

An aerial photograph of a lush green landscape. A narrow, winding stream flows through the center of the image. The stream is surrounded by dense vegetation, including various types of grasses and small trees. The overall scene is vibrant and natural.

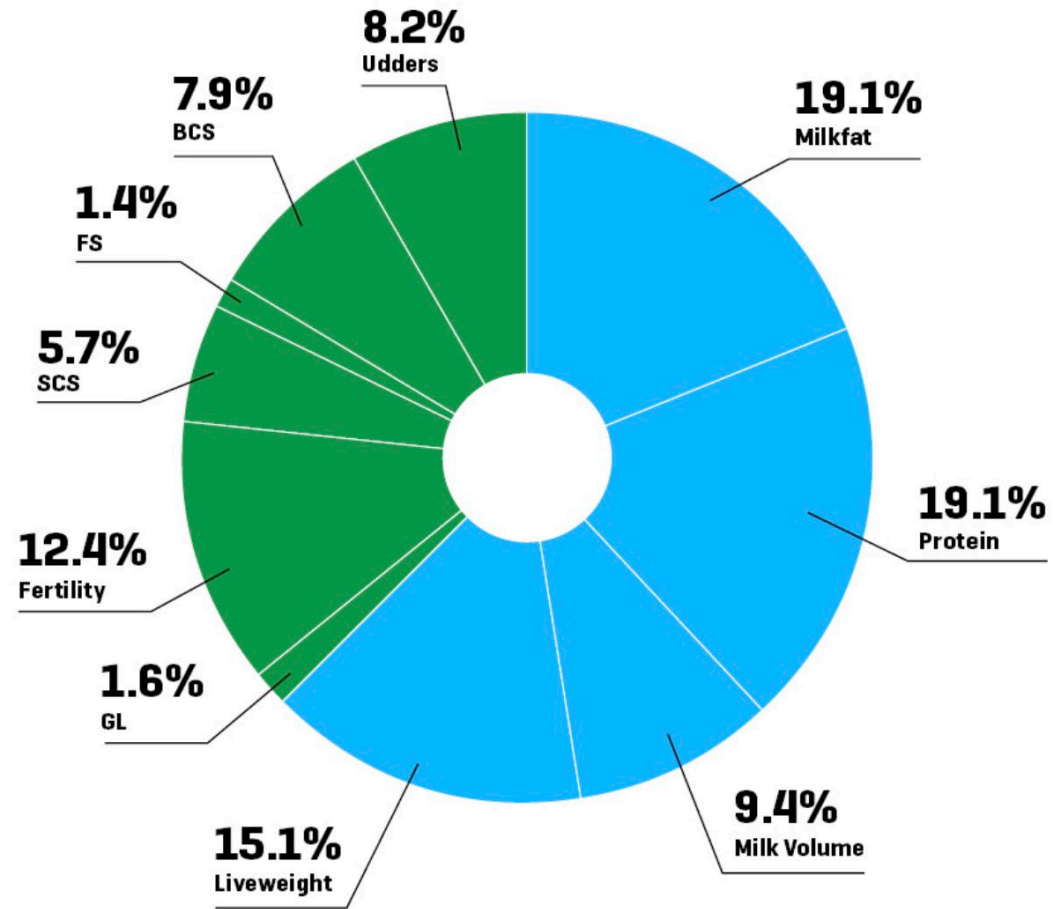
Genetic trend in milk fat percent is highly responsive to the relative economic value of milk fat and milk protein in the NZ dairy industry.

Melissa Stephen, Rhiannon Handcock, Peter Amer

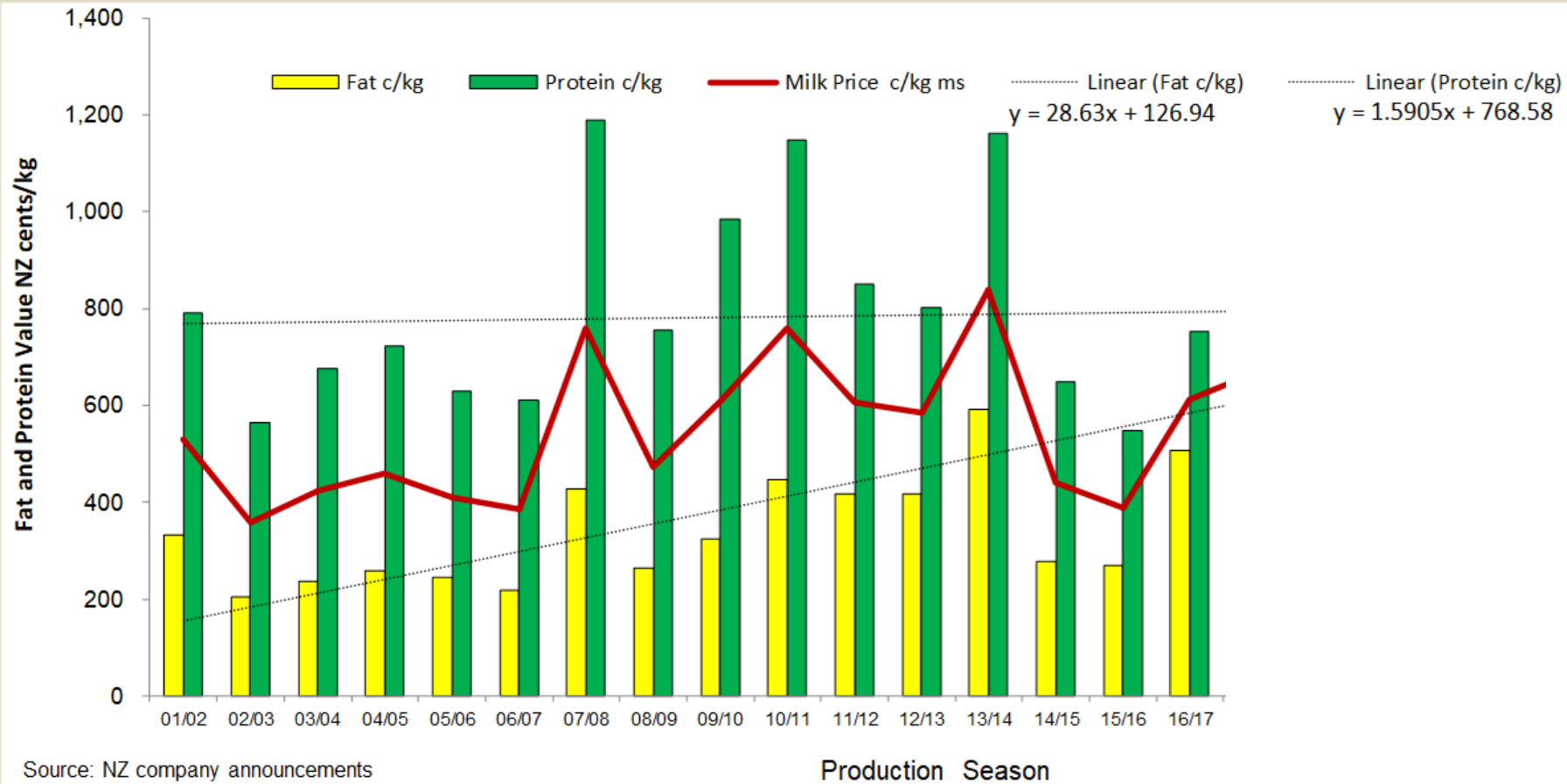
DairyNZ 

Observing how changes to the selection index are reflected in the genetic merit national herd

National Selection Index – Breeding Worth

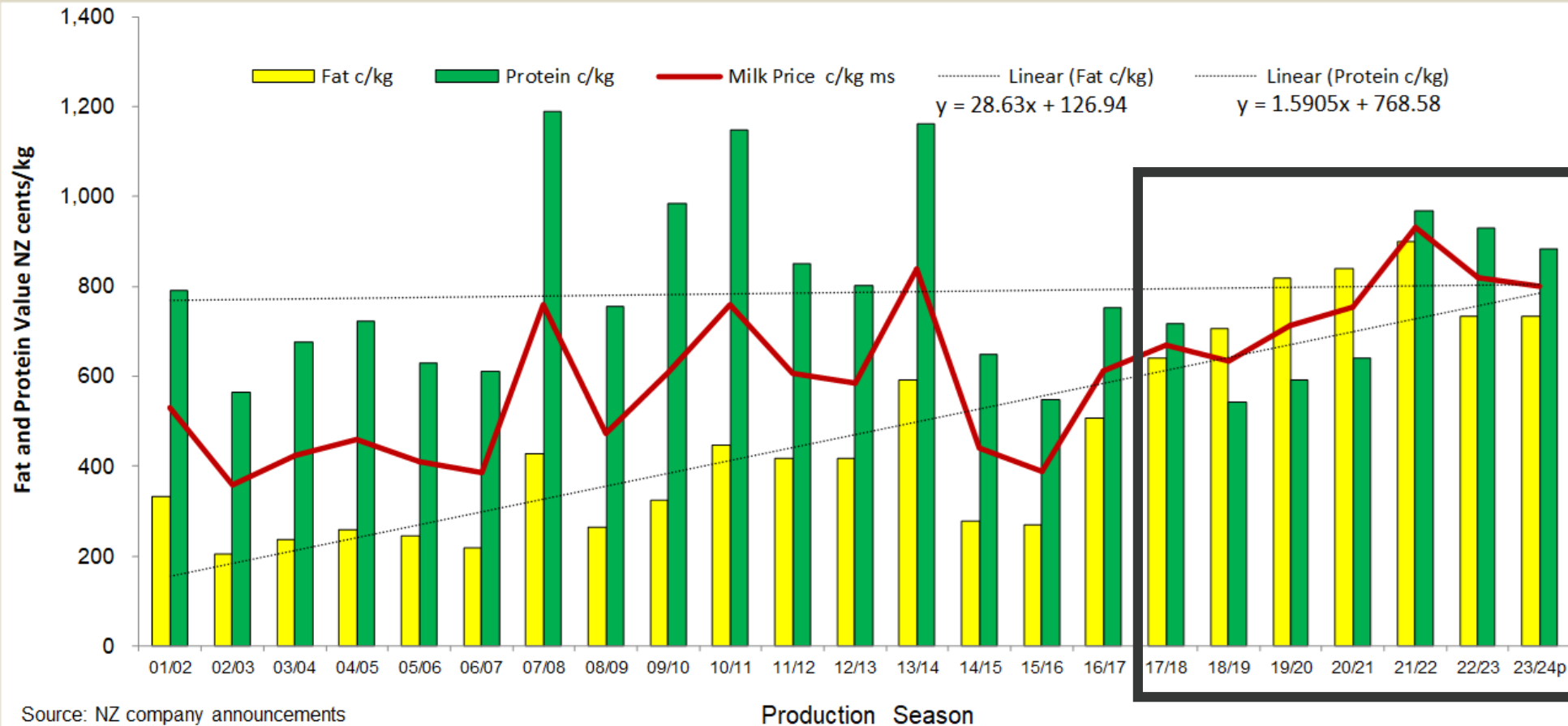


Milk Price in NZ



Source: NZ company announcements

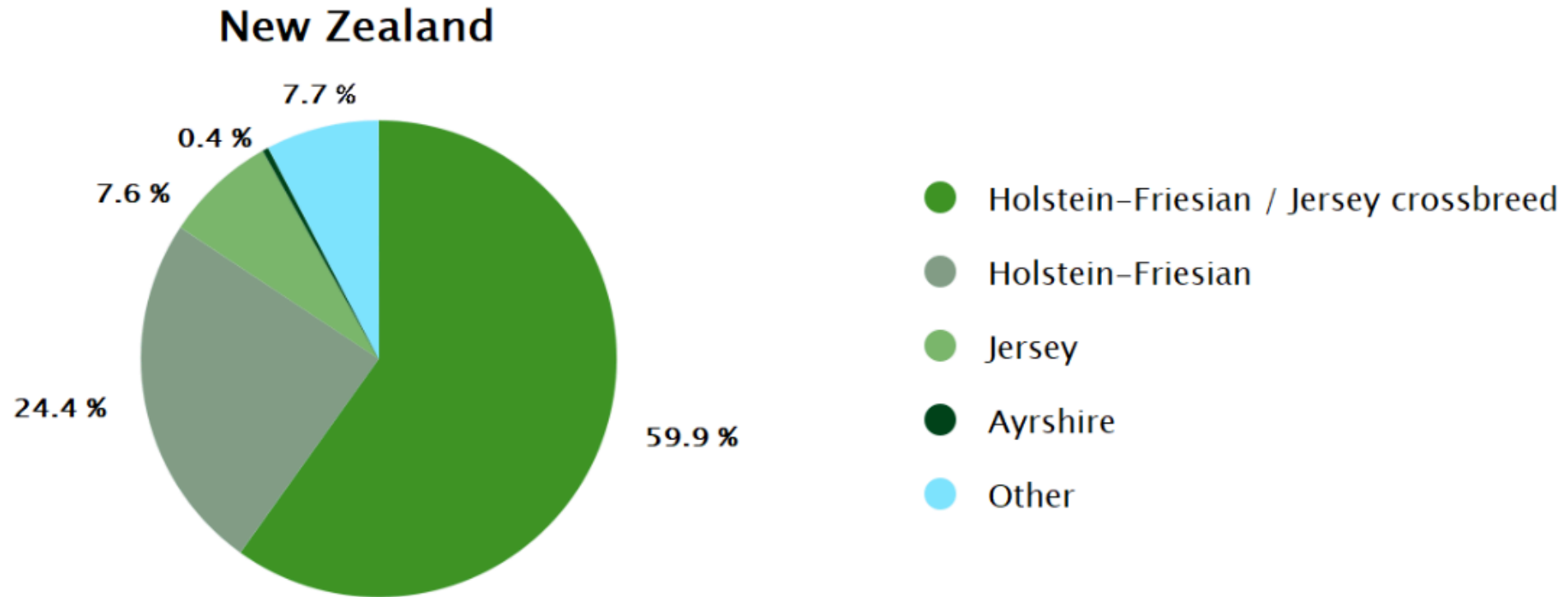
Milk Price in NZ



Weighting of Fat vs Protein in BW

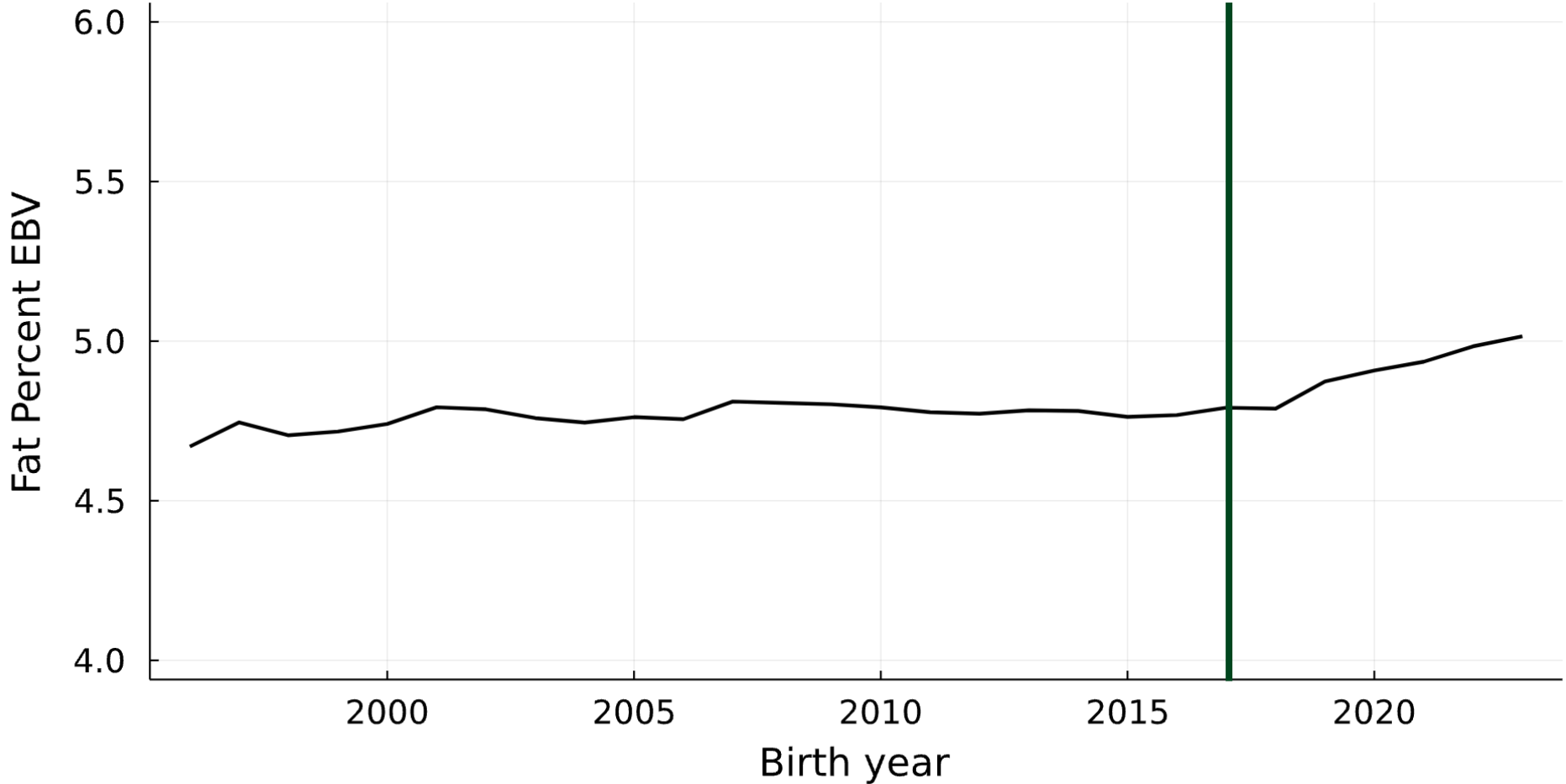


Did farmers respond to the modified BW weightings?



- 1. Do we see a response in genetic trend**
- 2. Do we see evidence of breed substitution**

Genetic Trend for Milk Fat Percent

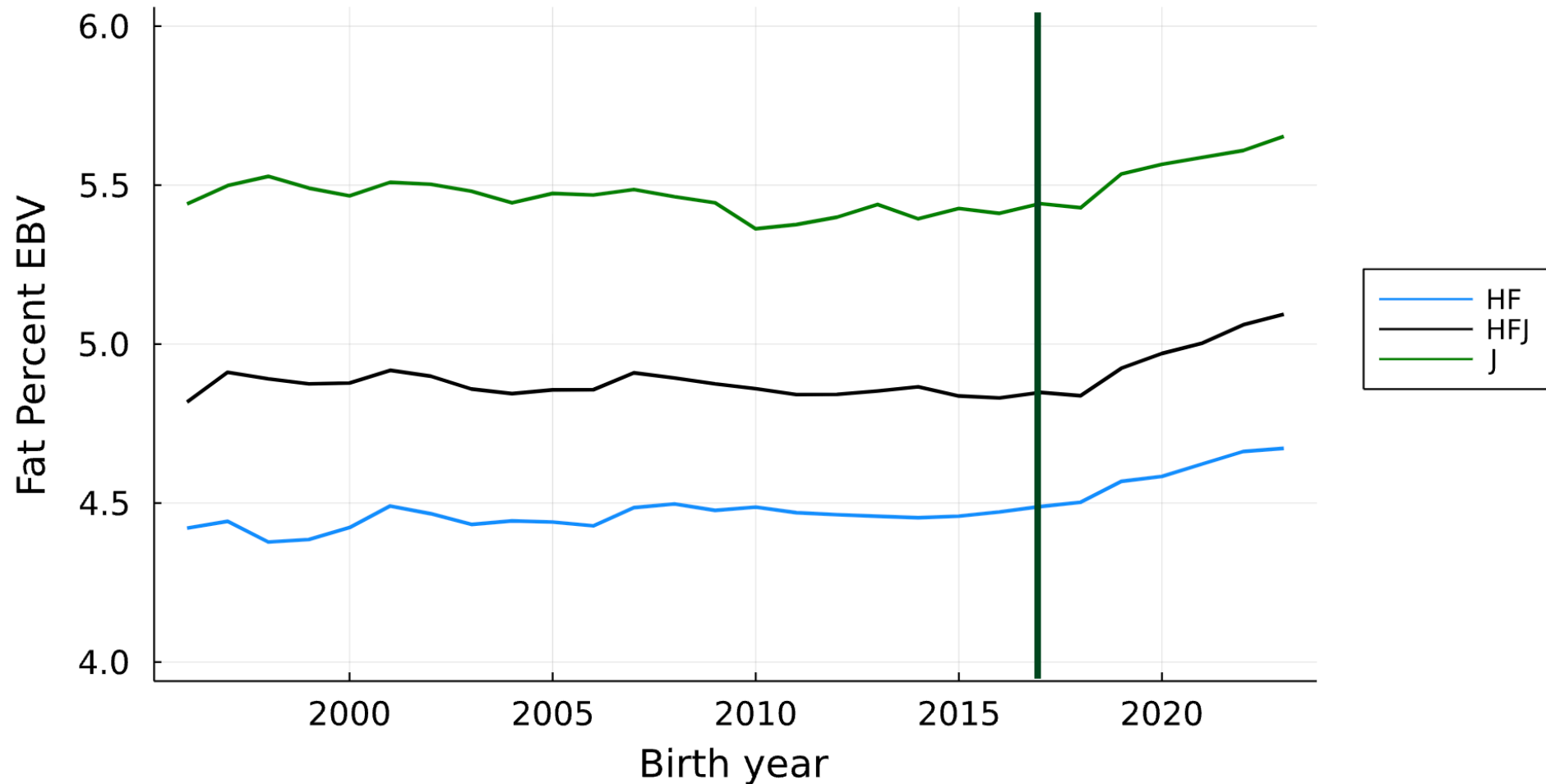


Possible levers

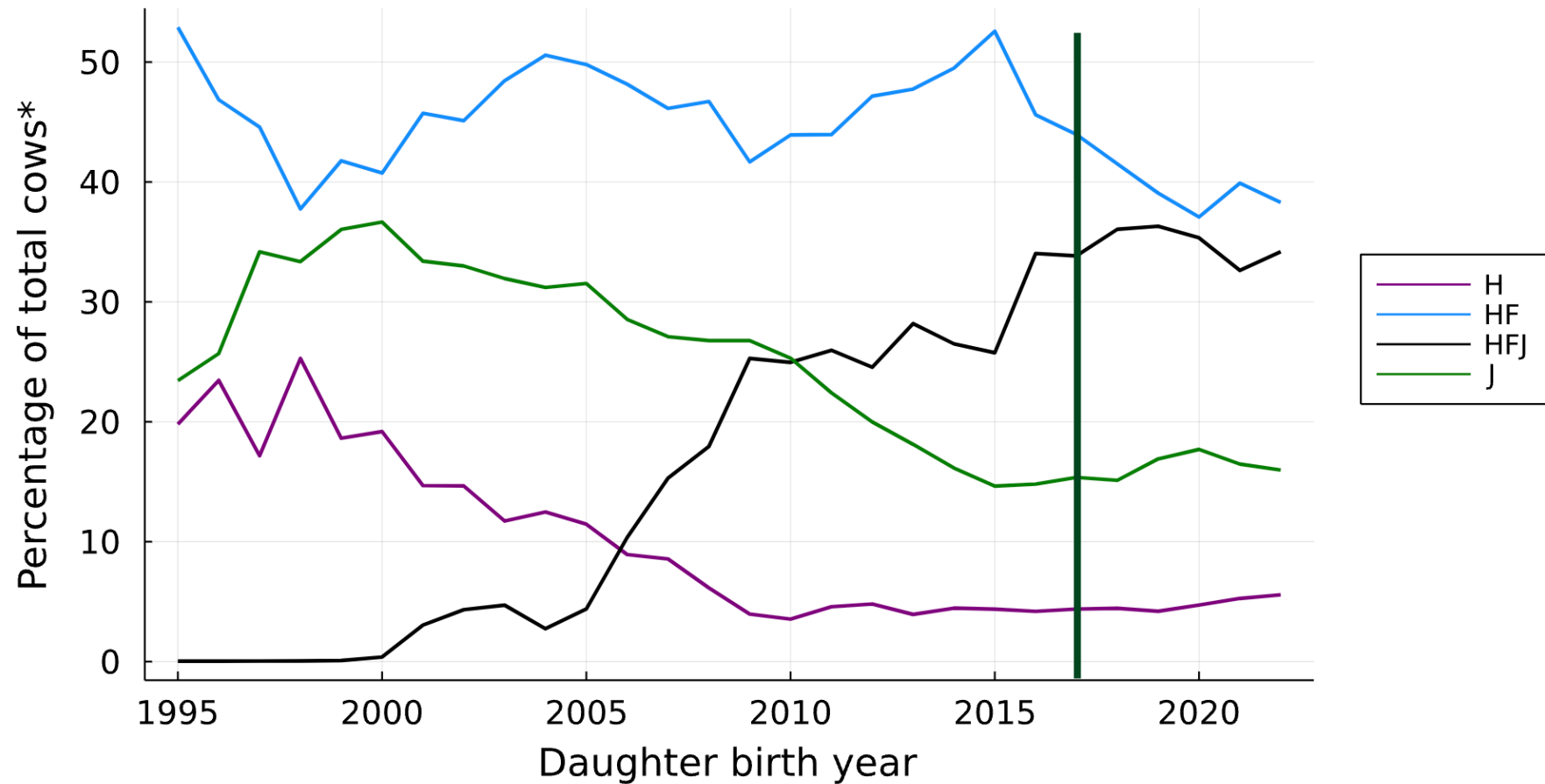
1. Within breed selection
2. Breed substitution



Genetic Trend for Milk Fat – by breed

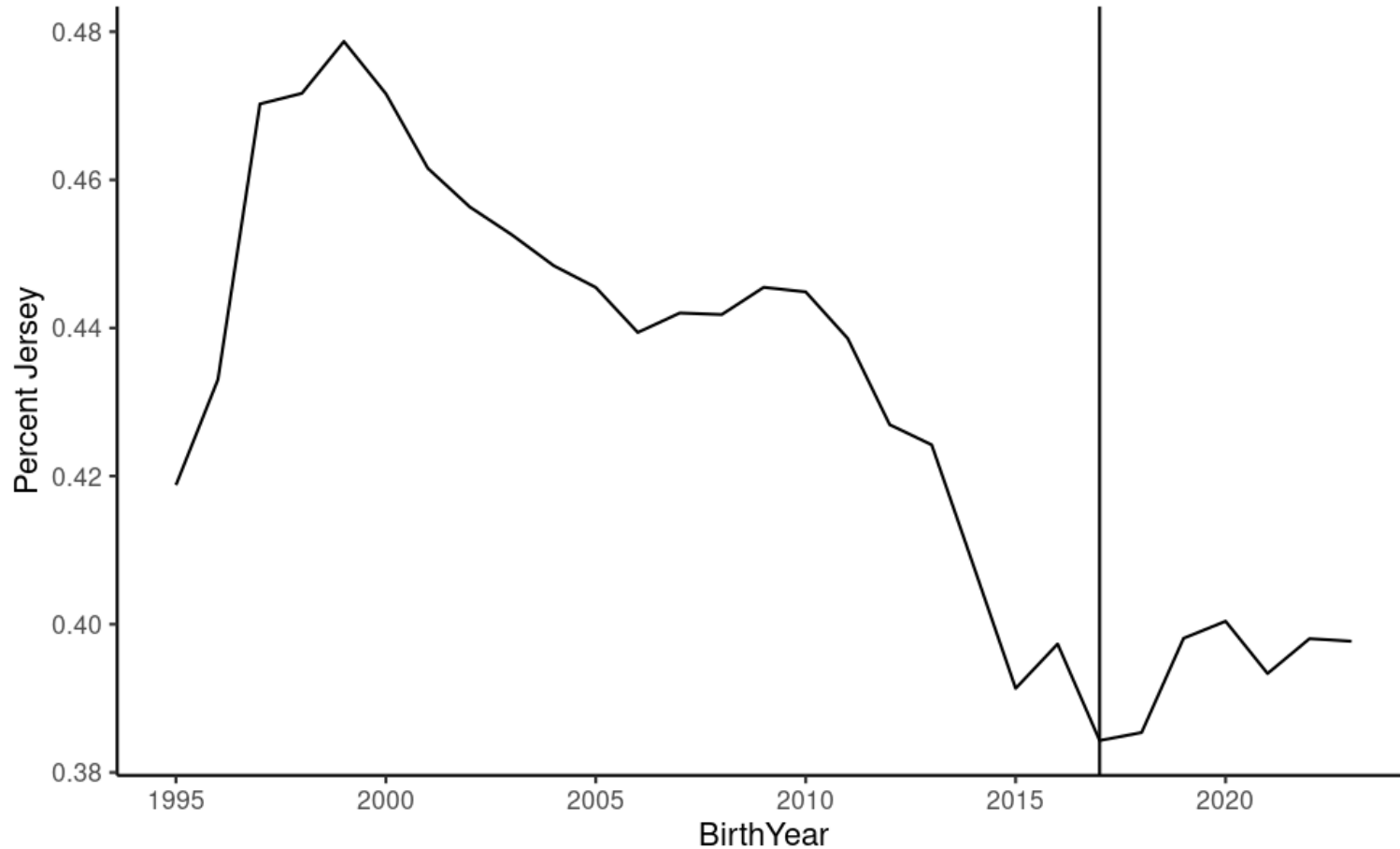


Breed Substitution – Sire decisions



*Percentage of cows born in each birth year that were sired by bulls from each breed category

Breed Substitution – Proportion Jersey



Conclusion

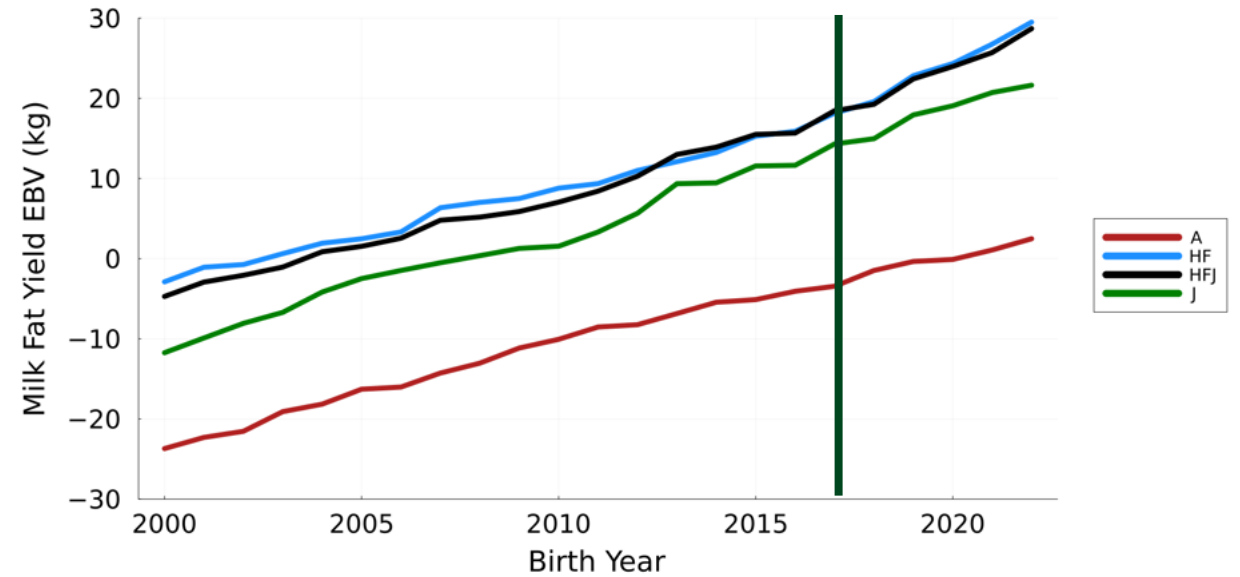
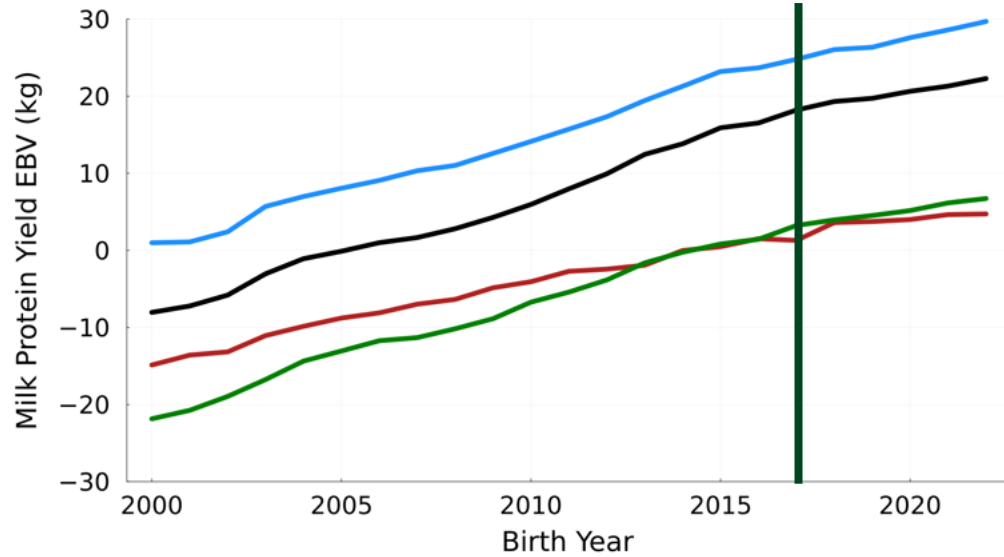
- Genetic trends respond to BW weighting changes
- This response appears to be largely driven by within breed selection
- And, to a lesser extent, breed substitution



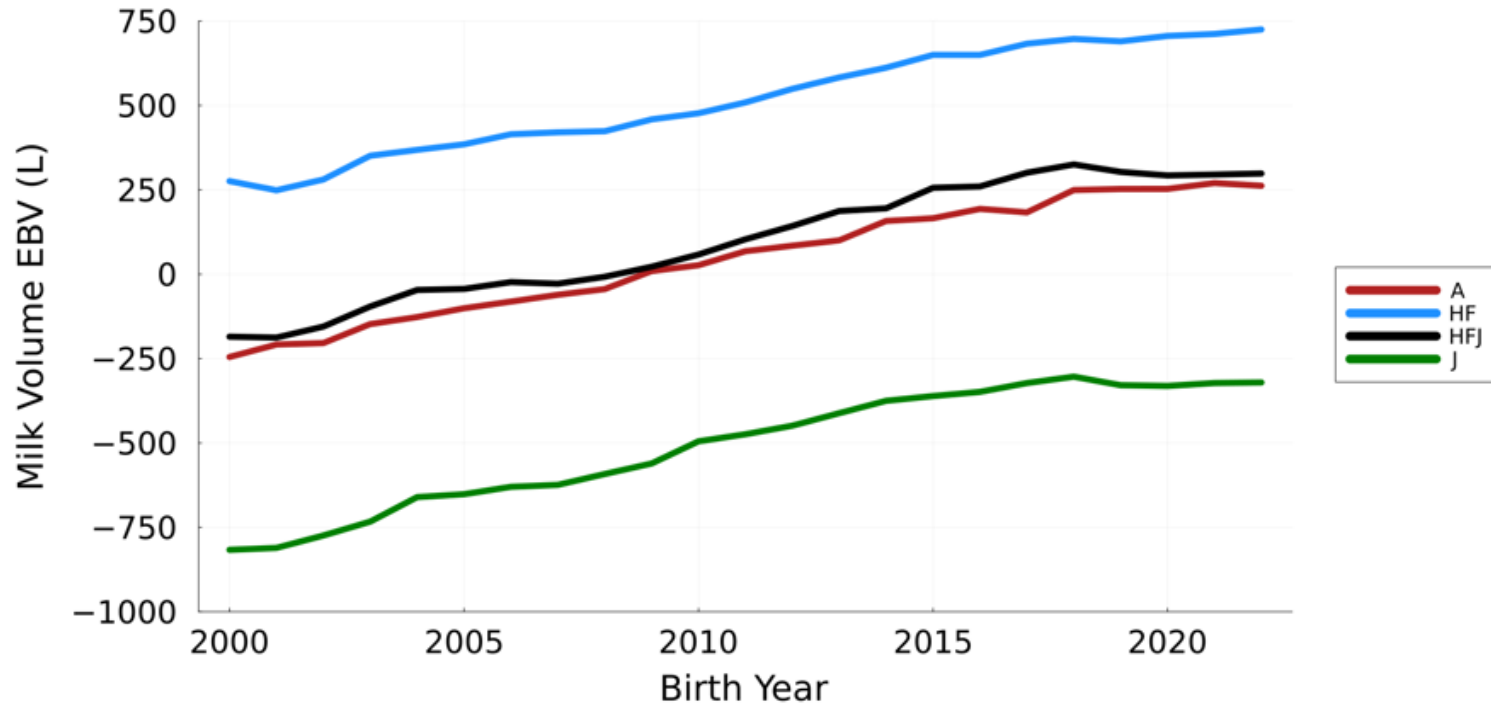
Ngā mihi nui
Thank you

DairyNZ 

Genetic Trend for Protein and Fat



Genetic Trend for Volume



Genetic Trend for Milk Protein and Fat Percent

