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## Message from the Chairman

Dear Alumni and Friends,

I am pleased to present the 9<sup>th</sup> issue of our departmental newsletter. The Department has actively engaged in various activities and I am eager to share its latest achievements and developments with you.

Undoubtedly, 2014 has been a productive and successful year for the Department. First, a modern, informative, and interactive department website was launched in December. You can visit our new website at [www.sta.cuhk.edu.hk](http://www.sta.cuhk.edu.hk) to stay updated with the developments and activities of the Department.

In addition, we successfully organized the 2<sup>nd</sup> CUHK Symposium, which was held on December 22–23, 2014. The theme of the symposium this year was “Financial Risk Management.” The symposium was received positively by over 100 participants. You can read about this event on pages 4 and 5.

To further promote international collaboration and academic exchange, we will organize the 4<sup>th</sup> Institute of Mathematical Statistics—Asia Pacific Rim Meeting (IMS—APRM) in late June 2016. Preparations for this activity are already in full swing. Additional details will be announced on our website.

In 2014, two new faculty members have joined the Department: Dr. Lin Yuanyuan and Dr. Wei Yingying. Please join me in welcoming them. Their well-timed arrival has strengthened the research profile of the Department. To learn more about Dr. Lin and Dr. Wei, please turn to page 2.

I am also pleased to announce the promotion of several faculty members effective August 1, 2014. Let us congratulate Dr. Fan Xiaodan and Dr. Phillip Yam Sheung Chi, who are now Associate Professors, and Dr. Wong Hoi Ying, who has been promoted to Professor. In addition, Professor Poon Wai Yin has been appointed as Associate Vice President on February 1, 2014 and as an Outstanding Fellow of the Faculty of Science on a concurrent basis effective August 1, 2014. She was also awarded the Vice-Chancellor’s Exemplary Teaching Award and the Faculty Teaching Award. My heartfelt congratulations to Dan, Phillip, Michael, and Professor Poon!

I hope you will learn more about the Department by reading this newsletter. Please do not hesitate to write to us if you have any comment regarding our newsletter, website, curriculum, teaching and learning environment, and other matters related to the Department.

I also take this opportunity to wish you a prosperous and blissful Year of the Goat!

Qiman Shao  
Chairman



Speakers, faculty members and symposium participants at CUHK Symposium on Financial Risk Management 2014



◀ **Dr. LIN Yuanyuan** (林媛媛博士)

has joined the department as Assistant Professor since 18 July 2014. Dr. Lin graduated with a B.S. degree in Information and Computational Science at Sun Yat Sen University and she got her Ph.D. in Statistics from Hong Kong University of Science and Technology in 2011. Before joining the department, she served as Research Assistant Professor at the Hong Kong Polytechnic University. Her research interests are semiparametric analysis and survival data analysis.



**Appointments**



◀ **Dr. WEI Yingying** (魏穎穎博士)

has joined the department as Assistant Professor since 30 July 2014. Dr. Wei received her B.Sc. from Tsinghua University. She then received her M.S.E. in Computer Science and Ph.D. in Biostatistics from The Johns Hopkins University. Dr. Wei's research interests include big data and biostatistics. Dr. Wei will also join the big data research team supported by the University's Focused Innovation Investment Scheme in Information Sciences.



◀ **Professor POON Wai Yin**

has been appointed as Associate Vice-President on a concurrent basis for a period of three years from 1 February 2014.



◀ **Professor FAN Xiaodan**

has advanced to Associate Professor with effect from 1 August 2014.

**Professor WONG Hoi Ying**

has advanced to Professor with effect from 1 August 2014.



**Professor YAM Sheung Chi Phillip**

has advanced to Associate Professor with effect from 1 August 2014.



**Professor LI Kim Hung** retired from the University in August after 29 years of dedicated service. Members of the department held a gathering to bid farewell to Professor Li. We are grateful for Professor Li's devotion and contribution to the department throughout the years. We wish Professor Li healthy and happy retirement!



**Retirements**



# Honors and Awards

▶ **Professor Poon Wai Yin** has been awarded the **Vice-Chancellor's Exemplary Teaching Award** and the Faculty Exemplary Teaching Award 2013. The VC's Exemplary Teaching Award is a prestigious award that is presented annually to outstanding teachers of the University, one from each of the eight Faculties and the General Education programme. The awardees' achievements in teaching are considered by their peers and students to be of the highest order. This award was presented at the 76<sup>th</sup> Congregation scheduled for 20 November 2014.



▶ In addition, Professor Poon has been appointed as Outstanding Fellow of the Faculty of Science on a concurrent basis with effect from 1 August 2014. The University will provide \$50,000/year to Professor Poon for 5 years to support her research activities.

Our hearty congratulations to Professor Poon!

## ▶ **Best Teaching Assistant Award 2013-14**

The department has launched the Best Teaching Assistant Award in 2013-14. The Award aims at rewarding TA with outstanding teaching performance.

The awardees in 2013-14 are: **Mr. Chan Kin Wai Keith** and **Mr. Pun Chi Seng Patrick**. Congratulations to Keith and Patrick!

▼ From left to right: Prof. QM Shao, Patrick Pun, Keith Chan, Prof. XY Song



## ▶ **Conference Support to Research Postgraduate Student**

Starting from 2013-14, the department has been providing conference grant for research postgraduate students to attend and present at international conferences. Students below attended and presented at international conference in 2014.

Name	Conference Details
PAN Deng	The 3 <sup>rd</sup> IMS Asia Pacific Rim Meeting in Taipei from 29 June to 3 July 2014
YANG Ping	Joint Statistical Meeting in Boston, USA from 2 August to 7 August 2014
WANG Yifan	Joint Statistical Meeting in Boston, USA from 2 August to 7 August 2014
LEE Mei Wah	Joint Statistical Meeting in Boston, USA from 2 August to 7 August 2014
PUN Chi Seng	International Symposium on Differential Equations and Stochastic Analysis in Mathematical Finance in Sanya, China from 12 July to 16 July 2014

## ▶ **Overseas Research Award for PhD Students 2013-14**

The department has launched the captioned award since 2013-14. In 2014, three students received the award and participated in overseas research activities. They are pleased to share their research experience with you. Please turn to page 8 to read their stories.

Name	Destination	Period	Total Award Amount
LI Han	Harvard University, USA	1 March 2014 to 25 May 2014	\$30,839
Yang Ping	University of Southampton, UK	25 May 2014 to 23 July 2014	\$25,800
Zhang Zheng	University of Washington, USA	27 April 2014 to 27 July 2014	\$32,400

## ▶ **List of Recipients of Advantage Trust Statistics Scholarship**

Name of Awardee	Major / Year	Amount(HK\$)
Mr. Chan Chun Ho	Statistics / 2 <sup>nd</sup>	10,000
Ms. Cheung Chi Kin	Statistics / 2 <sup>nd</sup>	10,000
Ms. Chung Ka Pui	Statistics / 2 <sup>nd</sup>	10,000
Ms. Lam Ka Yu	Statistics / 2 <sup>nd</sup>	10,000
Mr. Ng Lok Yeung	Statistics / 2 <sup>nd</sup>	10,000
Ms. Tse Tung Yan	Statistics / 2 <sup>nd</sup>	10,000
Ms. Wong Cho Ting	Statistics / 2 <sup>nd</sup>	10,000
Ms. Wong Pui Lam	Statistics / 2 <sup>nd</sup>	10,000
Mr. Wong Dzi Hin	RMSC / 1 <sup>st</sup>	10,000
Ms. Lo Sze Yu	RMSC / 1 <sup>st</sup>	10,000
Mr. Chan Kwan Shing	Statistics / 2 <sup>nd</sup>	2,000
Ms. Leung Siu Ki	Statistics / 2 <sup>nd</sup>	2,000
Ms. Kwok Chin Kiu	Statistics / 2 <sup>nd</sup>	2,000
Mr. Tsang Yiu Ming	Statistics / 2 <sup>nd</sup>	2,000
Mr. Cheng Chi Wai	Statistics / 2 <sup>nd</sup>	2,000
Mr. Kung Wing Kit	Statistics / 2 <sup>nd</sup>	2,000
Mr. Ng Chun Kit	RMSC / 2 <sup>nd</sup>	2,000
Mr. Shek Chung Ning	RMSC / 2 <sup>nd</sup>	2,000
Mr. Ng Ka Kit	RMSC / 2 <sup>nd</sup>	2,000
Mr. Tang Jim Yuen	RMSC / 2 <sup>nd</sup>	2,000
Mr. Lai Chun Hei	RMSC / 2 <sup>nd</sup>	2,000
Mr. Li Kit Lun	RMSC / 2 <sup>nd</sup>	2,000
Mr. Yip Cheuk Fung	Statistics / 3 <sup>rd</sup>	2,000
Mr. Yeung Cho Yin	Statistics / 3 <sup>rd</sup>	2,000
Mr. Tang Sheung Ho	Statistics / 3 <sup>rd</sup>	2,000
Mr. Yau Cheuk Wang	Statistics / 3 <sup>rd</sup>	2,000
Ms. Ku Hong Nei	Statistics / 3 <sup>rd</sup>	2,000
Ms. Chong Chuen Yung	Statistics / 3 <sup>rd</sup>	2,000
Mr. Wong Hoi Ming	RMSC / 4 <sup>th</sup>	2,000
Mr. Tsui Kwan Yu	RMSC / 3 <sup>rd</sup>	2,000
Ms. Xiao Shiyu	RMSC / 4 <sup>th</sup>	2,000
Mr. Kwok Kai Yin	RMSC / 3 <sup>rd</sup>	2,000

# CUHK Symposium on Financial Risk Management 2014

Organizing Committee: Ngai Hang Chan, Qiman Shao, Tony Sit, Hoi Ying Wong, Phillip Yam

The Department of Statistics has successfully organized the 2<sup>nd</sup> CUHK Symposium which was held on 22-23 December 2014. The event was well received by over 100 participants. It has served as an excellent platform to promote academic exchanges between international renowned scholars and participants. Below please find the highlights of the event.

## DAY 1

1. Opening remark by Qiman SHAO, Chairman of Department of Statistics, CUHK
2. Session chair Wai Ki CHING of HKU
3. Plenary speaker Xunyu ZHOU of University of Oxford
4. Hailiang YANG of HKU
5. Tim ST LEUNG of Columbia University
6. Wei ZHOU of JP Morgan Chase
7. Chairman of organizing committee Ngai Hang CHAN of Department of Statistics, CUHK
8. Plenary speaker Michael SØRENSEN of University of Copenhagen
9. Xinghua ZHENG of HKUST



Speakers and faculty members enjoy the dinner



## DAY 2

1. Welcoming speech by Phillip YAM of CUHK
2. Session chair Duan LI of CUHK
3. Plenary speaker Alain BENSOUSSAN of University of Texas Dallas/City University of HK





Lunch buffet



Academic exchanges during coffee break



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- 10. Mark C. HOOGENDIJK of E8 Consulting Asia
- 11. Alfred MA of CASH Axiom Captial
- 12. Ken YAN of Cathay United Bank



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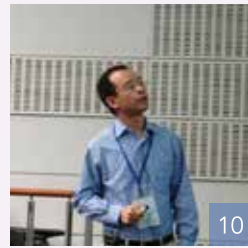


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- 4. Cedric KF YIU of PolyU
- 5. Ka Chun CHEUNG of HKU
- 6. Qingshuo SONG of CityU
- 7. Session chair Yue Kuen KWOK of HKUST
- 8. Plenary speaker Jean-Pierre FOUQUE of University of California, Santa Barbara
- 9. Li-Hsien SUN of National Central University
- 10. Xianhua PENG of HKUST
- 11. Student speaker Michael MH CHAU of ICL/HKU
- 12. Student speaker Chi Seng PUN of CUHK
- 13. Session chair: Nozer D. SINGPURWALLA of CityU
- 14. Plenary speaker Suresh P. SETHI of University of Texas at Dallas



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# Distinguished Lectures

The Department has organized several distinguished lectures in 2014 to promote academic exchanges. Our students seized the opportunity to interact and discuss with world renowned scholars. Here are the highlights of the distinguished lectures.

23 June 2014

Distinguished Lecture by Prof. Wing Hung Wong

Title: Density Estimation from Multivariate Data and Applications to Machine Learning



23 September 2014

Distinguished Lecture by Prof. Geoffrey Grimmett

Title: Universality for Percolation on Isoradial Graphs



31 October 2014



Distinguished Lecture by Prof. Charles M. Newman

Title: Statistical Mechanics and the Riemann Hypothesis

## Teacher and Postgraduate Student Interactive Activity

To foster teacher-student relationship, the department organized a one-day tour at Tung Ping Chau and Grass Island for postgraduate students on 29 November 2014. Around 40 participants including teachers, staff and students attended the event. They all had a joyful and an unforgettable day at Tung Ping Chau.



Students have lunch with Prof. and Mrs. XD Fan, Prof. and Mrs. QM Shao, Prof. XY Song, Prof. YY Wei and Prof. YY Lin



Teachers, staff and students enjoy the beautiful scenery at Tung Ping Chau



Prof. XY Song (centre) with postgraduate students



Prof. XY Song with postgraduate students

## Career Visit at Census and Statistics Department

Some 25 undergraduate students visited the Census and Statistics Department, HKSAR (C&SD) on 3 November, 2014. The visit was jointly organized by the Statistics Student Association and the department. We are grateful for the staff of C&SD to introduce the organization and operation of C&SD.



# Sharing from Awardees of Overseas Research Award for Ph.D. Students



## Li Han



With the support from the department's Overseas Research Award, I took a short-term research in the Department of Statistics, Harvard University from March 1, 2014 to May 25, 2014. When I came back, most of my colleagues asked me, "How did it feel being a Harvard student?" Instead of answering this question directly, I would like to share my experience at Harvard with you. When I was there, I joined the group of Prof. Jun S. Liu in studying the bioinformatics problem. He shared words of wisdom that impressed me. He told me, "You need to get your hands dirty when doing research. Merely thinking helps little." Prof. Liu required us to do the initial task of checking the data and conducting routine analysis. After building the statistical model, we modified it step by step to check its agreement with the data. Many insights were developed in this process. Prof. Liu also told me, "He who keeps silent in the seminar is the one who does not want to succeed." When one thinks alone, he/she does not get noticed. Asking questions and discussing together helps in understanding problems. In the seminars of Prof. Liu and those of the department, everyone in the audience asked questions.

At Harvard, I took the course STAT115/BIO512: Introduction to Computational Biology and Bioinformatics taught by Prof. Shirley Liu. Although half of the students were undergraduates, the course content was updated and introduced students to recent papers about nature and science. The professor taught the basic concepts, showed examples, and shared her research experience in relevant projects. Learning how knowledge gained from reading textbooks was applied to real problems was exciting. Surprisingly, the students sometimes criticized the lesson, and a discussion would ensue between the professor and the students. Being at Harvard requires students to listen, think, and argue at the same time.

I attended several activities, including the scholarship ceremony called Harvard Horizon Scholars, which encourages postgraduate students to turn their innovative scientific research into an easily understandable story narrated in a 10-minute public speech. Through this training, postgraduates improve their presentation skills and transmit their ideas to the public.

At Harvard, I obtained the opportunity to share my ideas with professors and local students. This exchange experience broadened my horizon and encouraged me to think of ways on how to become a responsible and efficient researcher.







## Yang Ping

With the support of the Overseas Research Award for Ph.D. in Statistics Students offered by the Department of Statistics of the Chinese University of Hong Kong, I conducted a short-term research at the University of Southampton in the United Kingdom from May 25, 2014 to July 23, 2014. Prof. Wei Liu of the School of Mathematics of the University of Southampton was my advisor during this period. I met with Prof. Liu every week. With his guidance, I finished a project about comparing two forms of simultaneous tolerance intervals for polynomial regression. Simultaneous tolerance intervals are useful in statistical calibration problems. Many different forms of these intervals can be considered for any specific practical problem; a thorough comparison of the different forms can help people in selecting which one to apply. Towards the end of my visit in Southampton, I finished writing the draft report of this work for publication in the future.

Aside from this project, I experienced extensive communication with prominent scholars and Ph.D. students in statistics from different parts of the world. This experience broadened my horizon and greatly expanded my knowledge. Together with Prof. Liu, I participated in an online meeting with Prof. Robert Mee from the University of Tennessee, Knoxville who had published many important papers on tolerance intervals and statistical calibration problems. I also became friends with Ph.D. students in statistics and students in the University of Southampton. These friends held welcome and farewell gatherings for me, and they introduced to me their daily life in the United Kingdom and the culture of their home countries. In my spare time, I went to see the sights in London, Winchester, and Portsmouth. I greatly enjoyed my time in the United Kingdom.

I would like to thank my supervisor Prof. Siu Hung Cheung and the Department of Statistics for providing me this valuable opportunity.

## Zhang Zheng

I visited the University of Washington in Seattle from April 27, 2014 to July 27, 2014. My host supervisor is Dr. Gary Chan. The following is a brief report on my visit:



- 1 I enrolled in the survival analysis class (BIOST 576) during the spring quarter and finished a systematic training in survival analysis, including the Kaplan–Meier estimate of survival curve, log-rank test, and proportional hazard model.
- 2 I completed the manuscript revision of a previous work.
- 3 I completed a new manuscript on Mann–Whitney statistics and included several direct adjustments. In this project, my supervisor and I considered a classic social scientific problem that involves testing the fairness in job-hunting between males and females. In many causal problems (e.g., treatment effect and exposure effect with an existing mediator), we studied a large class of calibration estimators that directly balance an increasing number of empirical moments of observable confounders and an increasing sample size. We showed that efficiency could be achieved by solely balancing the covariate distributions and without resorting to the direct estimation of conditional distribution (i.e., propensity score in treatment effect) or outcome regression.
- 4 I finished reading papers about biased sampling, asymptotic theory, and targeted maximum likelihood. Also, I spent one weekend hiking with my friends in Mount Rainier.
- 5 I travelled to several historical and cultural spots in downtown Seattle, including the Pike Place Market, which is one of the oldest continuously operating public farmers' markets in the United States, and the Space Needle, which is an observation tower in Seattle, a landmark of the Pacific Northwest, and a symbol of Seattle.



# INTERNSHIP SHARING

## Cheng Yakun (RMSC, graduated in 2014)

For two semesters, I worked as a part-time intern at Gottex/Penjing Asset Management through the practicum program offered by the company and the Statistics Department. Gottex/Penjing holds individual hedge funds with Asian exposures. Working in this company for seven months was a great and meaningful experience for my last year of study in the Chinese University of Hong Kong.

My work responsibilities included conducting data analysis of various hedge funds and Asian equities, as well as several ad-hoc tasks. Through this practicum program, I strengthened my financial analytical skills because I applied classroom knowledge to real business concerns. I used Excel and Bloomberg terminal to collect data and perform the analysis. One of the tasks was testing the significance of obtaining a time series of correlations among Asian hedge funds. I needed to build a model to automatically calculate the correlation between monthly returns of any two funds during any period. Under the guidance of my supervisor, I experienced conducting actual correlation analysis and developed excellent modelling skills.

With coaching from my supervisor, I also acquired much knowledge about the hedge fund industry, including the classifications, strategies, and assessment methods; this knowledge cannot be obtained in the university. For example, with due diligence, I had the valuable opportunity to follow a comprehensive investment of a specific hedge fund, understand the investment team, evaluate its investment strategies, and conduct performance analysis. I learned the criteria for assessing a hedge fund and how a Fund of Funds (FoF) makes investment decisions.

The internship experience was excellent not only because of the knowledge I acquired but also because of the people I worked with. My supervisor and the team were always ready to answer my questions and share their knowledge and experience. Many people say that classroom knowledge is useless in actual work. However, I believe that the knowledge I obtained in the classroom lays the foundation for me to learn at work. Knowledge itself may be irrelevant, but the thinking process always helps.

I joined the internship program of Aon Service Hong Kong Limited in September 2014. The internship was on a part-time basis, which means that I had to work for two days every week for six months (until March 2015). I currently work under the health and benefits team. I have been with the company for only three months. However, this early, I have already learned lessons that I could never learn from textbooks.

Aon Hong Kong Limited serves as a brokerage firm between companies and provides different services to clients. One of its most important services is providing consultations and preparing benchmarking reports that compare the clients' benefit plans for employees with those in the market. The market can be companies of similar size or belong to specific sectors. The benchmarking report is considered a standard in the market.

The statistical and programming skills that I acquired from school were useful in performing the analysis and preparing the report for different clients. When these skills were insufficient to address the concerns of a real working environment, I consulted and discussed with my colleagues to find the best solution. In the discussions, I learned specific terms and the practices in the insurance brokerage sector. I also improved my soft skills in



communicating with colleagues who came from different countries. The experience prepared me for future challenges in my career.

I would like to thank my supervisor and colleagues for teaching me. My gratitude goes to the Statistics Department for extending this invitation to me to undergo the internship. I would like to tell the other students to make the most of and treasure every internship opportunity because of all the precious lessons to be learned outside the school.

Lam Hiu Fung (RMSC/Year 4)

I work part-time at the Hong Kong Exchanges and Clearing Limited. In summer of 2014, I worked as a market risk analyst in the same company for eight weeks and was assigned in the Over-the-Counter (OTC) Clearing Risk Management Department.

Regardless of status, whether a summer intern or a part-time analyst, the job in the company provided me with valuable experience. The department I worked in was a product of the global financial crisis that triggered a global movement to improve transparency and reduce counterparty risks in the market of OTC derivatives, thus resulting in market reforms on various fronts. My main responsibility included monitoring key risk metrics. As Calypso Technology was newly adopted as the clearing and risk management platform at that time, risk policies and approaches needed to be formulated, tested, and developed. I was tasked to deal with these required processes.

Market risk has always been interesting for me. It is one component of risk management. For the job, I was required to work with other teams from other divisions, including those from credit and risk policy, quantitative risk modeling, and IT and operations divisions. The people I worked with were good to me; they were always ready to help. The interactions among us laid the foundation for friendship.

Apart from work concerns, I also experienced fun times with people from the company. I met two senior students



of the Chinese University of Hong Kong who recently joined the company. They provided me with useful and valuable suggestions. The team managers were also nice. They were always open to share their ideas and give advice whether in a formal or in a casual manner.

I would like to thank my team managers and the Statistics Department because this opportunity enabled me to learn many things, including bridging risk management techniques and theoretical knowledge in the real business world. I value this opportunity to work independently in a business environment characterized by mutual trust. I would be fortunate if offered the position of a permanent staffer. This internship was an excellent platform for me to explore my possibilities. It laid a good foundation for my future career development.

I worked as a part-time intern/market risk assistant for BNP Paribas Investment Partners from January 2014 to May 2014. BNP Paribas Investment Partners is the dedicated asset management business line of BNP Paribas Group, which has been focusing on asset management in the emerging market for many years.

The internship was an excellent opportunity for me to apply in the real business/ financial industry the



lessons I learned in class. During the internship, I helped cover investment projects across China, India, Indonesia, and Japan. I was responsible for monitoring the liquidity, market, and credit risks of our portfolios to ensure that the risk exposures were in accordance with the funds' objectives, risks disclosed in official documentations, and internal limits. I also participated in the new product launch process and wrote the credit risk management brochure for our joint venture company HFT.

Through the internship, I gained insights into the control function of asset management industries. This opportunity served as an alternative way of learning and helped me identify what I would like to achieve in my future career. In my opinion, a person should be interested in the quantitative side of operation, focused on details, and sensitive to numbers to become a portfolio risk manager. On the positive side, holding such a position is rewarding because it enables one to gain a comprehensive view of all portfolios. On the negative side, the nature of the job requires decisiveness, and the manager should monitor people but not interact with other teams often.

## Chan Lok Hang (Statistics/Year 3)

Working in the Census and Statistics Department (C&SD) was a great opportunity for me to apply my statistical knowledge. My duties included conducting research on sampling methods in establishment surveys and quality assurance in surveys and censuses.



Studying the sampling methods of establishment surveys in different countries not only reminded me of what I learned about survey sampling in the university but also enabled me to look into the details of how they were performed. It also made me handle difficult issues such as cost and accuracy.

One of the major concerns in a survey or census is quality assurance, a topic which was unfamiliar to me. During the internship, I looked into different surveys and censuses in different countries, as doing so helped me understand the topic. By working on quality assurance, I was able to learn much about how other countries deal with quality assurance.

The internship program provided me the opportunity to have first-hand experience of an actual job. Working in the government sector is a unique experience. I believe that this meaningful internship program can help students in their studies. I am grateful to the Department of Statistics and C&SD for collaborating and offering this internship opportunity for the benefit of students.

I am grateful for the internship program of the Census and Statistics Department of the Hong Kong SAR Government. The two-month internship was a productive experience for me.

I worked in the Distribution Services Statistics Section, which was part of the Sectoral Economic Statistics Branch. A responsibility of this section is to compute key statistics on the wholesale/retail sectors. The process starts with sending out questionnaires to different types of retail outlets (e.g., Ikea, a furniture and fixture retailer). Based on the data, the key figures are calculated, including the value and volume of retail sales for Hong Kong.

Not every store received our questionnaire. Thus, one of my assigned tasks was to determine the companies that should receive our questionnaires. By using an in-house statistics program called R, I helped determine the significant companies (e.g., Ikea, a certainty stratum) and the insignificant ones (e.g., a small, neighborhood furniture store, or take-some stratum). Then, our department would send questionnaires to all significant companies and randomly select some insignificant companies. I also calculated the sample size of insignificant companies that should be selected.

My colleagues were also nice. Whenever I had problems, they were always ready to help. On my last

day, my supervisor, who was a statistician, gave me a detailed career advice. He shared the path he went through and encouraged me to become a statistician like him.

This internship opportunity was valuable to me. Although I already knew about the operational flow, I still learned how the Census and Statistics Department applied statistics software and knowledge to a practical situation. By working with my colleagues, I also improved my soft skills, such as presentation and communication skills. The insights and experience I gained are something I will not trade for anything.



## Chau Wai Tung (Statistics/Year 3)

## Cheng Chi Wai (Statistics/Year 3)



I am grateful to the department for offering me a valuable internship opportunity at the Census & Statistics Department (C&SD) in summer 2014. I was one of the participants in the Professional Attachment Program for Students of Tertiary Institutions 2014. The whole nine-week internship program was organized, productive, and meaningful. I learned practical knowledge and obtained a glimpse of the working environment in C&SD.

I was assigned to the Trade Analysis Section (2), which belongs to the Trade Statistics Branch (1). The trading business in Hong Kong is well developed, and the staff should be able to handle massive trade data, such as imports, exports, and retained imports, on a daily basis. After collecting the data, they have to analyze them and publish countless trade reports and indices detailing Hong Kong's economic and trade movement on a monthly basis.

At the early stage of the internship period, I felt nervous because all the concepts in trade statistics were new to me. I did not have any preliminary knowledge in this field. My supervisor and other staff were generous in helping me and explained

the details of the concepts. During the internship period, I performed desk research on trade in value-added approach, which is a new evolving method, to calculate trade statistics. I also conducted desk research about seasonal adjustment on trade statistics.

I learned much and acquired beneficial skills during the internship. I was exposed to an environment that was completely new and different from the university. After gaining skills in analyzing trade statistics, I was further exposed to several practical routines of the section, such as the compilation and application of seasonal adjustment in trade value. The work experience provided me with a valuable opportunity to use my statistical knowledge, such as regression analysis and time series, for empirical research. I was also given the opportunity to be familiarized with various programming languages, such as FOXPRO, X-12-ARIMA, and SAS. My introduction to these programming languages would be beneficial to my future career. Although I understood how large-scale programs are run, exposure to this area was rare in the university, and thus I appreciated the experience more. The skills I acquired are vital for a career in related fields in the future.

The summer internship program lasted for only nine weeks, but it was remarkable and enjoyable, and it enriched my life. Once again, I would like to express my gratitude to my supervisor and all the people I worked with in C&SD. I would also like to thank the department for offering me such a valuable experience. This internship program is truly beneficial to students.

Internship provides a good opportunity for students to gain working experience and to broaden their horizons before they graduate from university. The experience gained and the knowledge acquired are useful for their future careers. All these were my reasons for participating in the internship program in summer 2014. I was grateful for being offered an internship at the Census and Statistics Department.

I worked at the Demographic Statistics Section of the Social Statistics Division from June 2014 to August 2014. This section is mainly responsible for gathering figures about the population, such as marriage rate and birth rate, which relate to the population census. The staff in this section was accommodating, and they welcomed everyone. This internship was my first time to work in an office, but I did not feel anxious because the staff members were willing to teach and help.

During the two productive months, I accomplished two tasks. First, I translated the documents related to the population census. Second, I conducted a literature review and used a model in studying the



effect of educational level on the age at first marriage. Reading the materials about the population census and by-census of the past taught me about the sampling methods, enumeration methods, and code book of surveys. I was also able to consolidate my computer skills in SAS, Microsoft Word, and Microsoft Excel when I worked on the research and the report. Applying what I learned in the university to the real world was a valuable experience for me.

Despite my discomfort in sitting in front of the computer for most parts of the day, I enjoyed my days of working at the Census and Statistics Department.

## Kwok Chin Kiu (Statistics/Year 3)

I participated in the Professional Attachment Program for Students of Tertiary Institutions 2014, an eight-week internship program of the Census and Statistics Department. I worked at the Social Analysis and Research Section (under the Social Statistics Branch), which is mainly responsible for manipulating and analyzing labor force and unemployment statistics.

During the internship, my main duty was to collect the number of residents by age and sex in private elderly homes. This data collection is an essential step in



preparing and conducting the 2014 round of the Annual Survey on Profile of Inmates of Private Elderly Homes. I had the great opportunity to participate in every single step during the conduct of the survey. Some of these steps were preparing the cover letters and proforma documents, preparing the packages for mailing, and developing a user-friendly interface for database storage, data input, and follow-up.

I acquired many useful skills that were not covered in lectures. I became familiar with database manipulation and obtained document processing skills in the preparation stage. My interpersonal skills were also enhanced because I needed to be patient and empathetic in communicating with the staff of private elderly homes. These practical and soft skills are also indispensable "assets" in my future career.

Moreover, I met many friendly individuals in the section. The expertise and guidance of my supervisor gave me flexibility to plan and organize tasks for the survey. The staff at the Social Analysis and Research Section helped me to quickly adapt to the new environment. Their kind assistance help made my internship a rewarding and pleasant experience.

I spent six months working as an intern in the Retail Credit Risk Management Department of Hang Seng Bank. This internship program has definitely been an invaluable experience that exposed me to risk management in the banking industry.

During my internship, I assisted my team in monitoring portfolios of retail credit products. For example, I regularly identified and reported unusual delinquency trends of cards and personal loan products, as well as the causes of such delinquencies. Apart from performing routine tasks, I was also exposed to different areas in handling and measuring credit risks, as well as in covering debt collection and even unsecured facilities of small- and medium-sized enterprises. In particular, I was involved in various projects such as reviewing debt collection strategies and maintaining debt collection systems.

Through my internship, I learned technical terminologies used in credit risk management and understood typical metrics and methodologies for evaluating and categorizing different credit risk exposures. In addition, I developed a professional and appropriate manner in dealing with a huge amount of important data under a well-established framework through the frequent use of SAS programming. I learned how to be sensitive and prudent in handling each piece of data, and developed professional integrity in the workplace. Moreover, I enhanced my SAS programming skills, which would be valuable for my future career.

Becoming a part of the work culture in Hang Seng Bank had also been a wonderful experience. As an intern, I was always introduced to new knowledge that I could explore and inquire about. With the support of my colleagues and managers who were all open-minded and encouraging, I was able to complete tasks smoothly during my internship. Through regular team-building activities, lunch gatherings, and workshops outside the office, I was able to widen my network in the field. Through meetings and discussions with colleagues, my knowledge on credit risk was deeply enhanced.

My internship at Hang Seng Bank has provided me with an invaluable opportunity to take an initial step in the field of risk management. It helped me become more confident with my career choice, and I look forward to facing any challenge in the future.



I worked as an actuarial analyst for the Pricing Team, Department of Actuarial, Risk, and Analytics, HSBC Insurance for half a year. My primary duties were to provide timely and accurate life support to customers, regularly prepare business management reports for the management to review and set new targets for business growth, and analyze pricing results and produce pricing reports for company products, which include calculating reserves using actuarial concepts. I faced a number of challenges in performing my tasks during this internship. For example, intense concentration was required to handle a huge amount of data and formulae. Moreover, I had not attended courses about life insurance before. Thus, I had to consult with my colleagues when handling duties related to life insurance. I was quite frustrated at the beginning.

Despite these challenges, I gained much from my internship experience. HSBC emphasizes that staff members should remain connected with one another. Hence, initiating discussions on any difficulty that we encounter at work is easy. During my internship, I approached many experienced colleagues to learn about actuarial concepts and they were eager to share their knowledge with me. I developed a good relationship with them and felt the team spirit.



Jack has made a remarkable improvement in his personal growth after his internship at HSBC

Moreover, I realized that handling projects as a group is easier because the projects that I participated in were complicated and required coordination among various parties.

Overall, I believe that my internship has been a valuable experience for me. It was not simply a step forward into my chosen industry, but also a huge leap toward my personal growth.

I worked as an intern for the Technology and Operations Group of DBS Bank (Hong Kong) Limited from June to December 2014. I was assigned to a project on Business Intelligence, which focused on Qlikview development. Business Intelligence is a set of techniques that transform raw data into meaningful and useful information for business analytical purposes. In this field, Qlikview is powerful platform in terms of providing data consolidation, visualization, and association exploration. This software is widely used in different financial institutions for data modeling and visualization. As a team member in the Strategic Planning and Transformation group, I am grateful for the opportunity to acquire hands-on experience in using business analytical tools in the banking industry.

Apart from Qlikview development, I also participated in different business events, such as

town hall meetings, innovation forums, off-site conferences, and so on. These events helped me widen my horizons with regard to the banking industry and learned to collaborate with colleagues. I was introduced to design and data visualization through business events, and gained knowledge on some key concepts on project management in the business world. These experiences contributed significantly to making my internship productive.

I would like to express my heartfelt gratitude to the Department of Statistics, Chinese University of Hong Kong and DBS Bank (Hong Kong) Limited for providing me with this opportunity and for assisting me in learning outside the classroom. I sincerely hope that other internship opportunities on Business Intelligence project development will be available for students in the future to allow them to enjoy its benefits and appreciate its importance in the business world. I am certain that they will benefit from such internship programs as much as I did.