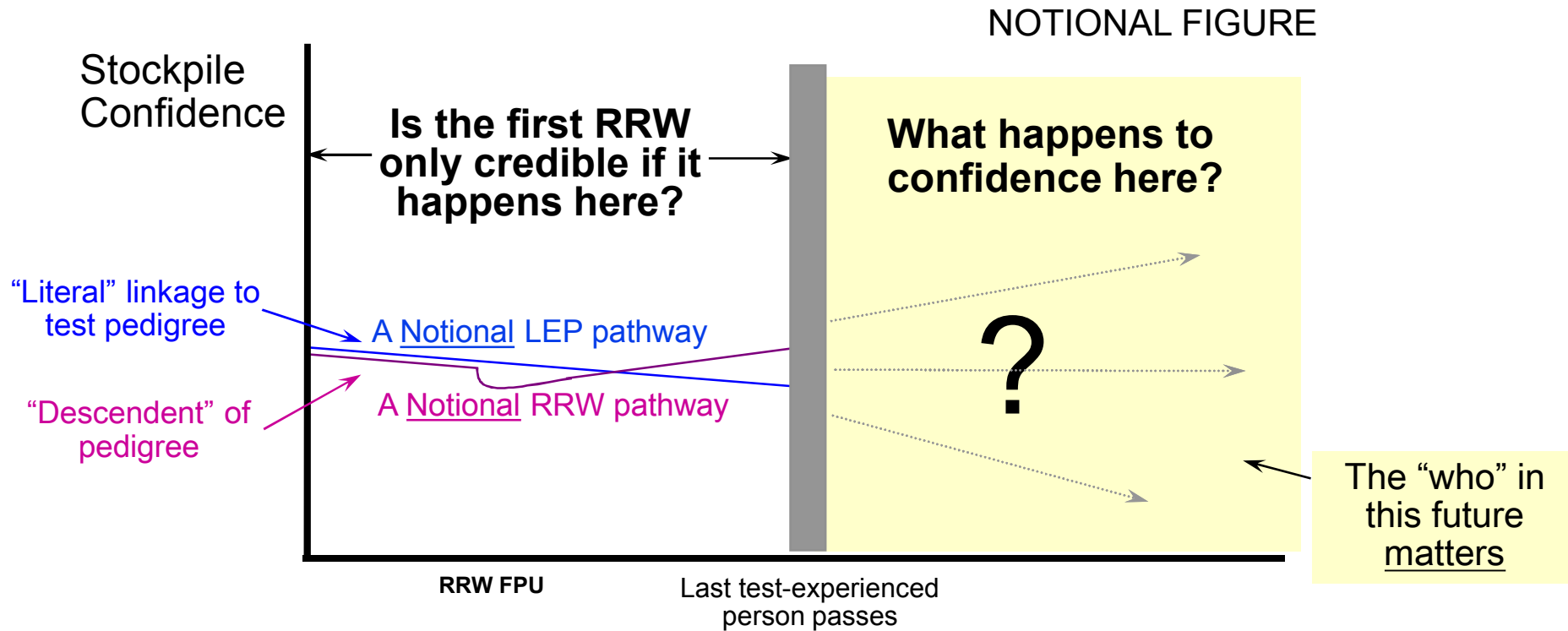
PROS

- Not simply scientists and engineers, public servants **inspired by a sense of purpose and mission of national import**

“The key more than ever before to the success of maintaining a safe and reliable stockpile is the quality of people who make the expert judgments necessary to the endeavor and their sustained dedication to their work”



It's the "who" that matters



*Note the French approach



As we struggle for a “new” nuclear policy...

- We should be disciplined in asking ourselves, over and over (before we “arrive”), will this policy:
 - Get the right people on the bus?”
 - Keep the right people on the bus?
 - Inspire the very best from those on the bus?
 - Demonstrate urgency, not complacency, in doing these three things

Clear, compelling, tangible, and **inspiring**.

