

Larry Sawers
Statement of Interest for the Advanced Study Institute on
Mathematical Modeling of Infectious Diseases

I am applying to participate in the Advanced Study Institute on Mathematical Modeling of Infectious Diseases in Africa in Cape Town, June 11–22. I understand that the original conception of the institute was that only graduate students would attend. Those who are well beyond graduate school sometimes need retooling, so I submit my application with the hopes that you might allow those who are only graduate students at heart participate.

I am a development economist whose published work has been mostly about diverging development paths taken by different regions within developing countries (Tanzania, Argentina, Ecuador, and Lithuania) and whose teaching has focused on the macroeconomics of development. In recent years, however, my attention has been increasingly drawn to the intolerable burden that disease places on developing countries. More specifically, I have taken an interest in the link between HIV and cofactors that depress immune response and elevate viral load but are also linked to poverty. The latter include, for example, malnutrition that results from food insecurity, diseases such as malaria that result from the inadequate housing in which poor people are forced to live, and schistosomiasis and helminthic infections that result from drinking, washing, and bathing in unsafe water.

My current research relies on a cross-national regression analysis with HIV prevalence as the independent variable. Regressors include measures of many of the variables suggested in the preceding paragraph. While I am able to generate heart-warming t statistics and R-squares, I am frustrated by the inability of the regression model to capture the realities of epidemic dynamics. Regression analysis can only in the most clumsy ways deal with nonlinearities and interactions. The next step for me would be to add some more up-to-date mathematics to my approach, and that is where your institute comes into the picture.

I will be in Botswana beginning June 1 working with colleagues who will be collecting data on cofactors and HIV. After helping with the pretest of the questionnaire, I am free to attend the institute beginning June 11. If you find that you do not have room for me in the second week of the institute, I would still like to attend the first week. My travel to and within Botswana and South Africa is covered by other funding sources, but I would appreciate help with local expenses during the institute. My colleague, Prof. Eileen Stillwaggon, has also applied to the institute, and we would be happy to share a room. (We've been married for 30 years.)

Statement of Commitment: The point of going to the institute is acquire new skills that I can put to use in analyzing the spread of disease in developing countries. I am committed to producing the research using the newly acquired skills and then getting my work published.

LARRY SAWERS

Curriculum Vitae

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PERSONAL

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Date of Birth: May 28, 1942
Citizenship: United States

EDUCATION

Ph.D., University of Michigan, Economics, 1969
M.A., University of Michigan, Economics, 1966
B.A., Duke University, Economics, 1964

POSITIONS HELD

Professor, American University, 1980 to present.
Visiting Lecturer, EuroFaculty, Vilnius University, Vilnius, Lithuania, 2003.
Lecturer, Pontificia Universidad Católica del Ecuador, Quito, Ecuador, 1999.
Chair, Department of Economics, 1995–1996, 2000–2004.
Director, American University Semester Abroad in Buenos Aires, 1987, 1989, 1991–1993; in Madrid, 1993.
Investigador Visitante, Instituto Torcuato di Tella, Buenos Aires, Argentina, 1991–1993.
Lecturer in Economics, University of Dar es Salaam, Dar es Salaam, Tanzania, 1984–1985.
Associate Professor, American University, 1974–1980.
Assistant Professor, American University, 1969–1974.

HONORS AND AWARDS

Senior Fulbright Lectureship, 2003, University of Lithuania, Eurofaculty, Vilnius, Lithuania

Fulbright Research and Lecturing Award, Pontificia Universidad Católica del Ecuador and Universidad Central, Quito, Ecuador, 1999–2000.

Senior Fulbright Lectureship, 1984–1985, Department of Economics, University of Dar es Salaam, Tanzania.

SELECTED BOOKS

The Other Argentina: Underdevelopment in the Interior and the Crisis of the Argentine Economy, Westview Press, 1996.

Emerging Financial Markets in the Global Economy, edited with David Nickerson and Daniel Schydrowsky. World Scientific Publishing Company, March 2000.

REFEREED ARTICLES IN SCHOLARLY JOURNALS

"Urban Poverty and Labor Force Participation," *American Economic Review*, **62** No.3, 414–421, 1972.

"Activities of the Government and the Distribution of Income in the United States," *Review of Income and Wealth*, **21** No.1, 111–124, 1975, with Howard Wachtel.

"Poverty Weighted Measures of Social Welfare Change," *World Development*, **16** No.8, 899–90, 1988.

"Urban Primacy in Tanzania," *Economic Development and Cultural Change*, **37** No.4, 841–859, 1989.

"The Navigation Acts Revisited," *Economic History Review*, **45** No. 2, 262–284, 1992.

"La agricultura y estancamiento económico en la Argentina en el siglo XX," (Agriculture and Economic Stagnation in 20th Century Argentina), *Ciclos en la historia, la economía y la sociedad*, Vol.4 (Universidad de Buenos Aires), 1994.

"Farm Size, Productivity, and Public Policy in the Argentine Interior," *Journal of Developing Areas*, **33** No.1, 121–150, 1998.

"Income Distribution and Environmental Degradation in the Argentine Interior," *Latin American Research Review*, **35** No.2, 3–33, 2000.

"Structural Reform and Industrial Promotion in Argentina," *Journal of Latin American Studies*, **33** , 101–132, 2001, with Raquel Massacane.

"U.S. Army Procurement of Draft and Pack Animals," *Eastern Economic Journal*, **29** No. 1, 59–67, 2003.

"The Mule, the South, and Economic Progress," *Social Science*, **28** No. 4, 667–690, 2004.

"Nontraditional or New Traditional Exports: Ecuador's Flower Boom," *Latin American Research Review*, **40** No. 3, 40–67, 2005.

"Sustainable Floriculture in Ecuador," *International Journal of Economic, Social, and Environmental Sustainability*, **1** No. 2, 3–9, 2006.

"Inequality and the Transition: Regional Development in Lithuania," *Baltic Journal of Economics* **6** No.1, 37–51, 2006.

OTHER PUBLICATIONS

"The Navigation Acts," *Oxford Encyclopedia of Economic History*, edited by Joel Mokyr, 2003.

PUBLICATIONS IN PROGRESS

Economic Development Policy. Ten chapters of this textbook are in draft.

"Explaining HIV Prevalence in Developing Countries: An Econometric Analysis."

"The Macroeconomic Analysis of the Impact of HIV/AIDS on Per Capita GDP in Africa.."