

BASS XXV Keynote Address
Labor and Fruits of a Purpose Driven Life
Or is it
Filling Gaps?

Karl E. Peace, PhD

October 15, 2018
Professor of Biostatistics
GCC Distinguished Cancer Biostatistician
Senior Research Scientist
Jiann-Ping Hsu College of Public Health
Georgia Southern University
Statesboro, GA 30458

Overview

I. Background (Geographical & Personal)

II. Chronology

A. 1941-1955: Work During The Early Years

B. 1955-1959: High School

C. 1959-63: Undergraduate Days at GSC

D. 1963-64: Master's Work at Clemson

E. 1964-67: Teaching Mathematics at GSC

F. 1967-68: Pursuing the PhD at Clemson

G. 1969-73: Teaching at RMC & MCV/VCU

H. 1973-77: Pursuing the PhD at MCV & Teaching at RMC, MCV & MCV/VCU

I. 1978-80: Senior Statistician, Burroughs-Wellcome

J. 1980-82: Manager, Clinical Statistics, AH Robins

K. 1982-86: Director, Research Statistics, SK&F

L. 1986-87: Senior Director, GI Studies & Clinical Operations, GD Searle Pharmaceuticals

M. 1988-89: Vice President, WW Technical Operations, Parke-Davis/ Warner Lambert

N. 1989-2000: President, CEO, CSO, CFO, Biopharmaceutical Research Consultants, Inc.

O. 2000-Present: Georgia Southern University/ JPHCOPH

III. Summary of Significant Accomplishments -> Filling Gaps

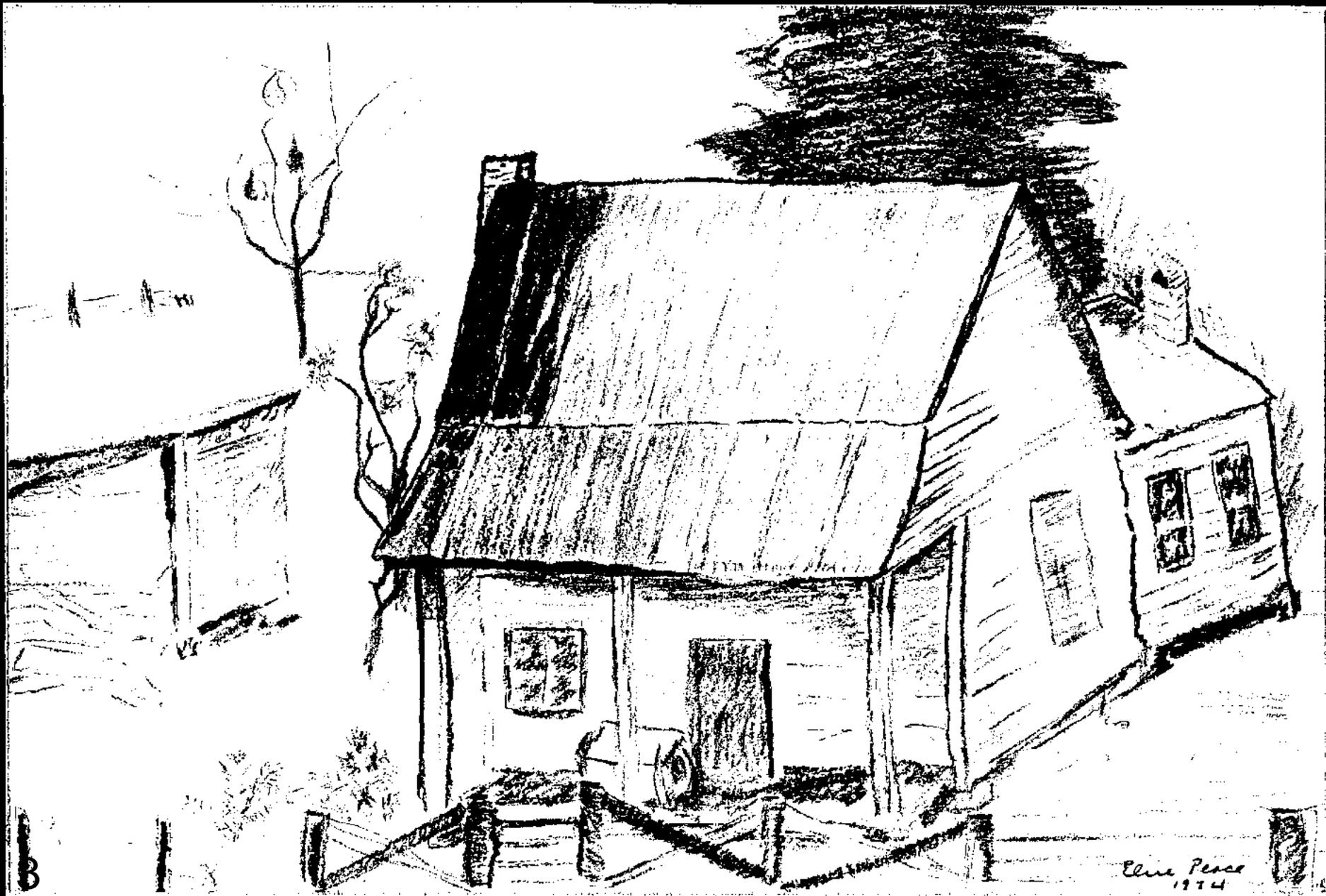
IV. Philanthropy

V. Labor and Fruits

Appendix 1: Labor

Appendix 2: History of BASS

I. Background: Mom's Sketch of House of Birth



I. Background

Personal

- I grew up a member of a share-cropping, mule-plowing, farming family. In a share-cropping arrangement, the land owner provided the land, mules, farming implements, half the seeds and fertilizer and a house for the share-cropping family. The family provided the labor to produce and harvest the crops – for a share of the sales. In addition, the land owner provided a monthly loan (of \$50 for a family of 6 = \$522.80 in 2018) to the share-cropper that had to be repaid from his share of the sales of the crops.
- Sharecropping was an itinerant existence. By the time I was five, we were living in our fourth of nine houses. The typical tenant farmhouse was unpainted and contained 2 or 3 rooms, a kitchen and 1 or 2 bedrooms, a front porch, and a roof capped with sheets of tin. The house had no electricity and no indoor water or plumbing. A fireplace provided heat, and a wood burning cast iron stove was used for cooking.
- Water was obtained from an open, deep well. Often the water had to be strained (to remove mosquito larvae, called ‘wiggle tails’) and boiled before human use. The outhouse was located about a hundred feet from the northwest corner of the house, a proper distance from the deep well.

I. Background

Personal



I. Background

Personal

- My Mother went to school 3 years, and finished the sixth grade. My father quit school in the second grade. I am the first person on either side of my family tree to graduate from high school, and therefore go to college. I may be the only native Baker County Georgian to have obtained a PhD degree.
- When I graduated from high school, with assistance from Principal, Joe Vines, I obtained a loan of \$532 from Bill Shepherd in Leary, Georgia to prepay tuition for the first two quarters at Georgia Southern College. Thereafter, with the assistance of a Georgia State Teachers Scholarship and income from 7 part-time jobs, I was able to complete the BS in Chemistry while providing support to my younger brother, sister and Mother, who was a cancer patient.

Last of 9 Tenant Houses in which I lived



Alligator Creek showing Waterfall



10/31/2018

Alligator Creek flowing to Notchaway



Notchaway Creek in Baker County



10/31/2018

II. Chronology

A. Work during the Early Years

- Began work in the fields at age 3 (I remember back as far as then).
- **Example 1: 'Pulling Corn'** - To the best of my recollection, at age 3-4, my father gave me the job of harvesting the ears of corn from the dead stalks of corn in a corn field. Since I could not reach the ears, I pushed each stalk over, and then wrung each ear from the stalk, piling them in a central location. **My father would then drive the mule drawn wagon to each pile, load onto the wagon, then drive to the corn crib where we would unload the wagon.**
- **Other examples: "Shaking & Stacking Peanuts;" "Picking Cotton;" Breaking Land (using a mule drawn turning plow), "Planting Crops;" Plowing/ cultivating the crops;"**
- **Working for other Adults: Picking Cotton [once made \$54 (about \$575 in today's \$) in a week, averaging 300 pounds of cotton each day]; Work in Log Woods (\$5/day), Feeding cows, hogs and mules, picking blackberries (15 cents per quart), Suckering, cropping, tying and hanging tobacco in curing barn (\$2 /day).**

Harvesting Corn



Plowed up Peanuts



Shake dirt from peanut vines and stack them on poles with nuts toward the center.



Stationary Peanut Harvester



“Picking Cotton”



Laying off Rows

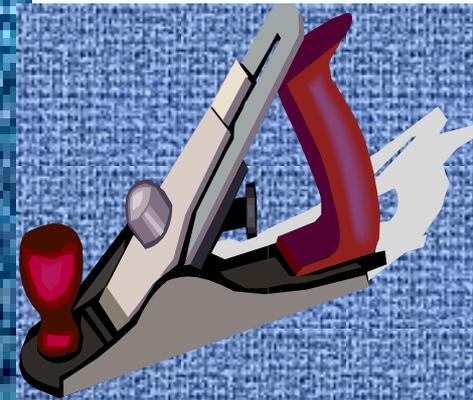
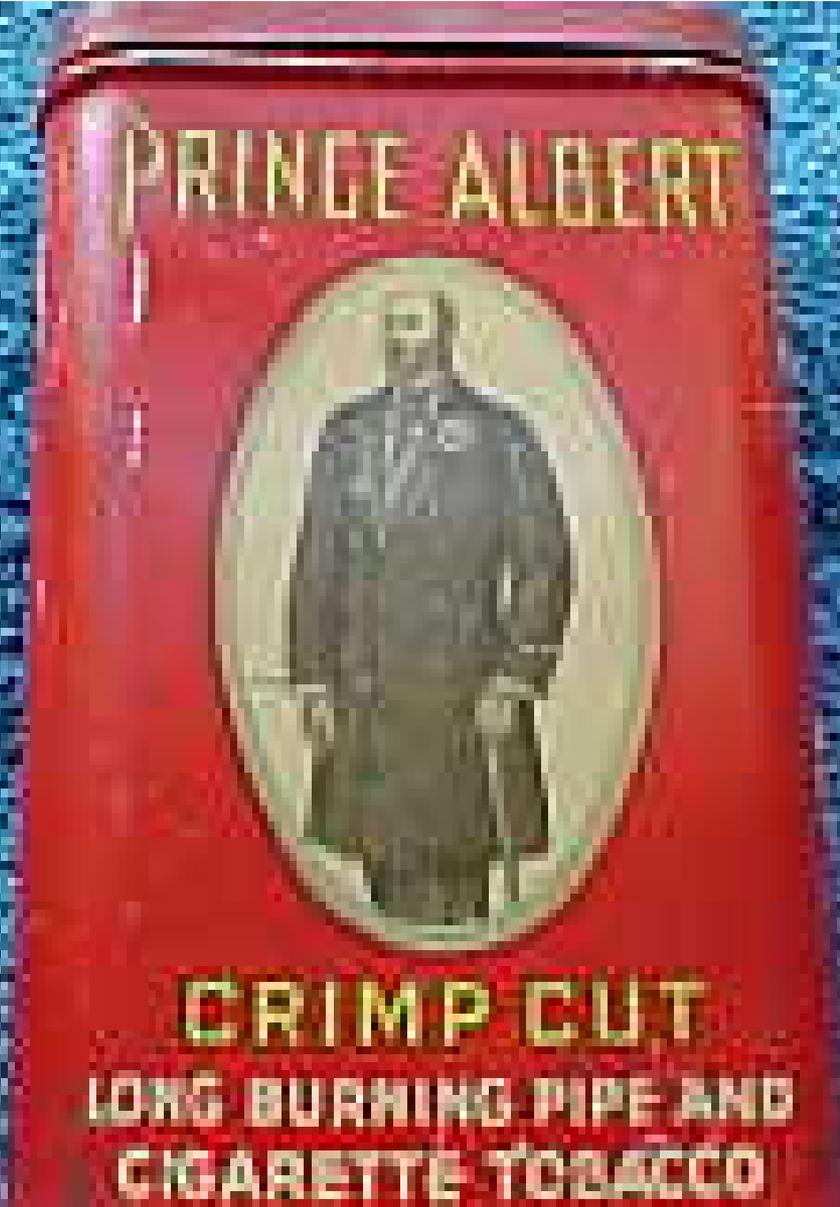


II. Chronology

A. The Early Years

- By the age of nine I made my own toys (I never had a store bought toy); for example: a Flying Jenny, a wheel roller and a green persimmon thrower. I'll recount one of these as it reflected Operations Research ideas - which I would learn much later.
- Building a Wheel Roller
 - **Objective**: Build a functional wheel roller
 - **Materials**: An oak or hickory stick about 1 inch in diameter and 2-3 feet long, an empty Prince Albert tobacco can that had been flattened, two 8 penny nails and a hammer, and an iron wheel about 6" in diameter $\frac{3}{4}$ " in width. Materials (except hammer) were found from scrap piles.
 - **Methods**: Center the tobacco can flush with the bottom of the stick and nail to the stick. Then turn up the edges of the can (looks like an open box with front and back sides missing) in an optimum manner (you don't want too much 'play' about the wheel when in use, nor do you want it too tight about the wheel). To use, one stands the wheel on edge, then places the stick so that the tobacco can is centered about the wheel and then runs pushing the wheel in front.

Wheel Roller Materials



II. Chronology

B. High School

- I barely had a 70 average in the ninth grade, due in part to not knowing how to deal with ridicule and discrimination encountered as being one of the poorest kids in school. I had the proverbial chip on my shoulder (and part of it may still be there). In the tenth grade, my math teacher, Mr. Bill Tom Reeves requested my help in solving algebraic word problems and problems in trigonometry and plane geometry. In short time, he had me teaching some of his classes. This was a period of tremendous internal discovery and provided a way for me to feel respected. I finished the tenth grade with a 95 average, the eleventh with a 97 average, and the twelfth with a 99.8 average. Interestingly, the 99 average was from Mr. Reeves.
- In retrospect, I have often wondered whether Mr. Reeves really couldn't work the problems for which he sought my help (His degree was a BA in English). Perhaps he could and it was his way of providing me a platform of uplifting. Whatever the truth, I owe a lot to him, and have established a scholarship endowment in his name for Baker County students who want to pursue computer science, mathematics or biostatistics at Georgia Southern. In fact, I've established 5 scholarship endowments at GSU, specifically for Baker County students.

II. Chronology

C. Undergraduate Days at GSC (60-63)

- I did a lot of experimentation, but I doubt that much of it qualified as scientific research. For example, I would distill $\text{CH}_2\text{CH}_3\text{-OH}$ in the chemistry lab, inject it into oranges and take them to basketball games. 'Of course when I sucked the oranges during the basketball game, onlookers were impressed by my desire to ensure adequate levels of vitamin C!' – Early vision of PH?
- On a more serious note, taking an overload of courses each quarter and working 7 part time jobs left little time to pursue research outside that necessary to master the courses I took. I do remember making a contribution to a chemistry lab chromatography experiment that Dr. Darryl Lynch, for whom I had great respect, singled out. We were conducting an experiment that required a solution to be maintained at a constant temperature. I suggested that we pass the solution through a roll of coiled copper wire that was submerged in a water bath with the water maintained just higher than the temperature required of the solution.

II. Chronology

D – H (63-77)

D. Master's Work at Clemson (1963-64)

E. Teaching Mathematics at GSC (1964-67)

F. Pursuing the PhD at Clemson (1967-68)

G. Teaching at RMC & MCV/VCU (1969-73)

**H. Pursuing the PhD at MCV & Teaching
at RMC, MCV & MCV/VCU (1973-77)**

II. Chronology

I. Burroughs-Wellcome Pharmaceuticals (78-80)

- Entry level, Senior Statistician
 - Biostatistical support to several clinical drug development departments
 - Worked with some of the worlds leading scientists including Dr. Trudy Elion (who later won a Nobel prize for her early work with the first drug approved for the treatment of HIV, AZT).
- Some drugs approved:
 - Proloprim for the treatment of chronic urinary tract infections,
 - Allopurinol for the treatment of gout and Crohn's disease,
 - Viroptic for the treatment of inflammations of the eye,
 - Actifed for the treatment of seasonal allergic rhinitis.
- University Teaching: Adjunct Biostatistics faculty positions at
 - UNC School of Public Health
 - Duke University Medical Center (first course in Survival Analysis).

II. Chronology

J. AH Robins Pharmaceuticals (80-82)

- Manager of Clinical Biostatistics at AH Robins Pharmaceuticals, Richmond
- Some Drugs Approved:
 - Guanfacine in the treatment of essential hypertension,
 - Metoclopramide for controlling nausea in cancer patients requiring chemotherapy,
 - Robaxasal for the treatment of lower back pain.
- Began Biostatistical Methodology Research in several areas
- University Teaching: Adjunct Professor
 - Medical College of VA (first course in Survival Analysis)
 - RMC (Multivariable calculus)

II. Cronology

K. SmithKline & French Labs (82-86)

- Associate Director of Statistical Services -> Director of Research Statistics
- Some Drugs Approved:
 - Cimetidine (Tagamet, the first H₂-Receptor Antagonist) for the treatment of duodenal, gastric ulcers and dyspepsia
 - Dyazide for the treatment of hypertension
 - Several antibiotics (e.g Cefisox)
 - Additional indications for Psychotropics (Stelazine, Thorazine)
 - Auranofin (first oral gold treatment for Rheumatoid arthritis)
 - tPA (Tissue Plasminogen Activator)
- Teaching
 - Adjunct Professor of Biostatistics at Temple U
 - Numerous short courses on biostatistical aspects of Drug Research and Clinical Development
- Became Chair of the Training Committee in the Biostatistics subsection of the PMA
 - Developed inhouse training programs
 - Made them available to other companies via the BS of PMA
- Set up 16 ASA Biopharm Work groups
 - Led to many sessions at JSM and to the Book: Statistical Issues in Drug R & D

II. Chronology

L. GD Searle Pharmaceuticals (86-87)

- Senior Director of Gastrointestinal Studies, Biostatistics, Clinical Data Management, Clinical Trial Monitoring and Medical Writing
- Some Drugs Approved
 - Cytotec (Misoprostol, a synthetic PEG2 Analogue)
 - * first drug for prevention of NSAID induced gastric ulceration
 - * ran clinical development program, analyzed, wrote and submitted the NDA to FDA
 - Verapamil and Calan-SR for hypertension
- Became Chair of the Biostatistics Subsection of the PMA

Home in Illinois



10/31/2018

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II. Chronology

M. Parke-Davis/ Warner Lambert (88-89)

- Vice President of WW Technical Operations
 - Five Departments (CDM, Biostatistics, Monitoring, MW, CSEC)
 - Member, Helsinki Heart Study (HHS) Council
- Some Drugs Approved:
 - Lopid (Gemfibrozil), first drug approved for reducing CHD risk (HHS: first study to demonstrate the lipid hypothesis?)
 - Tacrine (Cognex/ Aricept), first drug approved for Alzheimer's Disease
 - Enoxacin (quinalone antibiotic)
 - Quinapril (ACE inhibitor) for hypertension
- University Teaching (Adjunct Professor of Biostatistics at UM)
- Noteworthy Event:
 - Had ticket on Pan Am flight 103 that exploded over Lockerbie raining pieces of the plane and bodies on the town and countryside below.

II. Chronology

M. Parke-Davis/ Warner Lambert (88-89)

- In a period of six years, I had moved from Manager of Clinical Statistics at AH Robins, to Director of Research Statistics at SK&F Labs, to Senior Director of GI Clinical Studies at GD Searle, to VP of WW Technical Operations at PD/ WL. Over a decade, my annual salary increased 10-fold over what it was as a tenured professor at RMC. It is an undeniable truth that hard work and preparedness, along with the kind hand of fate, had made possible a quality of life that I could never have dreamed when growing up in Baker County, Georgia.
- Coming Full Circle:
 - My role (1st FDA ADV Committee Mtg, 3/16/1991) in Tacrine's development caught the eye of Sally Scearce, who wanted to know if I could assist in getting Tacrine for Coach JB Scearce. (Tacrine approved 9/10/1993)
 - Her husband was JB Scearce (legendary Basketball Coach at Georgia Southern (in the 50's and 60's), who I knew as an undergraduate student as tutor to the athletic department
 - I was able to steer him into a compassionate use trial and his life was greatly improved.

II. Chronology

N. BRCI, a CRO (1989 - 2000)

- Started with N = 1; grew to N = 65 providing pharmaceutical R&D consultation and services to more than 50 biotech, pharmaceutical and consumer products companies; also provided expert witness and high level regulatory consulting services
- CEO, CSO & CFO positions
- Gave BRCI to JP prior to returning to GSU and helped her continue to grow BRCI
- Founded Journal of Biopharmaceutical Statistics in 1991 (Now in 27th year)
- Founded Biopharmaceutical Applied Statistical Symposium in 1994 (now 25th year)
- Some Drug Approval Areas:
 - CNS, Analgesics, Antibiotics, Cardiovascular, Dermatologicals, OA, Ulcer
- University Teaching (Adjunct Professor):
 - UM & MCV
 - Numerous Short Courses and tutorials

First BRCI Location



II. Chronology

O. Georgia Southern University (2000- present)

- Graduation Address at GSU in May, 1998
 - Discovered there were no biostatistics degree programs nor any school or college of public health in the university system of GA
 - Resolved I would address those shortages
- Significant Events (All firsts at GSU; improved Research, Academic Distinction & PR)
 - Grant from GRA (\$150K)
 - Center for Biostatistics & Lab (created with GRA Grant)
 - Grant from GCC & Distinguished Scholar designation (\$750K)
 - Grants from MHUMC & SEGACA (\$72.5K)
 - Grants from SWGACC (\$78.9K)
 - Grant Phoebe-Putney (\$500K)
 - Grants from CARES (\$5K, \$7.5K, \$9K, \$15K)
 - Contracts from NIDA (\$125K)
 - Contracts from PI (\$150K)
 - Endowed Jiann-Ping Hsu College of PH (first in UGA System)

III. Summary of Significant Accomplishments

-> Filling Gaps

- Healthcare for my Mom, younger sibs
- Education of my younger sibs
- Developed and Taught first course in Survival Data Analysis at Duke and MCV
- Developed In-house training programs at SK&F and shared with PI via PMA
- Formulated and Chaired 16 ASA Biopharm Work groups on important statistical topics (-> the Book: Statistical Issues in Drug R&D)
- Founded the Journal of Biopharmaceutical Statistics (Editor-in-Chief for its 1st 10 years) – an additional applied Journal was needed for PI Statisticians
- Founded and Chaired the Biopharmaceutical Applied Statistics Symposium (BASS) – provided a source of papers for JBS, Funds to support biostatistics graduate students (N>50); and forum for networking and interaction
- Developed the first degree program in Biostatistics in the USG
- Endowed and helped develop The Jiann-Ping Hsu College of Public Health at GSU, the first school or college of public health in the USG

III. Summary of Significant Accomplishments

-> Filling Gaps

- Endowed the first Eminent Scholar chair at GSU (in Biostatistics)
- Endowed the first Eminent Scholar Chair at UCB in Biostatistics (ably held by Mark van der Laan)
- Endowed the second eminent scholar Chair at GSU (Public Health)
- Developed and incubated a central office of the International Chinese Statistical Association in JPHCOPH – contributed greatly to the growth of ICOSA
- Numerous contributions (\$, program & support systems development) to the Bulloch County Boys and Girls Club
- Elsie Mae Cloud Peace Awards for Academic Excellence (Baker County Georgia School)
- Endowments provide funding to support 12 GAs in JPHCOPH.

IV. Philanthropy

A. Endowments (N = 22: GSU, MCV, UCB, RMC, ICSA, HSC, St.Christopher's & St. Catherine's)

- The KEP Endowed Professorship in Mathematics RMC (2015)
- JP Hsu/KE Peace Endowed Chair in Public Health, GSU (2008)
- Christopher Peace Scholarship in Political Science, GSU (2006)
- Mitchell E. Peace Scholarship in Journalism, GSU (2006)
- Emily Joan Peace Scholarship in Nutritional Science, GSU (2006)
- Vines/Peace Scholarship in Biostatistics, CS or IT, GSU (2005)
- Reeves/Peace Scholarship in Biostatistics, CS or IT, GSU (2005)
- JP Hsu/ KE Peace Endowed Chair in Biostatistics at UCB, ably held by Mark van der Laan (2004)
- The Moore-Peace Prize in Mathematical Scholarship, RMC (2004)
- K. E. Peace Graduate Fellowship in Biostatistics, GSU (2004)
- JP Hsu Biopharmaceutical & Regulatory Sciences Session, ICSA (2004)
- The Jiann-Ping Hsu College of Public Health, GSU (2003)
- W. Hans Carter, III Professorship in Biostatistics, MCV (2003)

IV. Philanthropy

A. Endowments ((N = 22: GSU, MCV, UCB, RMC, ICSA, HSC, St. Christopher's, St. Catherine's)

- BASS Fellowship in Biostatistics, GSU (2002)
- K. E. Peace Endowed Chair in Biostatistics, Jiann-Ping Hsu
College of Public Health, GSU (2002)
- (First) Eminent Scholar Chair at GSU (1998)
- K.E. Peace Award for Excellence and Scholarship, GSU (1995)
- K.E. Peace Award for Excellence and Scholarship, MCV (1995)
- K.E. Peace Award for Excellence and Scholarship in Biostatistics, University of California, Berkeley (1995)
- E.M. Peace Scholarship for Outstanding Character, GSU (1994)
- BASS Fellowship Biostatistics, MCV (1994)

B. Professional Memberships (N = 14)

V. Labor and Fruits

C. Awards and Honors (N = 52)

- Fellow of the ASA
- GCC Distinguished Cancer Scholar
- 2007 APHA Statistics Section Award
- 2009 Chair Elect APHA Statistics Section
- Tito Mijaries Lifetime Achievement Award (PSA)
- GA HR #2118
- US House of Representatives Congressional Record (Page E#2195)
- Commendation from the Virginia General Assembly for “a prolific biostatistician and devoted educator, [who] has contributed immensely to his field and inspired countless students at the Medical College of Virginia and other universities to achieve greatness in science and medicine.”
- Deen Day Smith, Statesboro Herald Humanitarian of the Year, May 03, 2017
- Ting N (2016): “A Conversation with Karl E. Peace” ICSA Bulletin, January- 2016 Vol.28/1
- Subject of “Filling Gaps: Karl Peace Meets Needs with his Time, Talent and Treasure” featured in Georgia Southern University Foundation Annual Report 2015
- Commencement Speaker: “Fruits and Labors of a Purpose Driven Life. Biostatistics Graduates, MCV/VCU School of Medicine, Richmond, VA May 08, 2015.
- Subject of “Extraordinary Journey” featured in Legacy Brochure; Randolph-Macon College, May, 2015

V. Labor and Fruits

D. Awards and Honors (N = 52) Continued

- Inducted into the Gamma Theta Chapter of the Delta Omega Honorary Society in Public Health at Georgia Southern University's Jiann-Ping Hsu College of Public Health; April, 2014
- Recipient, GPHA Sellers-McCroan Award for Improving Public Health through academic and laboratory advancement; March, 2014
- Special recognition from the Statistics Profession for contributions to the profession and to statistical education, November, 2013
- Special Presidential Award for Service: International Chinese Statistical Association, June, 2012
- Delta Omega chapter Karl E. Peace Leadership Award, May 1, 2012
- USG Foundation Board of Trustees 2012 Regent's Hall of Fame Alumni Award, March 31, 2012
- Subject of the Karl E. Peace Award for Outstanding Statistical Contributions for the Betterment of Society: The American Statistical Association, established; 2012
- Recipient of First President's Medal Awarded at GSU
- Numerous Alumni Awards
- Numerous Meritorious Service Awards

E. Teaching

- Teaching Experience (N = 8 U's \geq 30 years)
- Directed Student Learning and Research (GSU: N = 25)

F. Research (N \geq 150 +)

- Articles (N = 115)
- Books (N = 15)
- Abstracts (Numerous)

V. Labor and Fruits

G. Books, Book Chapters & Reviews, Monographs

- Books (N = 15)
- Chapters in Books (N = 21)
- Book Reviews (N = 100)
- Monographs (N = 2)

H. Invited Presentations Given (N ≥ 150)

I. Sessions/Workshops (N = 175):

J. Journals (N = 10):

Journal of Biopharmaceutical Statistics – Founder and Editor in Chief
Journal of Philippine Statistical Association - Editor

Pen Ultimate Thought

(from Victor Hugo's Les Miserables)

- Upon leaving the bedside of the wounded Marius (John Beal) whom he had rescued from the mob and with whom his adopted daughter Eponine (Frances Drake) was madly in love, to surrender to his dogged pursuer Javert (Charles Laughton), Jean Valjean (Frederic March), paused by the mantel and said:

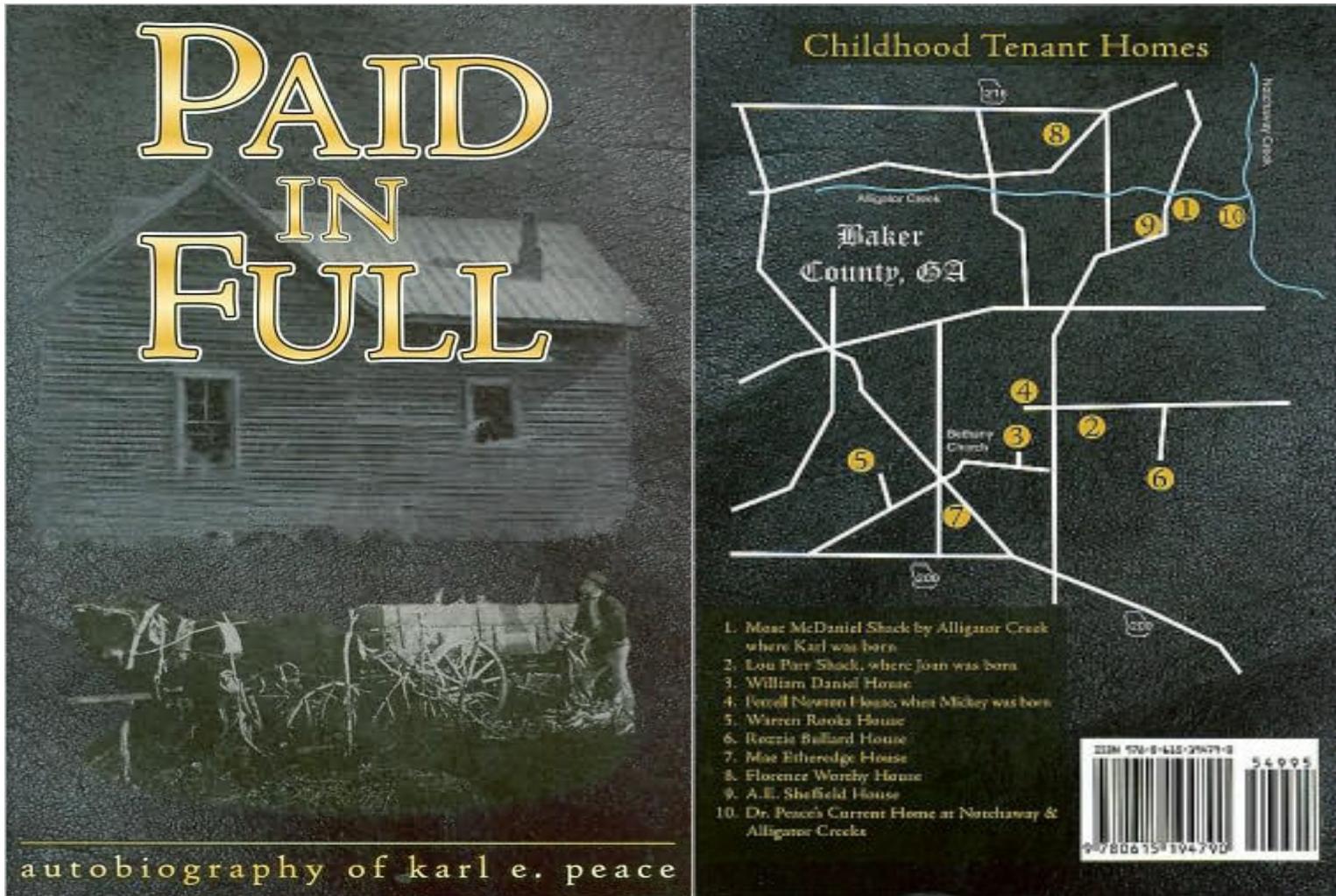
• "Life is to give, not to take."

Final Thoughts

- *My life has been driven by the need to make meaningful contributions to uplifting the human condition while having a zeal for excellence.*
- *Excellence can be attained if you...*
 - *Care more than others think is wise,*
 - *Dream more than others think is practical,*
 - *Expect more than others think is possible,*
 - *Risk more than others think is safe. –*
Unknown

THANK YOU!

- PRESENTERS (FDA, NIH, PI, ACADEMIA, PS)
- ATTENDEES
- BASS PROGRAM COMMITTEE
- BASS LOGISTICS COMMITTEE
- COLLECTIVELY THROUGH BASS, WE HAVE MADE MAJOR CONTRIBUTIONS TO THE STATISTICS PROFESSION



<https://www.barnesandnoble.com/w/paid-in-full-karl-e-peace/1017979737>

<https://www.amazon.com/PAID-FULL-Karl-C-Peace/dp/0615194796>

peacekarl@frontier.com

Appendix 1: Labor through Undergraduate School (Jobs I Performed to Improve my and my Family's Condition)

- **A. Until Graduating from High School**

- Broke five acres of new ground for Miss Mae Etheredge for \$5
- Raked leaves in Miss Mae's two for \$10
- Fell trees, sawed and split cord of firewood for Miss Mae at \$3 per cord (4' H, 4' W, 8' L).
- Slept in Miss Mae's home for 25¢ per night in case she needed assistance.
- Picked up pecans on halves for Miss Mae. The pecans were sold to the Colquitt Feed & Seed store for about 15¢ per pound.
- Sold Grit newspapers for a profit of a nickel per copy (had to walk 10-15 miles trying to sell them).

Appendix 1: Labor through Undergraduate School (Jobs I Performed to Improve my and my Family's Condition)

- **A. Until Graduating from High School**

- Picked blackberries and sold to Miss Doris Rooks for 15¢ per quart.
- Caught and cleaned fish and sold to Mr. Warren Rooks for 40¢ per pound.
- Suckered, cropped, tied and 'hung' tobacco for Mr. Warren Rooks for \$2 per day.
- Picked up corn on the ground from harvested fields of neighbors and sold to Mr. Ralph Phillips for \$1 per bushel.
- Picked cotton for Mr. Wyatt Brooks at 3¢ per pound for one week making \$54.
- Chopped cotton for Mr. Warren Rooks for \$2 per day.

Appendix 1: Labor through Undergraduate School (Jobs I Performed to Improve my and my Family's Condition)

- **A. Until Graduating from High School**

- Worked for Uncle Wilburn Peace in the pulpwoods for \$5/ day.
- Tared the roof of Uncle Wilburn's house for \$5
- Washed and polished Uncle Wilburn's car for \$2.
- Fed and watered Uncle Wilburn's Mules on the weekends for \$2.50 per day (\$5 total).
- Loaded horse and mule compost on Uncle Wilburn's truck for \$5 per day for him to sell to shade tobacco growers in N. Florida.
- Picked and loaded watermelons for Uncle Wilburn for \$5 per day.

Appendix 1: Labor through Undergraduate School (Jobs I Performed to Improve my and my Family's Condition)

- **A. Until Graduating from High School**

- Harvested scrap iron (broken plow points, single or double trees, any iron product) from the farming operation and sold to Uncle Wilburn for 10¢ per pound.
- Lit propane space heaters an hour before service on Sundays for Bethany Baptist Church during the winter, for \$5 per month.
- Did janitorial work during recess (and sometimes during class when the principal would require) at grammar and high school to earn my lunch.
- Worked for minimum wage part of one summer, between 'laying by' crops and harvest, for Spooner's Construction Company out of Donaldsonville picking up roots and debris from the road bed as they built GA Highway # 200.
- Worked part of one summer, between 'laying by' crops and harvest, for Gay's plumbing and heating in Albany, Georgia as a plumber's helper for minimum wage.
- Worked for the ASCS office in Newton, Georgia in measuring allotted crops on farms in Baker County on commission during the summers following my Junior and Senior high school years. I don't recall what the commission was, but I made several hundreds of dollars after paying for gas and oil expense for my '48 Ford Coupe.

- Note: All work was in addition to my chores and work duties on the farm.

Appendix 1: Labor through Undergraduate School (Jobs I Performed to Improve my and my Family's Condition)

- **B. While at Georgia Southern College obtaining the BS Degree:**
 - Ran Hagen & Olliff's Texaco service station three afternoons per week at minimum wage (this entailed pumping gas, checking oil, tire pressure, and operating the cash register).
 - Ran Eddie Bragg's poolroom on Friday and Saturday nights for minimum wage (this involved racking balls and operating the cash register).
 - Ran Sarah Savage's snack bar three evenings per week for student wage (this involved taking orders and cooking and operating the cash register).
 - Graded sweet potatoes for Sam Franklin's sweet potato plant on some afternoons during season at minimum wage.
 - Kept the books for FC Parker's stockyard on Wednesday nights for minimum wage. The first night of working, the books were balanced to the penny. FC and Mrs. Parker (Jewel) made a big to-do about this, claiming that this had never been done.
 - Worked as the paper grader for the Math Department (Dr. Herbert Bice and Mr. Walter Lynch) for student wage at GSC.

Appendix 1: Labor through Undergraduate School (Jobs I Performed to Improve my and my Family's Condition)

- **B. While at Georgia Southern College obtaining the BS Degree:**
 - Worked as tutor for the athletic department during the basketball season for student wage.
 - Worked part time at minimum wage at Braswell's foods in Statesboro; (I was the sugar boy. I would fetch sugar from the warehouse and put into the huge cooking pots.)
 - Worked for the ASCS office in Newton, Georgia in measuring allotted crops on farms in Baker County on commission during the summers following my freshman and senior years at GTC/ GSC.
 - Tutored Statesboro high school students in math as needed at \$5 per hour. Once tutored a guy to learn how to operate the cash register at a gas station on North Main Street.
 - Would often 'hustle pool' and make some money playing poker.

Appendix 2: History of BASS

Introduction

- The Biopharmaceutical Applied Statistics Symposium (BASS) was founded in 1994, by Dr. Karl E. Peace, The Georgia Cancer Coalition Distinguished Scholar/Scientist at Georgia Southern University (GSU), and Professor of Biostatistics and Senior Research Scientist in the Jiann-Ping Hsu College of Public Health (JPHCOPH) at GSU and Adjunct Professor of Biostatistics at Medical College of Virginia (MCV), Virginia Commonwealth University (MCV/VCU).
- The original objectives of BASS were:
 - (1) **educational**, in the sense of providing a forum for pharmaceutical and medical researchers and regulators to share timely and pertinent information concerning the application of biostatistics in pharmaceutical environments,
 - (2) **provide revenues** to support graduate fellowships in biostatistics, and
 - (3) provide a **source of articles** to grow the Journal of Biopharmaceutical Statistics (JBS), which Dr. Peace founded two years earlier.

Appendix 2: History of BASS

Introduction

- The **third goal was dropped** after JBS was on firm footing with respect to submission of articles for publication consideration by biostatisticians from all over the world. Dr. Peace served as Editor-in-Chief of JBS for the first 10 years of its life. For the last 16 years, JBS has been under the able hands of Dr. Shein-Chung Chow (now with the FDA), and has gone from the original two issues to four issues and currently 6 issues per year.
- The **first and second goals continue**. Toward the second goal, **BASS revenues have supported 41 students** to complete their degree from the Department of **Biostatistics, School of Medicine, Medical College of Virginia Campus, Virginia Commonwealth University**, from which Dr. Peace holds the PhD in Biostatistics; and **14 students from The Jiann-Ping Hsu College of Public Health** at Georgia Southern University (from which Dr. Peace holds the BS in Chemistry). Each year two PhD in Biostatistics students at MCV/VCU and one DrPH in Biostatistics from JPHCOPH are selected as BASS Fellows. Apart from receiving funding support, they also attend the annual meeting of BASS where they attend presentations and short courses and where they have the opportunity to network with presenters and attendees from the pharmaceutical industry, government and academia.

Appendix 2: History of BASS

BASS Fellows

1994	BASS 1	
1995	BASS 2	
1996	BASS 3	Max Kuhn, MCV/VCU
1997	BASS 4	
1998	BASS 5	Theresa Crofts, MCV/VCU
1999	BASS 6	Stephanie Meadows, MCV/VCU
2000	BASS 7	Margaret Shih, MCV/VCU & Nicole Schrag, GSU
2001	BASS 8	Michelle Casey & Stacey Cofield, MCV/VCU
2002	BASS 9	Jeanette Eckel, Adam Hamm, Eric Harvey, MCV/VCU
2003	BASS 10	Heather J. Hoffman, J. Todd Coffey, MCV/VCU; Giri Andukuri, GSU
2004	BASS 11	LeAnna Stork, Sharon Yeatts, MCV/VCU
2005	BASS 12	Rong Liu, Rhonda Ellis, MCV/VCU; Jiehui Zhu, GSU
2006	BASS 13	Xiangrong Kong, Abigail (Abby) Robinson, MCV/VCU; Kelley Chester & Shri Shroff, JPHCOPH
2007	BASS 14	Maria Capparuccini, Scott Marshall, MCV/VCU; Changlu Liu & Macaulay Okwuokenye, JPHCOPH
2008	BASS 15	A.A. Williams, Phillip Yates, MCV/VCU; Ben Maligalig & Macaulay Okwuokenye, JPHCOPH
2009	BASS 16	Tina Cunningham & Stephanie Pearson, MCV/VCU; Ryan Butterfield, JPHCOPPH
2010	BASS 17	Robert Carrico, Adam Sim, MCV/VCU; Yisong Huang & Xinyan Zhang, JPHCOPH
2011	BASS 18	Amber Wilk, Shuxian Zhang, MCV/VCU; Abby Zhang, JPHCOPH
2012	BASS 19	Ghalib Bello, Chunfeng Ren, MCV/VCU; Kenny Tan; JPHCOPH
2013	BASS 20	Lauren Grant, Bhanu M. Evani, MCV/VCU; Yi Hao, JPHCOPH
2014	BASS 21	Qing Zhou, Uma Siangphoe, MCV/VCU; Yi Hao, JPHCOPH
2015	BASS 22	Edmund Glass, Rebecca Lehman; MCV/VCU, Yi Hao, JPHOCPH
2016	BASS 23	Brian S. Di Pace, Victoria Garcia, MCV/VCU, Uche Okoro, JPHCOPH
2017	BASS 24	Alicia Johns, MCV/VCU; Uche Okoro, JPHCOPH
2018	BASS 25	Keighly Bradbrook, Erin Donahue, Kate Stromberg, MCV/VCU; Uche Okoro, JPHCOPH

1994-2018

41 - MCV/VCU; 14 - JPHCOPH/GSU

Appendix 2: History of BASS

Meeting Venues

- Through its first 24 years, the annual BASS meeting has been held at 8 hotels in 5 cities. BASS I (1994) was held at the Hyatt Regency in Orlando, FL. BASS II-III were held at the Hilton Beach Resort, Inner Harbor, in San Diego, CA (where the Hotel provided a dinner cruise of the Inner Harbor for BASS Attendees).
- BASS IV-VII were held at the Hilton Oceanfront Resort Hotel, Palmetto Dunes, in Hilton Head Island, SC. BASS VIII-XII were held at the Desoto Hilton, and BASS XIII-XVI were held at the Mulberry Inn, both located in the Historic District of Savannah, GA.
- BASS XVII was again held at the Hilton Resort Hotel at Palmetto Dunes, Hilton Head Island, SC. BASS XVIII -XIX were held at the Mulberry Inn in Savannah.
- The 20th anniversary of BASS was held at the Hilton Orlando Downtown. BASS XXI, XXII and XXIII were held at the Crowne Plaza Washington, DC Hotel located in Rockville, MD. BASS XXIV was held back in Savannah at the Hotel Indigo in the Historic District – as is BASS XXV.

Appendix 2: History of BASS

Program Summary

- More than 300 tutorials and 50 1-day or 2-day short courses have been presented at BASS, by the world's leading authorities on applications of biostatistical methods attendant to the research, clinical development and regulation of biopharmaceutical products. Presenters represent the biopharmaceutical industry, academia and government - particularly the NIH and FDA.

Faculty BASS I-XIV:

- N= 489
- PI – 233 (47.65%)
- Academia – 120 (24.54%)
- FDA – 63 (12.88%)
- CRO – 26
- NIH – 18 (3.68%) (NHLBI – 7, NCI – 10, NIAID – 1)
- SAS INC – 8 (1.64%)
- Other – 21 (4.29%)

Appendix 2: History of BASS

Sponsorship

- When I founded BASS, I envisioned the Medical College of Virginia as the only institutional recipient of financial support for graduate students in biostatistics. That was the case from 1994 through 2000; all net revenues from BASS, went to a MCV BASS Endowment account for support of PhD Biostatistics students at MCV. During this time, my company, Biopharmaceutical Research Consultants, Inc. (BRCI) bore the expenses for all aspects connected with the symposium (printed BASS program development, copies, mailings, production of speakers slides for each BASS Attendee, etcetera). Thus, sponsors identified on BASS Programs were Biopharmaceutical Research Consultants, Inc. and the Medical College of Virginia, Department of Biostatistics.
- I returned to my undergraduate alma mater, Georgia Southern University, in the Fall of 2000 to grow the MPH in biostatistics degree program (which I along with Dr. Charles Hardy developed from 1998-2000), to develop a Center for Biostatistics and to begin work to develop a School of Public Health. From 2001-2005, The KEP Center for Biostatistics at GSU was listed as a sponsor and took on the BASS meeting support work that had been done by BRCI. From 2006 until currently, The Jiann-Ping Hsu College of Public Health has been a sponsor.

Organization/ Logistics

- **BASS CHAIR** (Karl Peace, Hans Carter – CoChair, Tony Segreti)
- **BASS Program Committee** – BASS IX -> 2002; **BASS PC Chair:** Karl Peace, Laura Gunn, Supriya Menezes; **Members:** Jim Nick, Jeff Schwartz, Barry Schwabb, Janice Grechko, Andreas Sashegyi, Greg Enas, Frank Rockhold, Tony Segreti, Vipin Arora, Satrajit Roychoudhury, CV Damaraju, Jason Martin, Rong Liu, Ed Luo, Kao-Tai Tsai and others.
- **Logistics Committee:** **BRCI Staff, K Peace, Shelly Bass, Ruth Whitworth, Tony Segreti**
- **Session Moderators** -> From the outset (Notables: Jim Nick, Jeff Schwartz, RK Elswick, Tony Segreti, Janice Grechko, Andreas Sashegyi, Vipin Arora, Barry Schwabb, and many others)
- **BASS KEYNOTE** -> BASS VI (1999) with Gary Koch: “Biopharmaceutical Statistics in a Pharmaceutical Regulated Environment”
- **BASS Meeting Length:** 5 days to 4.5 days -> BASS IX (2002)

Appendix 2: History of BASS

BASS KEYNOTE Speakers:

- Gary Koch – UNC Chapel Hill BASS VI
- Robert T. O’Neill – FDA Biometrics, CDER BASS VII
- Richard Simon - NCI BASS VIII
- Susan Ellenberg – FDA Biometrics, CBER BASS IX
- Nancy Geller - NHLBI BASS X
- Janet Wittes – Statistics Collaborative BASS XI
- Carl Peck – NDA Partners BASS XII
- Greg Campbell - FDA Biometrics, CDRH BASS XIII
- Mitchell Gail – NCI BASS XIV
- Donald Berry – MD Anderson BASS XV
- Shein-Chung Chow – Duke BASS XVI
- Mohammad Huque - FDA BASS XVII
- Marvin Zelen – Harvard, Frontier Science BASS XVIII
- Christy Chuang - Stein, Pfizer BASS XIX
- Mike Proschan – NHLBI BASS XX
- ShaAvhree Buckman-Garner – FDA, CDER BASS XXI
- Richard Anderson – FDA, CBER BASS XXII
- Janet Wittes – Statistics Collaborative BASS XXIII
- Vern Chinchilli – Penn State BASS XXIV
- Karl Peace – JPHCOPH/ GSU BASS XXV

Appendix 2: History of BASS

BASS INC.

- BASS INC, a 501(C)3 nonprofit corporation was created in 2012
 - Board of Directors
 - Karl E. Peace, President
 - Christopher K. Peace – Secretary & Treasurer
 - Jim Hotz – Director
 - Other Members/ Directors
 - Tony Segreti
 - Janis Grechko
 - Frank Rockhold
 - Barry Schwab
 - Vipin Arora
 - Andreas Sashegyi
 - All Revenues are deposited into a bank savings account or invested in Stocks
 - To be used to support graduate studies in Biostatistics – All US universities with Biostatistics Graduate Programs are eligible
 - Total Assets – About \$150,000.00
 - Plan to begin awarding scholarships to deserving students when interest from principal is large enough to support.
 - Until then we are awarding up to 5 travel grants (on a competitive basis) per annual meeting (BEGINNING IN 2014)
 - Thus far, we have awarded travel grants for 19 students for a total about \$25,000 over five years [2014 – 2018].

Appendix 2: History of BASS

BASS INC. – Travel Grant Awardees (Dr. in Biostatistics Students)

- 2018 Deborah Kanda - JPHCOPH/ GSU
- 2018 Jing Kersey - JPHCOPH/ GSU
- 2018 Thevaa Chandereeng - Wisconsin
- 2018 JC Polythress - Univ. of Georgia
- 2018 Jay Soh - Emory
- 2017 Cesar Torres - Washington
- 2017 Sarbesh Pandeya – JPHCOPH/ GSU
- 2017 Zhanning Yu - Medical Univ. of South Carolina
- 2016 Leah Suttner - Univ. of Pennsylvania
- 2016 Emily Xu - Univ. of Pennsylvania
- 2016 Natasha Sahr - Medical College of Wisconsin
- 2016 Jonathan Chipman - Vanderbilt
- 2016 Christy Cassarly - Medical Univ. of South Carolina
- 2015 Theophile Dipita – JPHCOPH/ GSU
- 2015 Wei Wei - Medical Univ. of South Carolina
- 2015 Yisong Huang – JPHCOPH/ GSU
- 2014 Lysbeth Floden - Univ, of Arizona
- 2014 Xin (Lucy) Lu - Emory
- 2014 Yi Hao – JPHCOPH/ GSU
- **In summary, 19 students, across 9 institutions and 7 States**

SUMMARY

WISCONSIN = 2
MED UNIV OF SC = 3
UNIV OF GA = 1
EMORY = 2
U OF WASHINGTON = 1
U OF PENNSYLVANIA = 2
VANDERBILT U = 1
U OF ARIZONA = 1
JPHCOPH/GSU = 6

Appendix 2: History of BASS

Springer has published 3 BASS BOOK Volumes:

Volume III: Design of Clinical Trials (19 Chapters)

<https://link.springer.com/book/10.1007/978-981-10-7820-0> 40% off

Volume II: Biostatistical Analysis of Clinical Trials (12 Chapters)

<https://link.springer.com/book/10.1007/978-981-10-7826-2> 40% off

Volume I: Pharmaceutical Applications (15 Chapters)

<https://link.springer.com/book/10.1007/978-981-10-7829-3> 40% off

Chapter authors are prior presenters at BASS

[There are copies of the books on the registration table for perusal \(they should stay there\)](#)

There are also Binders on the registration table with all BASS I – XXV programs