DAVID D. MCFARLAND

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INTERESTS:

Recent work focuses on pre-electronic computational techniques and devices, especially as those had been used by early sociologists. Earlier work included mathematical models in stratification, population growth, and various other substantive sociological topics.

EDUCATION:

PhD, 1971, University of Michigan, Department of Sociology. Majored in mathematical sociology, minored in population and human ecology.

CIC Traveling Scholar, at the University of Chicago, during the summer quarter of 1968, studying mathematics of population.

MS, 1966, Michigan State University, Department of Statistics and Probability.

BES (Bachelor of Engineering Science), 1964, Cleveland State University (formerly Fenn College). Majored in mathematics and minored in physics.

ACADEMIC APPOINTMENTS:

1975-present. UCLA Department of Sociology, Associate to Emeritus Professor.

1969-1975. University of Chicago, Graduate School of Business and Department of Sociology, Instructor to Assistant Professor.

SELECTED PUBLICATIONS:

2011. "Abaci in the Old World and in the New." Pp 27-48 in *IM2011 Proceedings* (from the seventeenth International Meeting of Collectors of Historical Calculating Instruments,

MIT Museum, Cambridge, Massachusetts, USA).

2008. "Square Roots by Slide Rules and Other Means." *Journal of the Oughtred Society 17* (no 2): 29-39.

2007a. "Tables of Quarter-Squares, Sociologic[al] Applications, and Contributions of George W .Jones." *Journal of the Oughtred Society 16* (no. 1, Spring): 19-26.

2007b. "Quarter-Squares Revisited: Earlier Tables, Division of Labor in Table Construction, and Later Implementations in Analog Computers." *Journal of the Oughtred Society 16* (no. 2, Fall): 20-25.

2005. "A Decade AFTER The End: A Slide Rule Instruction Book Published in 1984." *Journal of the Oughtred Society 13* (no. 2, Fall): 48-53.

2004. "Adding Machines and Logarithms: Franklin H. Giddings and Computation for the Exact Science of Sociology." *Social Science Computer Review* 22 (no. 2, Summer): 249-255.

2003a. "Lightning Subtraction." *Journal of the Oughtred Society* 12 (no. 1, Spring): 33-40.

2003b. "Addition and Subtraction With *Slide* Rules and Allied Instruments, Part I." *Journal of the Oughtred Society 12* (no. 2, Fall): 27-36.

1981. "Spectral decomposition as a tool in comparative mobility research." Ch. 9, pp. 338-358 in: S. Leinhardt, ed. *Sociological Methodology 1981*. San Francisco: Jossey-Bass.

1980. "Models of the distribution of acts in small discussion groups" (by Gerald G. Goetsch and David D. McFarland). *Social Psychology Quarterly 43*: 173-183.

1978a. "Mobility and stratification: an overview." Ch. 9, pp 181-196 in: K. E. Taeuber, L. L.Bumpass, and J. A. Sweet, eds. *Social Demography*. New York: Academic Press.

1978b. "The aged in the 21st century: a demographer's view." Ch. l, pp. 5-22, in: L. F. Jarvik, ed. *Aging into the 21 st Century: Middle Agers Today*. New York: Gardner Press.

1975a. "Higher order stability conditions in mathematical models of sociometric or cognitive structure" (by Maureen T. Hallinan and David D. McFarland). *Journal of Mathematical Sociology 4*: 131-148.

1975b. "Models of marriage formation and fertility." *Social Forces 54* (September): 66-83.

1975c. "Models involving social indicators of population and the quality of life." Ch. 14, pp. 361-379, in: K. C. Land and S. Spilerman, eds. *Social Indicator Models*. New York: Russell Sage Foundation.

1974a. "On the relationship between mathematical models and empirical data, and the relationship between duration of stay and subsequent mobility." *American Sociological Review 39* (December): 883-885.

1974b. "Substantive contributions of Markov models to the study of social mobility." Ch. 1, pp. 5-28 in: R. Ziegler, Hrsg. *Anwendung Mathematischer Verfahren zur Analyse Sozialer Ungleichheit und Sozialer Mobilitat*. Kiel, West Germany: Soziologisches Seminar der Christian-Albrechts-Universitat.

1973. "Circulation of elites and constraints on intergenerational status transmission." International Review of Modern Sociology 3 (September): 152-167. (The published version contains many printing errors; for a corrected version, contact the author.)

1973. "Social distance as a metric: a systematic introduction to smallest space analysis" (by David D. McFarland and Daniel J. Brown). Pp. 213-253 in: E. O. Laumann. *Bonds of Pluralism: The Form and Substance of Urban Social Networks*. New York: Wiley.

1972. "Comparison of alternative marriage models." Pp. 89-106 in: T. N. E. Greville, ed. *Population Dynamics*. New York: Academic Press.

1971a. Abstract of *A Model of the Marriage Market*. Dissertation Abstracts International 32 (#11), publication # 72-14,940.

1971b. A Model of the Marriage Market, With Implications for Two-Sex Population Growth. (Doctoral dissertation, University of Michigan, Department of Sociology.) Ann Arbor:University Microfilms.

1970a. "Intragenerational social mobility as a Markov process: including a timestationary Markovian model that explains observed declines in mobility rates over time." *American Sociological Review 35* (June): 463-476.

1970b. "Effects of group size on the availability of marriage partners." *Demography* 7 (November): 411-415.

1969a. "Measuring the permeability of occupational structures: an information-theoretic approach." *American Journal of Sociology* 75 (July): 41-61.

1969b. "On the theory of stable populations: a new and elementary proof of the theorems under weaker assumptions." *Demography* 6 (August): 301-322.

SELECTED PRESENTATIONS:

2008. "Franklin H. Giddings a century ago: Mount Holyoke lecturer, American Sociological Society founder, and promoter of sociological computing with Adding Machines and Logarithms." American Sociological Association annual meeting, Boston.

2007. "Quarter-Squares Multiplication." Oughtred Society meeting, Computer History Museum, Mountain View, California.

2006. "Industrial Slide Rules: Proletarianizing the Skilled Machinist." American Sociological Association, Montreal.

2005-2006. "Development of Slide Rules for Machine Shop Management, and Downward Social Mobility of Machinists." Oughtred Society meetings, MIT Museum, Cambridge, Massachusetts, and Computer History Museum.

2005. "A Century of Sociological Computing: Some Highlights." American Sociological Association annual meeting, Philadelphia.

2004. "Non-Decimal Sums and Differences With Slide Rules and Allied Instruments." Oughtred Society meeting, Palo Alto, California.

2004. "Social Networks for Computing Advice: William F. Ogburn and Equipment Selection for an Early Computational Laboratory". American Sociological Association, San Francisco.

2003. "Adding Machines and Logarithms: Franklin H. Giddings and Computation for the Exact Science of Sociology." American Sociological Association annual meeting, Atlanta.

2002. "Pre-computer and Early Computer Tools and Techniques for Numerical, Textual, and Pictorial Information." Oughtred Society meeting, Palo Alto, California.

2002. "How Sociologists Once Computed: The Founding Era." American Sociological Association annual meeting, Chicago.

SELECTED UNPUBLISHED PAPERS

2008. "How Were Durkheim's Suicide Rates Calculated?".