Pitcher's Name	Wenhao (Elvis) Wu & Xinyuan Zhang (UQ Winter Scholars)	**FoR category**	Management	**Date Completed**	4th July, 2017
(A) Full Reference	Maricic, M., Zornic, N., Pilcevic, I. and Dacic-Pilcevic, A. (2017). ARWU vs. Alternative ARWU Ranking: What are the Consequences for Lower Ranked Universities?. Management:Journal of Sustainable Business and Management Solutions in Emerging Economies, 22(1), pp.1-14.				
(B) Basic Research Question	This essay is focusing on some changes between ARWU (Academic Ranking of World Universities) and alternative ARWU Ranking which removed Alumni and Award indicators, and discussing its consequence that impact on lower ranked universities.				
(C) Key paper(s)	Daraio, C. and Bonaccorsi, A. (2016). Beyond university rankings? Generating new indicators on universities by linking data in open platforms. Journal of the Association for Information Science and Technology, 68(2), pp.508-529. Dobrota, M. and Dobrota, M. (2015). ARWU ranking uncertainty and sensitivity: What if the award factor was Excluded?. Journal of the Association for Information Science and Technology, 67(2), pp.480-482. Piro, F. and Sivertsen, G. (2016). How can differences in international university rankings be explained?. Scientometrics, 109(3), pp.2263-2278.				
(D) Motivation/ Puzzle	It has a violent controversy about ARWU since it was published by 2003. The indicators that number of received Nobel Prizes and Fields Medals by alumni or University staff are weighted much in ARWU, however it is difficult for a university to achieve that. For instance, universities have lower ranking in ARWU because of less award may still get sound performance in in other aspects. Therefore, alternative ARWU was risen in response to involve less prestigious award factor. Although various types of alternative ARWU existed at present, there has been no detail routinization about consequences of getting rid of alumni and award indicators, especially for those lower ranked universities. Considering the needs for designing a stable and reasonable methodology for ranking universities, an in-depth investigation of the comparison of these two rankings are necessary.				

THREE	Three core aspects of any empirical research project i.e. the "IDioTs" guide
(E) Idea?	By employing a series of statistical tests, we could explore the impacts of exclusion of two indicators, Alumni and Award, on ARWU ranking and alternative ARWU ranking. The universities in the ranking is examined by the entire samples or by groups. Also, it could unveil whether there is a significant difference in ranks, scores, indicator value between ARWU ranking and alternative ARWU ranking. Besides, we could find whether the indicators should be aggregated in a single metrics in the rankings.
(F) Data?	(1) Source: The data is collected from the official database of ARWU (2) Unit of analysis: Universities (3) sample period & sample interval: ARWU rankings in 2014 (4) Sample size: ranks, ranking scores of 500 universities (5) The data is Cross-sectional data on rankings of universities
(G) Tools?	(1) Basic empirical framework and research design: Descriptive statistics and inferential statistics including Parametric tests, non-parametric tests and Principal component analysis (PCA) (2) Knowledge of implementation of appropriate or best statistical/econometric tests: Descriptive statistics includes mean, standard deviation, minimum, maximum; parametric tests includes Pearson's correlation coefficient, student's t-test, Analysis of variance (ANOVA) and its Post hoc test, Tamhane's test and Fisher's Z transformation; non-parametric tests includes Spearman's Rho, Kruskal-Wallis test and its Post hoc test, Dunn's test.
TWO	Two key questions
(H) What's New?	The idea of this study is new about exploring idea of "Alternative AWRU 's impact on universities", this will be the first study to explicitly examine this influence via three aspects.
(I) So What?	The study identifies three aspects on the difference between ARWU rankings and alternative rankings, which are ranking order, ranking scores and indicators value. This research may demonstrate generally in three ways, it may give some comparison of both student and educators, as university ranking is viewed as crucial guidance to fellow. Also encourage university ranking institutions devote themselves in creating more justly and comprehensively methodology to measure universities' performance. Last but not least, this research could cause other fellows a deep think in future study academic research about others interesting topic of Alternative ARWU ranking and its list length. Also, it might trigger further thoughts and research on the methodology of other rankings and on the impact of university ranking's list length.

ONE	One bottom line
(J) Contribution?	This study will be one of the first in addressing the impact of two indicators value Alumni and Award on ARWU ranking and its alternative version. It will ensure the institutions better measure the ranking of universities. The research will provide an avenue for future research to be built on, such as better understanding of the ranking systems.
(K) 3 Key Findings	(1) Generally, Alternative ARWU statistically significantly improves the ranks of ARWU. If universities are divided into five groups in an ascending order of ranking, Universities from the last group improved their ranks the most and worsened its rank the least. While the first and the last groups are not affected significantly within the groups, the second group is the most volatile group. Besides, under alternative ARWU, it is more likely to affect rankings of universities who have had Nobel Prizes or Fields Medals recently or have a large weight on this criterion. (2) Six indicators are examined in ARWU and alternative ARWU rankings. They are the quality of education (Alumni), quality of faculty (Awards), research output (HiCi, N&S, and PUB). In the entire sample, the values of the indicators, HiCi, N&S and PUB do not differ between the two grouping systems. However, the values of PCP and the APCP differentiates between groups, despite between the second and third groups. (3) Based on PCA approach, it is possible that the four indicators could be aggregated into a single metrics in the entire rankings. However, before the aggregation, all measures should be transformed so that their direction is the same. Besides, it is suggested that one component can be retained in the entire rankings while two components are necessary to explain the rankings within groups.