Causes of Massive Pillar Collapses:
- Slender pillars are susceptible to sudden failure
- Benching can create these tall, thin pillars (width-to-height ratio <0.8)
- Collapses can occur in old and recently benched areas

What are the Dangers?
- Air Blasts
- Ground Falls
- Surface Sinkholes
- Loss of Mine Access

Address Potential for Future Massive Pillar Collapses:
- Properly design pillars for benching (width-to-height ratio >0.8 and assess pillar stability)
- Maintain planned dimensions
- Account for pillar raveling or blasting overbreak
- Assess geologic features in the pillar

Identify At-Risk Areas:
- Recognize signs, such as spalling and hourglassing, that may indicate a pillar is overstressed
- Assess benched areas and verify pillar dimensions
- Evaluate potential air blast pathways
  - Reduce exposure of miners to airpaths
  - Protect mine infrastructure

For more information:
www.msha.gov/PillarInitiative