# Helen M. Marcus Roberts March 2012

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## **EDUCATION:**

Ph.D. Biostatistics	Bloomberg School of Public Health The John Hopkins University	1964-1969
B.S. Mathematics	City College of New York CUNY	1962-1964
Mathematics	University of Buffalo	1960-1962

## **PROFESSIONAL EXPERIENCE**

Chair, Mathematical Sciences	Montclair State University	1999-Present
Full Professor	Montclair State University	
Mathematical Sciences		
Graduate Coordinator,	Montclair State University	1982-1999
Mathematical Sciences		
Visiting Assoc. Professor	Cornell University	1979-1980
Operation Research		
Associate Professor,	Montclair State University	1977-1982
Mathematical Sciences		
Assistant Professor	Montclair State University	1972-1977
Mathematical Sciences		
Assistant Professor,	University of California	1970-1972
Statistics	·	

## **PUBLICATIONS**

#### **Selected Publications**

- 1. Marcus-Roberts, H. "On Simplifying Assumptions in Energy Models," Energy: *Mathema* Publications, 268-272, (1976).
- 2. Roberts, F.S., and H. Marcus-Roberts. "Efficiency of Energy Use in Obtaining Food II: A Roberts and M. Thompson (eds.). *Modules in Applied Mathematics: Life Science Models* Verlag, 286-349, (1983).

- 3. Marcus-Roberts, H., F.S. Roberts, and B. Tesman. "Basic Counting Rules Chapter," Applied *Combinatorics*. Taylor and Francis, 15-118, (2009).
- 4. Marcus-Roberts, H., "A Comparison of Some Deterministic and Stochastic Models of Population Growth," H. Marcus-Roberts and M. Thompson (eds.), *Modules in Applied Mathematics: Life Science Models*, Volume 4, Springer-Verlag, 32-77, (1983).
- 5. Fishburn, P. C., H. Marcus-Roberts, and F. S. Roberts. "Unique finite Differences in Measurement," *SIAM Journal of Discrete Mathematics*, 1, 334-354, (1988)
- 6. Pai, A.C., and H. Marcus-Roberts. *Genetics: Its Concepts and Implications*, Prentice-Hall, (1981).
- 7. Fishburn, P.C., F.S. Roberts, and H. Marcus-Roberts. "Van Lier Sequences," *Discrete Applied Mathematics*, 27, 209-220, (1990).
- 8. Marcus-Roberts, H., and M. Thompson (eds). *Modules in Applied Mathematics: Life Science Models* Volume 4, Springer-Verlag (1983) and Chinese Translation National University of Defense Technology, University Press, Changsha, Hunan, Peoples Republic of China, (1997).
- 9. Marcus-Roberts, H., and F.S. Roberts. "Meaningless Statistics," *Journal of Educational Statistics*, 12, 383-94, (1987).
- 10. Marcus-Roberts, H., "DNA, RNA, and Random Mating: Simple Applications of the Multiplication Rule," H. Marcus-Roberts and M. Thompson (eds.), *Modules in Applied Mathematics: Life Science Models*, Volume 4, Springer-Verlag, 218-237, (1983).

## **GRANTS**

DOE grant and the one with Jennifer from DOL

#### PROFESSIONAL MEMBERSHIPS

American Statistical Association Mathematical Association of America

#### STUDENT RESEARCH

#### **Ed.D. DISSERTATION committee member**

Joy Brokes Kristie Prokop Laura Sulllivan Jodie Miller, in progress Patricia Garruto, in progress

#### **Ed.D. QUALIFYING EXAM committee member**

Arpi Lajinian, Portfolio defense. Anthony Piparo, Portfolio defense

#### ADVISORY BOARD

Traders to Teachers – Mathematics Certification Program for unemployed people from the financial sector.

\$50,000 N.J. Department of Education – develop Mathematics Certification Program for unemployed people from the financial sector.

### Synergistic Activities

- 1. Chair, National Academy of Science Panel on National Science Foundation Graduate Fellowships in Applied Mathematics, 1980 and 1981; member of the panel in 1979.
- 2. SIAM (Society for Industrial and Applied Mathematics) Lecturer, 1979 83.
- 3. University General Education (Gen Ed 2002) Committee, chair 1994 1998
- 4. Gen Ed 2002 Implementation Committee, chair 2001 2003, member 1999 2003
- 5. Invited participant, Workshop on Mathematical Modeling of Infectious Diseases of Africa, Stellenbosch University, South Africa, 2007
- 6. Co-chair Trader to Teachers Initiative, 2008 2010
- 7. N. J. Department of Education Mathematics Task Force, Spring 2009
- 8. Invited participant, Workshop on Mathematical Modeling of Infectious Diseases of Africa, Stellenbosch University, South Africa, 2007
- 9. Presenter American Mathematical Society Workshop for Mathematics Department Chairs, 2011-2013.