

Preliminary Broiler comparisons

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Broiler data update

- [Recommendations to Estimate Poultry Nutrients for Phase 6](#)
 - Appendix B (page 46)

Year	DE_Avg_Lbs_Market_Weight_per_Bird	Wet_Lbs_Litter_per_Bird	Dry_Lbs_per_Lb_Wet_Litter	Dry_Lbs_Litter_per_Bird	Lbs_P_per_Dry_Lb_Litter	Lbs_P_per_Bird	Lbs_N_per_Dry_Lb_Litter	Lbs_N_per_Bird
1985	4.80	2.2673	0.7135	1.6177	0.0183	0.0297	0.0462	0.0748
2024	7.45	2.286	0.7239	1.6548	0.0148	0.0245	0.0384	0.0635

- Delmarva specific data
 - 2014 -2024

Refresher on Delmarva:

DE:

- Kent
- New Castle
- Sussex

MD:

- Caroline
- Cecil
- Dorchester
- Kent
- Queen Anne
- Somerset
- Talbot
- Wicomico
- Worcester

VA:

- Accomack
- Northampton

Comparison

Phase 6

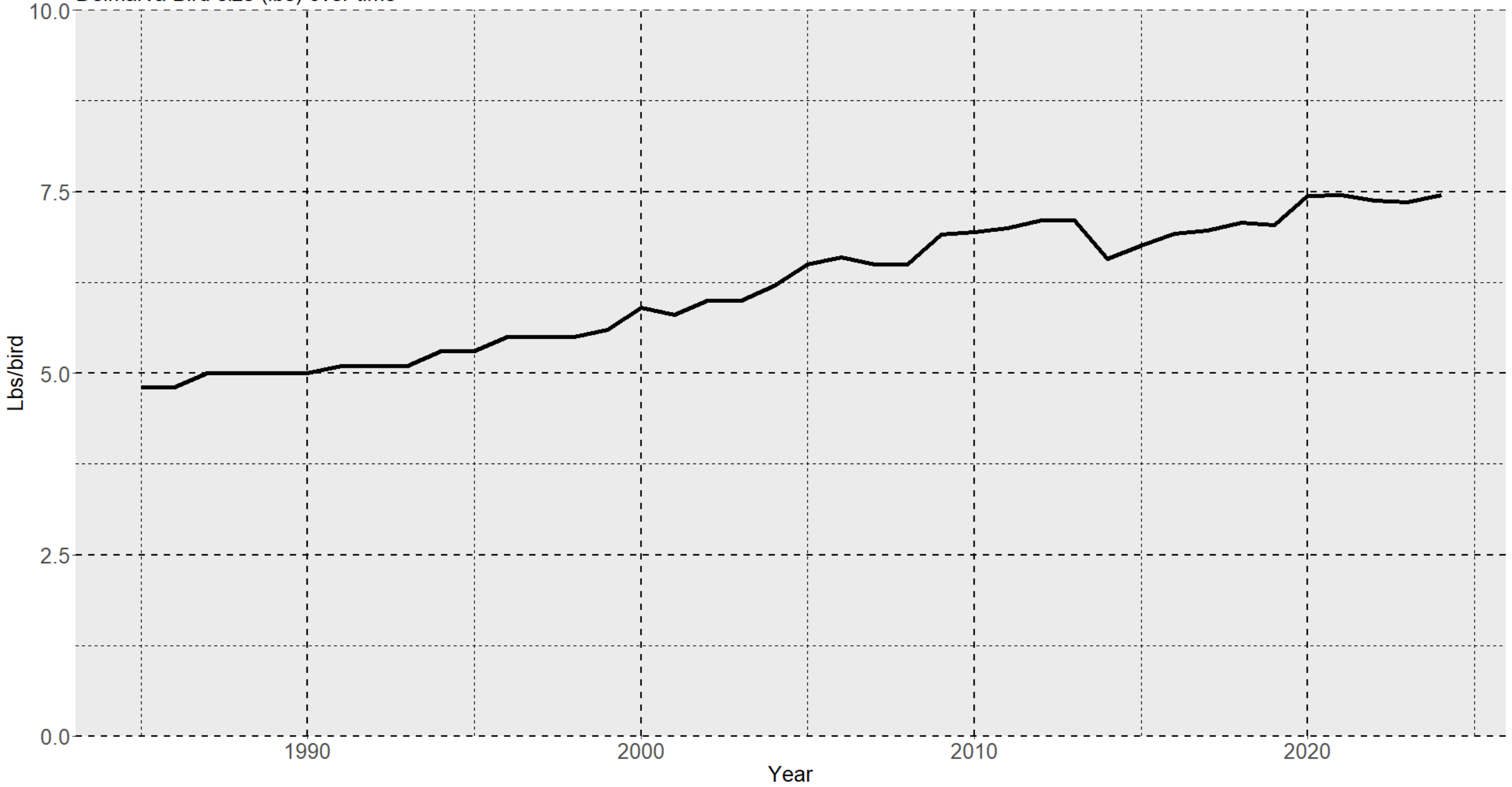
- Existing information currently used in P6

Phase 7

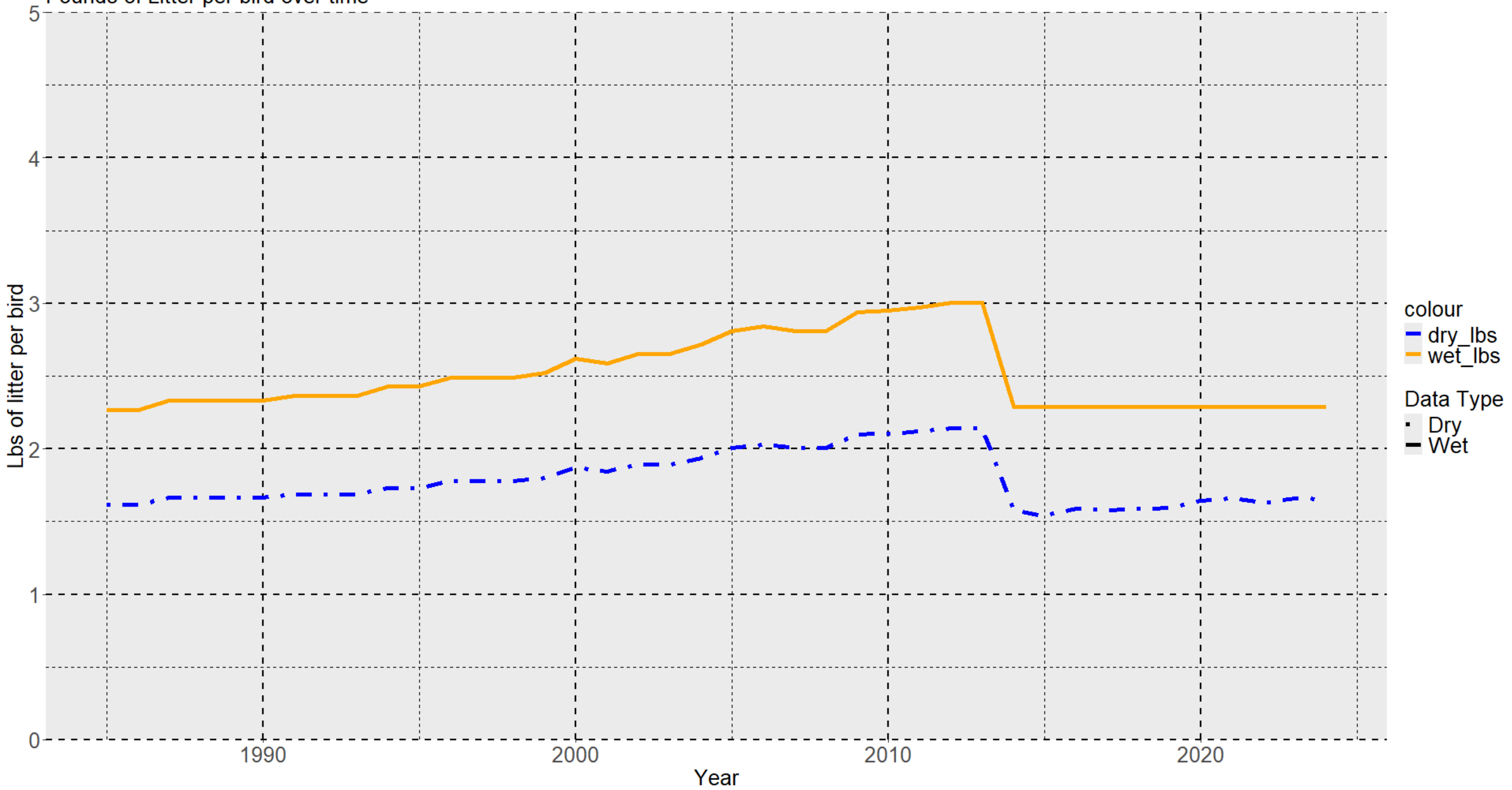
- Delmarva specific
- 2014 to 2024
- Industry information

NOTE* values for all of Delmarva are the same in P7.

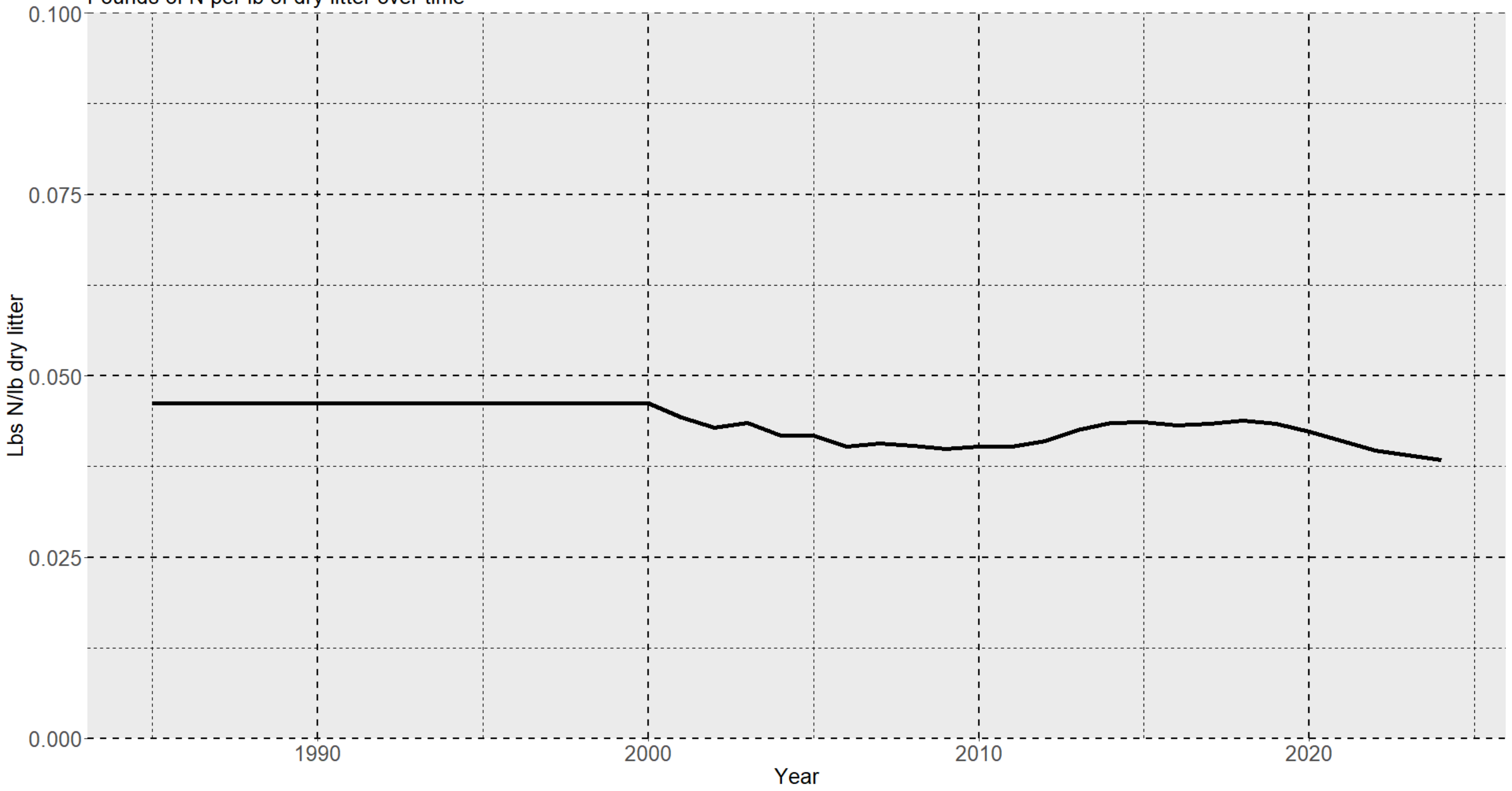
Delmarva Bird size (lbs) over time



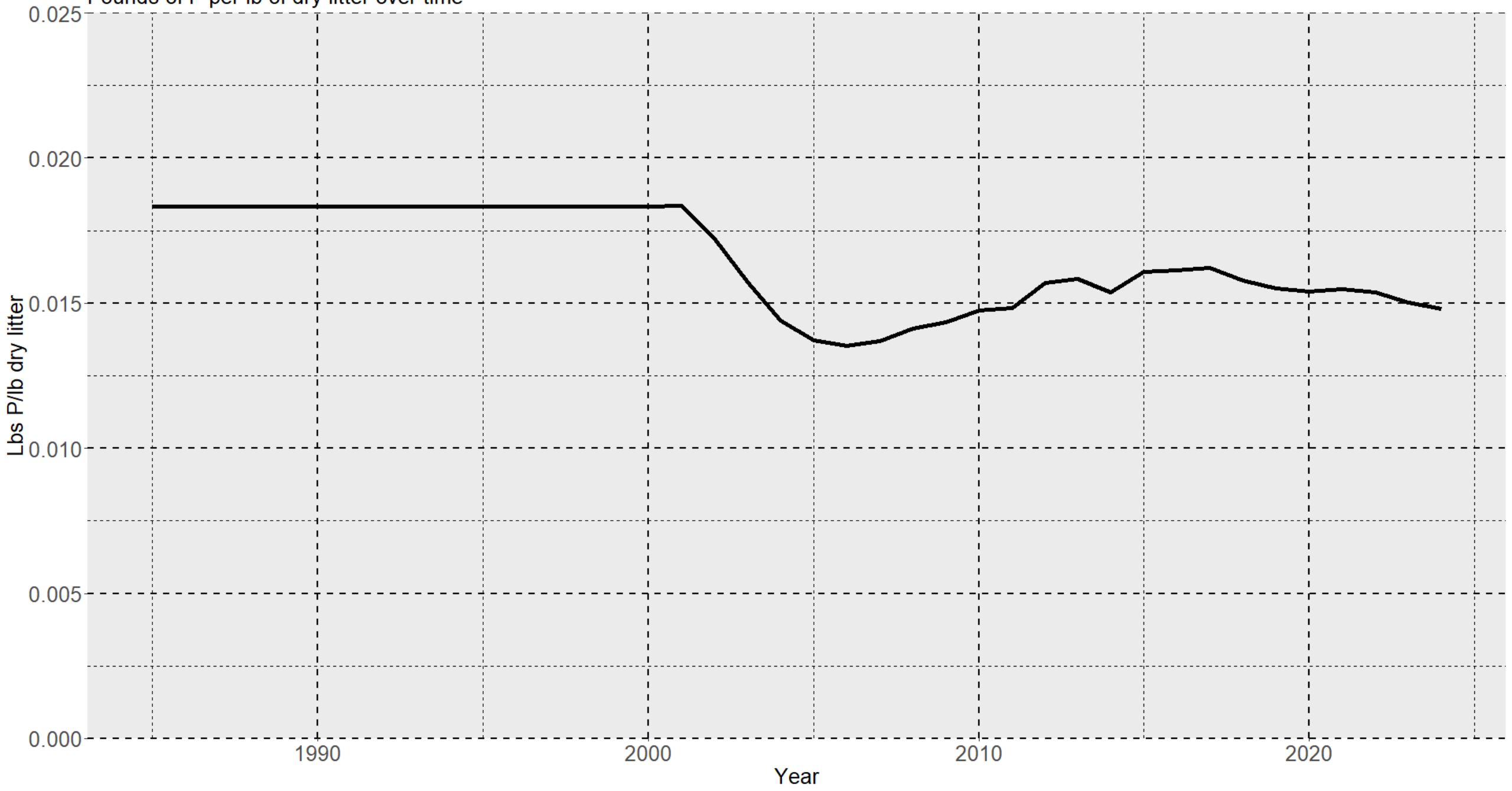
Pounds of Litter per bird over time



Pounds of N per lb of dry litter over time



Pounds of P per lb of dry litter over time



Raw data takeaways: Since the 1980's...

Bird size has increased

Litter generated per bird has remained similar

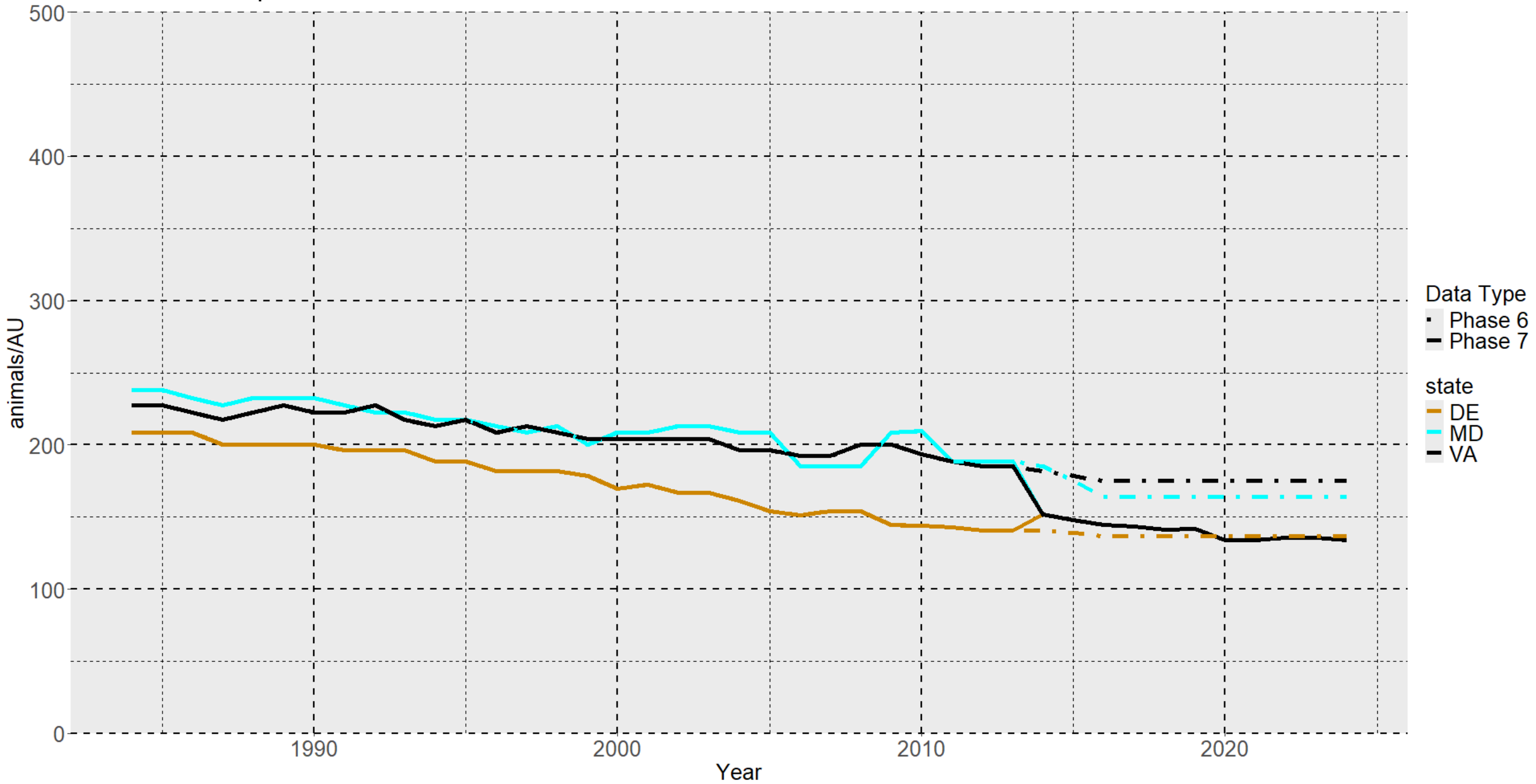
- Caveat* There was a rise in litter generated through the mid 2010's which then dropped to a similar value as the mid 1980's.

N and P lbs per bird have decreased

How do these data impact CAST?

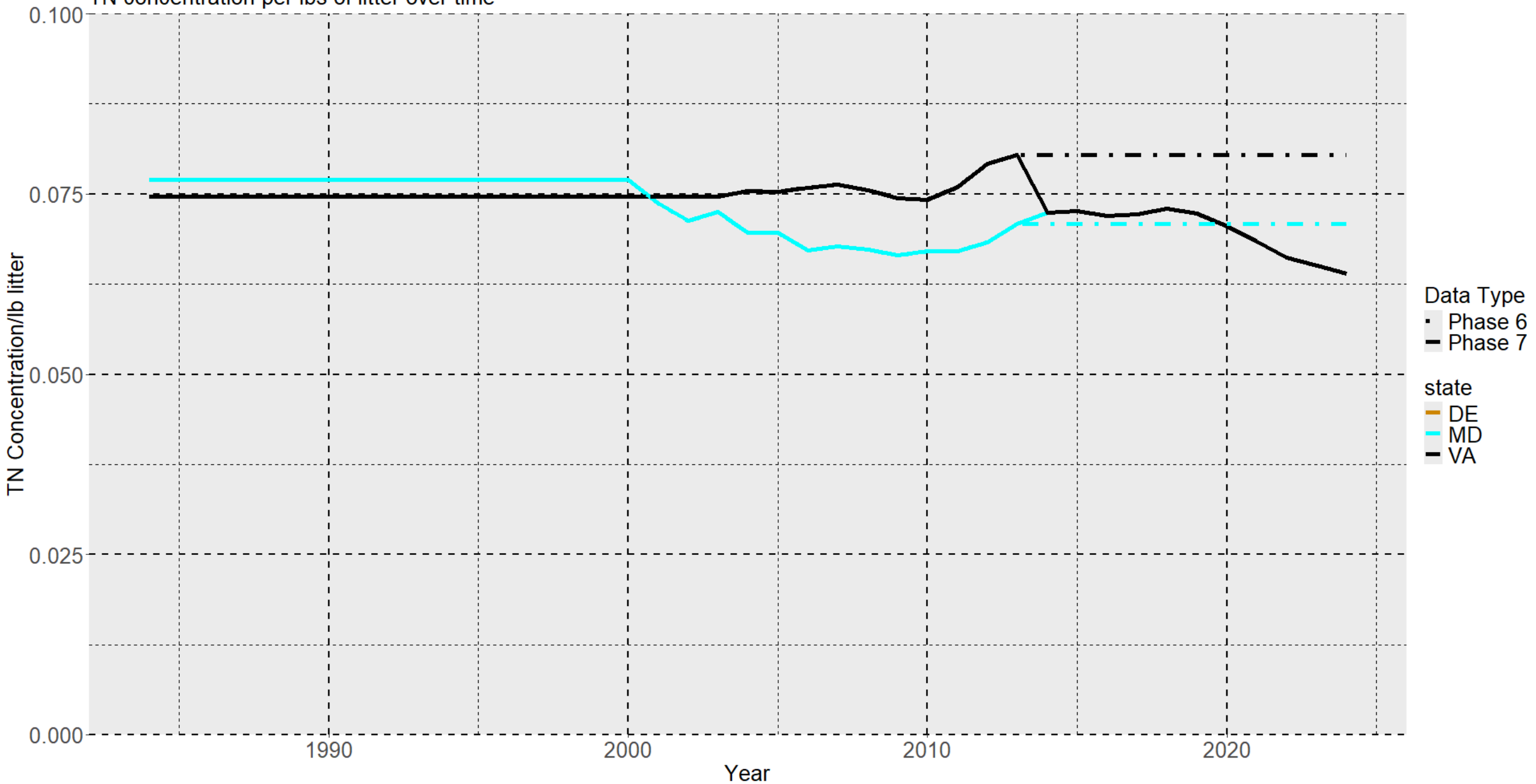
- Bird size alters the number of animals per animal unit (1000lbs animal)
- Alters the fraction of manure that is dry matter
- Changes Total N and Total P concentrations per lbs of litter

State Animals per animal unit



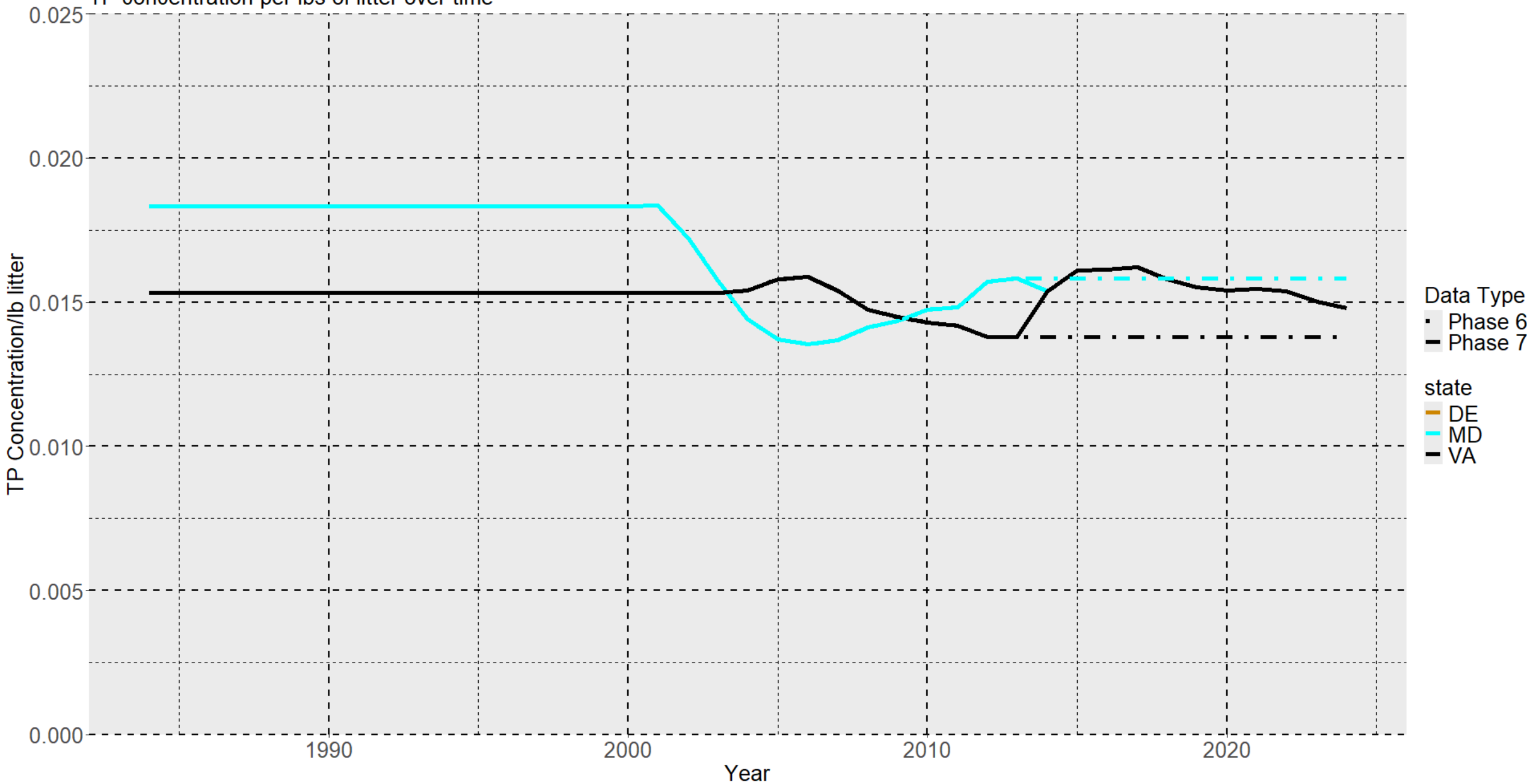
NOTE* DE and MD has the same concentrations in P6.

TN concentration per lbs of litter over time



NOTE* DE and MD has the same concentrations in P6.

TP concentration per lbs of litter over time



Preliminary CAST takeaways: With new data

Larger birds causes fewer animals
/ animal unit

TN and TP concentrations per lb. of
litter have gone down

Let's put it all together:

In the Delmarva:

- There are larger birds today than in the 1980's
- These birds are producing less litter
- The litter generated has lower TN and TP concentrations

Bottom line

- Not sure the impact without updated census animal populations.

Questions?

Next steps:



Do we want to take time to look more specifically at the impact of this?

- Did not run this with the population from P6, time limited
- Awaiting updated animal populations from new census data, and so haven't been able to run a new scenario



Should we focus more elsewhere?

- Please provide input over the next two weeks.