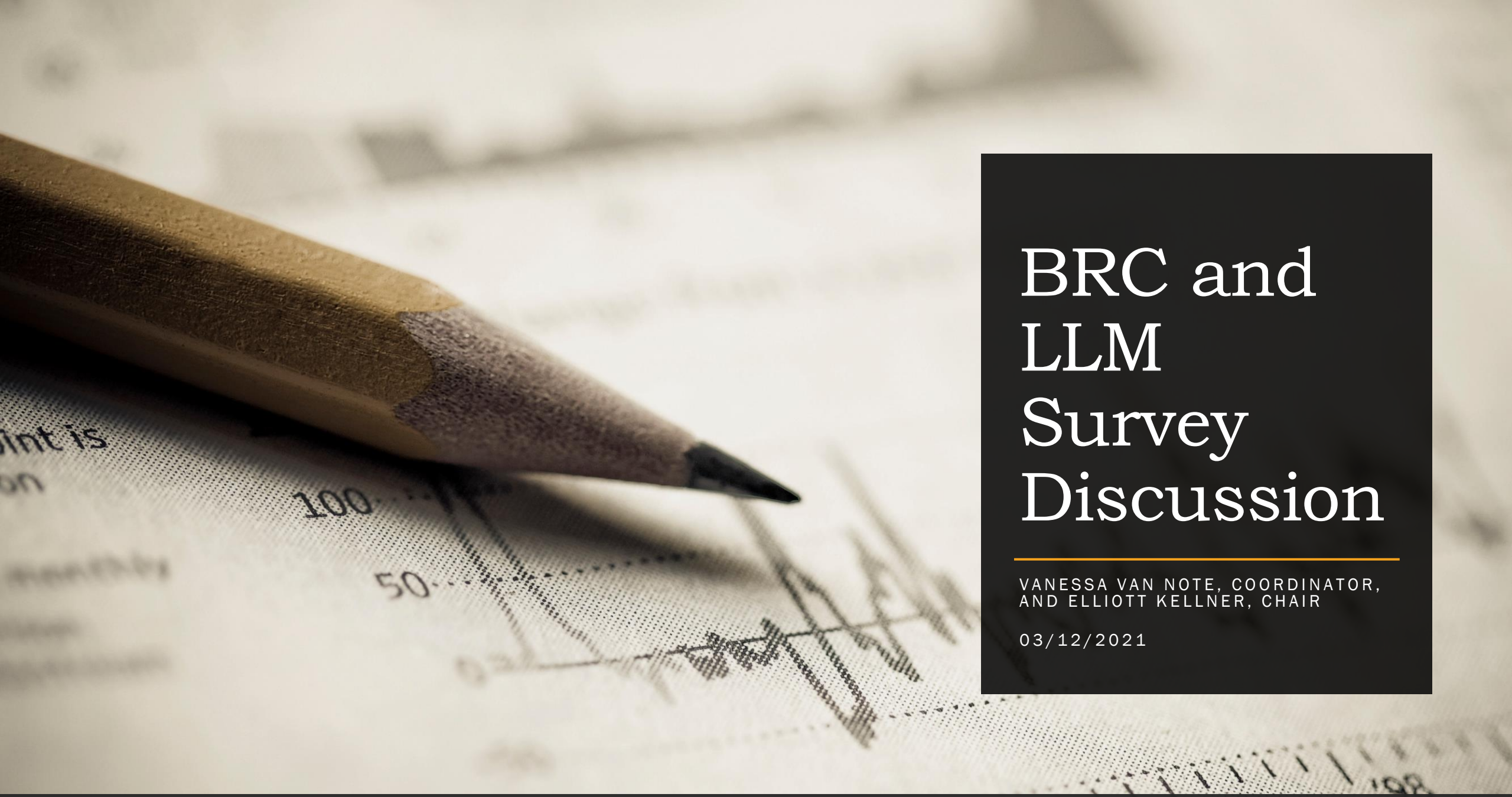

BRC and LLM Survey Discussion

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AND ELLIOTT KELLNER, CHAIR

03/12/2021

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- The Survey Results (Anonymous)
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- Chain of Approval Process Review and Proposal
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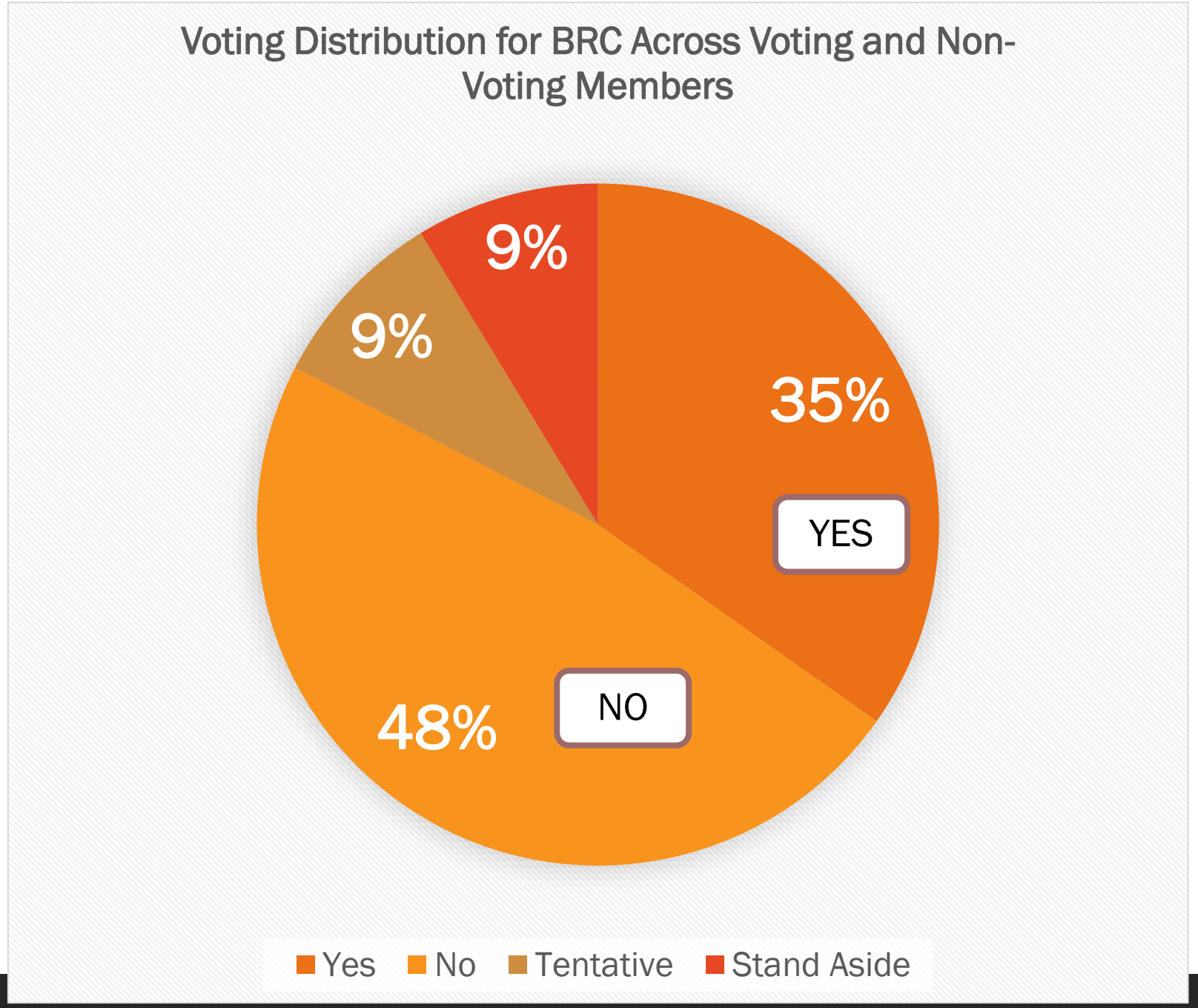
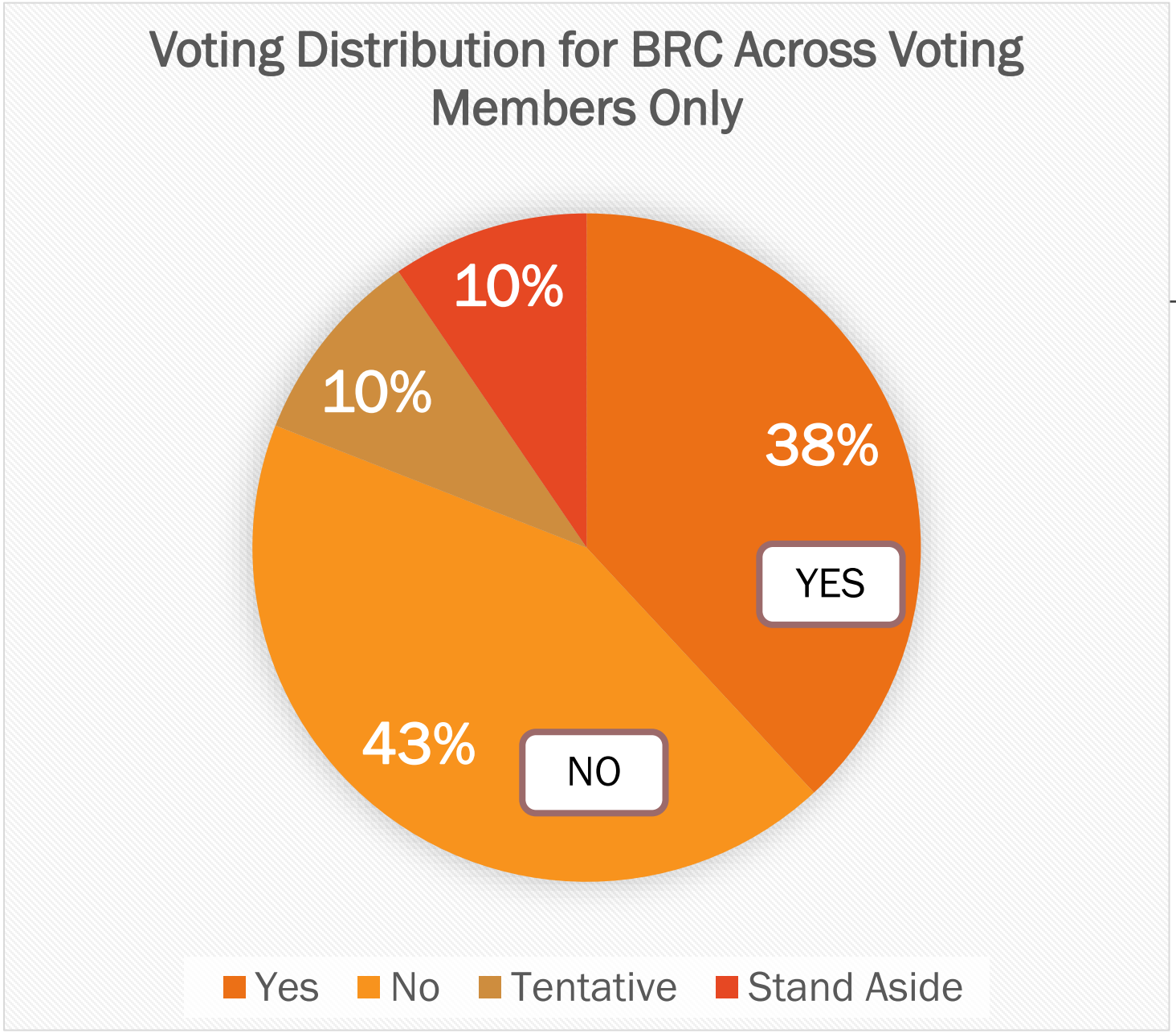
- Watershed View of BRC and LLM
- NY Inspection Data
- MD Inspection Data
- PA Inspection Data
- Discussion



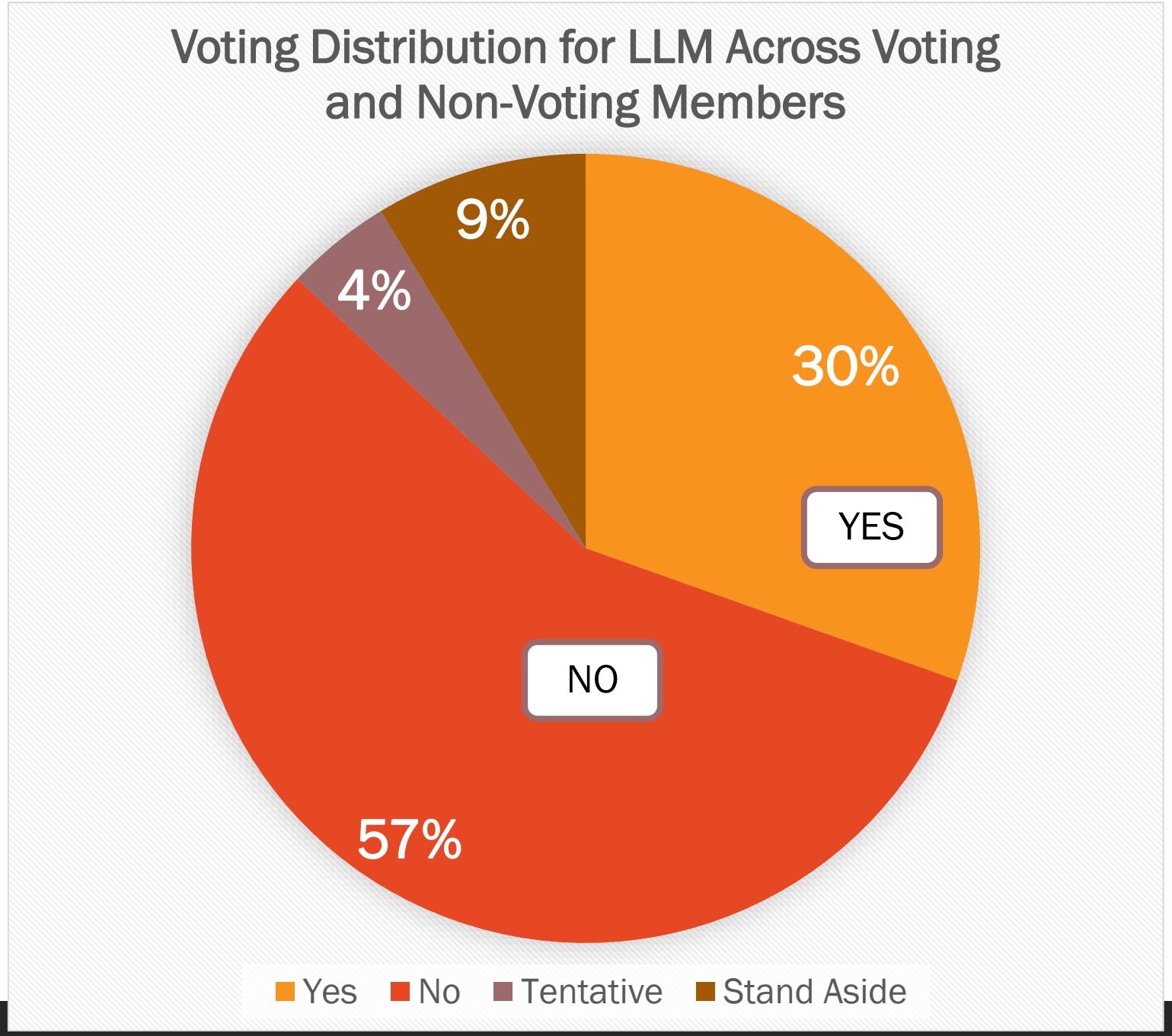
Survey Results – *Barnyard Runoff Control*

Results out of 23 participants.



Results out of 21 voting members.

Survey Results – *Barnyard Runoff Control*

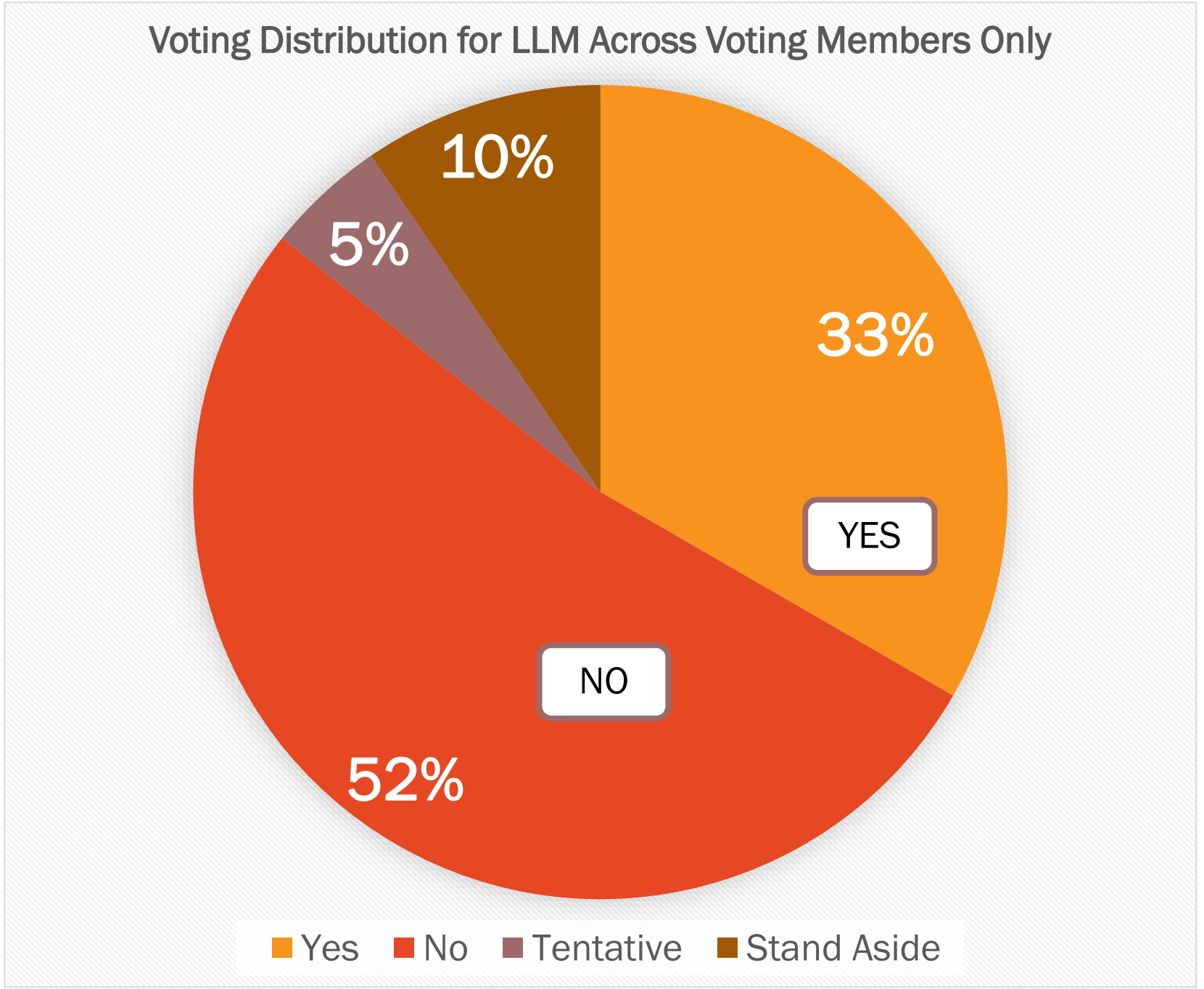


Survey Results – *Loafing Lot Management*

Results out of 23 participants.

Survey Results – *Loafing Lot Management*

Results out of 21 voting members.



Voting Member Results

- Out of 21 voting members – Full participation.

Practice	Yes	No	Tentative	Stand Aside
Barnyard Runoff Control	8	9	2	2
Loafing Lot Management	7	11	1	2

Rationale behind the “Yes” Vote (For Both)

- The practice lifespans is the minimum amount of time that is expected. Not an average, not the maximum. What we are finding in our data is on average, these practices are at a 19-year age. 15 years is conservative if we are finding on average, these practices are at 19 years with some reaching 20 or 30 years.
- Evidence from recent inspections are sufficient justification to increase the credit duration from the current 10-year mark that was based largely on NRCS contracting practice rather than expected effective life. Based on the data, a case could be made for a credit duration longer than 15 years.

Rationale behind the “No” Vote (For Both)

- Credit durations are often approached utilizing a conservative lens, the fact that multiple NRCS practices that fall under Barnyard Runoff Control have 10-year practice lifespans assigned to them would lead to believe that the CBP approach should still remain as 10 years as well.
- No BMPs should go without inspection for beyond 10 years. Factors such as climate change effects on individual BMPs are unknown at this time.
- 15 years is a very long time without verification and setting a precedent of 15 years is concerning. Relying on imagery for verification of practices is not reliable or proven at this point.
- The credit duration should remain at 10 years. Verification programs will provide the necessary data to continue the reductions for these bmps.

Rationale behind the “No” Vote (For Both)

- The potential for abuse of a system is a great reason for caution.
- Many of techniques used to control runoff from barnyards need to be maintained more frequently than 10 years. Therefore, a frequent inspection program is needed. Credit duration is the length of time from installation or implementation of a practice - to inspection needed to determine if or what maintenance is required to ensure the practice continues to function optimally.
- While some practices can be maintained and repaired for innumerable years, Practices can also fail due to lack of maintenance, change in ownership, large rainfall event, end even in some cases, animal damage. There are too many ways for the practice to fall out of specs to go 50% longer before verification.

Rationale behind the “No” Vote

- We have not seen scientific studies to justify changing the credit duration. There is a lack of data here to change expert recommendations.
- The results shown may not be statistically valid. There was not a properly designed study.
- Verification was established to provide oversight and accountability, not necessarily to check that the infrastructure can remain in place (if properly maintained) for decades.
- A practice may be functioning well in the first 15 years of its life, but is there a significant difference between checking a practice twice in 20 years versus twice in 30 years? There are more factors than design at play: such as economics, development, politics, change in ownership and weather events.

Rationale behind the “Tentative” Vote

- With average care the practices should last much longer than the min. lifespan indicated in NRCS specification. However, available inspection data from the state should be closely reviewed be for final decision
- Concerns regarding management. Issues can arise at any time.

Rationale behind the “Yes” Vote (Specific to BRC)

- The main items that are usually installed with their practice have a longer lifespan by NRCS.(ie. the practices that are more "hardscape"-gutters, fencing, etc).
  - If there are practices that are included in this reporting item, that have a shorter lifespan or more vegetative--they might need to be removed or have a shorter verification cycle.
- The infrastructure warrants the extension.
- PA knows of BMPs that are 20-30 years old in their Ag E&S plans. PA data showed approximately 43% (775 out of 1802) of Barnyard Runoff Controls were inspected after expiration and were functioning as expected. On average, they were 19 years old (9 years past their credit duration).

Rationale behind the “No” Vote (Specific to BRC)

- The credit duration of the Barnyard Runoff BMP was originally established by the AgWG based on existing state and USDA financial assistance programs which provided oversight and monitoring based on a typical 10-year contractual duration.
- The USDA-NRCS primary practice relies upon numerous supporting practices which vary depending upon the specific site characteristics, as no two are completely alike. The CBP crediting duration decision for this BMP was based on the lowest NRCS engineered lifespan duration of the suite of practices which are employed, as the failure of one practice will nullify the engineered design and thus the estimated nutrient reduction benefit. The NRCS components of a Barnyard Runoff BMP are all based on a 10-year or less practice lifespan with the exception of Roof Runoff Structure at a 15-years NRCS practice lifespan, a practice that is not used universally for all barnyard sites.
- The additional information presented thus far does not alter the original decision nor the premise it was based upon.

Rationale behind the “Yes” Vote (Specific to LLM)

- PA data showed that Access Roads and HUAP, approximately 39% or 261 practices out of 663 were inspected after their credit duration expired and they were all functioning as intended. On average these BMPs were 8 years past their credit duration, or 18 years old. There are records of these practices being more than 20 or 30 years beyond their credit durations as well.

Rationale behind the “No” Vote (Specific to LLM)

- The components of this practice are more sensitive to livestock density than the barnyard controls. It is likely that livestock numbers increase before 15 years and warrant the 10-year extension
- Multiple NRCS practices that fall under Loafing Lot Management practices have 10-year practice lifespans assigned to them would lead me to believe that the CBP approach should still remain as 10 years as well.
- There isn't strong justification for it.

Rationale behind the “No” Vote (Specific to LLM)

- The credit duration of the Loafing Lot Management BMP was originally established by the AgWG based on existing state and USDA financial assistance programs which provided oversight and monitoring based on a typical 10-year contractual duration.
- The USDA-NRCS primary practice relies upon numerous supporting practices which vary depending upon the particular site characteristics, as no two are completely alike. The CBP crediting duration decision for this BMP was based on the lowest NRCS engineered lifespan duration of the suite of practices which are employed, as the failure of one practice will nullify the engineered design and thus the estimated nutrient and sediment reduction benefits. The NRCS components of **a Loafing Lot Management BMP are all based on a 10-year or less practice lifespan.**

THE PROPOSED CHAIN OF APPROVAL

(10 Steps with approved recommendations proceeding to the WQGIT)

Discussion on the topic that the Ad-Hoc Group would like to develop a recommendation for.

Ex. Discussion to justify extending the credit duration of Forest Buffers to 15 years.

Ad-Hoc Leadership **documents an official recommendation** once discussions have reached a solution to a topic/concern.

The Ad-Hoc Leadership **presents the official recommendation** to the BMP Ad-Hoc Team and all applicable workgroups.

All workgroups are allowed a **comment period** of at least 10 days.

Internal (within the BMP Ad-Hoc Group) discussion of the comments received and how to incorporate the comments into the recommendation.

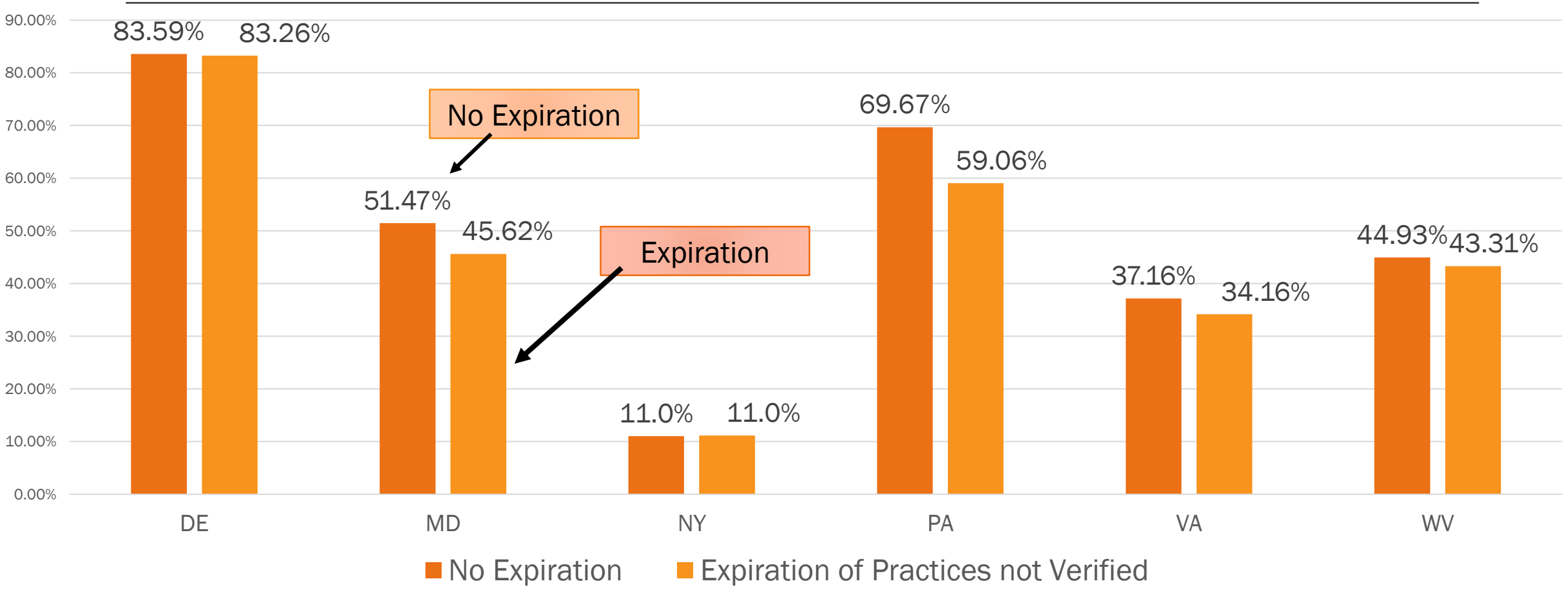
BMP Ad-Hoc Leadership **incorporates the comments** into the recommendation.

The official recommendation is provided to the BMP Ad-Hoc Team for a **10-day review period.**

The official documentation is presented and the Ad-Hoc Chair **requests consensus-based approval.**

Once consensus is reached, the recommendation proceeds to the WQGIT.

How does Credit Duration/ an Accountability Framework effect Implementation?



- Average Implementation of BRC and LLM from 2011 to 2020.