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The views, opinions and/or findings contained in this report are those of the author(s) and should not contrued as an official Department of the Army position, policy or decision, unless so designated by other documentation.

14. ABSTRACT
Dr. David Blackwell, a mathematician and statistician, made phenomenal contributions to probability theory, statistics and game theory and was the first black scholar to be admitted to the National Academy of Sciences passed away on July 8, 2010 at the age of 91. Even though he encountered the many difficulties that African Americans experienced in society, and in particular, the mathematical community, he prevailed to become the "greatest African American mathematician". He came to Howard University in 1944 and, in just three years, he was appointed to full professor and head of the Mathematics Department.

15. SUBJECT TERMS
mathematician and statistician, probability theory, statistics, game theory, black scholar, National academy of sciences

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Report Title

Final Report: Dr. David Blackwell Memorial Conference on Mathematics, Probability and Statistics

ABSTRACT

Dr. David Blackwell, a mathematician and statistician, made phenomenal contributions to probability theory, statistics and game theory and was the first black scholar to be admitted to the National Academy of Sciences passed away on July 8, 2010 at the age of 91. Even though he encountered the many difficulties that African Americans experienced in society, and in particular, the mathematical community, he prevailed to become the "greatest African American mathematician". He came to Howard University in 1944 and, in just three years, he was appointed to full professor and head of the Mathematics Department.

This two-day conference brought together leading theoretical and applied mathematicians, statisticians, and other scientists who had a successful conference to:

1. Recognize and acknowledge Dr. Blackwell's myriad contributions to scholarship in multiple areas and disciplines.
2. Discuss how Dr. Blackwell's work shapes and influences the field-at-large and their respective scholarship.
3. Explore and develop new ideas and approaches to questions arising from mathematics and statistics.
4. Provide a forum for a diverse group of undergraduate students, graduate students, postdoctoral fellows and junior faculty to interact and collaborate with experts in the field of mathematics and statistics.

Enter List of papers submitted or published that acknowledge ARO support from the start of the project to the date of this printing. List the papers, including journal references, in the following categories:

(a) Papers published in peer-reviewed journals (N/A for none)

Received		Paper
04/13/2017	1	NIANPENG LI, ABDUL-AZIZ YAKUBU. A JUVENILE-ADULT DISCRETE-TIME PRODUCTION MODEL OF EXPLOITED FISHERY SYSTEMS, Natural Resource Modeling, ( ): 273. doi: 1,039,095.00
04/13/2017	2	Avner Friedman, Abdul-Aziz Yakubu. Anthrax epizootic and migration: Persistence or extinction, Mathematical Biosciences, ( ): 137. doi: 1,039,096.00
04/13/2017	3	Avner Friedman, Abdul-Aziz Yakubu. A Bovine Babesiosis Model with Dispersion, Bulletin of Mathematical Biology, ( ): 98. doi: 1,039,097.00
TOTAL:	**3**	

Number of Papers published in peer-reviewed journals:

(b) Papers published in non-peer-reviewed journals (N/A for none)

Received	Paper
TOTAL:	

Number of Papers published in non peer-reviewed journals:

(c) Presentations

Number of Presentations: 0.00

Non Peer-Reviewed Conference Proceeding publications (other than abstracts):

Received Paper

TOTAL:

Number of Non Peer-Reviewed Conference Proceeding publications (other than abstracts):

Peer-Reviewed Conference Proceeding publications (other than abstracts):

Received Paper

TOTAL:

Number of Peer-Reviewed Conference Proceeding publications (other than abstracts):

(d) Manuscripts

Received Paper

TOTAL:

Number of Manuscripts:

Books

Received Book

TOTAL:

Received Book Chapter

TOTAL:

Patents Submitted

Patents Awarded

Awards

Joaquin Bustoz Jr. Lecture Award, 2016 Blackwell-Tapia Conference at the National Institute for Mathematical and Biological Synthesis, University of Tennessee-Knoxville, October 28-29, 2016.

Graduate Students

NAME	PERCENT_SUPPORTED
FTE Equivalent:	
Total Number:	

Names of Post Doctorates

NAME	PERCENT_SUPPORTED
FTE Equivalent:	
Total Number:	

Names of Faculty Supported

NAME	PERCENT_SUPPORTED

FTE Equivalent:
Total Number:

Names of Under Graduate students supported

NAME	PERCENT_SUPPORTED

FTE Equivalent:
Total Number:

Student Metrics

This section only applies to graduating undergraduates supported by this agreement in this reporting period

The number of undergraduates funded by this agreement who graduated during this period:	0.00
The number of undergraduates funded by this agreement who graduated during this period with a degree in science, mathematics, engineering, or technology fields:.....	0.00
The number of undergraduates funded by your agreement who graduated during this period and will continue to pursue a graduate or Ph.D. degree in science, mathematics, engineering, or technology fields:.....	2.00
Number of graduating undergraduates who achieved a 3.5 GPA to 4.0 (4.0 max scale):.....	0.00
Number of graduating undergraduates funded by a DoD funded Center of Excellence grant for Education, Research and Engineering:.....	0.00
The number of undergraduates funded by your agreement who graduated during this period and intend to work for the Department of Defense	0.00
The number of undergraduates funded by your agreement who graduated during this period and will receive scholarships or fellowships for further studies in science, mathematics, engineering or technology fields:	0.00

Names of Personnel receiving masters degrees

NAME

Total Number:

Names of personnel receiving PHDs

NAME

Total Number:

Names of other research staff

NAME	PERCENT_SUPPORTED

FTE Equivalent:
Total Number:

Sub Contractors (DD882)

Inventions (DD882)

Scientific Progress

Evidence of Dr. Blackwell's intellectual contributions is visible in many arenas and scholars continue to build on that knowledge base. In so doing, the conference participants continuously underscore and reinforce the intellectual merit of Dr. Blackwell's and their own work. The conference was an opportunity for intellectual exchange and discourse among scholars from diverse backgrounds. As new generations of scholars from increasingly diverse backgrounds enter the fields of mathematics and statistics, through the Dr. David Blackwell Memorial Conference, they became members of the community of scholars who innovate and make breakthroughs within their respective fields.
The significant event, organized by the Department of Mathematics at Howard University in collaboration with the University of California, Berkeley, Carnegie Mellon University, and the American Statistical Association, celebrate Dr. Blackwell's legacy as well as the advances he made in mathematics and statistics. Today, the mathematics department of Howard University has established the David Blackwell lecture series.

Technology Transfer

Not applicable.

Program

Thursday, April 19

7:30 am	Bus Departs from the Courtyard Silver Spring Downtown to Howard University
8:00-9:00 am	Registration, **Blackburn University Center** Auditorium (2nd Floor), Howard University
9:00-9:30 am	Opening Remarks: James Donaldson (Howard University), Tepper Gill (Howard University), and Abdul-Aziz Yakubu (Howard University)
9:30-10:00 am	Nancy Geller (National Heart, Lung, and Blood Institute/American Statistical Association): *David Blackwell: A Member of the Community of Scholars*
10:00-10:30 am	William Hawkins (University of the District of Columbia/National Association of Mathematicians): *David Blackwell's Gift to the National Association of Mathematicians, Inspiration for Generations*
10:30-11:00 am	Coffee Break
11:00-11:30 am	Giovanni Parmigiani (Dana-Farber Cancer Institute): *Blackwell's Impact on Statistics: Bayesian*
11:30-12:00 pm	Lawrence D. Brown (University of Pennsylvania): *Blackwell's contributions to Statistics: A Personal View*
12:00-2:00 pm	Lunch (on your own)
2:00-2:30 pm	Carlos Castillo-Chavez (Arizona State University): *David Blackwell: Inspiration for the Blackwell-Tapia Conference Series*
2:30-3:00 pm	Richard Tapia (Rice University): *David Blackwell: King of the Precious Few*
3:00-3:30 pm	Coffee Break
3:30-4:00 pm	Isaac Meilijson (Tel Aviv University): *Contributions of Blackwell to the Martingale Dilation Stochastic Order*
4:00-6:30 pm	Poster Session, Blackburn University Center Hilltop Lounge
6:30 pm	Bus Departs from Howard University to the Courtyard Silver Spring Downtown

Friday, April 20

7:30 am	Bus Departs from the Courtyard Silver Spring Downtown to Howard University
8:00-9:00 am	Registration, **School of Social Work** Auditorium/Pioneer's Reading Room (Room 114), Howard University
9:00-9:30 am	James Donaldson (Howard University): *David Blackwell's Impact on Mathematics at Howard University*
9:30-10:00 am	Sergio Verdu (Princeton University): *David Blackwell's Impact on Information Theory*
10:00-10:30 am	Conference Group Photo
10:30-11:00 am	Coffee Break
11:00-11:30 am	George Bonney (Howard University): *Blackwell's Impact on a Young African Student of Statistical Genetics*
11:30-12:00 pm	William Massey (Princeton University): *Blackwell's Impact on the Theory of Queues*
12:00-2:00 pm	Lunch (on your own)
2:00-2:30 pm	William Sudderth (University of Minnesota): *Blackwell and Dynamic Programming*
2:30-3:00 pm	William Massey (Princeton University): *Blackwell's Legacy to a Community for African-American Researchers in the Mathematical Sciences*
3:00-3:30 pm	Coffee Break
3:30-5:00 pm	Panel: Peter Bickel (University of California, Berkeley), Sastry Pantula (National Science Foundation), Steven Shreve (Carnegie Mellon University), Richard Tapia (Rice University), and Scott Williams (University at Buffalo, The State University of New York); Moderator Talitha Washington (Howard University): *Next Steps: Statistics and Probability Beyond Blackwell's Contributions*
5:00-6:30 pm	Conference Reception, Blackburn University Center Hilltop Lounge
6:30-8:30 pm	Banquet, Blackburn University Center Ballroom; Opening Remarks: Abdulalim Shabazz (Grambling State University) Invocation: LaVerne Gill (Westmoreland United Church of Christ) Dinner Introduction of Keynote Speaker: Talitha Washington (Howard University) Keynote Speaker: Daphne Smith (CVS Caremark): *Remembering a Mentor: David Blackwell at Berkeley* Presentation of Poster Session Award: James Donaldson (Howard University) Closing Remarks: Abdul-Aziz Yakubu (Howard University)
9:30 pm	Bus Departs from Howard University to the Courtyard Silver Spring Downtown

Poster Session

There will be an MBI Conference Award for the best poster. This is a full travel award to attend a Mathematical Biosciences Institute (MBI) workshop of the winner's choice in the 2012-13 academic year. The winner will be announced at the banquet.

- Martin Arienmughare (Howard University): *Almost Periodic Solutions to Some Singular Systems of Differential Equations*
- Moussa Doumbia (Howard University): *Malaria in Irrigated and Non-Irrigated Villages of Mali*
- Adebukola Gbade-Oyelakin (Howard University): *A Moment Series Approach to Bayesian Statistics and Inference*
- Ahmed Mohamed (Howard University): *Pseudo-Almost Automorphic Solutions to Some Second Order Differential Equations*
- Jerome Ndayishimiye (Binghamton University): *Fluid Model of the Dynamics of Patients and Physicians in Emergency Rooms: Optimal Control Staffing Policy and Workshift Schedules*
- Henry Jordan (Howard University): *Minimal Hales-Jewett Sets*
- Valerie Nelson (Howard University): *C^(n)-Pseudo Almost Automorphy and its Applications to Some Higher-Order Differential Equations*
- Jamol Pender (Princeton University): *Gaussian Skewness Approximation for Dynamic Rate Queues*
- Anna Sun (University of Maryland Baltimore County): *NIR Spectroscopy Data Pre-Processing Using SAS*
- Ilyssa Summer (Arizona State University): *Mulitpotent Stem Cells Bifurcating Dynamics from Gene Transcription Factor Interactions*