

***Interactive comment on “A review of multivariate social vulnerability methodologies; a case study of the River Parrett catchment, Somerset” by I. Willis and J. Fitton***

**Anonymous Referee #2**

Received and published: 4 April 2016

Line 53 et seq.: It should be noted that principal components analysis is the most inductive method of all. It produces composite variables that in most cases have no inherent explanation. Rather than characterising any social process, it measures covariation whatever its cause may be.

Line 91: it's = it is

Line 132 et seq.: data were used...

Lines 135-7: How were these variables selected and why were the other 52 excluded?

Lines 155-166: Repetition vis-a-vis the previous page.

C1

Line 276: Figure ?

Lines 276-8: Observations of this kind cry out for explanation. It seems that higher population density equals greater social vulnerability.

Figure 6: It is interesting how little the social vulnerability map corresponds with the flood map. I would have expected to see them overlaid.

This article is summed up by its own conclusions (lines 326-7), "the fundamental qualitative assumptions underlining [sic] social vulnerability are perhaps the first source of uncertainty in this process." The paper uses ill-justified variables and a highly inductive methodology (essentially a blind correlation exercise) to define a vague sort of 'social vulnerability' that seems to be independent of vulnerability to flooding, which is, in the first place, driven by flood hazard.

---

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., doi:10.5194/nhess-2016-58, 2016.

C2