



SDI Review Form 1.6

Journal Name:	International Journal of TROPICAL DISEASE & Health
Manuscript Number:	2014_IJTDH_13450
Title of the Manuscript:	Economic stress and the secondary sex ratio: Ireland, Iceland, Greece and Latvia
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	This ms examines how economic downturns influenced human sex ratio at birth in Iceland, Ireland, Greece and Latvia. Although I think the motivation for this research is solid, the execution of the study and especially the treatment of the data, are rather thin. Also, I couldn't help thinking why this study was submitted to a journal dealing with tropical diseases and health? The question whether stress experienced by the mothers during pregnancy influences her offspring sex is rather well established in humans and other animals. Therefore, in my opinion, the current study suggesting that only in one country out of four countries studied showed the expected result brings much to this field. This is because I find the statistical treatment of the data quite basic, not likely to reveal anything interesting. Why didn't the authors collect a longer time-series of birth sex ratio for these countries? Given the annual fluctuations of birth sex ratio, comparing two arbitrary periods comprising of just few years is unlikely to have sufficient power to detect potential deviations in birth sex ratio due to	Statistical analysis was done as advised by my statistics advisor, see below. A longer time series is now included so as to show variation, and this variation is indeed known to exist. A new reference has been added (Gini) to justify why analysis was done along with text in methods section. The difference shown here in just one



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	economic stress. Also, longer series would have made it possible to use regression modeling (e.g. ARIMA-modeling with intervention “shocks”) instead of simple contingency tables to more reliably model the temporal behavior of sex ratio series. In other words, I regard it likely that the only significant difference found here (i.e. Ireland 2007Q4) to be purely due to change. Lastly, in biology, sex ratio is commonly calculated as the proportion of males (i.e. males/total births). This is not the same as the ratio of males to females usually used in non-biological fields (the measure is asymmetrical with respect to unity, the proportion of males is not). I have never seen people in non-biological fields to justify their use of the ratio measure and given the modern statistical methods of handling proportions (e.g. logistic regression) I find this practice very odd.	quarter with such a close temporal relationship to Ireland’s economic downturn. The extremely outlier nature of this value has been emphasised. Moreover, in the introduction, the same effect that was noted in East Germany and which has catalysed studies such as this is emphasised, ie the precipitous and ephemeral nature of these changes. One cannot and should not compare over long time spans because of the inherent fluctuations in M/F, as noted by Gini in the 1930s (now cited). Another reference relating to Cuba is also added in the discussion as this paper also showed very transient (1 year) M/F responses to US legislation that facilitated the mass migration of Cuban refugees to the US. It is now also pointed out in the discussion that the dip in Ireland was even more dramatic than that of East Germany. Agreed, the justification for using the standard notation of M/F has been deleted.
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		