



IAOS General Assembly 19 August 2019 Young Statistician Prize (YSP) Update

Summary

- The 2019 Young Statistician Prize was the ninth year of the Prize
- The three 2019 winning papers were:
 - **First Prize:** *Detecting geographical differencing problems in the context of spatial data dissemination*, by: Mr Vianney Costemalle, Insee, France
 - **Second Prize:** *Administrative data informed donor imputation in the Australian Census of Population and Housing*, by: Mr. James Farnell and Ms. Peta Darby, Australian Bureau of Statistics.
 - **Third Prize:** *Using address histories to improve the link rates of surveys in the Integrated Data Infrastructure (IDI)* by Ms Nancy Wang, Statistics New Zealand.
- The 2019 International Selection Panel also made an honorary mention to Ms. Marlene Weinauer, Statistics Austria, for her paper: *Be a detective for a day: How to detect falsified interviews with methods of Data Science*
- The 2019 did an excellent job, has completed a final report and handed over materials to the incoming 2019 chair. Attachment A provides an account of activities.
- Preparations for the 2020 Young Statistician Prize have commenced. Attachment B provides an indicative timeframe.
- The IAOS Executive, in conjunction with the 2019 Selection Panel chair and 2020 incoming chair are discussing ways to improve the reach of the prize to developing countries. Whilst entries are received from developed and developing countries, there has only been one winner in nine years which has come from a developing countries (Bolivia, in 2016, Attachment C). A new prize category, targeted publicity and mentoring are being considered, noting readability and english are not considered by international selection panel members as a particular barrier for developing countries.

2019 Young Statistician Prize Basic Statistics

- A total of 44 submissions (from 58 authors/co-authors) were received in 2019, seven more than in 2018. Five papers did not meet the eligibility criteria, compared to three papers in 2018.
- The 39 eligible submissions represent 22 countries/territories (c.f. 23 in 2018). These papers were from Africa (7 in 2019, 6 in 2018), Asia (18 in 2019, 10 in 2018), Europe (6 in 2019, 9 in 2018), North America (1 in 2019, 1 in 2018), Oceania (3 in 2019, 6 in 2018) and South America (4 in 2019, 2 in 2018).
- Thirty-one (70%) of the submitted papers were sole-authored. Of the 58 authors/co-authors, 19 (33%) were female.
- The average age of the entrants was 27.7 years; 26.1 for females and 28.8 for males.



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- Of the 39 eligible submissions, 10 progressed to the second stage of the selection process, and were assessed for their scientific/strategic merit, originality, applicability in statistical offices and quality of exposition.
- In 2019, the winning authors comprised two females and two males (In 2018, there was one female and two male winning authors).
- The themes of the winning papers were confidentiality (c.f. an index-based approach to census registration in 2018), imputation (c.f. automating the production of official statistics from administrative data in 2018) and improving linkage rates of surveys in data integration (e.g. adjusting for linkage errors in 2017).

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Attachment A: Summary of keys dates and activities for 2019 Young Statistician Prize

Milestones	Action taken
September 2018	<ul style="list-style-type: none"> • Advertising materials (posters, emails, etc) prepared • Selection panel organisation
October 2018	<ul style="list-style-type: none"> • IAOS President directly emails NSOs and IAOS members advising of Competition. Online flier and link to posters, in six languages, included in correspondence. • IAOS October Newsletter informs readers of the Young Statistician Competition • Deadline of 15th February 2019
January 2019	<ul style="list-style-type: none"> • Reminders to NSOs and Chief Methodologist Network • As of end of January, only one submission had been received. Additional publicity was undertaken in January. • Social media used.
February 2019	<ul style="list-style-type: none"> • Promoted on ISI website home page https://isi-web.org/index.php • Drawn to the attention of readers of ISI newsletter
February 15 th	<ul style="list-style-type: none"> • Closing date for submissions
March - May 2019	<ul style="list-style-type: none"> • Selection panel receives papers, undertakes first round of assessment, undertakes second round of assessment (10 papers per selection panel member). • Incoming chair and IAOS Exco contact assist with adjudication • Final decision mid-May.
May 2019	<ul style="list-style-type: none"> • Final decision transmitted to IAOS President
June 2019	<ul style="list-style-type: none"> • Winners are notified by IAOS President • Entrants are notified by IAOS President • IAOS website updated with announcement of winners
June 2019	<ul style="list-style-type: none"> • 2019 Chair hands over all materials to incoming chair
August 2019	<ul style="list-style-type: none"> • Presentation of prizes at ISI World Statistics Congress

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Attachment B: Indicative timeline, 2020 Young Statistician Prize

Task	Date
1. Agree draft of competition launch document and guidelines	August 2019
2. Launch 2020 competition with announcement on the IAOS website	August 2019
3. Create email address for entries	August 2019
4. Initial publicity	August 2019
5. Recruit selection panel for 2020 and identify panel Chair for 2021	July-Sept 2019
6. Write to Heads of NSOs	September 2019
7. Publicity for the Competition – posters/photos/interviews	Sept 2018
8. Review of number of entries	January 2020
9. Further publicity	Oct – January 2020
10. Competition closes	February 2020
11. Assess all eligibility templates and resolve any issues	February – March 2020
12. Selection Committee to be notified of the number of papers and number of review phases and timetable, etc.	Feb 2020
13. Hold individual phone conversations with selection panel	Feb 2020
14. Send out phase 1 instructions and papers	Feb 2020
15. Phase 1 review (elimination)	Feb- March 2020
16. Phase 1 results	March 2020
17. Send out phase 2 instructions and papers	March 2020
18. Phase 2 review	March – April 2020
19. Phase 2 first results	April 2020
20. Phase 2 first results review	April 2020
21. Final results	April 2020
22. Final results report including draft of announcement of results, draft letters to winning papers	May 2020
23. Handover to new Chair of YSP Selection Committee	July 2020
24. Logistic arrangements of awarding the prizes (e.g. transfer money award, prepare certificate)	IAOS Kenya

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Attachment C: Young Statistician Prize combined results

Year	First	Second	Third
2011	Morpheus: an innovative approach to remote data access ; Julia H ninger; Germany	Widening the data net: NSO leadership role ; Sarah Conn; Australia	Trajectory modelling of longitudinal non-response in business surveys ; Kate Smail; New Zealand
2012	Exploratory Analysis of the Patterns of Missing Data in the UIS Education Database ; Miguel Ibanez Salinas; UNESCO	Elementary Aggregate Indices and Lower Level Substitution Bias ; Duncan Elliott (primary), Joseph Winton, and Robert O’Neill; UK	A Case Against the Skip Statement ; Samuel Spencer; Australia
2013	Using kernel methods to visualise crime data ” by Kieran Martin and Martin Ralphs [United Kingdom	“The policeman and the statistician – on the quality of the raw data in official statistics” by Anton Färnström [Sweden]	“ABS iPhone App – the way of the future?” by David Sullivan [Australia]
2014	“Linking, selecting cut-offs, and examining quality in the Integrated Data Infrastructure (IDI)” - by Laura O’Sullivan (NZ)	“Transforming how we produce statistics: An inside perspective” by Michelle Feyen (New Zealand)	"Domains similarity models in synthetic estimation" by Andrius Čiginas (Lithuania)
2015	Big Data and Semantic Technology: A Future for Data Integration, Exploration and Visualisation by: Andreas Mayer and Andrew Harwood (Australia)	Targeted record swapping on grid-based statistics in Hungary by: Beata Nagy (Hungary)	Iterative method for the reducing the impact of outlying data points: ensuring data completeness by: Svetlana Jesilevska (Latvia)
2016	Balancing Input-Output tables with Bayesian Slave-raiding ants by: Rolando Gonzales Martinez (Bolivia)	Variance reduction using a non-informative sampling design by: Thomas Zimmerman (Germany)	CURIOS: A framework to optimize CAPI surveys using paradata by: Antoine Rebecq and Thomas Merly-Alpa (France)
2017	The Dissemination Game: How to communicate official statistics to non-expert users by: Hannah Thomas (United Kingdom)	Telematics Data for Official Statistics: An Experience with Big Data by: Nicholas Husek (Australia)	Improving Seasonal Adjustment by Accounting for Sample Error Correlation Using State Space Models by: Andreas Mayer (Australia)
2018	An index-based approach to determine partnership in register-based census , by: Ms Helle Visk (Statistics Estonia).	Reproducible Analytical Pipelines in Offender Management Statistics , by: Mr. Christopher Fairbanks (UK Government Statistical Service)	Adjusting for linkage errors to analyse coverage of the Integrated Data Infrastructure (IDI) and the administrative population (IDI-ERP) , by: Mr. Hochang Choi (SNZ)
2019 ¹	<i>“Detecting geographical differencing problems in the context of spatial data dissemination”</i> Vianney Costemalle (INSEE, France)	<i>“Administrative data informed donor imputation in the Australian Census of Population and Housing”</i> James Farnell and Peta Darby (Australian Bureau of Statistics)	<i>Using address histories to improve the link rates of surveys in the Integrated Data Infrastructure (IDI)</i> , Nancy Wang (Statistics New Zealand)

¹ Honourable mention: *“Be a detective for a day: How to detect falsified interviews with methods of Data Science”*, Marlene Weinauer (Statistics Austria):