

Professor Andrei Rogers  
Population Program, University of Colorado, Boulder, CO 80309-0484  
Curriculum Vitae (April, 2009)

I. EDUCATION

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| 1955 - 1960 | Bachelor of Architecture<br>University of California<br>Berkeley, California                                      |
| 1960 - 1964 | Doctor of Philosophy<br>City and Regional Planning<br>University of North Carolina<br>Chapel Hill, North Carolina |
| 1964 - 1965 | Post-doctoral student<br>Operations Research<br>University of California<br>Berkeley, California                  |

II. PROFESSIONAL EXPERIENCE

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| 1965 - 1970  | Assistant and Associate Professor<br>of City and Regional Planning<br>University of California<br>Berkeley, California   |
| 1967 (leave) | Town Planning Institute<br>Ljubljana, Yugoslavia (six months)  |
| 1969 (leave) | Federal Department of Housing and Urbanism<br>Rio de Janeiro, Brazil (six months)  |
| 1970 - 1975  | Professor of Civil Engineering and<br>Urban Affairs<br>Northwestern University<br>Evanston, Illinois   |
| 1975 - 1983  | Research Scholar<br>Human Settlements and Services Area<br>and Population Program<br>International Institute for Applied<br>Systems Analysis<br>Laxenburg, Austria |

1983 - 2008	Professor of Geography University of Colorado Boulder, Colorado
2003 - 2008	Research Scholar Population Program Institute of Behavioral Science University of Colorado Boulder, Colorado
2008 - present	Emeritus Professor of Geography University of Colorado Boulder, Colorado
2008 - present	Senior Research Associate Population Program Institute of Behavioral Science University of Colorado Boulder, Colorado

### III. ADMINISTRATION

1968 - 1970	Chairman, Ph.D. Committee Department of City and Regional Planning University of California Berkeley, California
1970 - 1975	Chairman, Educational Programs Committee Urban Systems Engineering Center Northwestern University Evanston, Illinois
1976 - 1983	Chairman (1976-1982) and Program Leader (1983) Human Settlements and Services Area (1976-1982) and the Population Program (1983) International Institute for Applied Systems Analysis Laxenburg, Austria
1983 - 2003	Director, Population Program and Chairman, Faculty Group in Demography Institute of Behavioral Science University of Colorado Boulder, Colorado

#### IV. PUBLICATIONS

##### A. BOOKS

1. Matrix Analysis of Interregional Population Growth and Distribution. University of California Press, Berkeley, 1968.
2. Matrix Methods in Urban and Regional Analysis. Holden Day, San Francisco, 1971.
3. Statistical Analysis of Spatial Dispersion. Pion, Ltd. and Methuen, London, 1974.
4. Introduction to Multiregional Mathematical Demography. John Wiley, New York, 1975.
5. Multidimensional Mathematical Demography, editor with K. Land. Academic Press, New York, 1982.
6. Migration, Urbanization, and Spatial Population Dynamics. Westview, Boulder, 1984.
7. Regional Population Projection Models. Sage, Beverly Hills, 1985.
8. Migration and Settlement: A Multiregional Comparative Study, editor with F. Willekens. Reidel, Dordrecht, 1986.
9. Elderly Migration and Population Redistribution: A Comparative Study, editor. Belhaven Press, London, 1992.
10. Multiregional Demography: Principles, Methods, and Extensions. John Wiley, London, 1995.

##### B. EDITOR OF SPECIAL JOURNAL ISSUES AND MONOGRAPHS

1. Migration and Settlement: Selected Essays (seven articles), special issue of Environment and Planning A X(5): 469-617, May 1978, reprinted as RR-78-6, International Institute for Applied Systems Analysis, Laxenburg, Austria, 1978.
2. Spatial Population Analysis: Methods and Computer Programs, RR-78-18, International Institute for Applied Systems Analysis, Laxenburg, Austria, 1978 (with F. Willekens).

3. Essays in Multistate Mathematical Demography (six articles), special issue of Environment and Planning A XII(5): 485-622, May 1980, reprinted as RR-80-10, International Institute for Applied Systems Analysis, Laxenburg, Austria, 1978.
4. Population, Resources, and Growth (five articles), special issue of IIASA Reports II(2):241-479, October-December, 1980.
5. Advances in Multiregional Demography (seven articles), RR-81-6, International Institute for Applied Systems Analysis, 1981; reprinted as a special issue of IIASA Reports IV(1):1-197, July-September, 1981.
6. Third World Migration and Urbanization: A Symposium (eight articles), special issue of Economic Development and Cultural Change XXX(3):463-696, April 1982 (with J.G. Williamson), reprinted as RR-82-24, International Institute for Applied Systems Analysis, Laxenburg, Austria, 1978.
7. Migracion y Asentamientos Humanos (six articles), special issue of Demografia y Economia XVI(3):265-481, 1982 (with L.J. Castro and R. Ham-Chande). In Spanish.
8. Urbanization and Development: Selected Essays (six articles), special issue of International Regional Science Review VII(2):97-247, October 1982, reprinted as RR-82-48, International Institute for Applied Systems Analysis, Laxenburg, Austria, 1978.
9. Multiregional Demography (four articles), special issue of Environment and Planning A, XV(12):1571-1652, December 1983, reprinted as RR-84-2, International Institute for Applied Systems Analysis, Laxenburg, Austria, 1978.
10. Elderly Migration: An International Comparative Study, Population Program, Institute of Behavioral Science, University of Colorado, Boulder, Colorado, 1988 (with William J. Serow).
11. Population Projections: Simple vs. Complex Models (six articles), special issue of Mathematical Population Studies, 5(3):187-292, 1995.
12. Immigration, Internal Migration, and the National Redistribution of the Elderly Population, Population Program, Institute of Behavioral Science, University of Colorado, Boulder, Colorado 1998.

13. The Indirect Estimation of Migration (four articles), special issue of Mathematical Population Studies, 7(3):181-309, 1999.

C. PARTS OF BOOKS, REPRINT SERIES, OR READERS

1. "Matrix Methods of Population Analysis," reprinted in Population Geography: A Reader (pages 137-143) edited by G.J. Demko, H.M. Rose, and G.A. Schnell. McGraw-Hill, New York, 1970.
2. "Theories of Intraurban Spatial Structure: A Dissenting View," reprinted in Internal Structure of the City (pages 210-215), edited by L.S. Bourne. Oxford University Press, London, 1971.
3. "The Multiregional Matrix Growth Operator and the Stable Interregional Age Structure," reprinted in the Bobbs-Merrill Reprint Series in the Social Sciences.
4. "Statistical Inference in Quadrat Analysis," reprinted in the Warner Modular Publications Series in Archeology (with N. Gomar).
5. "La Matriz Multiregional de Crecimiento y la Estructura por Edades Interregional Estable," reprinted in Migraciones Internas: Teoria, Metodo y Factores Sociologicos (pages 241-251), edited by J.C. Elizaga and J.J. Macisco, Jr. Centro Latinoamericano de Demografia, Santiago, 1975. In Spanish.
6. "Migration, Urbanization, Resources, and Development," in Alternatives for Growth: The Engineering and Economics of Natural Resources Development (pages 149-217), edited by H. McMains and L. Wilcox. Ballinger, Cambridge, 1978.
7. "Multidimensional Mathematical Demography: An Overview," in Multidimensional Mathematical Demography (pages 1-41), edited by K. Land and A. Rogers. Academic Press, New York, 1982 (with K. Land).
8. "Model Schedules in Multistate Demographic Analysis: The Case of Migration," in Multidimensional Mathematical Demography (pages 113-154), edited by K. Land and A. Rogers. Academic Press, New York, 1982 (with L.J. Castro).
9. "Multiregional Population Projections by Place of Previous Residence," in Multidimensional Mathematical Demography (pages 445-475), edited by K. Land and A. Rogers. Academic Press, New York, 1982 (with D. Philipov).

10. "The Migration Component in Subnational Population Projections," in National Migration Surveys, Manual X. Guidelines for Analyses (pages 216-255), Economic and Social Commission for Asia and the Pacific, United Nations, Bangkok, 1982.
11. "Multistate Demoeconomic Modeling and Projection," in Population Change and the Economy (pages 177-202), edited by A.M. Isserman. Kluwer-Nijhoff, Dordrecht, 1985 (with P. Williams).
12. "Introduction," in Migration and Settlement: A Multiregional Comparative Study (pages 3-17), edited by A. Rogers and F. Willekens. Reidel, Dordrecht, 1986 (with F. Willekens).
13. "Migration," in Migration and Settlement: A Multiregional Comparative Study (pages 157-208), edited by A. Rogers and F. Willekens. Reidel, Dordrecht, 1986 (with L.J. Castro).
14. "Population Projections," in Migration and Settlement: A Multiregional Comparative Study (pages 211-263), edited by A. Rogers and F. Willekens. Reidel, Dordrecht, 1986.
15. "A Short Course on Multiregional Mathematical Demography," in Migration and Settlement: A Multiregional Comparative Study (pages 355-384), edited by A. Rogers and F. Willekens. Reidel, Dordrecht, 1986 (with F. Willekens).
16. "Conclusion," in Migration and Settlement: A Multiregional Comparative Study (pages 457-466), edited by A. Rogers and F. Willekens. Reidel, Dordrecht, 1986.
17. "Assessing the United Nations Urbanization Projections for the Asian Pacific," in Population Structures and Models (pages 367-389), edited by R. Woods and P. Rees. George Allen and Unwin, London, 1986 (with J. Ledent).
18. "Time Series Analysis Forecasts of a Parameterised Mortality Schedule," in Advances in Regional Demography: Forecasts, Information, Models, (pages 107-123), edited by P. Congdon and P. Batey. Belhaven Press, London, 1989 (with R. McNown).
19. "Introduction," in Elderly Migration and Population Redistribution: A Comparative Study, (pages 1-15), edited by A. Rogers. Belhaven Press, London, 1992.

20. “Elderly Migration and Population Redistribution in the United States,” in Elderly Migration and Population Redistribution: A Comparative Study, (pages 226-248), edited by A. Rogers. Belhaven Press, London, 1992.
21. “What the Age Composition of Migrants Can Tell Us,” in Readings in Population Research Methodology, vol. 4, ch. 14 (pages 14-79 to 14-95), edited by D.J. Bogue, E.E. Arriaga, and D.L. Anderton. Social Development Center, Chicago, 1993 (with L.J. Castro).
22. “Assessing the United Nations Urbanization Projections for the Asian Pacific,” in Readings in Population Research Methodology, vol. 5, ch. 18 (pages 18-22 to 18-27), edited by D.J. Bogue, E.E. Arriaga, and D.L. Anderton. Social Development Center, Chicago, 1993 (with J. Ledent).
23. “Introduction to Multistate Mathematical Demography,” in Readings in Population Research Methodology, vol. 6, ch. 22 (pages 22-3 to 22-12), edited by D.J. Bogue, E.E. Arriaga, and D.L. Anderton. Social Development Center, Chicago, 1993.
24. “Parameterized Multistate Population Dynamics and Projections,” in Readings in Population Research Methodology, vol. 6, ch. 22 (pages 22-83 to 22-96), edited by D.J. Bogue, E.E. Arriaga, and D.L. Anderton. Social Development Center, Chicago, 1993.
25. “Combating Demographic Innumeracy with Social Accounting Principles: Heterogeneity, Selection, and the Dynamics of Interdependent Populations,” in Social and Demographic Accounting, (pages 180-194) edited by G.J.D. Hewings and M. Madden. Cambridge University Press, Cambridge, 1995.
26. “Back to the Future: Projecting California’s Population 30 Years Ago,” in 50 Years of City and Regional Planning at UC Berkeley: A Celebratory Anthology of Faculty Essays, (pages 377-384), edited by S. Lowney and J. D. Landis, Berkeley, CA: NSQ Press, 1998.
27. “Applying Model Migration Schedules to Represent Age-Specific Migration Flows,” in International Migration in Europe: Data, Models and Estimates, (pages 175-192), eds. J. Raymer and F.J. Willekens (Chichester: Wiley), 2008 (with J. Raymer).

#### D. JOURNAL ARTICLES

1. "A Stochastic Analysis of the Spatial Clustering of Retail Establishments." Journal of the American Statistical Association, LX(312):1095-1103, 1965.
2. "Matrix Methods of Population Analysis." Journal of the American Institute of Planners, XXXII(1):40-44, 1966.
3. "The Multiregional Matrix Growth Operator and the Stable Interregional Age Structure." Demography, III(2):537-544, 1966.
4. "A Note on the Temporal Decomposition of Interpoint Transition Matrices." Journal of Regional Science, VI(2):53-56, 1966.
5. "A Note on the Garin-Lowry Model." Journal of the American Institute of Planners, XXXII(6):364-366, 1966.
6. "Theories of Intraurban Spatial Structure: A Dissenting View." Land Economics, XLIII(1):108-112, 1967.
7. "A Regression Analysis of Interregional Migration in California." Review of Economics and Statistics, XLIX(2):262-267, 1967.
8. "Estimating a Matrix Population Growth Operator from Distributional Time Series." Annals of the Association of American Geographers, LVII(4):751-756, 1967 (with R. Miller).
9. "Estimating Interregional Population and Migration Operators from Interregional Population Distributions." Demography, IV(2):515-531, 1967.
10. "Statistical Inference in Quadrat Analysis." Geographical Analysis, I(4):370-384, 1969 (with N. Gomar).
11. "Quadrat Analysis of Urban Dispersion: 1. Theoretical Techniques." Environment and Planning, I(1):47-80, 1969.
12. "Quadrat Analysis of Urban Dispersion: 2. Case Studies of Urban Retail Systems." Environment and Planning, I(2):155-171, 1969.
13. "On Perfect Aggregation in the Matrix Cohort-Survival Model of Interregional Population Growth." Journal of Regional Science, IX(3):417-424, 1969.

14. "Estimation of Interregional Migration Streams from Place-of-Birth-by-Residence Data." Demography, VIII(2):185-194, 1971 (with B. von Rabenau).
15. "Quadrat Analysis of Urban Dispersion: 3. Bivariate Models." Environment and Planning, III(3):433-450, 1971 (with J. Martin).
16. "Quadrat Analysis of Urban Dispersion: 4. Spatial Sampling." Environment and Planning, IV(3):331-345, 1972 (with R. Raquillet).
17. "The Multiregional Life Table." Journal of Mathematical Sociology, III(1):127-137, 1973.
18. "The Mathematics of Multiregional Demographic Growth." Environment and Planning, V(1):3-29, 1973.
19. "Estimating Internal Migration from Incomplete Data Using Model Multiregional Life Tables." Demography, X(2):277-287, 1973.
20. "The Multiregional Net Maternity Function and Multiregional Stable Growth." Demography, XI(3):473-481, 1974.
21. "Increment-Decrement Life Tables: A Comment." Demography, XIII(2):287-290, 1976 (with J. Ledent), and "Rejoinder." Demography, XIV(4):593, 1977 (with J. Ledent).
22. "Shrinking Large-Scale Population-Projection Models by Aggregation and Decomposition." Environment and Planning A, VIII(6):515-541, 1976.
23. "Model Migration Schedules and Their Applications." Environment and Planning A, X(5): 475-502, 1978 (with R. Raquillet and L.J. Castro).
24. "The Spatial Reproductive Value and the Spatial Momentum of Zero Population Growth." Environment and Planning A, X(5):503-518, 1978 (with F. Willekens).
25. "Model Migration Schedules: An Application Using Data for the Soviet Union." Canadian Studies in Population, V:85-98, 1978.
26. "Migration Patterns and Population Redistribution." Regional Science and Urban Economics, VIII:1-36, 1979.

27. "Introduction to Multistate Mathematical Demography." Environment and Planning A, XII(5):489-498, 1980.
28. "Migration, Urbanization, Resources and Development." Ekistics, 284:312-324, 1980.
29. "Multiregional Models for Subnational Population Projections." Sistemi Urbani, (2/3):151-170, 1980 (with D. Philipov).
30. "Multistate Population Projections." IIASA Reports, IV(1):51-82, 1981 (with D. Philipov).
31. "Age Patterns of Migration: Cause-Specific Profiles." IIASA Reports, IV(1):125-159, 1981 (with L.J. Castro).
32. "Model Migration Schedules." IIASA Reports, IV(2):239-289, 1981 (with L.J. Castro).
33. "Simplified Multiple Contingency Calculations." The Journal of Risk and Insurance, XLIX(1):59-72, 1982 (with N. Keyfitz).
34. "Migration, Urbanization, and Third World Development: An Overview." Economic Development and Cultural Change, XXX(3):463-482, 1982 (with J.G. Williamson).
35. "Sources of Urban Population Growth and Urbanization, 1950-2000: A Demographic Accounting." Economic Development and Cultural Change, XXX(3):483-506, 1982.
36. "Patrones Modelo de Migracion." Demografia y Economia, XVI(3):267-327, 1982 (with L.J. Castro). In Spanish.
37. "Migracion, Urbanizacion y Desarrollo." Demografia y Economia, XVI(3):377-398, 1982. In Spanish.
38. "Patterns of Family Migration: Two Methodological Approaches." Environment and Planning A, XV(2): 237-254, 1983 (with L.J. Castro).
39. "What the Age Composition of Migrants Can Tell Us." Population Bulletin of the United Nations, No. 15:66-79, 1983 (with L.J. Castro).
40. "Migration and Settlement: A Multiregional Comparative Study." Environment and Planning A, XV(12):1585-1612, 1983 (with F. Willekens and J. Ledent).

41. "Parameterized Multistate Population Dynamics and Projections." Journal of the American Statistical Association, LXXXI(393):48-61, 1986.
42. "Spatial Dynamics of Populations with Changing Birth, Death, and Migration Rates: A Generalization of Multiregional Stable Population Theory." Environment and Planning A, XIX(6): 819-828, 1987 (with J. Ledent).
43. "General Versus Elderly Interstate Migration and Population Redistribution in the United States." Research on Aging, IX(4):483-529, 1987 (with J. Watkins).
44. "Stable Growth in Native-Dependent Multistate Population Dynamics." Mathematical Population Studies, I(2):27-41, 1988 (with J. Ledent).
45. "Age Patterns of Elderly Migration: An International Comparison." Demography, 25(3):355-370, 1988.
46. "The Sources of Regional Elderly Population Growth: Migration and Aging-in-Place." The Professional Geographer, 40(4):450-459, 1988 (with J. Woodward).
47. "The Elderly Mobility Transition: Growth, Concentration, and Tempo." Research on Aging, 11(1):3-32, 1989.
48. "A Multistate Analysis of Active Life Expectancy." Public Health Reports, 104(3):222-226, 1989 (with R. Rogers and L. Branch).
49. "Forecasting Mortality: A Parameterized Time Series Approach." Demography, 26(4):645-660, 1989 (with R. McNown).
50. "Interstate Differentials in Mortality in the United States: A Parameterized Description." Espace, Populations, Societes, 3:327-336, 1989 (with K. Gard).
51. "Active Life Among the Elderly in the United States: Multistate Life Table Estimates and Population Projections." The Milbank Quarterly, 67(3/4):370-411, 1989 (with R. Rogers and A. Belanger).
52. "The Importance of Place of Birth in Migration and Population Redistribution Analysis." Environment and Planning A, 22(2):193-210, 1990 (with A. Belanger).

53. "Return Migration to Region of Birth Among Retirement-Age Persons in the United States." Journal of Gerontology, 45(3):128-134, 1990.
54. "Interregional Elderly Migration and Population Redistribution in Four Industrialized Countries: A Comparative Analysis." Research on Aging, 12(3):251-293, 1990 (with J. Watkins and J. Woodward).
55. "Requiem for the Net Migrant." Geographical Analysis, 22(4):283-300, 1990.
56. "The Multistate Stable Population Model with Immigration." Mathematical Population Studies, 2(4):313-324, 1990.
57. "Longer Life But Worse Health? Measurement and Dynamics." The Gerontologist, 30(5):640-649, 1990 (with R. Rogers and A. Belanger).
58. "Applications of the Heligman-Pollard Model Mortality Schedule." Population Bulletin of the United Nations, 30:79-105, 1991 (with K. Gard).
59. "Assessing State Population Projections with Transparent Multiregional Demographic Models." Population Research and Policy Review, 10:1-26, 1991 (with J. Woodward).
60. "Espérance de vie autonome, en perte d'autonomie et en institution parmi la population âgée des États-Unis." Cahiers Québécois de Démographie, 20(2):269-289, 1991 (with R. Rogers and A. Belanger).
61. "Disability-Free Life Among the Elderly in the United States: Sociodemographic Correlates of Functional Health." Journal of Aging and Health, 4(1):19-42, 1992 (with R. Rogers and A. Belanger).
62. "Heterogeneity and Selection in Multistate Population Analysis." Demography, 29(1):31-38, 1992.
63. "Tempos of Elderly Age and Geographical Concentration." The Professional Geographer, 44(1):72-83, 1992 (with J. Woodward).
64. "Heterogeneity, Spatial Population Dynamics, and the Migration Rate." Environment and Planning A, 24(6):775-791, 1992.

65. "The Internal Migration and Spatial Redistribution of the Foreign-born Population in the United States: 1965-1970 and 1975-1980." International Migration Review, 26(3):1342-1369, 1992 (with A. Belanger).
66. "Forecasting Cause-Specific Mortality Using Time Series Methods." International Journal of Forecasting, 8:413-432, 1992 (with R. McNown).
67. "Forecasting Fertility: An Application of Time Series Methods to Parameterized Model Schedules." Social Science Research, 22:1-23, 1993 (with C. Knudsen and R. McNown).
68. "Changing Patterns of Interregional Migration and Population Redistribution in the United States: A Cohort Perspective." Espace, Populations, Societes, 1:35-46, 1993 (with C. Hemez-Descryve).
69. "Parameterizing Age Patterns of Demographic Rates with the Multiexponential Model Schedule." Mathematical Population Studies, 4(3):175-194, 1994 (with J. Little).
70. "Population Forecasting: Do Simple Models Outperform Complex Models?" Mathematical Population Studies, 5(3):187-202, 1995.
71. "Simplicity and Complexity in Extrapolative Population Forecasting Models." Mathematical Population Studies, 5(3):235-257, 1995 (with R. McNown and J. Little).
72. "Representing Structural Change in U.S. Migration Patterns." Geographical Analysis, 28(1):1-17, 1996 (with R. Taylor-Wilson).
73. "Period and Cohort Age Patterns of U.S. Migration, 1948-1993: Are American Males Migrating Less?" Population Research and Policy Review, 16:513-530, 1997 (with S. Rajbhandary).
74. "Measuring the Spatial Focus of Migration Patterns." The Professional Geographer, 50(2):232-242, 1998 (with S. Sweeney).
75. "The Spatial Focus of U.S. Interstate Migration Flows." International Journal of Population Geography, 4:63-80, 1998 (with J. Raymer).

76. "The Regional Demographics of the Elderly Foreign-Born and Native-Born Populations in the United States Since 1950." Research on Aging, 21(1):3-35 1999 (with J. Raymer).
77. "Fitting Observed Demographic Rates with the Multiexponential Model Schedule: An Assessment of Two Estimation Programs." Review of Urban and Regional Development Studies, 11(1):1-10, 1999 (with J. Raymer).
78. "Estimating the Regional Migration Patterns of the Foreign-Born Population in the United States: 1950-1990." Mathematical Population Studies, 7(3):1-35, 1999 (with J. Raymer).
79. "The Internal Migration Patterns of the Foreign-Born and Native-Born Populations in the United States: 1975-80 and 1985-90." International Migration Review, 33(2):403-429, 1999 (with S. Henning).
80. "The Neutral Migration Process, Redistributive Potential, and Shryock's Preference Indices," The Journal of Population Studies (Published by the Population Association of Japan), 25(12):3-14, 1999 (with K.L. Liaw).
81. "Disaggregating the Historical Demographic Sources of Regional Foreign-Born and Native-Born Population Growth in the United States: A New Method with Applications," International Journal of Population Geography, 5:449-475, 1999 (with J. Little and J. Raymer).
82. "Immigration and the Regional Demographics of the Elderly Population in the United States," Journal of Gerontology: Social Sciences, 56B(1):S44-S55, 2001 (with J. Raymer).
83. "Modeling Interregional Migration Flows: Continuity and Change," Mathematical Population Studies, 9:231-263, 2001 (with F. Willekens and J. Raymer).
84. "Describing Migration Spatial Structure," Papers in Regional Science, 81:29-48, 2002 (with F. Willekens, J. Little, and J. Raymer).
85. "Capturing the Age and Spatial Structures of Migration," Environment and Planning A, 34:341-359, 2002 (with F. Willekens and J. Raymer).

86. "Imposing Age and Spatial Structures on Inadequate Migration Flow Data Sets," Professional Geographer, 55(1):57-70, 2003 (with F. Willekens and J. Raymer).
87. "Reconciling and Translating Migration Data Collected Over Time Intervals of Differing Widths," Annals of Regional Science, 33:581-601, 2003 (with J. Raymer and K.B. Newbold).
88. "Estimating Migration Flows from Birthplace-Specific Population Stocks of Infants," Geographical Analysis, 36(1):38-53, 2004 (with L. Jordan).
89. "Model Migration Schedules: Three Alternative Linear Parameter Estimation Methods," Mathematical Population Studies, 12:17-38, 2005 (with L.J. Castro and M. Lea).
90. "Origin Dependence, Secondary Migration, and the Indirect Estimation of Migration Flows from Population Stocks," Journal of Population Research, 22(1):1-19, 2005 (with J. Raymer).
91. "Estimating Directional Migration Flows from Age-Specific Net Migration Data," Review of Urban and Regional Development Studies, 17(3):177-196, 2005 (with J. Liu).
92. "Inferring Migration Flows from the Migration Propensities of Infants: Mexico and Indonesia," The Annals of Regional Science, 41:443-465, 2007 (with B. Jones, V. Partida, S. Muhidin).
93. "Using Age and Spatial Flow Structures in the Indirect Estimation of Migration Streams," Demography, 44(2):199-223, 2007 (with J. Raymer).
94. "What Can the Age Composition of a Population Tell Us About the Age Composition of Its Out-Migrants?" Population, Space and Place, 13(1):23-39, 2007 (with J. S. Little).
95. "Demographic Modeling of the Geography of Migration and Population: A Multiregional Perspective." Geographical Analysis 40(3):276-296, 2008.
96. "Inferring Directional Migration Propensities from the Migration Propensities of Infants in the United States," Mathematical Population Studies 15(3):182-211, 2008 (with B. Jones).

E. PAPERS PUBLISHED IN CONFERENCE PROCEEDINGS

1. "The Research Implications of Real-Time Urban Information Systems." Proceedings of the Third Annual Conference on Urban Planning Information Systems and Programs (pages 11-22) September 1965.
2. "A Markovian Policy Model of Interregional Migration." Papers of the Regional Science Association (pages 205-224) American Meetings, Philadelphia (1965) XVII, 1966.
3. "Sensitivity Tests of a Model of Population Growth in California Regions." Papers and Proceedings of the Regional Science Association, Western Section Papers (pages 180-195), Santa Barbara, January 1966.
4. "A Markovian Analysis of Migration Differentials." Proceedings of the Social Statistics Section of the American Statistical Association (pages 452-466), Los Angeles, August 1966.
5. "Experiments with a Matrix Model of Population Growth and Distribution." The Proceedings of the Fourth International Conference on Operations Research (pages 490-496), edited by D.B. Hertz and J. Melese. John Wiley, New York, 1966.
6. "Matrix Analysis of Interregional Population Growth and Distribution." Papers of the Regional Science Association (pages 177-196). European Congress, Vienna, (1966) XIII, 1967.
7. "Consistent Forecasting of Regional Demographic- Economic Growth." Proceedings of the Sixth Hawaii International Conference on Systems Sciences, second supplement (pages 86-89). Western Periodicals, Los Angeles, 1973 (with R. Walz).
8. "Spatial Population Dynamics." Papers of the Regional Science Association (pages 3-34). European Congress, Budapest, (1975) XXXVI, 1976 (with F. Willekens).
9. "Multiregional Population Projection." Optimization Techniques: Modeling and Optimization in the Service of Man, Part I (pages 31-58), edited by J. Cea. Proceedings of the 7th IFIP Conference, Nice. Springer Verlag, Berlin, 1976 (with J. Ledent).

10. "Demometrics of Migration and Settlement." Theory and Method in Urban and Regional Analysis (pages 1-30), edited by P.W.J. Batey. Proceedings of the 9th Annual Conference of the Regional Science Association, British Section. Pion, Ltd., London, 1978.
11. "The Formal Demography of Migration and Population Redistribution: Measurement and Dynamics." In Chaire Quetelet '78, Approch Systemique en Sciences de la Population (pages 65-118). Ordina Editions, Liege, 1978.
12. "Migration, Urbanization, and Development." IIASA Conference '80, Applied Systems Analysis: From Problem Through Research to Use (pages 85-101). International Institute for Applied Systems Analysis, Laxenburg, Austria, 1981.
13. "Interstate Elderly Migration and Population Redistribution in the United States." Proceedings of the 1987 National Public Health Conference on Records and Statistics (pages 261-265). U.S. Department of Health and Human Services, Washington, D.C., 1987.

## V. EXTRAMURAL GRANTS

(since moving to Colorado in September 1983 from Austria)

1. National Institute on Aging (SSP-AG05168).  
 "Migration of the Elderly: A Multinational Comparative Study."  
 Amount: \$159,116, December 1, 1984-November 30, 1985.  
 \$156,045, December 1, 1985-November 30, 1986.  
 (no cost extension to May 31, 1988)
2. National Science Foundation (SES-8409054).  
 "Consistent Multiregional Population Projections for the 50 U.S. States, the District of Columbia, Puerto Rico, and Major Consolidated Metropolitan Statistical Areas."  
 Amount: \$81,415, February 1, 1985-July 31, 1987.  
 (no cost extension to January 31, 1988)
3. National Institute on Aging (SSP-AG06287).  
 "International Conference on Elderly Migration."  
 Amount: \$21,454, August 1, 1986-July 31, 1987.  
 (no cost extension to December 31, 1987)

4. National Science Foundation (SES-8705591).  
 “Spatial Population Dynamics: Analysis and Forecasting.”  
 Amount: \$33,909, August 1, 1987-January 31, 1989.  
 \$40,317, August 1, 1988-January 31, 1990.  
 (no cost extension to July 31, 1990)
5. National Institute on Aging (SSP-AG06992).  
 “Forecasting Active Life Expectancy and Population.”  
 Amount: \$59,750, July 1, 1988-June 30, 1989.  
 (no cost extension to June 30, 1990)
6. National Institute on Aging (SSP-AG09737).  
 “International Conference on Elderly Migration and Settlement.”  
 Amount: \$17,460, April 1, 1991-March 31, 1992.  
 (no cost extension to August 31, 1992)
7. National Institute of Child Health and Human Development (HSS-  
 IRO1HD34092). “Spatial Redistribution of the Foreign-Born Population.”  
 Amount: \$192,202, May 1, 1996-April 30, 1999.  
 (no cost extension to April 30, 2000)
8. National Institute on Aging (HSS-1R3AGHD34092).  
 “Third Colorado Conference on Elderly Migration.”  
 Amount: \$20, 524, June 1, 1997-May 31, 1998.  
 (no cost extension to May 31, 1999)
9. National Science Foundation (BCS-9986203).  
 “Age and Spatial Interaction and the Indirect Estimation of Migration.”  
 Amount: \$90,581, June 1, 2000 - May 31, 2002.  
 (no cost extension to May 31, 2003)
10. National Science Foundation (BCS-SES024808).  
 “Estimating Migration Flows from Population Stocks”  
 Amount: \$48,000, June 1, 2003 – May 31, 2005  
 (two no-cost extensions to May 31, 2007)
11. National Institute of Child Health and Human Development and  
 National Institute on Aging (HSS-1R13HD045300-01)  
 “Colorado Conference on the Estimation of Indirect Migration”  
 Amount: \$16,000, September 15, 2003-August 31, 2005
12. National Institute of Child Health and Human Development (HSS-  
 1R03HD048561)  
 “The Indirect Estimation of Migration”  
 Amount: \$150,000, December 15, 2004-November 30, 2006  
 (two no-cost extensions to November 30, 2008)

## VI. COURSES TAUGHT

(since moving to Colorado in September 1983 from Austria)

1. Geography 4023/5023  
Introduction to Quantitative Methods in Geography.
2. Geography 4292/5292  
Migration, Urbanization, and Development
3. Geography 4732/5732  
Population Geography
4. Geography 6732  
Formal Population Geography: Analysis and Forecasting

## VII. GRADUATE STUDENTS (Principal Advisor)

(since moving to Colorado in September 1983 from Austria)

1. John F. Watkins (1983-1986)  
Ph.D. dissertation: Migration of the Elderly in the United States: A Multiregional Analysis.
2. Jennifer Woodward (1985-1990)  
M.A. thesis: Aging-in-Place and Migration as Sources of Projected Elderly Population Growth: An Analysis for Arizona, California, Florida, and New York.  
Ph.D. dissertation: The Economic Status of the Elderly: A Geographical Perspective.
3. Chaoze Cheng (1986-1987)  
M.A. thesis: The Fertility Transition in China.
4. Alain Belanger (1986-1990)  
Ph.D. dissertation: Analysis of Sequences of Household Migration in the United States.
5. Katherine Gard (1987-1989)  
M.A. thesis: Mortality in the United States: An Investigation of Mortality by Age, Cause, Race, and Sex.

6. Paul Lorah (1989-1991)  
M.A. thesis: Quantifying the Demographic Impact of Migration on the Elderly Population: Methods for Measuring the Sources of Population Growth.
7. Cecile Hemez (1990-1993)  
M.A. thesis: The Effect of Urban/Rural Migration on Fertility: The Case of Post World War II France.
8. Robin Taylor-Wilson (1993-1994)  
M.A. thesis: Poverty or Development? Regional Analysis of HIV Prevalence in Sub-Saharan Africa.
9. Sabine Henning (1993-1997)  
Ph.D. dissertation: The Internal Migration of the Foreign-Born Population in the United States: 1985-1990.
10. Jani Little (1995-2000)  
Ph.D. dissertation: The Context of Successful Mixing: Mexicans and Anglos in the Southwest, 1980-1990.
11. James Raymer (1997-2003)  
M.A. thesis: Migration in High Immigrant Concentration Areas: Are There Unique Patterns Among U.S. Native-Born Non-Hispanic Whites with Low Education?  
Ph.D. dissertation: The Estimation of Place-to-Place Migration Flows.
12. Junwei Liu (2004-2005)  
M.A. thesis: Estimating Directional Migration Flows Indirectly Using Age-Specific Net Migration Data: A Case Study of Mexico.
13. Lisa Jordan (2001-2006)  
Ph.D. dissertation: Religion and Demography in the United States: A Geographical Analysis.
14. Bryan Jones (2005-2006)  
Ph.D. student