

香港統計學會 Hong Kong Statistical Society

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Editor's Foreword

This is the first Bulletin of 2014. We are very happy to release this issue in March.

In this issue, we have the President's Forum; an interview with Professor ZHU Lixing who has just received the second-class award of the State Natural Science Award in this January. We have also prepared articles about the 2013 HKSS examination results, 2014/15 Household Expenditure Survey and the International Year of Statistics respectively. Also included in this issue are an article written by me to introduce the Ninth ICSA international conference which was held by the Hong Kong Baptist University, and some reports about the 59th World Statistics Congress (WSC) and our sponsorship for the 59th WSC. Lastly, there

are recent news about members of HKSS in the News Section.

Finally, we would like to use this opportunity to express our special thanks to all contributors to this Bulletin and members of the Editorial Board, including Mr John LAM and Ms Carly LAI, as well as Ms Annie CHAN and Ms Clora CHAN of the HKSS Council, for their help.

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President's Forum

Professor K.W. NG

Time flies and the Annual General Meeting (AGM) of the Society will be held on 9 April 2014. We are very much honored to have Dr. First TAM Siu-ming, Assistant Statistician in Australian Bureau of Statistics, to give us a talk immediately before the AGM. Dr. TAM is one of the Life Members of HKSS and he worked in the Census and Statistics Department before joining the Australian Government. His talk title is "Taming non-response in finite population sampling with auxiliary information". cordially invite you to attend the seminar and the AGM on Wednesday 9 April 2014 at the City University of Hong Kong.

The year of 2013 was an exciting and, I would say, unforgettable year for the Hong Kong statistical community as reported as follows. Being designated International Year of Statistics (also called Statistics 2013), there were two important international conferences held in Hong Kong. The first was the bi-annual 59th World Statistics Congress of the International Statistical Institute held in August 25-30 (http://www.isi2013.hk) at the Hong Kong Convention and Exhibition Centre together with two satellite meetings at the Hong Kong University and the City University of Hong Kong. The second was the 9th International

Chinese Statistical Association Conference (ICSA), held in December at the Hong Kong Baptist University. The Society had celebrate organised activities to Statistics 2013 and participated actively in the two conferences. There was a booth of HKSS in the exhibition hall of the 59th WSC during its period and a dinner on the first day of the 9th ICSA organised jointly by HKSS, Royal Statistical Society and the ICSA Conference Committee Detailed information and valuable memories of these conferences are reported in articles in this Bulletin and also on the websites. I would like to take this opportunity to thank you all for the support in these events.

Furthermore, Professor ZHU Lixing, Chair Professor and Head of Department of Mathematics of the Hong Kong Baptist University, has won a 2013 State Natural Science Award (SNSA) (Second-class); congratulations to Professor ZHU! It is the second time an academic in statistics working in Hong Kong has received such an award since Professor Howell TONG having received it in 2000 while working at the Hong Kong University. The SNSA is the most prestigious award in the areas of natural science in China. In 2013, more than 140 entries competed for the SNSA. This is no

doubt a great honor for Professor ZHU. And I think the Hong Kong statistical community would feel proud of Professor TONG and Professor ZHU. It is my great pleasure to introduce to members the interesting report of the Society's interview with Professor ZHU, sharing with us his joy in receiving the award and his research experience in the profession of statistics.

In our enduring outreach-front, the 2013/14 Statistics Creative-Writing Competition and Statistical Project Competition are well

underway. The competitions continued to flourish and serve as a nurturing ground for our next statistical generation. I am most grateful to the two Organising Committees under the Dr. Philip YU and Mr Alan CHEUNG respectively.

Once again, thank you for the support of the 2013-2014 session. I look forward to meeting you in the AGM and having your continuous support of the Society in the 2014-2015 session.

An Interview with Professor ZHU Lixing

Miss Angela YEUNG and Miss Suki LAU Census and Statistics Department

Professor ZHU Lixing is the Chair Professor and Head of Department of Mathematics of the Hong Kong Baptist University. He is also the Director of the Statistics Research and Consultancy Centre

Professor ZHU is a Fellow of the American Statistical Association (ASA), Institute of Mathematical Statistics (IMS) and an elected member of International Statistical

Institute (ISI). He has won several awards and recognitions in the field of statistics, including the Humboldt Research Award (2000) of Germany which is a prestigious award given to internationally renowned scientists and scholars for all disciplines.

Added to the many honours, Professor ZHU has recently received significant recognition in winning a second-class award of the State Natural Science Award (SNSA) in 2013 for his outstanding research project on "Model checking and dimension reduction in



regressions". The SNSA is the most prestigious award in the area of natural science in China. In 2013, more than 140 entries competed for the SNSA.

We met Professor ZHU on 11 January 2014, just after he was conferred a second-class SNSA in the awards ceremony held in Beijing. He shared with us his joy in receiving the award and his research experience in the profession of statistics.



LAU:

Professor ZHU, congratulations to you for winning a second-class SNSA in 2013. As we know, this award is the highest honour given by the Central Government of China in recognition of scientific research. What was the situation when you first received the news on winning the award? How did you feel?

ZHU:

I feel honoured and pleased to receive this prestigious award. This award is recognition of my efforts on statistical research over the years. Indeed, I was calm when I first received the news that I won the award. It was because the shortlisted results were announced a few months ago and I have made my best effort in the assessments and selection interviews. The selection process began in

early 2013. In the final round of selection interview held in Beijing in August 2013, I presented my research project which concluded my efforts on this research topic over the years, and answered questions raised from the assessment panel which was composed of many experts in the profession of natural sciences.



YEUNG:

Would you share with us some details of your research work and achievements which have been recognised by the SNSA? What are the applications of your research outcomes?



ZHU:

My research project on "Model checking and dimension reduction in regressions" consists of two key areas of study: model checking and dimension reduction.

Regression analysis is an important part of fundamental knowledge in statistics and a popular statistical technique applied to scientific research. Regression is a statistical process for establishing the relationships among variables. In the context of regression analysis, it is important for us to conduct model testing, such as goodness-of-fit testing, to check whether the model assumptions are correct. However, testing the functionality of the model is more complicated.

Researches on non-parametric testing had not been widely conducted until 1980's. After that, there are mainly two methodologies for non-parametric model checking, i.e. local smoothing method and global smoothing method. My research focus is mainly on global smoothing method.

In 1998, Professor Winfried STUTE, who is one of the major contributors in the research area of global smoothing, and I jointly published a paper, suggesting some further for global methodologies smoothing In this paper, regression. martingale transformation had been introduced in model checking. This research result was later followed by further developments conducted by other researchers, especially in the area of econometrics

As for dimension reduction, it is a statistical process of reducing the dimension of explanatory variables in regression. A basic technique for dimension reduction is Principle Component Analysis (PCA) proposed by Karl PEARSON in 1901, but that is mainly applied to linear case only. Later on, another dimension reduction method, called Projection Pursuit Regression was developed, yet the computational burden in using this method was large.

In 1991, an important tool for dimension reduction, called Sliced Inverse Regression (SIR) was proposed. It is computationally easier and thus has been widely used. A cousin of SIR, Sliced Average Variance Estimation (SAVE), was also developed in 1991 by another scholar. Its mechanism is similar with that of SIR. My research work in dimension reduction mainly focuses on these two areas.

During my stay in the University of Hong Kong, I had collaborated with Professor NG Kai-wang to publish a paper on proving the convergence of estimator for SIR in 1995. My student and I also found out that SAVE had different behaviour in convergence. From these results, scholars realise that SIR and SAVE have similar mechanism but in fact different behaviours in the convergence of estimators.

The research results have useful applications in many areas, including econometrics, bioinformatics, Chinese medicine and finance, where a large number of explanatory variables are often handled in a model. Our papers on dimension reduction have also been made reference by an electronic technology company for their research.



LAU:

Professor ZHU, how did you come into the profession of statistics? What inspired you to start your research interest in statistics and later develop your career in academic research?

ZHU:

To be frank, there was no single event that made me come into the profession of statistics. Instead, it just happened naturally. I chose applied mathematics as my major of undergraduate study because mathematical training is definitely very important for building a solid foundation of knowledge and I felt that studying applied mathematics was the most suitable for me among various streams of mathematical science.

During my study in master degree programme in China, I had published two papers about Uniformly Minimum Variance Unbiased Estimator (UMVUE) for truncated distribution in a Chinese journal. This indeed meant a lot to me and gave me confidence in continuing my research work in applied mathematics. When I look back on those days, I realise that the research studies I did during that time were pretty challenging for a Master student. This definitely marked a starting point for my research journey.



LAU:

Would you share with us some challenges encountered and memorable moments during the 30 years of your research journey?

ZHU:

Indeed, I have never thought of giving up my research work despite any challenges encountered! I am pleased and satisfied that I have the chance to keep learning and doing research. The excitement brought by my research work is also a very important motivation for me.

There are several memorable moments during my research life. One is the two papers published during my Master degree studies aforementioned. Another important from my PhD motivation came thesis completed in early 1990's. The thesis was about probability in which the research result was rather theoretical and mathematical. won me the ZHONG Jiaqing Mathematics Award (鐘家慶數學獎) in China which aimed to reward outstanding PhD students in Mathematics. This award was very meaningful and encouraging to me. remember that the award was around several hundred US dollars which was quite a lot to me at that time! Another memorable moment is receiving the Humboldt Research Award (2000) of Germany in recognition of my research work. All these awards and recognitions meant a lot to me in continuing my research work!



YEUNG:

Professor ZHU, you serve on several councils, such as International Chinese Statistical Association (ICSA) and Chinese Association of Applied Statistics (CSAS). You are also a Fellow of ASA, IMS and an elected member of ISI. Could you share with us your contributions in this area? How do you manage your time spent on so many responsibilities?

ZHU:

Serving on several statistical associations, I help organise conferences and some academic activities for the statistical community. I hope these activities could help connect the local community with those of China and the international, so that local researchers and professionals could exchange research insights or conduct joint research projects with the Chinese and the international scholars. Increasing engagement in international research collaboration could facilitate the development of statistical research in Hong Kong.

There is no doubt that the collaboration work takes time, yet I believe that no gain without pain! It is worthwhile to contribute to the statistical community. As I am having teaching responsibility in the university now, it is hard for me to allocate time on conducting joint research, but I do hope that my efforts spent on the collaboration work would bring my students or other researchers for more opportunities of joint research.



YEUNG:

Finally, what would be your advice to young people who are trying to decide a career path for themselves in the profession of statistics?

ZHU:

First of all, you have to devote time to research work. Second, you have to build up a solid foundation in statistics. Third, you have to participate in statistical conferences and seminars for gaining ideas and inspirations from leading scholars, and take part in joint researches

And most important of all, you have to be able to find enjoyment in research work so that you could keep being motivated to continue your interest as a life-time profession!

Professional Examination of the Hong Kong Statistical Society

Examination Board Hong Kong Statistical Society

Introduction

One of the main activities of the Hong Kong Statistical Society (HKSS) is to organise the statistical profession examination on an annual The HKSS examination is recognised by the Royal Statistics Society (RSS) as of a

standard equivalent the to same qualifications conferred by it.



The examination provides a route into the statistical profession for those who have not been able to pursue a degree course in statistics or who wish to join the statistical profession after studying or working in another discipline. Indeed, over the past decade, we are very pleased to see that many persons have joined the statistical profession by obtaining qualifications at various levels of the HKSS examination.

The Examination Board of the HKSS is tasked to make all the necessary arrangements so that the examination can be conducted in a smooth efficient manner. Currently, Examination Board is chaired by Mr H.W. FUNG, JP, who is the former Commissioner for Census and Statistics. The five members are Professor Stephen LEE of the University of Hong Kong (HKU), Professor Ben CHAN of the Chinese University of Hong Kong,

Professor WONG Heung of the Polytechnic University, Mr Raymond TAM of the Institute of Vocational Education and Mr John LAM of the Census and Statistics Department. They all possess extensive knowledge and expertise in the field of statistical education and profession. Ms Sharon NG of the Census and Statistics Department serves as the Secretary to the Examination Board.

The smooth running of the examination also hinges on the effective administrative support provided by the Examination Office through the HKU School of Professional and Continuing Education, as well the professional invigilation services provided by the Hong Kong Examinations Assessments Authority.

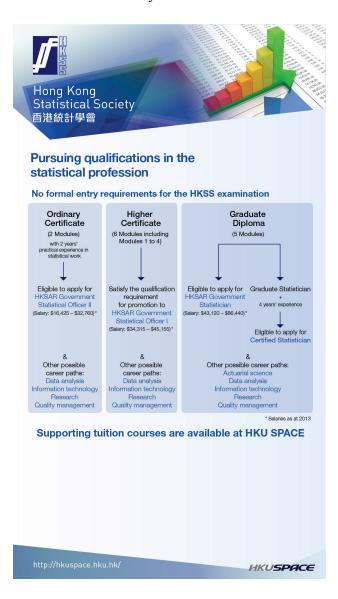
Structure of the HKSS examination

The HKSS professional examination consists of three levels, viz. the Ordinary Certificate level, the Higher Certificate level and the Graduate Diploma level.



The Ordinary Certificate examination is offered in two modules. Each module is examined by a 3-hour written paper containing from 7 to 9 (inclusive) questions of different lengths.

Candidates who are successful in both modules (not necessarily in the same session) will be awarded the Ordinary Certificate in Statistics.



The Higher Certificate is offered in a modular form with eight modules. Each module is examined by a 1½-hour written paper containing four questions of which candidates are asked to answer three. Candidates who are successful in six modules including modules 1 to 4 (not necessarily all in the same session) will be awarded the Higher Certificate in Statistics.

The Graduate Diploma is offered in a modular form with five modules. Each module is examined by a 3-hour written paper containing eight questions of which candidates are asked to answer five. Candidates who are successful in all five modules (not necessarily all in the same session) will be awarded the Graduate Diploma in Statistics.

To tie in with the practices adopted by the RSS, formal entry requirements for the examination have been abandoned in recent years, so that candidates have greater flexibility to choose the levels of examination on their own.

Career paths

The HKSS examination is a recommendable avenue for pursuing qualifications of the statistical profession. Indeed, as Hong Kong develops into a knowledge-based society, statistics has become the essential tool for daily operation and decision making in both business There is increasing and public sectors. demand for qualified statistical professionals in all fields, including in particular finance, risk management, actuary, market research, quality management, etc. Obtaining statistical profession qualifications will greatly enhance one's competitive edge.

Possible career obtaining paths after qualification of HKSS examination include: data analysis in various fields (e.g. financial, economic, industrial, social, medical), information technology, market research, quality management, etc. Besides. professional qualifications awarded by the HKSS have been accepted by the Hong Kong Special Administrative Region Government for appointment to entry ranks of government statistical grades. Specifically, the HKSS Ordinary Certificate is accepted as meeting the entry requirements for the rank of Statistical Officer II and the HKSS Graduate Diploma for the rank of Statistician. The HKSS Higher Certificate is also accepted as meeting the further qualification requirement for a Statistical Officer II to be considered for promotion to a Statistical Officer I.

In particular, the Graduate Diploma as a whole is a qualification in applied statistics at a level equivalent to that of a good Honours Degree in Statistics. It is widely recognised and respected as such, locally and internationally, by employers in the public and private sectors. It is also widely recognised by universities as being sufficient for admission to a Master course in Statistics.

Besides, the individual modules at the three levels are intended as valuable free-standing elements in their own right; they may for example be useful components of a formal or informal continuing professional development programme.

2013 Examination

In the May 2013 round of the examination, 73 candidates took a total of 174 examination papers. Since the first introduction of examination by HKSS in 2002, so far 27 candidates have obtained the Graduate Diploma, 71 candidates the Higher Certificate and 65 candidates the Ordinary Certificate. Almost half of the candidates obtaining Ordinary or Higher Certificates scored credit or distinction.

To enable interested persons and HKSS members to know more about the Examination, an Examination Seminar cum Certificate Presentation Ceremony was held on 23 October 2013. Opportunity was also taken to present certificates to candidates who had successfully completed various levels of the Examination.

In the seminar, Ms Annie CHAN, Vice President of HKSS and Mr H.W. FUNG, Chairman of the Examination Board, briefed participants of the recent developments of the examination. Professor WONG and Mr Raymond TAM also introduced relevant statistics courses in their institutions to participants. Most of the participants found the seminar informative. Many of them

expressed interests in knowing more about the course details.



The Examination Seminar cum Certificate Presentation Ceremony was held on 23 October 2013.

In the 2013 round of the examination, the following candidates successfully passed the examination at different levels. Their achievements are listed below:-

Awarded with Graduate Diploma in 2013

CHEN Hao

Awarded with Higher Certificate in 2013

TSANG Kai Hong (Credit)

HO Taine Ting Hin

Awarded with Ordinary Certificate in 2013

LAU Yui Ki

TUNG Yi

Successfully completed selected Graduate

Diploma modules in 2013

CHAN Pok Yin, Calvin

CHEN Jinzhao

CHAU Siu Hey

HON Pok Man

LAU Chun Hong

LEE Tsz Yeung

LEONG Pun Cheng

LISCHKA Fabian Raul

LUI Wang Ho

MAK Tsz Fan

NGAN Kiu Wai

PANG Ka Yin

SANG Tsun Wai, Dick

Successfully completed selected Higher

Certificate modules in 2013

KWOK Mei Yu

LEUNG Ka Ho

NG Yuen Ling

SHAM Koon Leung

TANG Wai Keong

TSUI Sing Kin

WAN Ho Ming

YUNG Pui Yi

YAU Po Wan

Successfully completed selected Ordinary

Certificate modules in 2013

LAU Yui Ki

TUNG Yi

2014 Examination

The 2014 round of examination will take place during 20-22 May 2014. Details of the Examination such as registration procedures, application forms and past papers etc. can be found on the HKSS website.



The 2014/15 Household Expenditure Survey

Miss Amy YU and Miss Kaisy HUNG Census and Statistics Department

Introduction

In accordance with established policy, a Household Expenditure Survey (HES) is conducted once every five years to collect up-to-date information on the expenditure patterns of households in Hong Kong. This information is essential for updating the expenditure weights of consumer goods and services used for compiling the Consumer Price Indices (CPIs). The last round of HES was conducted in 2009/10 and a new round of the survey being planned for implementation in 2014/15. This article maior features of outlines the the 2014/15 HES and the rebasing of the CPIs.

Uses

The main purpose of conducting 2014/15 HES is to



update the expenditure weights of consumer goods and services used for compiling the CPIs. Updating the expenditure weights of the CPIs is required because the expenditure patterns of households change over time in response to factors such as changes in lifestyles, emergence of new products and services, changes in population profile and income level. For example, the last HES conducted in 2009/10 showed that people spent more on digital products such as digital

single-lens reflex cameras and portable computers when compared with five years before and new items such as playgroups, Ngong Ping Cable Car and mini warehouses emerged in the consumer market.

Apart from updating the expenditure weights of the CPIs, the HES results are also useful for various other purposes. For instance, they are useful for estimating certain components ofprivate consumption expenditure in the national accounts, formulating social and economic policies by the government, conducting research studies on household consumption behavior, and comparing standard of living among economies.

Survey methodology

The survey methodology and procedures of the 2014/15 HES will make reference to those used in the previous rounds, with necessary changes to further enhance the reliability of the survey results.

The 2014/15 HES will cover all land-based domestic households in Hong Kong. Marine

ed in the control of the control of

households, collective households and those households away from Hong Kong during the reference period will not be included in the survey. A stratified proportionate sample design will be adopted and a sample of some 12 000 quarters will be drawn and all relevant households residing therein will enumerated. Households receiving Comprehensive Social Security Assistance will be covered in a special survey to be conducted along with the HES for updating the weighting system of the Social Security Assistance Index of Prices by the Social Welfare Department.

The survey will be conducted for a whole year from October 2014 to September 2015 to take into account seasonal variations in consumer spending in different periods in a year.

Households selected for the survey will be requested to provide information on personal and household particulars, as well as data on expenditures incurred by all household members during a two-week survey period.

Response rate

As a diary-keeping type survey, the HES imposes a certain reporting burden on the respondents and thus the



response rate is usually relatively lower. With various efforts made, the response rate for the HES had remained above 75% in the recent rounds. The response rate in the 2009/10 HES was 77%. In fact, the response rate of HES in Hong Kong is relatively high when compared with that of similar expenditure surveys in other advanced economies such as Canada, the US and the UK.

In the 2014/15 HES, efforts will continue to be made to achieve a high response rate as far as possible. As practised in the previous rounds of HES, an honorarium amounted to \$150 will be given to each household who provides all required information with a view to increasing their incentive to participate in the survey, and to show our appreciation to them for making effort to complete the expenditure diary for two weeks.

Publicity

Publicity also plays an important role in securing a high response rate and thus measures such as press releases and feature articles in newspapers and magazines will be utilised throughout the survey period to increase public awareness of the survey. Appeals will also be made to mutual aid committees, public housing estate management offices and other similar bodies for assistance as appropriate.

Data confidentiality

The survey will be conducted under Part IIIA of the Census and Statistics Ordinance (Cap. 316). The data



collected in the survey regarding individual persons and households will be kept in strict confidence and will not be released to any unauthorised parties, including Government departments. To enhance the respondents' confidence in providing the required data, interviewers will explain to the selected households the various measures adopted to safeguard the confidentiality of data provided by individual households and persons. For example, household reference number will be used for identification purpose to avoid the

need of putting any names or addresses on the questionnaires; only designated officers who have signed an undertaking to refrain from disclosing any information collected from individual households can access the completed questionnaires; individual questionnaires would only be kept for two years and would then be destroyed; and only aggregated information will be released.

Field visits to clarify ambiguities

The data collection procedures are also designed to reduce the extent ofunder-reporting. The field officers will visit the sampled household a number of times during the two-week diary keeping period to check the partially completed diary. This can help clarifying dubious points with the respondents in the first instance and reduce the possible bias arising from memory lapse. The field officers will make reference to the personal and household particulars and pay attention to the surroundings with a view to identifying and verifying dubious entries with the respondents (e.g. missing lunch in one day, with a child at school but having no educational expenditure, with pets in the house but reporting no relevant expenditure) to improve the data reliability.

Data reliability

As a diary keeping type survey, under-reporting may exist in some cases due to memory error or other reporting errors.

To minimise the under-reporting error, the HES questionnaire is designed in such a way to facilitate the respondents



in recalling the expenditure incurred. Apart from the daily expenditure diary, there is a

separate questionnaire listing out all regular payments (such as rent, water and sewage charges, and telephone bills) to facilitate the respondents in recalling the expenditure items to be reported. As for some infrequently-purchased commodities and services (e.g. electrical appliances and outbound travel) for which very few cases are likely to be captured within a short period of two weeks, a longer reference period of three months is adopted, i.e. respondents are requested to provide information of such infrequently-purchased commodities and services purchased during the quarter in which the diary period falls, so as to improve the reliability of the estimates.

While every effort will be made to maintain a high response rate, non-responses are still unavoidable. To reduce possible non-response bias in the survey results, some basic information (such as household size, tenure of accommodation and broad income range) will be obtained where possible from those who refuse to take part in the survey partial information provided and respondents who dropped out during the enumeration period will be used as far as possible to improve the expenditure estimates on these cases.

Rebasing of the CPIs

The results obtained from 2014/15 HES will be used



to update the expenditure ranges

of the CPIs, the CPI basket (i.e. to add new items and delete obsolete ones from the CPI basket based on their latest significance and popularity) and the respective expenditure weights attached to individual commodity / service items.

assess the impact of changes expenditure weights on the CPIs, comparisons of the year-on-year rates of change in the CPIs compiled based on the old and new expenditure weights will be undertaken. Past experiences show that the new CPI series generally show smaller year-on-year rates of increase than the old series. This is attributable to the fact that people tend to buy more of the goods and services with relatively smaller price increases (or relatively larger price decreases) and less of those with larger price increases (or smaller price decreases). Owing to such substitution effect, CPIs based on fixed consumption patterns tend over-estimate price increases or under-estimate price decreases over time. Nevertheless, the differences in year-on-year rates of change in the CPIs compiled based on the old and new expenditure weights would not be very significant, at around 0.5 percentage point on average in the past.

Major results of the HES and the 2014/15-based CPIs will be released to the public around April / May 2016. The existing 2009/10-based CPI series will be published in parallel until the reference month of December 2016 and will then be discontinued.

Concluding remarks

The HES is an important survey to obtain up-to-date information on consumption patterns of households in Hong Kong. The data will provide the major source to update the expenditure weights and the basket of consumer goods and services used to compile the CPIs. Respondents' cooperation is of paramount importance to make the survey a success.

Reference

For major findings of the 2009/10 HES and the rebasing of the CPIs, readers may refer to the report 2009/10 Household Expenditure Survey and the Rebasing of the Consumer Price Indices available on the website of the C&SD

(www.censtatd.gov.hk/hkstat/sub/sp290.jsp?p roductCode=B1060003).



CPI basket of consumer goods and services

HES round	Items added, e.g.	CPI basket	Items deleted, e.g.
1994/95	 Air purifier Electronic dictionary Service charges for cable TV and mobile telephone 	CABLE	 Conventional records Conventional record player
1999/2000	 Digital camera Massage chair Notebook computer Sushi 		Kerosene stoveTypewriter
2004/05	 Cyber café charges Digital single lens reflex camera DVD recorder Olive oil 	Cyber Cape	• Radio pager • Walkman
2009/10	 Mini warehouses Ngong Ping Cable Car fares School fees on playgroups 	Playgroup	 Cyber café charges Repair service charges on sound equipment

The International Year of Statistics

2013 was the International Year of Statistics (Statistics2013). As the flagship statistical organisation in Hong Kong, the HKSS has signed up as a participating organisation for the Statistics2013. A series of activities had been organised with particular focus to connect with other statistical organisations around the world and broaden the perspectives of young statisticians in Hong Kong. These included our active participation in the 59th World Statistics Congress (WSC) held at the Hong Kong Convention and Exhibition Centre on 25-30 August, a public seminar on 28 August 2013, and the prize presentation ceremonies for the Statistical Project Competition 2012/13 and

the Statistical Creative-writing Competition 2012/13 on 28 August 2013.



Participation in the 59th WSC

Apart from the participation by our president, Professor NG Kai-wang, in the Local Organising Committee and Local Programme Committee as well as the presentations by our members in the scientific programme of the WSC, the HKSS had launched a sponsorship programme to support young participants and set up a booth in the trade exhibition held alongside the WSC to promote our Society to the participants.

Trade exhibition

The exhibition of HKSS gave the participants an introduction to the background and objectives of the Society, and the various events and activities organised by the Society. The exhibition also displayed the Society's publications and the winning entries of the Statistical Project Competition for Secondary School Students (SPC) and the Statistics Creative-Writing Competition for Secondary School Students (SCC). Souvenirs were given to all visitors of the exhibition.

Exhibition booth was set up to promote HKSS to the participants of 59th WSC

The responses from the visitors of the exhibition were encouraging. During the exhibition, enquiries about the membership of the HKSS and the public examinations organised by the Society were received from delegates and local students. Over 20 delegates and exhibitors which are from statistics-related organisations and tertiary institutions have left their contact information after their visits to the exhibition booth, looking

for the opportunity to cooperate with the Society.

The HKSS is very pleased and thankful to the Division of Applied Science and Technology of the Community College of City University for organising their students to help manning the exhibition booth. Sharing from some of the students is as follows:



Billy TANG

being a helper in this international event, the 59th World Statistics Congress. I really explored a lot and gained memorable experience. First of all, I assisted in managing the exhibition booth of the Hong Statistical Society. Kona With no doubt, I got a more thorough understanding of the background of the HKSS. Many guests were interested in the objectives of the HKSS and the benefits of being a Now. I member of HKSS. can tell that the HKSS can provide a common forum for meet to professional statisticians. Thus, members can grasp the chance to exchange statistical knowledge as well the future career prospects in statistics field. In addition, I met people from different places around the world, but with the same interest statistics. Especially, I chatted with two Ethiopians and we shared our cultural experiences and some statistical concepts. Above all, the Congress is a world-wide event organised by a variety of statistical associations all around the world. Being a statistics student. grasped chance to expand horizons in statistics. I will gain strive to more different participation in statistical activities in the near future.

It is my great pleasure for



Chantal **CHUNG**

Hong Kong: Being a student helper of the Hong Kong Statistical Society (HKSS) in the exhibition of the 2013 World Statistics Congress is definitely an unforgettable and valuable experience for Before this me Congress, never had I participated in anv activities held by HKSS. Therefore, I gain a deeper understanding about HKSS. Moreover, I met so many people from different countries in which I don't even know. As I am a student majoring in the field of statistics, I was so glad that I was given a chance to participate in this Congress with its main focus on statistics. As a result, I learn more about statistics-related organisations around the world.

> Apart from that, the Congress is international event in which visitors are mainly professionals from different nations. of my duties during the exhibition was to answer questions regarding HKSS from visitors. had to speak foreigners in English. I was anxious about using English as communication tool. worrying that I could not express myself clearly. However, practice made perfect and the foreigners were very friendly. I believe that meeting and communicating with foreigners is a good way to boost my confidence in English speaking. In short, the experience in the Congress is really eye-opening and irreplaceable. is undeniably a joyful learning experience for me.



CHUI Cheuk-kit

In this August, I got a great chance to participate in the World Statistics Congress (WSC). This is my first time to play a part in an international function. In WSC, I was responsible for welcoming the visitors and holding the booth of the Kona Statistical Hong First, I Society (HKSS). talked to people from different countries such as America and India. This can be of great help to improve my communication skills and gain more confidence in foreigners. talking to Moreover, I acquired more knowledge about statistics. Why statistics is important in the world? How to make good use of statistics? I am confident that I am able to find out all the answers of the above-mentioned questions. lt pleasure to work for HKSS and I really want to thank HKSS and my lecturer Kingship for granting me this valuable chance.





Kevin KONG

I appreciate that I can be helper of the HKSS exhibition during the World Statistic It is Congress (WSC). different from imagination. There were people coming from different countries. Some regions and cities such as Abu Dhabi and Benin were new to me. I met people from ten to twenty countries during the exhibition. At the beginning I was nervous about speaking English and Mandarin. However, the visitors were very friendly and made me comfortable to talk to them. I became more active after the first day of exhibition. Besides. we participated in the public seminar on 28 August. The speaker is a famous professor in Korea and I really enjoy the atmosphere in the seminar. It is a precious memory for me to meet the representatives from international organisations. English communication skill has been improved. Thank you for giving me this opportunity to be a student helper of HKSS in the 2013 WSC

Sponsorship programme

To tie in with the theme "Youth" for the "Theme Day" of the 59th WSC, the Examination Board of the HKSS launched a sponsorship programme in early 2013 to encourage future members of the local statistical community to participate in the 59th WSC. The programme sponsored the

registration fees of youth participants who are current HKSS Examination Associates and persons who have sat for the professional examinations administered by HKSS to attend the event. Through attending the 59th WSC, the young statistical practitioners were able to strengthen their statistical knowledge, enhance their understanding of the crucial role played by statistics in socio-economic issues, and, more importantly, broaden their exposure and their local and international personal networks.



Sharing from some of the awardees of the HKSS sponsorship for the 59th WSC is as follows:

Vincent WONG

It was a great pleasure for me to attend the World Statistics Congress held in Hong Kong in August 2013. The scientific programme sessions inspired me and the Theme Day programme was splendid. It gave me a good opportunity to learn about the latest development of statistics in an international context. It provided an excellent platform to share and explore new knowledge in statistics.

Walton LAU

The congress was really beyond my expectations. The topics covered by the seminars were so diverse, ranging from latest development in various statistical techniques to applications in numerous fields. In Hong Kong it is not uncommon to have statistics applied to areas like marketing, risk management or medical research. Here in the congress we would come across relatively exotic subjects such as earthquakes or astronomy, as there were experts from all over When one of the the world. speakers told us about the role statistics can play in inferring the existence of a satellite orbiting a particular planet in the outer space, I came to realise that the power of statistics is far-reaching literally.

I still remember there were quite a few sessions I was interested in. They were held in different conference rooms around the same time, but I tried not to miss any of them. Once a session was finished in one room, I would travel to another almost at the speed like race walking. In this sense, learning is a dynamic process definitely.



The HKSS Executive Committee, Chairman of the HKSS Examination Board and awardees of the sponsored programme visited the booth.



Public seminar on statistics for Statistics2013

The HKSS jointly organised a public seminar on statistics with the Census and Statistics Department (C&SD) and the Education Bureau of the HKSARG at the Hong Kong Convention and Exhibition Centre on 28 August 2013, on the "Youth Theme Day" of the 59th WSC.

The seminar started with Professor Byeong U Park of the Seoul National University sharing with the participants his experience as a Korean educator in promoting statistics among young people. Miss K. L. CHAN, Assistant Commissioner of C&SD, then discussed the efforts made in promoting and enhancing statistical literacy among students in Hong Kong.



Professor K. W. NG (middle), President of HKSS, presented a souvenir to two speakers of the public seminar, Professor Byeong U Park (left) and Miss K. L. CHAN (right).

Favourable feedback was received from the audience. Many of the participants considered that the speakers offered inspiring insightful perspectives surrounding the topic on promotion of statistical literacy among youth in the local and international contexts. presentation materials and the video records of the seminar be found can at: www.hkss.org.hk/Events/Academic.htm.



The seminar attracted some 250 participants, including lecturers, teachers and students from tertiary institutes and secondary schools, participants of the 59th WSC and the general public.

The Ninth ICSA International Conference:

Challenges of Statistical Methods for Interdisciplinary Research and Big Data

The Editor

The Ninth International Chinese Statistical Association (ICSA) international conference was held in the Hong Kong Baptist University on 20-23 December 2013. It is one of the important statistical conferences in 2013, and a great big party for Chinese scholars of statistics. There are almost 500 academic scholars from the mainland of China, Hong Kong, Taiwan, Singapore, US and Europe attending this conference. Among those scholars, there are several members of academy of sciences of China and US. It also includes 9 Committee of Presidents of Statistical Societies (COPSS) Presidents' Awarder recipients. The COPSS Presidents' Award is given annually by the COPSS to a person under the age of 40, in recognition of outstanding contributions to the profession of statistics. Over 300 papers in more than 60 invited sessions and 20 contribution sessions were delivered. As one of the sponsors for this conference, many HKSS members help organising this conference, such as Professor



First day Lunch



ZHU Lixing who was the chairs of program committee of this conference, and Professor CHIU Sun-nok who was the chair of the local organising committee.

The international conference is organised by ICSA which is a non-profit organisation and is organised and operated for educational, charitable, and scientific purposes only. Now ICSA has more than 1 000 active members. Most of them are Chinese scholars of statistics. The ICSA international conference is held every three years in the mainland of China, Hong Kong, Taiwan or Singapore. Started in 1990, now it is the ninth ICSA international conference. The first and fifth ICSA conferences were also held in Hong Kong. This conference provides a good chance for

Chinese scholars of statistics from different places to communicate with each other. The number of conference participants has increased from 145 at the first conference to over 500 at the ninth conference. The ICSA international conference has now

become one of most important conferences for statistics.

The theme of the Ninth ICSA international conference is "Challenges of Statistical Methods for Interdisciplinary Research and Big Data". Today, we are entering the era of Big Data — a term that refers to the explosion of available information. Big data now is a hot research topic in different scientific area and it brings new opportunities to modern society and challenges to data scientists. On the one hand, Big Data hold great promises for discovering subtle population patterns and heterogeneities that are not possible with small-scale data. On the other hand, the massive sample size and high dimensionality of Big Data with various backgrounds introduce unique computational and statistical challenges for Interdisciplinary In the Ninth ICSA international conference, eight special industry track invited sessions were organised for statistical applications in different industries. Two special invited sessions and half of invited sessions were related to high dimensional or massive data from different scientific fields, such as machine learning, survival data, finance and genomics etc.



Pao-Lu Hsh Award Ceremony

In the Ninth ICSA conference, the first official Pao-Lu Hsh Award Ceremony with special presentations by the first three awardees was held. The three recipients are Professor FAN Jianging from Princeton University, Professor MENG Xiao-Li from Harvard University and Bin Professor YU from University of California at Berkeley. This award recognises their excellent scholarly accomplishments in statistical research as well as outstanding contributions to the development of sound statistics in Chinese communities.



Pao-Lu Hsh Award recipients (from left to right, Prof. FAN, Prof. MENG and Prof YU)



Conference Banquet

2013 World Statistics Congress

Secretary of the Local Organising Committee of the 2013 World Statistics Congress of the International Statistical Institute

Introduction



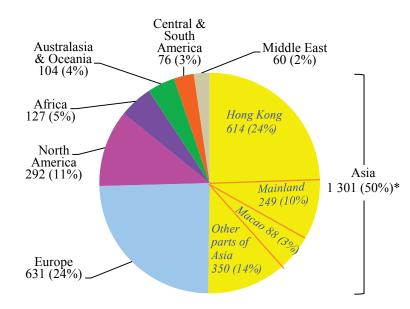
2013 World Statistics Congress (WSC) of the International Statistical Institute (ISI), hosted by the Census and Statistics Department (C&SD),

was successfully held at the Hong Kong Convention and Exhibition Centre (HKCEC) from 25 August to 30 August 2013.

Patronage of the 2013 WSC

The Congress attracted nearly 2 600 delegates from 108 countries / territories across the globe, surpassing that of the 2011 WSC (some 2 250) held in Dublin, Ireland. While half of the participants were from Asia, the other non-Asian participants, in order of prominence, were from Europe (24%), North America (11%), Africa (5%) and Australasia and Oceania (4%).

Number of participants analysed by region



* The individual percentages do not add up to 50% due to rounding.

Programmes and activities of the 2013 WSC

Similar to the previous WSCs, the 2013 WSC covered a host of activities, including a Scientific Programme, a Social Programme, an exhibition and a series of side events.

Opening Ceremony

Held at the Grand Hall of HKCEC on 25 August 2013, the Opening Ceremony was

showered with the honour of the presence of Professor K. C. CHAN, Secretary for Financial Services and the Treasury of the HKSAR Government; Mr MA Jian-tang, Commissioner of the National Bureau of Statistics of China (NBS); Mrs Lily OU-YANG, Commissioner for Census & Statistics and Chairperson of the Local Organising Committee (LOC); and Professor LEE Jae-chang, President of the ISI.

Ceremony, including lion dance and dragon dance, drum-playing, Chinese music performance and Kung Fu flags. The Opening Ceremony was rounded off by a Welcome Reception at the Grand Foyer of the HKCEC.



From left: The Deputy Secretary for Financial Services and the Treasury (Financial Services), Mr Eddie Cheung; the Permanent Secretary for Financial Services and the Treasury (Financial Services), Miss Au King-chi; Secretary for Financial Services and the Treasury, Professor K C Chan; the Commissioner of the NBS. Mr Ma Jian-tang; the Commissioner for and Statistics, Mrs Lily Census Ou-Yang; the President of the ISI, Professor Lee Jae-chang and his wife; and the President-elect of the ISI, Professor Vijay Nair; pictured after the Opening Ceremony.

Messages delivered by them did share a common vision. In an era in which information changes rapidly, statistics unprecedented showing its value in understanding the operational laws of economic and social issues, fostering development sustainable and enhancing cooperation. Statistical exchanges and practitioners thus have an important role to play – to go beyond the statistics profession by reaching out to people who need statistics and promoting better and more effective use of statistics in different sectors of the society.

A range of delightful and enjoyable cultural performances were staged at the Opening

Scientific Programme

With the coordination of the Scientific Programme Committee (SPC) of the ISI and the Local Programme Committee (LPC), some 1 400 papers on various statistical fields organised into 242 sessions were put forth by the various Associations of the ISI and other relevant groups. The volume of papers submission for the 2013 WSC unparalleled, covering a diverse range of interesting topics. Among others, these included recent advances in big data analyses, small area estimation, statistical machine learning and time-series analyses. There were also many interesting deliberations on how statistics could be put into the context of measuring quality of life, for analysis of social networks or how time use surveys influences the experience and perspectives for the future. The various sessions were concluded with a keynote presentation on 30 August 2013 by the ISI President's Invited Speaker, Kaushik Basu, who is the Senior Vice President and Chief Economist of the World Bank.

In particular, to encourage contributions of papers to the Scientific Programme, authors of Poster Sessions were provided with the options of presentation by poster display (i.e. poster mode) and making brief presentations of their papers on stage in addition to poster display (i.e. poster-plus mode). Contributed papers presented in Poster Sessions were also entitled to be published in the Congress Proceedings irrespective of the mode of presentation.

Moreover, the 2013 WSC was the first of its kind to offer the option of virtual participation. Registered participants from all over the world could take part in 10 selected scientific sessions, as well as the Opening Ceremony, via the Internet. Apart from having real-time viewing of the speakers' presentations through the webcasting system, they might also raise textual questions by means of the instant messaging panels.



Delegates participated actively in the scientific sessions, which were lined up by
Professor HE Xu-ming, Chairperson of the SPC (bottom left) and
Professor NG Kai-wang, Chairperson of the LPC and Vice Chairperson of the LOC (bottom right).

The theme for the 2013 WSC was "Youth". Besides dedicating 28 August 2013 as the "Youth Theme Day", a series of sessions were also organised throughout the Congress to address, from various statistical perspectives, topics relating to "Youth". To tie in with this unique theme, the LOC put in place a sponsorship programme for some 400 local university students studying statistics or related subjects to join the event. The LOC would like to express its special thanks to the HKSS for their generosity in sponsoring local students to attend the 2013 WSC amongst other sponsors. Through participating in the Congress, the students were able to broaden their exposure and strengthen their statistical knowledge in understanding and analysing various issues in their daily endeavours.

Social Programme

A series of functions under the Social Programme were also organised during the 2013 WSC to provide participants with the opportunity to enjoy the lighter side of the event, network with other delegates, and above all, experience the glamour and rich vibrancy of Hong Kong. Interesting and enjoyable cultural performances, largely sponsored by the Hong Kong Tourism Board, were featured in the various functions.



On top of the Social Programme, a number of mixers / receptions were also arranged to facilitate networking and discussion among specific groups of participants, including young statisticians, woman statisticians, ISI members, and heads of national statistical offices and international organisations.

Exhibition

An exhibition, covering a wide variety of products and services related to the statistics profession, was held during the Congress. A total of some 30 exhibitors participated, including the ISI and its Associations, the HKSS, publishers, academic institutions, information technology vendors and international organisations. The exhibition was well received by the WSC delegates.

Side events

A total of 7 satellite meetings were jointly organised by the ISI Associations and academic institutions / statistical organisations before and after the 2013 WSC. While two of them were held in Hong Kong at the University of Hong Kong and the City University of Hong Kong, the others were held in cities nearby, including Macao, Guangzhou, Seoul, Bangkok and Tokyo.

Furthermore, 6 short courses on various fields of statistics were arranged by the ISI and its Associations in partnership with the University of Hong Kong. These courses, each lasting for one to two days, were held in Hong Kong in the week immediately before the 2013 WSC.



Many participants were attracted by the exhibition booths of the HKSS and the host of the 2015 WSC — Brazil, which were beautifully decorated and informative.



Concluding remarks

Many favourable and encouraging feedbacks regarding the 2013 WSC were received from participants and the ISI during and after the event. The insightful discussions and exchanges among eminent scholars, statistical experts and practitioners from around the at the Congress facilitated world the consolidation and broadening of their horizon in respect of the statistical developments and challenges ahead. The success of the Congress also helped to showcase the strengths of Hong Kong in hosting international events and develop the statistical capacity of Hong Kong.

The successful launching of the 2013 WSC could not be accomplished without the concerted efforts of various parties. Taking the opportunity, the LOC would like to express its heartfelt gratitude to all relevant parties who have offered their great support to the Congress, in particular the HKSS, the NBS, the National Statistical Society of China and the Statistics and Census Service of Macao in assisting to promote participation from Hong Kong, the Mainland and Macao.

Readers who are interested to know more about the 2013 WSC may visit the event website at http://www.isi2013.hk.

ISI Satellite Meeting at CityU

The Department of Systems Engineering and Engineering Management (SEEM) of the City University of Hong Kong (CityU) hosted and organised the ISI Satellite Meeting at CityU on 23-24 August 2013, prior to the commencement of the 59th World Statistics Congress (WSC). The event brought together international statistical academics and industry experts to share and present their knowledge and innovation on the theme "Statistics in Business, Industry and Risk Management".

The two-day Satellite Meeting opened with a welcome speech by Professor Way Kuo, the President of CityU, and followed by a plenary speech by Professor Geoff McLachlan from University of Queensland, Australia. The Satellite Meeting consisted of ten technical sessions delivered by industry experts and academics from worldwide leading institutes

including University of California at Davis, Virginia Tech, Iowa State University, University of Würzburg, Norwegian University of Science and Technology, National University of Singapore, National Tsing-Hua University, Russian Academy of Sciences, Beihang University, Nankai University, CityU, HKU, HKUST and PolyU.



In addition, Professors Kwok Tsui, Min Xie, and Nozer Singpurwalla of SEEM hosted a VIP dinner for the distinguished academics who were in Hong Kong for the ISI WSC to share an enjoyable evening at CityU on 24 August 2013. The honourable guests include Professor Paul Switzer of Stanford University, Professor Stephen M. Stigler of University of Chicago, Professor Nancy Reid and Professor D.A.S. Fraser of University of Toronto, Professor William Meeker of Iowa State University, Professor Roy E. Welsch of MIT, Professor Jef Teugels of KU Leuven, Professor Nick Fisher of Sydney University, Professor Samuel Kuo of Harvard University, Professors Way Kuo and Stephen Smale of CityU, and Professor K W Ng of HKU.

Two satellite events of the 59th World Statistics Congress

Professor LI Wai-keung and Dr CHEUNG Ka-chun The University of Hong Kong

In celebrating the success of the WSC last year, there were two satellite events that should not be overlooked. One of them is the Young Statisticians' Meeting (YSI) 2013 which was aimed at young statisticians. The second one is the ISI short courses. For logistic and budget reasons, the short courses were jointly offered by the ISI and the University of Hong Kong this year and were called ISI-HKU Short Courses. Both events were held at the Department of Statistics and Actuarial Science, HKU.

The YSI 2013 features some nine internationally famous speakers including Professors Don Fraser, Peter Hall, Stephen Stigler, John Haslett, Geoff McLachan, Susan Murhy, Byeong Park and Hedibert Lopes. Participants, not counting unofficial ones from the hosting department, were around fifty with a good coverage of 27 countries and regions. Some of the participants were from developing countries and they were supported by the African Development Bank, the ISI Jan Tinbergen Award and the Wakimoto Memorial Fund. Professor Peter Hall's talk entitled "Writing a Research Paper, and Submitting It for Publication" and Professor Stephen Stigler's, "What the History of Estimation Can Teach Us about Approaches to Research" were in particular useful to young researchers.

The first ISI-HKU Short course started on August 22 and the last one ended in the morning of August 25. There were altogether six courses with four on survey design and the analysis of survey data, one on heavy tail phenomenon, and one on reinsurance. The courses were all intensive and ran from 1 day to 2 days. The courses featured speakers such as Thomas Mikosch, Hansjorg Albrecher and Jozef L. Teugels, etc. There were 88 participants from 17 countries and regions.

Judging from feedbacks by the participants both events appeared to be great successes. The department received also a formal letter of appreciation from the former and current ISI Presidents, Professors J C Lee and Vijay Nair and the ISI Director, Ms Ada van Krimpen on September, 2013.

Interested readers can visit the following websites for more details and the photos:

- http://www.saasweb.hku.hk/conference/ysi2013/
- http://www.saasweb.hku.hk/conference/isi -shortcourses/short-courses-2013-register. php

News Section



To honour Professor W.K. LI, Head of the Department of Statistics and Actuarial Science, an outstanding statistician and frontier scholar of Time Series Analysis, an international conference entitled, "Frontiers of Time Series Analysis and Related Fields" was held at HKUST on July 26-27, 2013. During the conference, 26 speakers from eight countries and regions, including two acedemicians of *Academia Sinica*, gave speeches to celebrate Professor LI's contribution to the statistical community. Further details of the conference are available at the website: http://www.saasweb.hku.hk/conference/wkli60/.

HKU is ranked **No. 1 in Asia and No. 10 worldwide** in a publication of the official journal of the Society of Actuaries, *North American Actuarial Journal* (2013 Vol. 17, 3-12), in terms of publication pages in the actuarial journals included in the study over a 30-year period from 1982 to 2011. Further details are available at the website: http://lx2.saas.hku.hk/info/2013-Genest-Carabarin.pdf#pag e=9.

SOCIETY OF ACTUARIES



Professor TANG Man-Lai has left the Hong Kong Baptist University and joined the Hang Seng Management College (HSMC) as the Chairman of the Department of Mathematics and Statistics, and Director of the B.Sc. Programme in Data Science and Business Intelligence.