

## Interactive comment on "Chemical composition of ambient $PM_{2.5}$ over China and relationship to precursor emissions during 2005–2012" by Guannan Geng et al.

## **Anonymous Referee #2**

Received and published: 26 March 2017

1. Page 1, line 19. Which population was used to do the population weighting? 2. Page 3, "2.2 Satellite-derived PM2.5 and chemical composition concentrations": what's spatial resolution for data integration and model fitting? what's the detailed meanings of AODCTM in equation (1) and (2)? Although the method has been published in Geng. et al. 2015, it would be easier for readers' understanding if more information given in this manuscript. 3. Why is population-weighted concentrations used to evaluate the inter-annual variation? What's the advantages of population-weighted concentrations comparing with unweighted concentrations in analysis the effects of controlling policies and emissions on PM2.5?

Interactive comment on Atmos. Chem. Phys. Discuss., doi:10.5194/acp-2016-1187, 2017.