

Proposal for a Multidisciplinary Initiative in Population and Health

Submitted by
the College of Social and Behavioral Sciences;
and its partners in the School of Public Health
and the Colleges of Human Ecology and Nursing

for the Provost's Targeted Investment in Excellence Initiative

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Executive Summary

With the aging of the industrialized world's population, the spectacular advances in medicine, the spiraling costs for health care, and the differential access to effective health care among different populations, the interrelated issues of population and health have moved to the center stage of attention in modern times. Social and behavioral scientists are increasingly involved in addressing these issues from the perspectives of both the macro-level study of health across various populations and the micro-level study of individual health behaviors. Many researchers in the College of Social and Behavioral Sciences (SBS), often in collaboration with colleagues in other Ohio State colleges, have been involved in studying issues of health and well-being from each perspective. SBS's NIH-funded Initiative in Population Research (IPR), in growing collaboration with SBS's Center for Human Resource Research, has played an important role in supporting these research efforts. This proposal capitalizes on Ohio State's "critical mass" of scientists who study population and health and on the IPR's programmatic focus, which is distinctive in involving both micro and macro-level researchers. Commitments to new faculty positions by eight SBS departments/schools, Public Health, Human Ecology, and Nursing, plus added investments by SBS in four targeted departments, promise to propel Ohio State to national leadership in the social and behavioral study of population and health. The College of Social and Behavioral Sciences will provide \$1,259,394 in annual rate and \$1,814,000 in cash to support this initiative, and its partners outside of SBS are adding \$309,000 in annual rate and \$90,000 in cash. We request an additional \$600,000 in annual rate and \$650,000 in cash from the Office of Academic Affairs to upgrade faculty positions to the senior level in the core departments so that the initiative's impact can be realized more quickly and more widely, both on campus and across the nation. These investments will increase the national reputations of four SBS core departments; their partners; and, given the centrality of the four core departments to university reputations, the University. They also will increase the University's prospects for receiving an NICHD population center grant and enable Ohio State to play a larger role in dealing with health care issues in the community, the nation, and the world.

Introduction: The Multidisciplinary Study of Population and Health

The multidisciplinary integration of population and health under one rubric is widely accepted in the social and behavioral sciences. It is recognized by the National Institutes of Health (NIH) through its various institutes and research programs, and at Ohio State through faculty research and collaborations. NIH uses the term "population" to refer to "processes that determine population size, growth, composition and distribution, and on the determinants and consequences of those processes."¹ Population thus subsumes a wide range of research on human behavior – from, e.g., macro analyses of the causes and implications of classic population processes (mortality and morbidity, fertility, and migration) to micro-level analyses of death, health and well being, child-bearing/rearing, and migration. Health research includes the social, spatial, psychosocial, and biological/neurological bases of health and health-determining behaviors (e.g., mental and physical health, violence, deviance, and drug use) as well as aspects of health services provision and policy such as the leadership and organization of health care, the economics of health care, mass media effectiveness in health campaigns, and doctor-patient interactions.

A multidisciplinary perspective is becoming increasingly necessary in the study of population and health, for both researchers and students. Leading funding agencies are progressively recognizing the benefits of an interdisciplinary approach toward population and health problems, interventions, and results. Evaluations of proposals are increasingly multidisciplinary; narrowly-based proposals are at a distinct disadvantage in funding competitions. For these reasons, National Institute on Child Health and Human Development (NICHD) funded population research centers contain faculty from a wide array of disciplines. The key disciplines include Sociology, Economics, Anthropology, Geography, Political Science, Communication, and Psychology from the social and behavioral sciences, plus Public Health, Epidemiology, Human Ecology, Nutrition, and Nursing.

Foundations for an Initiative in Population and Health at Ohio State

Ohio State University has the opportunity to become a national and international leader in social and behavioral science studies of health and population. The University already possesses considerable strength in the area. Its researchers examine the behavioral and social factors that impact human health from a variety of perspectives, ranging from individual interventions to large-scale studies of groups and populations, and using a variety of methodologies. This breadth of perspectives yields research insights beyond those available in studies with a more limited or disciplinary-based focus. Their research has already improved the quality of life for people in Ohio, the nation, and the world, and it has the potential to accomplish even more.

The College of Social and Behavioral Sciences contains a “critical mass” of faculty who study population and health, including tenured professors² with funded research and strong publication records and a large cohort of highly promising assistant professors. This is the result of SBS investments in this area over many years. Most recently, e.g., SBS established the Initiative

¹ Quoted from the mission statement of NICHD’s Demographic and Behavioral Sciences Branch.

² They include Light, Olsen, Reagan, and Steckel in Economics; Anderson, Berntson, Bruno, Emery, Nelson, Thayer, Vasey, and Wenk in Psychology; Cooksey, Hodson, Kaufman, Keister, Krivo, Menaghan, Moody, Qian, and Roscigno in Sociology; Larsen and Sciulli in Anthropology; Cegala and Slater in Communication; Kwan and Murray in Geography; Box-Steffensmeier in Political Science; and Feth, Fox, and Nittrouer in Speech and Hearing.

in Population Research (IPR) with an Academic Enrichment grant and matching College funds, supported the IPR's successful effort to win an NICHD center development award,³ improved the national profile of its health psychology program with the hiring of Eminent Scholar Julian Thayer from NIH, recruited four young faculty to two different departments from the Robert Wood Johnson postdoctoral program in health policy, and added many other population and health faculty to departmental programs. Additional faculty in this area, many of whom collaborate with SBS faculty, are located outside of SBS.⁴ The Center for Human Resource Research (CHRR), which is an important partner with the IPR now and for this initiative going forward, plays a supporting role for several funded studies based in the School of Public Health and the Comprehensive Cancer Center, and the IPR is already funding pilot projects involving faculty from Nursing and Human Ecology.

The IPR plays a pivotal role in drawing together researchers with interests in population and health from across the campus. Its Director is Randy Olsen, also Director of CHRR (one of the University's most successful recipients of external funding) and Professor of Economics. Faculty currently active in the IPR come from 6 SBS departments, 3 SBS centers, and 5 colleges outside of SBS. In 2004, the IPR won a 5-year \$1.21 million R21 grant from the NICHD to support the development of a population research program that, with added research activity, multidisciplinary, and evidence of a strong institutional commitment, could compete for NICHD R24 center funding by 2008. Receiving R24 funding not only would bring continuing infrastructure support to the University, but it also would enable Ohio State researchers to compete more successfully for NIH funds to support their own specific projects.

By bringing together researchers who study health at the macro level, which is the primary focus of NICHD population centers, and those who study it on the micro level, Ohio State's program will be distinctive in its focus on micro and macro research questions and their different methodologies in the social and behavioral science study of population and health. This distinctiveness will enhance its prospects for center-level funding from NICHD. More generally, this initiative will foster a multi-level attack on human population and health problems that will yield research insights beyond those from studies with a more limited focus and, thereby, raise the University's profile in this important area.

Planned and Requested Investments in Population and Health

SBS and its Human Ecology, Nursing, and Public Health partners are poised to take the next step in elevating our population and health focus to the highest levels. They propose to make coordinated investments to build upon their critical mass of researchers and the presence of the IPR to make Ohio State a national and international leader in social and behavioral science research in population and health. Together the four colleges will fund up to 14 faculty "cluster hires" in population and health over the next five years.⁵

³ NICHD provides R24 center infrastructure grants of \$400,000-\$600,000 annually to maintain 18 national population centers at, e.g., Michigan, North Carolina, Penn State, Texas, and Wisconsin among public universities and Brown, Chicago, Johns Hopkins, Pennsylvania, and Princeton among private universities.

⁴ Those who currently collaborate with SBS faculty in this area include Salsberry and Wewers in Nursing and Public Health; Gottesman in Nursing; Steinman in Public Health; and Lee in Human Ecology.

⁵ The number of new positions from FY07 through FY11 exceeds those committed at City University of New York and Texas, who have received national attention for their "cluster" hiring efforts to support their population centers.

The SBS contribution comes from multiple departments and from central funds within the College.⁶ Using their own funds, seven SBS departments are committed to filling 7.5 of the faculty positions – one each in Economics, Psychology, Anthropology, Communication, and Speech and Hearing; two positions in Sociology including the endowed Lazarus Professorship; and a .5 FTE position in Political Science – and to providing cash support for their startup. Beyond these departmental commitments, the College will provide funds for an additional 3.5 FTE positions in four specially-targeted departments that will play central roles in the initiative and also are well positioned to heighten the reputational standing of the University – 1 each in Economics, Psychology, and Sociology, plus matching money for the .5 FTE position in Political Science. SBS and its departments, including Geography, will provide cash support for colloquia and workshops. The IPR will continue dedicating its funds to population and health.

Each of SBS's three partners will fund a new faculty position in support of the population and health initiative: Nursing will hire (at the assistant or associate professor level) in Health Behavior, Human Ecology in Behavioral Health, and Public Health in Cardiovascular Epidemiology. The three partnering colleges also will furnish one-time cash to provide start-up funds for their new faculty and research support for their current faculty in the population and health area. Table 1 in the Appendix shows the financial investments proposed by SBS and its partners.

REQUEST TO OAA: Financial support for upgrading planned positions to a senior level and/or more positions in the four SBS core departments. This will enable the initiative to recruit more faculty and/or add more senior faculty to the three SBS core departments, thereby enabling them to move up more quickly in the rankings, have more faculty with immediate grant potential, and position the IPR better to win an R24 center grant from NICHD.

REQUEST TO OAA: Early cash from OAA for faculty hires and startup funds to accelerate the completion of this initiative. This would provide additional evidence of institutional commitment to enhance the IPR proposal's prospects of center funding from NICHD.

The four SBS departments targeted for SBS and OAA investment are among the highest ranked in the University and among Ohio State's best prospects for moving into the top ranks of disciplinary departments nationwide:

- Political Science is ranked 13th (5th among public universities) in the 2005 *US News* study. Its American politics and research methods fields are ranked 5th and 10th, respectively, and its international field is ranked 12th. A 2004 London School of Economics study ranked it 4th in the quantity and impact of publications among the world's political science departments.
- Sociology is ranked 20th (11th among public university departments) in the 2005 *US News* study. Its social stratification field was ranked 7th nation-wide.
- Economics is ranked 28th overall (10th among public universities) in the 2005 *US News* study. It recently ranked 20th (7th among publics) in the U.S. departments in citations to 1975-2000

⁶ Among the other departments, Geography is one of the University's very best, ranking 5th in the 1993 NRC study and probably higher today. Communication has quickly developed into one of the top units in its discipline, recently ranking in the top 20 in the discipline's key fields. Anthropology has focused on physical anthropology and archaeology as its fields of distinctiveness, and its reputation is increasing in these areas and overall. Speech and Hearing is ranked in the top twenty in the 2005 *US News* study for both its speech and hearing programs.

articles and 24th (11th among publics) in publications in “blue-ribbon” journals. In a recent international comparison of departments, it ranked 18th in publications and 22nd in citations.

- Psychology is ranked 19th overall (14th among public universities) among psychology departments in the 2005 US News study, and its social psychology field ranked 3rd.⁷ Disciplinary reputational studies also place social psychology among the top three. Recent studies ranked Psychology 9th in citations and 16th in publications among U.S. departments.

These added investments could propel Political Science close to or into the top ten, Sociology and Psychology higher among the top twenty, Economics closer to or into the top twenty among all universities, and all could move up among the ranks of public universities. All four departments already have strength in population and health; Psychology and Sociology are especially strong, with senior faculty to anchor the field and numerous other faculty specializing in the area. Enhancing these strengths to attain world-class level is the primary focus of this initiative. By further integrating their faculty into ongoing interdisciplinary activities in population and health, we envision that the College and OAA investments in the four core departments will have a multiplier effect on quality in other SBS departments and the partnering colleges and on the overall standing of the University.⁸ With the IPR as its institutional centerpiece, the initiative will stimulate collaborative research and teaching in population and health, thereby enhancing the overall impact of the efforts and its chances for R24 funding.

Not only are the four SBS departments that form the core of this initiative among the University’s most renowned, but they are significant contributors to the University’s reputation and to its students’ academic programs. Strong economics, political science, psychology, and sociology departments lie at the reputational core of the nation’s leading public universities. Few universities achieve top rankings without having highly regarded departments in these disciplines.⁹ These four SBS departments also are attractive targets for increased funding based on student enrollments. All are University leaders in attracting graduate and undergraduate students. Psychology and Political Science enroll more majors than all but the (college-wide) Biological Sciences major; together with its Criminology major, Sociology is a University leader

⁷ The 2005 *US News* study of psychology is flawed because it mixes psychology departments with educational psychology (and other) programs. We use “corrected” rankings that remove all psychology programs beyond the first-mentioned one at each university to make them comparable with previous *US News* and NRC studies.

⁸ Based on data presented at the June 2005 Leadership Retreat, economics and psychology were among the 8 departments (which OSU has) that ranked in the top 50% of their disciplines in 100% of the public universities with higher rankings than ours. Political science and sociology were among the additional 11 departments ranked in the top 50% at 80-99% of the higher ranked public universities. If the more exacting standard of ranking in the top 30% of their disciplinary department is used, these four disciplinary departments are even more central in universities’ overall rankings: Psychology was one of only two departments ranked in 100% of public universities; political science and sociology were two of ten ranked in the top 30% in at least 75% of public universities; and economics was one of thirteen ranked in the top 30% in at least 65% of public universities.

⁹ Based on data presented at the June 2005 Leadership Retreat, economics and psychology were among the 8 departments (which OSU has) that ranked in the top 50% of their disciplines in 100% of public universities with higher rankings than ours. Political science and sociology were among the additional 11 departments ranked in the top 50% at 80-99% of the higher ranked publics. If the more exacting standard of ranking in the top 30% of their disciplinary department is used, which is more consonant with OSU’s aspirations, these four disciplinary departments are even more central to university rankings: psychology was one of only two departments ranked in 100% of public universities; political science and sociology were one of ten ranked in the top 30% in at least 75% of public universities; and economics was one of thirteen ranked in the top 30% in at least 65% of public universities.

in majors as well. Economics ranks 7th in the University in overall enrollments and 3rd in the number of minors it attracts. The four departments maintain healthy PhD programs and win significant numbers of Graduate School fellowships. They also are active in working with honors students, and Psychology involves more students in faculty research than any other OSU department. New faculty in the population and health area would increase the educational reach of these four departments.

In addition to its investments in new faculty, the College of Social and Behavioral Sciences will provide cash to support the Initiative in Population Research over the next five years. The IPR currently occupies non-contiguous space in the Journalism Building. To accommodate the anticipated enlargement of its affiliated faculty and to locate it more centrally among them in order to facilitate their interaction,¹⁰ the IPR must be relocated to space reserved for it in the basement of Townshend Hall. This space has housed research animals and must be renovated before IPR can move in. A total of \$250,000 in cash to allow for a “bare bones” renovation is included in the SBS investment. Seed grant and colloquium funding are especially valuable in integrating faculty in the population and health areas into ongoing multidisciplinary collaborations. Through its R21 NICHD grant, the IPR already has funds to support these activities. These investments in population and health not only will establish Ohio State as a world-class player in social and behavioral research in the area across a number of departments and colleges, but they also will greatly enhance the IPR’s competitiveness for an R24 population center grant from NICHD.

REQUEST TO OAA: More timely cash to renovate Townshend Hall adequately. The College already is obligated to pay off the \$3.5M state funding shortfall for the new Psychology building and the renovation costs to relocate Sociology to Townshend. OAA cash for an earlier and full renovation of the IPR space in Townshend would move up its relocation, thereby facilitating earlier programmatic interactions and better positioning the IPR for the NIH R24 competition. Additional OAA money would provide for a more than “bare bones” renovation.

Relationship to Past SI and AE Funding

Central funding through the University’s Selective Investment (SI) and Academic Enrichment (AE) programs have contributed to SBS’s present strength in population and health, as well as to overall improvement in the departments that received this funding. Psychology, Political Science, and Economics were recipients of SI funding. In addition, the Initiative in Population Research was initially founded with support from an Academic Enrichment grant, which proved critical to the IPR’s winning of an NICHD R21 grant of \$1.12 million over the 2004-09 period. Of faculty with population/health interests, Professors Volden in Political Science (a Robert Wood Johnson Fellow) and DeVries and Nelson in Psychology were SI hires.

¹⁰ The Townshend Hall location for IPR, already in the University’s space plan, would give it contiguous space much closer to its partnering departments and colleges: in the same building as Sociology, next door to Psychology and the new Cunz Hall home for Public Health, two buildings away from Human Ecology, and closer to Communication, Geography, Political Science, Nursing, and Speech and Hearing. Only Economics and Anthropology would be more distant than at present. The IPR also would be co-located in Townshend with the Criminal Justice Research Center, with which it currently shares some staff time, operating expenses, and faculty affiliates.

The reputational ranking of each of the SI departments is higher since receiving the funding. Political Science rose steadily from 17th in faculty reputation in the 1993 NRC rankings (7th among public universities) to 13th (5th among publics) in 2005 the *US News* study. Economics improved from 34th (15th among publics) in the NRC study to 28th (10th among publics) in 2005 *US News*. Psychology improved from 21st (12th among publics) in the 1993 NRC study to 19th (14th among publics) in the corrected 2005 *US News* rankings. Without SI funding, Sociology increased its reputational standing from 25th (11th among publics) in the 1993 NRC study to 20th (11th among publics) in 2005 *US News*.

Metrics for Measuring Success

There are several ways to assess the success of the population and health initiative, and we suggest that each of them be included in the metrics to be used:

- Count the number of faculty hires and the complementary programmatic activities in population and health over the FY07-11 period.
- Track changes in department rankings in upcoming *US News* and NRC studies for the departments/colleges.¹¹ Because the initiative is designed to foster more collaboration among Ohio State faculty in the partnering units, track multidisciplinary and cross-college collaborations by faculty on research grants and teaching, plus multidisciplinary course-work by students who may be specializing in population and health.
- Because this initiative is designed to increase the presence of researchers from the partnering colleges in NIH grants and activities, track success in the R24 NICHD competition, in NIH grant proposals by and awards to OSU faculty involved in the initiative, and in participation in NIH panels and programs.

¹¹ It is important to realize that reputational rankings change slowly, as reputations lag well behind faculty improvement, and are influenced by exogenous factors, which cannot be disentangled from the population and health initiative.

Appendix: TIE Budget Summary--Multidisciplinary Initiative in Population and Health

	FY07		FY08		FY09		FY10		FY11		FY07-FY11	
	AR	Cash	AR	Cash	AR	Cash	AR	Cash	AR	Cash	AR	Cash
SBS CORE UNITS INVESTMENT												
Economics		5,000	130,000	15,000		5,000		5,000			130,000	30,000
Political Science		3,000	45,000	3,000		3,000		3,000		3,000	45,000	15,000
Psychology	170,000	300,000		35,000		35,000					170,000	370,000
Sociology	192,939	67,000		50,000	92,255	62,000		50,000		50,000	285,194	279,000
Central SBS Core Unit Intvestment	150,000		150,000		100,000						400,000	-
Requested OAA Investment	200,000	140,000	200,000	140,000	200,000	120,000					600,000	400,000
Core Units Sub-Total	712,939	515,000	525,000	243,000	392,255	225,000	-	58,000	-	53,000	1,630,194	1,094,000
OTHER SBS PARTICIPATING UNITS INVESTMENT												
Anthropology	72,000	25,000		20,000							72,000	45,000
Communication			83,200	5,000		5,000					83,200	10,000
Geography				20,000		20,000					-	40,000
Speech & Hearing Science					74,000	25,000					74,000	25,000
Initiative in Population Research		200,000		200,000		200,000		200,000		200,000	-	1,000,000
Central SBS Intvestment											-	-
Requested OAA Investment										250,000	-	250,000
Other SBS Participating Units Sub-Total	72,000	225,000	83,200	245,000	74,000	250,000	-	200,000	-	450,000	229,200	1,370,000
OTHER PARTNERS' INVESTMENT												
Human Ecology			130,000	20,000							130,000	20,000
School of Public Health	83,000	50,000									83,000	50,000
Nursing			96,000	20,000							96,000	20,000
Other Partners Sub-Total	83,000	50,000	226,000	40,000	-	-	-	-	-	-	309,000	90,000
INVESTMENT SUMMARY												
SBS Unit Total	434,939	600,000	258,200	348,000	166,255	355,000	-	258,000	-	253,000	859,394	1,814,000
Central SBS Total	150,000	-	150,000	-	100,000	-	-	-	-	-	400,000	-
Other Partners Total	83,000	50,000	226,000	40,000	-	-	-	-	-	-	309,000	90,000
OAA Total	200,000	140,000	200,000	140,000	200,000	120,000	-	-	-	250,000	600,000	650,000
Grand Total	867,939	790,000	834,200	528,000	466,255	475,000	-	258,000	-	503,000	2,168,394	2,554,000