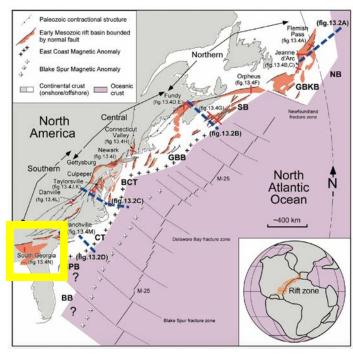
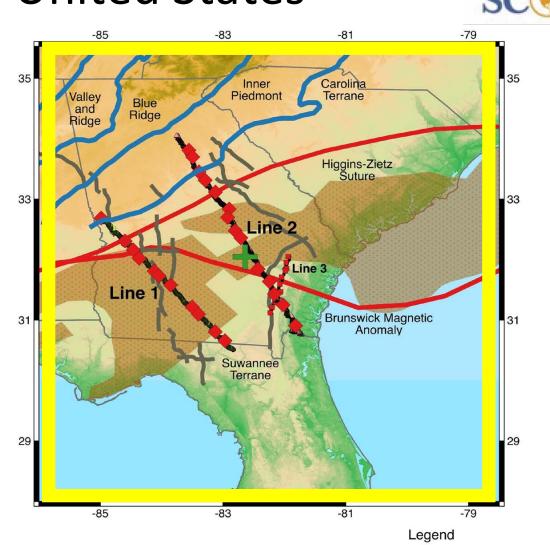
## Localized Rifting and Magmatism from the Crustal Velocity Structure of the Southeastern United States



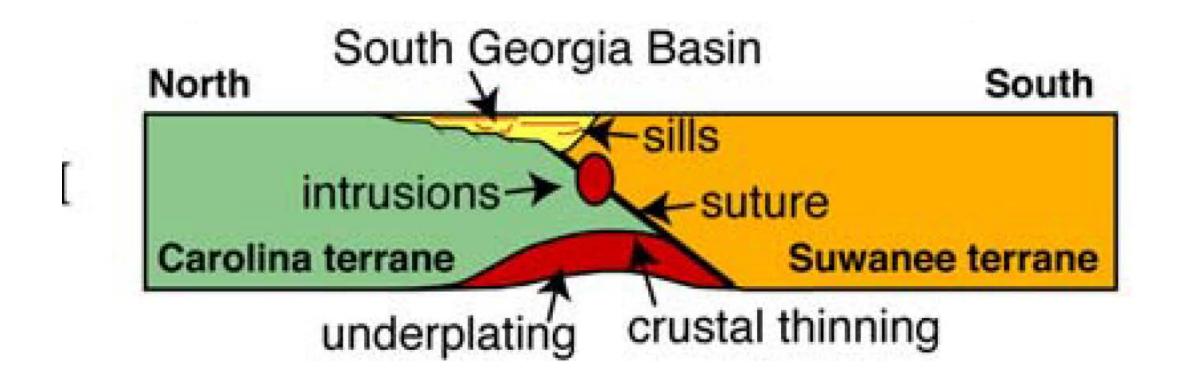
Withjack et al., 2012

Rachel E. Marzen, Donna J. Shillington, Daniel Lizarralde, Steven Harder

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE



Relationship between magmatism and crustal thinning at a failed rift basin?



## Relationship between magmatism and crustal thinning at a failed rift basin?

Thinning

300

400

SE

sediments Depth (km) Line 1 High lower crust velocities Localized Crustal Thinning 50 200 300 100 Thin, localized syn-rift sediments SE NW Line 2 **Gradual Crustal** 

100

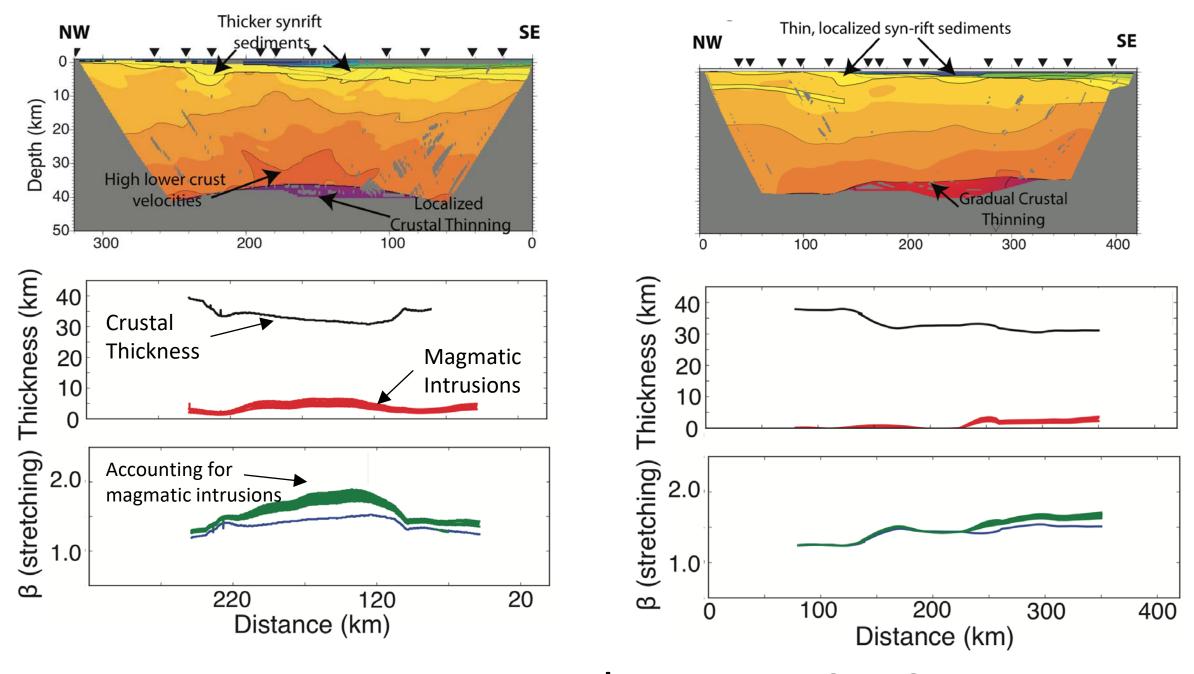
200

NW

Thicker synrift



P Velocity (km/s)



Poster on Monday: T11A-0443