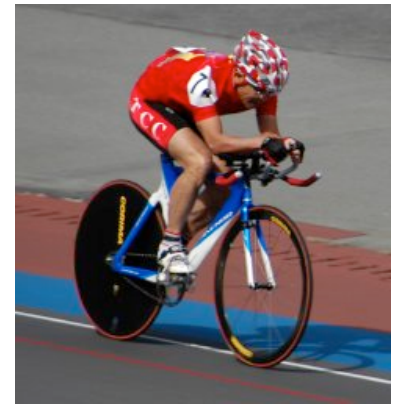


Growth and Maturity of Japanese Jockey Candidates

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- XI International Congress of Auxology, Tokyo, Sept. 9--12, 2007





Background

Jockeys must keep their weight at low level.

- Jockeys are regulated to low weight about 50kg.
- Jockey candidates need to 44.0kg to 46.5kg to admit the Horse Racing School, Japan Racing Association.
- Jockey candidates need to 47.5kg to pass out the School.



Purpose

This study reports

- height and weight growth for students while in the Horse Racing School for 3 years.
- skeletal maturity and predicted adult height for test-takers of the 2nd-stage exams of the school.



Participant (1)



195 boys
aged 15~18 yrs
Longitudinal data

Attended the school
1982~2003



The Horse Racing School
Japan Racing Association



Participant (2)



22 boys
aged 15~17 yrs

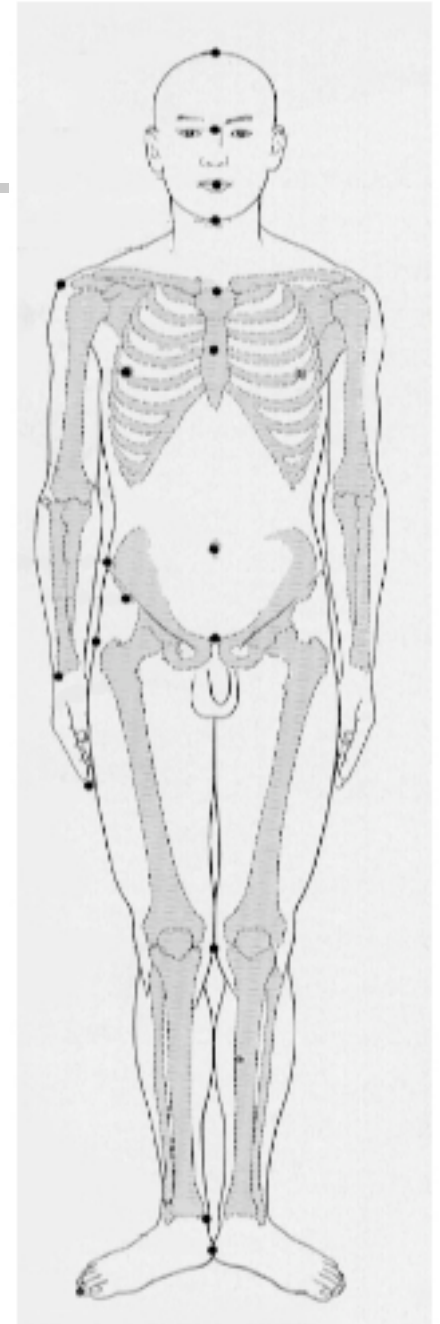
test-takers of the 2007
2nd-exams



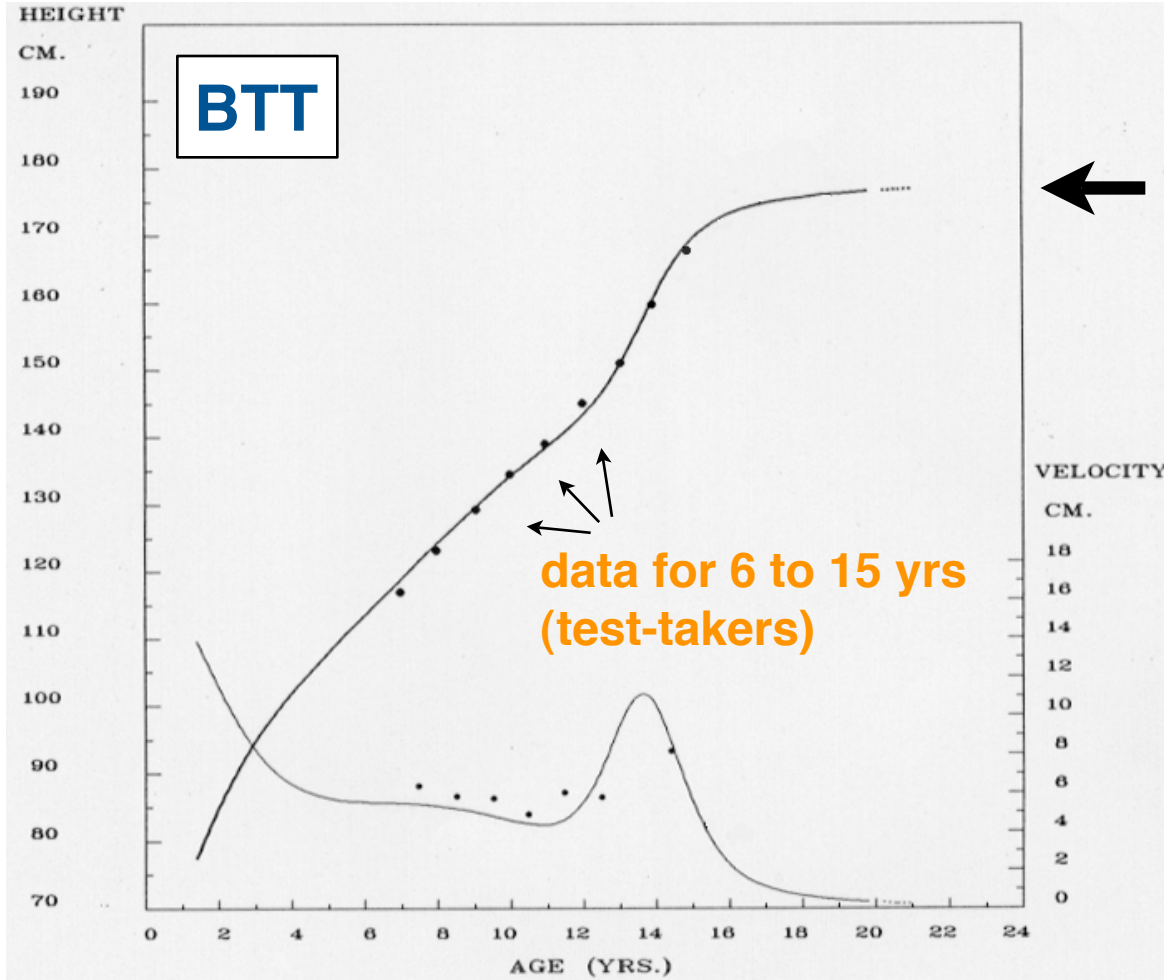
The Horse Racing School
Japan Racing Association

Measurements

- Height & Weight
(students, test-takers)
- TW3 skeletal maturity
(test-takers)



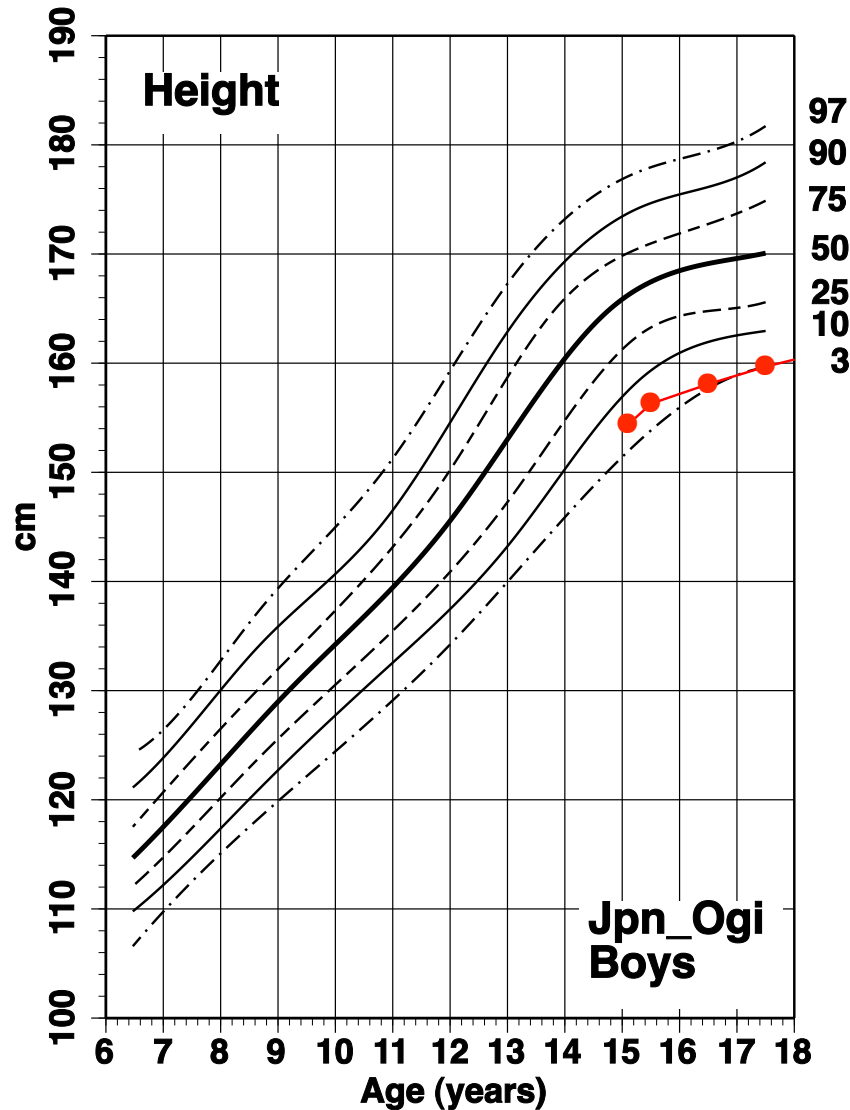
Predict Adult Height by AUXAL3



Adult Height
at 25 yrs

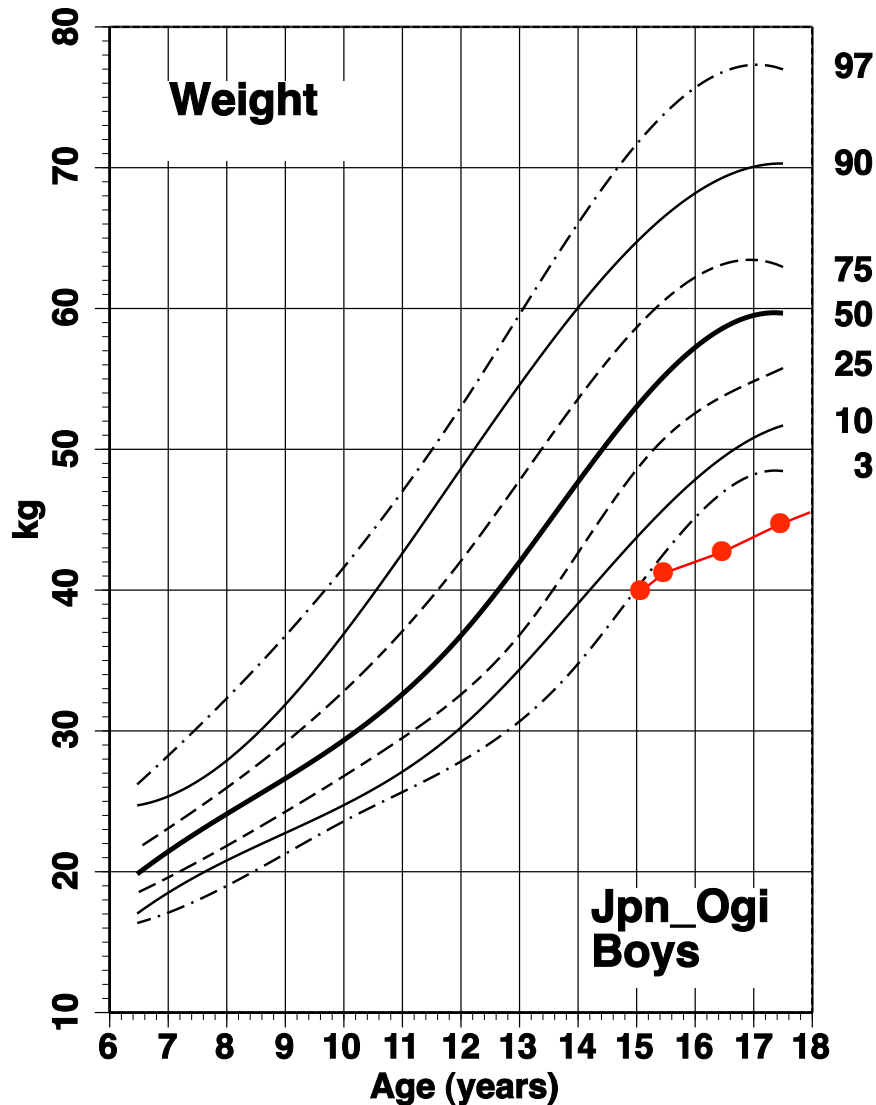


Height Growth for Students



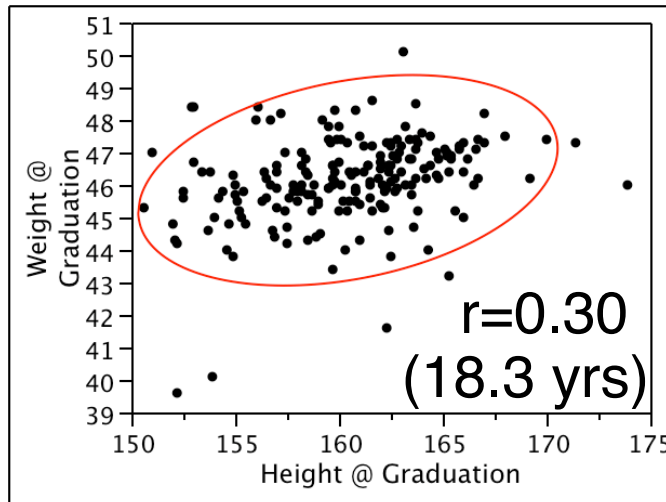
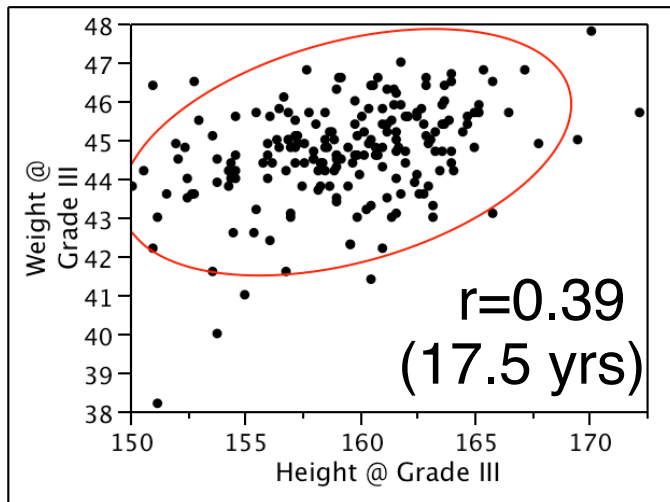
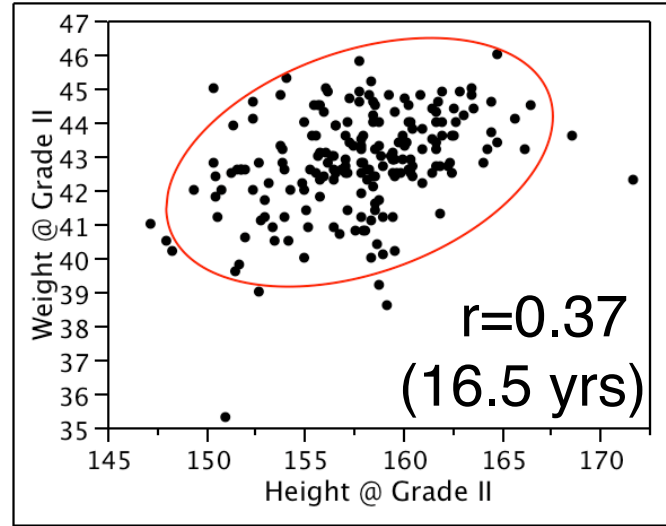
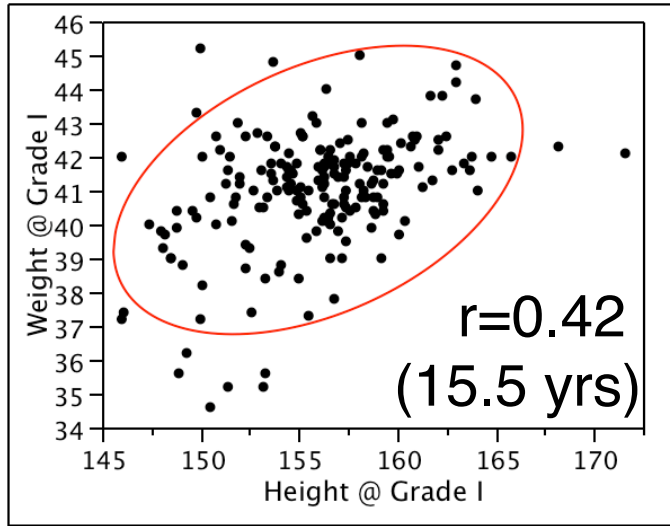
Median values fell between 3rd and 10th centiles of the Japanese reference.

Weight Growth for Students



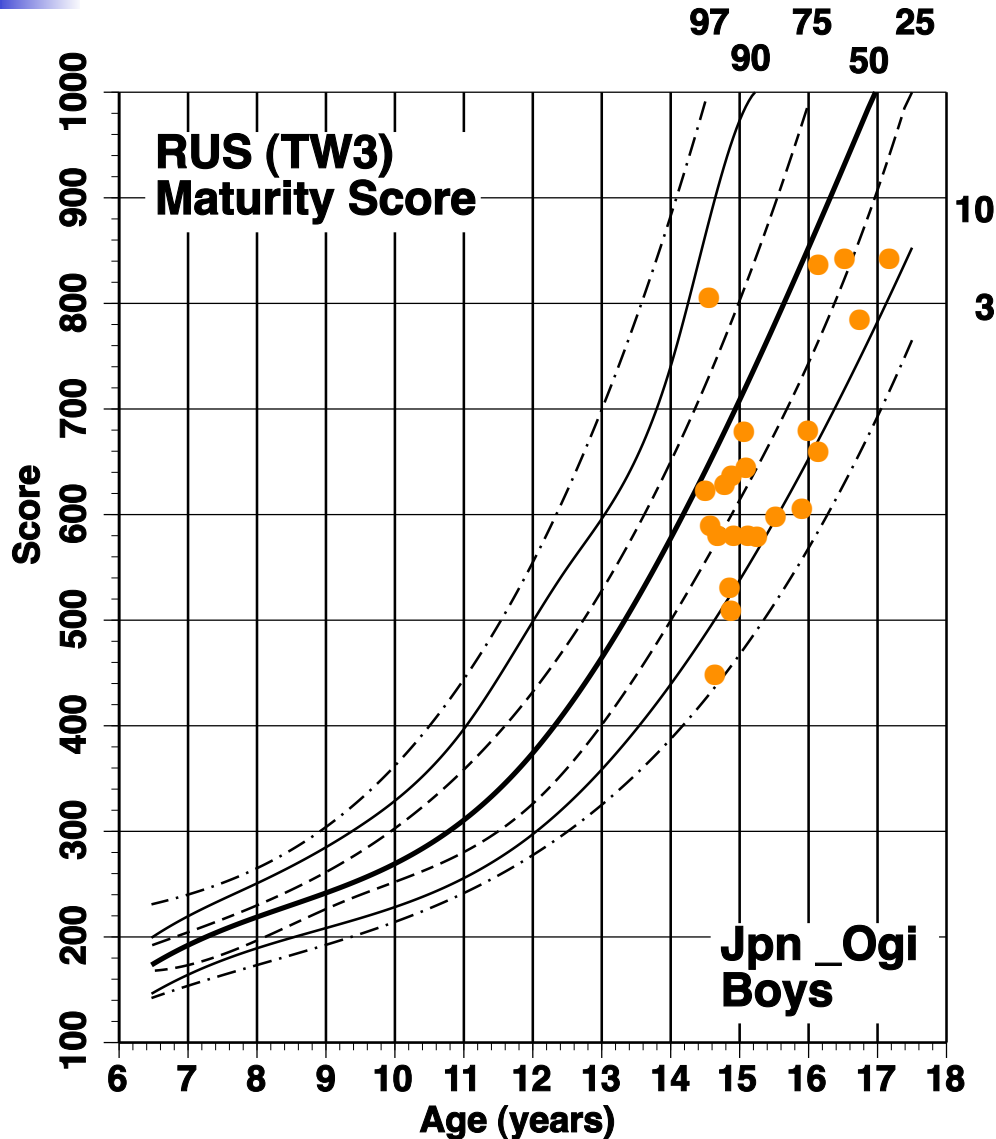
Median values fell below 3rd centile of the Japanese reference.

Correlation of Weight to Height for Students



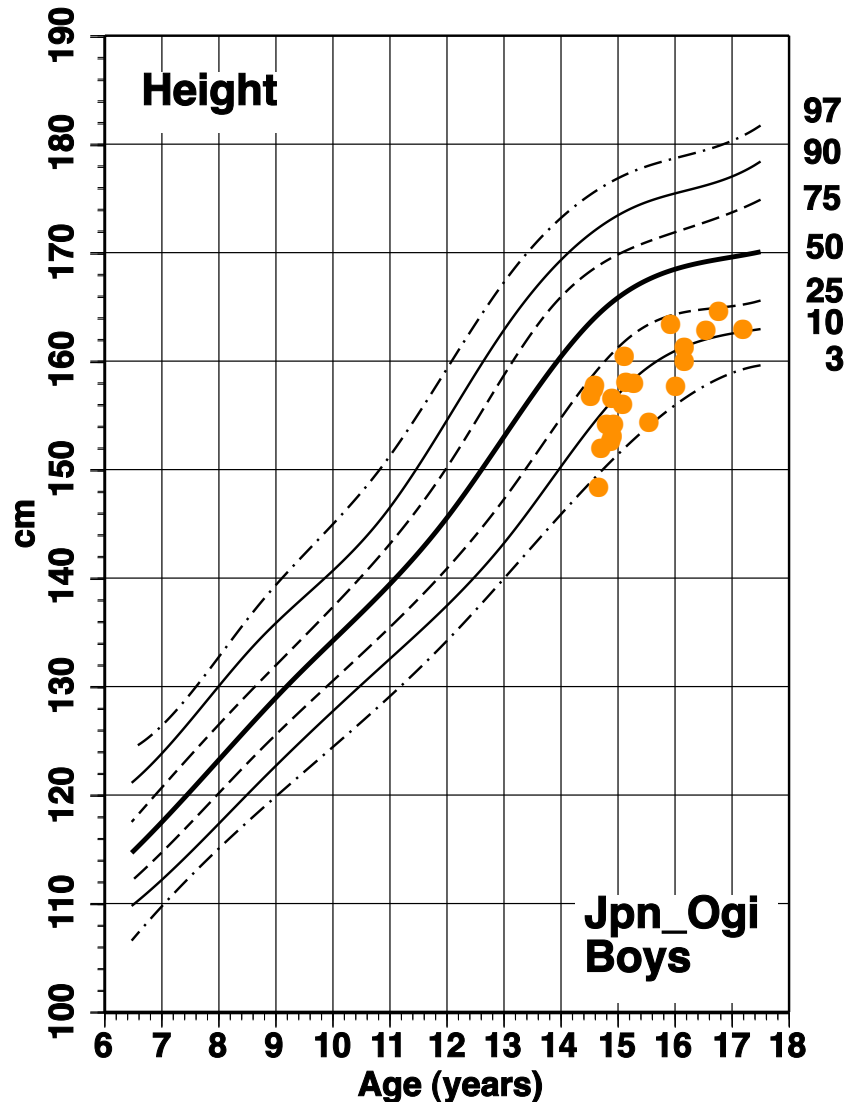
Correlation was the lowest at graduation

Skeletal Maturity for Test-takers



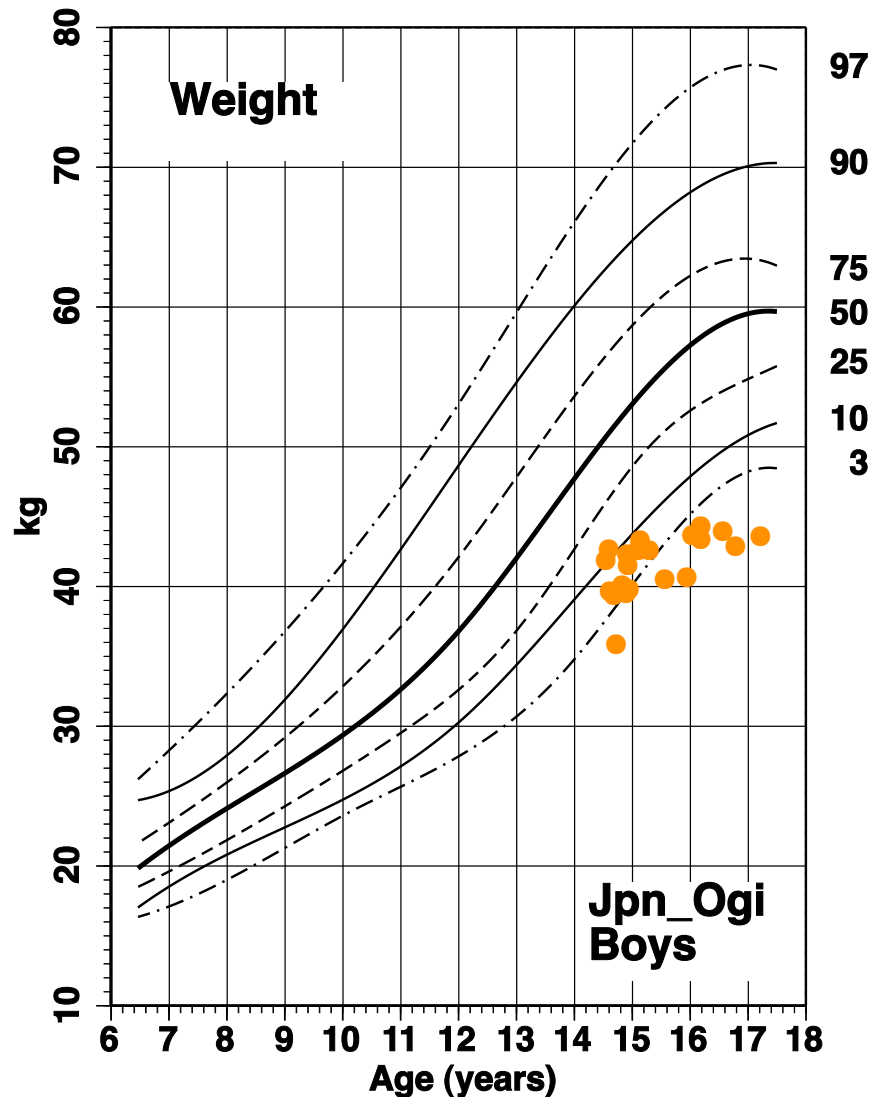
Values fell below median of the Japanese reference.

Height for Test-takers



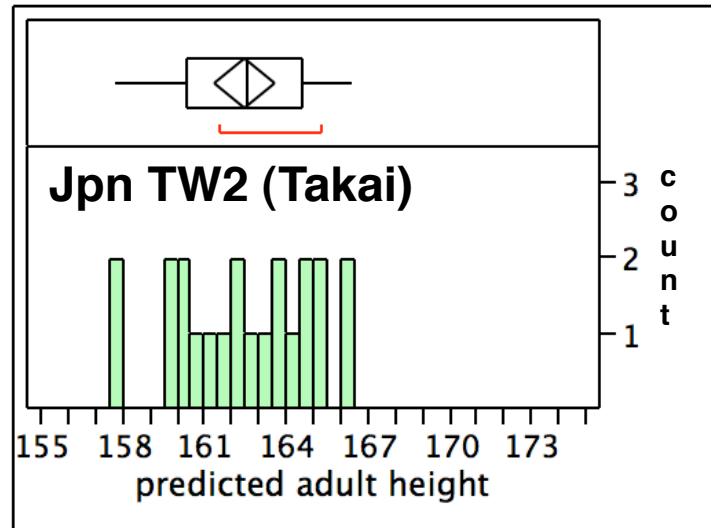
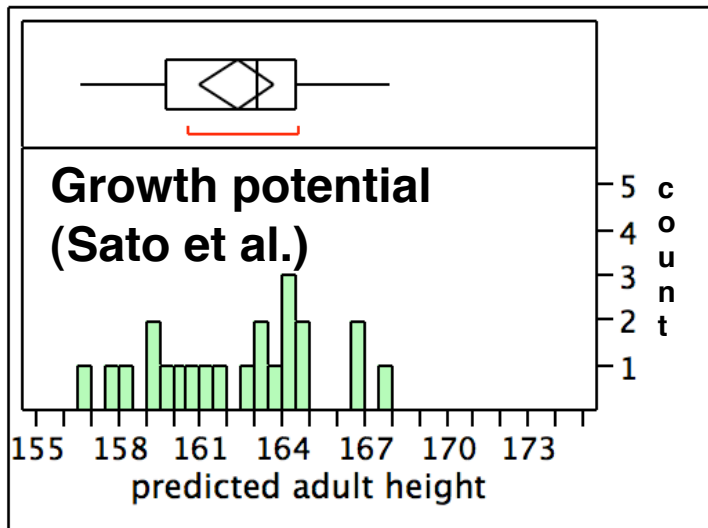
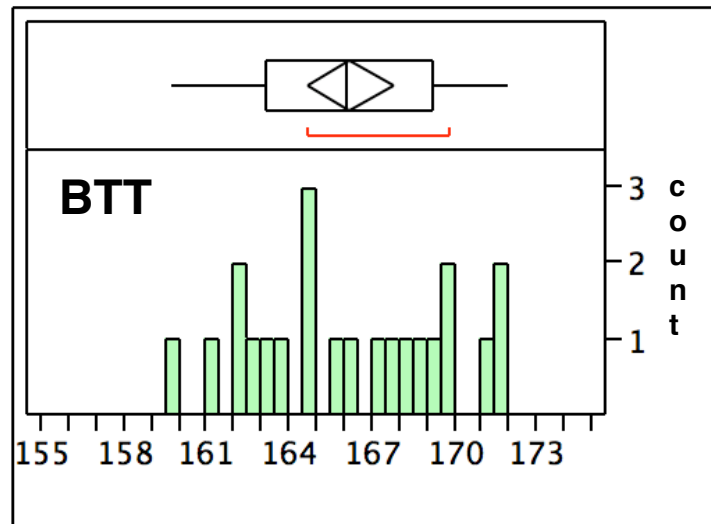
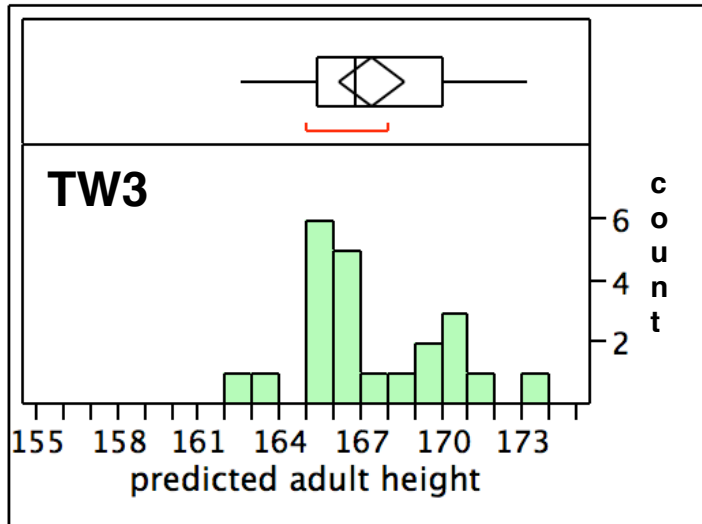
Values fell below 25th centile of the Japanese reference.

Weight for Test-takers



Values fell below 10th centile of the Japanese reference.

Predicted Adult Height for Test-takers



TW3 and BTT estimated taller adult height.



Conclusion

- Small and immature boys took an exam.
- Growing status of the students was low while in the school.
- The small was attributed to restricted daily calorie intake (2,100 kcal) and exercising.
- The selectivity and exclusivity of horse racing is related to the results.