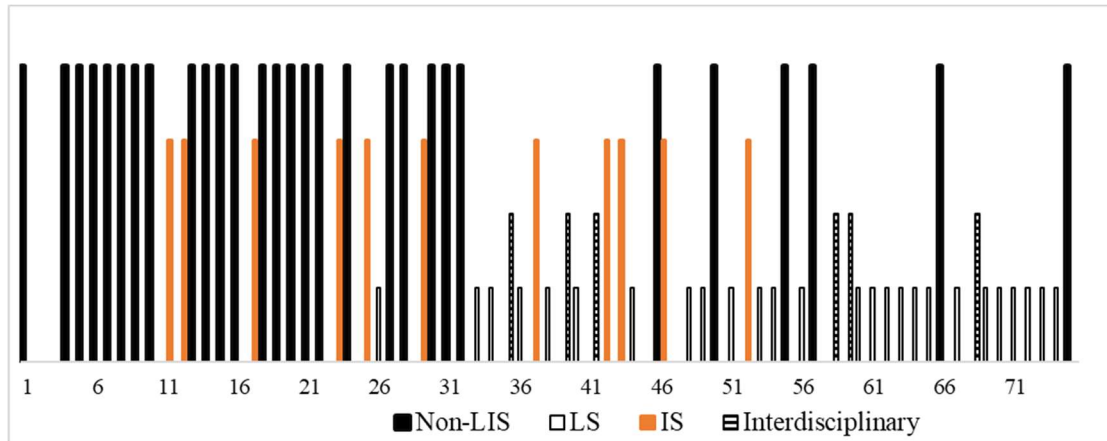This study used a bibliometric method to determine whether journals with a weak LIS association exist in the Library and Information Science (LIS) journals covered by JCR, and in particular, to establish whether non-LIS journals tend to have higher impact factors than LIS journals have. In addition to examining whether non-LIS journals are included in the subject category of "information science & library science" by Journal Citation Reports (JCR), the focus is whether authorship-related indicators are useful for identifying LIS journals.

The results, using 3,224 articles published in 75 journals in 2015 in the category of information science and library science as assigned by JCR, show that only 33.3% of journals published over half of their articles by LIS authors. Among the journals in each of the four groups of journals (i.e., LS, IS, interdisciplinary, and non-LIS journals), substantial differences in the percentages of articles written by LIS authors were observed. Over half of authors affiliated with LIS institutions were identified in only 30.7% of journals. Library science–oriented journals had higher percentages of LIS authors and articles by LIS authors, followed by information science–oriented journals. Not all typical LIS journals were primarily contributed to by LIS authors.

Additionally, 30 journals with a weak association to LIS research substantially explained the findings and tended to have higher impact factors. Lower ranks of typical LIS journals affect research rewards for LIS researchers when JCR impact factors are emphasized. For the 75 journals explored in this study, the rankings of journals by impact factor for the 2017 JCR were such that most of the 30 non-LIS journals ranked between 1st and 32nd places. Many non-LIS journals top the list of "information science & library science" journals. JCR journal rankings affect research assessment and have transcended their original purpose. To properly list representative journals in a given field, this study suggests that the subject characteristics of journals included by JCR should be examined from various perspectives such as the disciplinary attributes of authors. Although the journal

classification scheme adopted by JCR does not change, we have evidence to recommend changing how the JCR journal rankings are used. Journals not relevant to LIS should be excluded from LIS journals to enhance the rankings of LIS journals and encourage LIS authors to publish in LIS journals.

Journal ranking by group