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**MEMORANDUM**

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**TO:** GA ASA MEMBER  
**FROM:** DR. LIMIN PENG; GA ASA SECRETARY; OFFICE: 404-727-7701  
**SUBJECT:** APRIL 1, 2009 (WEDNESDAY) MEETING: 5PM-8PM  
**DATE:** MARCH 09, 2009

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Dear GA ASA Member;

I am pleased to announce the next GA ASA Spring meeting to be held at the Medical College of Georgia, Augusta, GA on Wednesday, April 1, 2009. Come ready to meet fellow statisticians, suggest future lecture topics and ideas for Chapter activities, as well as eat and enjoy TWO inspiring keynote lectures! ☺

Location: Room 1002 (Biostatistics Seminar Room)  
Pavilion I (AE) Building – Department of Biostatistics  
Medical College of Georgia  
1120, 15<sup>th</sup> Street, Augusta GA 30912  
Phone: 706-712-3785  
[Registration information, directions and maps follow]

Speakers: Dr. Don Edwards – Department of Statistics, University of South Carolina  
Dr. Balgobin Nandram – Department of Biostatistics, Medical College of Georgia

Lecture by Dr. Edwards

Title: Exact Sequential Acceptance Sampling for Attributes

Abstract:

We consider the problem of sampling, with or without replacement, from a lot of  $N$  items, where each item can be identified as defective (in error, tainted, etc) or not. The goal is to make inference on the proportion  $\pi$  of defective items over the entire lot. This is a simple but storied problem in statistics; for example, it was the first-mentioned example for Wald's (1947) Sequential Probability Ratio Test (SPRT), invented to help the Allies test munitions in World War II. Until just a few years ago, inference on  $\pi$  has usually been done approximately (binomial for hypergeometric; normal for binomial; asymptotic approximations; monte-carlo generated approximate boundaries, etc). Under a general sequential sampling scheme, we show that exact inference on  $\pi$  is completely tractable numerically, and not at all inconvenient using modern statistical software. We showcase programs written in R ([www.R-project.org](http://www.R-project.org)) for just this purpose. Examples are given to (1) industrial acceptance sampling and (2) auditing in Medicare fraud investigations.

Lecture by Dr. Nandram

Title: Bayesian Nonresponse Models for Small Areas: An Application to Overweight

Abstract:

This presentation has two parts. The first part is a review of some of the work we have done on Bayesian nonignorable nonresponse models for small areas. Specifically, we discuss missing data mechanisms and nonignorable hierarchical Bayesian models that we have constructed for both continuous and categorical response variables. For categorical data, our key idea has been to center a nonignorable nonresponse model on an ignorable nonresponse model. Our application has been on the study of body mass index (BMI) of children and young adults in the third National Health and Nutrition Examination survey. In the hierarchical Bayesian models for BMI, we also incorporate differential selection probabilities. The second part can be viewed as a sensitivity analysis of the hierarchical Bayesian model specifications with nonignorable nonresponse. Here, we use an ignorable nonresponse model for BMI, and because there are many outliers in BMI, we attempt to robustify our previous Bayesian methods. Our robustification

has two procedures. The first procedure uses a hierarchical Bayesian model for the response indicators, and it incorporates a Student's t regression. This is used to obtain robust propensity scores to fill in the respondents' BMI values. The second procedure, coupled with the first, is a rank-based method to predict the nonsample BMI values, and it includes the selection probabilities for the children and young adults in the sample. Bayesian predictive inference of finite population BMI percentiles (85<sup>th</sup> and 95<sup>th</sup>, measures of overweight) for each age-race-sex domain within counties (small areas) is of interest. We compare inferences about these percentiles with and without the selection probabilities.

## PROGRAM

- 5:00 - 5:30 Reception
- 5:30 - 6:15
  - Welcome – by Dr. George and Dr. Binongo
  - Lecture by Dr. Edwards
- 6:15 - 7:00
  - Dinner – \$20(member)/\$25(non-member)/\$5(students)
  - GA-ASA Chapter Business
- 7:00 - 7:45 Lecture by Dr. Nandram

**Please register for the meeting by March 26, 2009** at <https://www.123signup.com/register?id=zycen>. You may elect to pay the dinner fee by credit card or by check (or cash) at the meeting. It is critical that we receive your registration so that we do not overspend our budget on ordering too much food. If we do not hear from you, your dinner will not be guaranteed.

We are implementing a new registration system to allow chapter members to pay by credit card and obtain a receipt. It also allows us to track RSVPs and have an updated email list. We would like feedback on how well the new system works, and we will let you know if we find it an improvement.

If you have questions regarding the new system, please email Laura Gunn ([lgunn@georgiasouthern.edu](mailto:lgunn@georgiasouthern.edu)) or Limin Peng ([lpeng@sph.emory.edu](mailto:lpeng@sph.emory.edu)).

**Directions to Medical College of Georgia – Pavilion I (AE) Building; 1120, 15<sup>th</sup> Street, Augusta, GA 30912:**

**Department of Biostatistics**  
**Medical College of Georgia**  
**1120, 15<sup>th</sup> Street, Pavilion I (AE) Bldg, Augusta, GA 30912**  
**Ph: 706-721-3785**

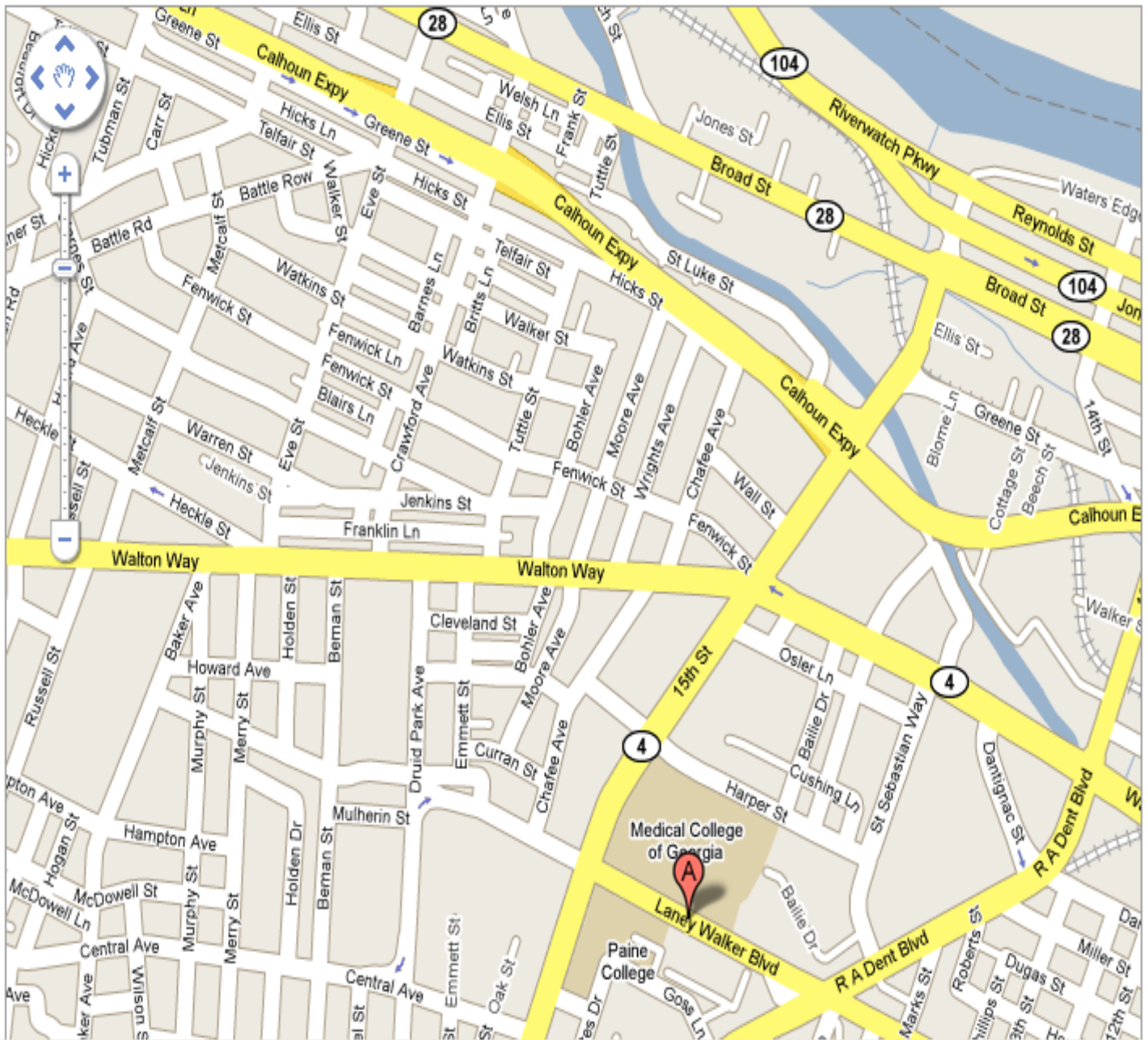
***MEETING WILL BE HELD IN THE BIOSTATISTICS SEMINAR ROOM IN THE PAVILION I (AE) BUILDING. THE PAVILION I (AE) BUILDING IS LOCATED ON LANEY WALKER BLVD, BESIDE THE DENTAL SCHOOL. DENTAL SCHOOL IS ACROSS THE PARKING LOT. PLEASE NOTE YOU WILL NEED TO WALK AROUND THE BUILDING TO GET TO THE FRONT ENTRANCE.***

**Driving directions: If you are travelling from West on I-20**

1. Take exit <b>199</b> for <b>Washington Rd/GA-28</b> toward <b>Augusta</b>	
2. Turn <b>right</b> at <b>GA-28/Washington Rd</b> Continue to follow Washington Rd	2.6 mi
3. Continue on <b>Calhoun Expy</b>	1.6 mi
4. Take the exit toward <b>15th St</b>	0.2 mi
5. Turn <b>right</b> at <b>15th St</b>	0.6 mi
6. Turn left at <b>Laney Walker Blvd</b> <i>Parking lot is on your right</i>	367 ft

**Driving directions: If you are travelling from East on I-20**

1 Take exit <b>200</b> for <b>GA-104/River Watch Pkwy</b> toward <b>Augusta</b>	0.3 mi
2. Slight <b>right</b> at <b>Claussen Rd</b>	46 ft
3. Turn <b>left</b> at <b>GA-104/Riverwatch Pkwy</b>	4.7 mi
4. Turn <b>right</b> at <b>15th St</b>	1.0 mi
5. Turn left at <b>Laney Walker Blvd</b> <i>Parking lot is on your right</i>	367 ft



If you have any questions, please do not hesitate to contact me at the e-mail address below or by phone 404-727-7701.

Sincerely,

Limin Peng, PhD  
GA ASA Secretary

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Department of Biostatistics  
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Emory University

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