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Rationale for Development

Demography is the study of how the three core population processes -- fertility, mortality, and migration -- interrelate with major societal institutions, such as the family and the economy. Demographic issues encompass some of the most pressing social issues of our time including population aging, unprecedented changes in the structure and functioning of the family, social inequality, and environmental challenges, to name a few. Owing to this wide breadth, the field of demography is inherently interdisciplinary, drawing from diverse fields such as anthropology, biology, economics, geography, history, medicine, public health, public policy and sociology. But it also possesses a clear identity as a scientific field, with professional associations, annual conferences, and peer-reviewed journals dedicated to demography (broadly defined).

During the past decade, OSU has achieved prominence in demography with faculty hires under the Population and Health TIE and with the securing in 2009 by the Institute for Population Research [IPR] of a highly competitive infrastructure award from the National Institutes of Health. IPR is on the forefront of tackling population and health issues, nurturing interdisciplinary faculty alliances across the University through its weekly seminar series, didactic workshops, and an active faculty seed grant program.

What is currently missing from OSU's program in demography is an integrative training program for graduate students. Despite the interdisciplinary nature of demography, OSU students interested in population research lack the opportunity to obtain comprehensive demographic training—both methodological and substantive. This is a noteworthy gap considering that most of the other NIH-funded population research centers offer graduate training and denote that specialization on student's transcripts. Anecdotal evidence from several OSU departments suggests the loss of prospective graduate students to other institutions with population centers that have graduate training programs in demography.

We propose that OSU's Graduate Interdisciplinary Specialization (GIS) is an ideal mechanism with which to establish a graduate-level training program in demography at OSU (GISD). The motivation behind the GIS at OSU--to expose students to interdisciplinary training-- perfectly complements the interdisciplinary nature of the field of demography. The purpose of the GISD is to provide graduate students a basis in substantive and methodological demographic training that will allow them to critically approach issues relating to population. Through coursework, interactions with faculty and engagement with OSU's Institute for Population Research (IPR), the GISD will expose students to cutting- edge

population and health research. The involvement of educators representing multiple departments and colleges will place students in the best possible position to engage in comprehensive approaches to addressing current population and health issues.

Finally, the development of a GISD is closely aligned with several components of the University's discovery themes of Health and Wellness, Food Production and Security, and Energy and Environment. Each of these can be informed by a demographic approach, and the GISD will enable graduate students to engage these themes with an interdisciplinary demographic toolkit.

Purpose and Anticipated Benefits for Participants

The purpose of the GISD is to provide graduate students with interdisciplinary training in the techniques and substance of demography. Through coursework and interactions with faculty across campus, and engagement with IPR (e.g. regular attendance at the weekly seminar series), participants will receive the training necessary to conduct high value research on population-related issues with a high degree of technical rigor. Across departments and colleges, training in demography (both techniques and substance) will be an asset for graduate students from a wide variety of fields, and formal recognition of such study on the student's transcript upon completion will improve prospects in the academic and non-academic job market.

In addition to facilitating access of graduate students to interdisciplinary study and providing formal recognition of such study on the student's transcript, the GISD will also benefit faculty interested in developing interdisciplinary course/clusters as part of the Graduate School's effort to support interdisciplinary scholarship.

An important goal of the GISD is to provide graduate students with the tools and skills necessary to be able to successfully compete for extramural sources of funding, largely intended for dissertation research. A longer-term goal is to leverage the demography specialization to secure a NIH T32 training grant to support pre- and post-doctoral graduate students in demographic research. For OSU to be a credible competitor for a T32 grant, there needs to be in place a curriculum of graduate study devoted to demography. The GISD mechanism is very well-suited as this first step. In addition, the GISD is a natural extension for the Institute of Population Research and will enable IPR to develop into a larger and more intellectually diverse community of scholars.

Description of Proposed Curriculum

The GISD offers students advanced training in the techniques and substance of demography through both required and elective coursework. The specialization's two required courses are: (i) a proseminar and (ii) a methods course on fundamental demographic techniques. Our vision is that the required coursework will provide students with a basis in fundamental demographic techniques (via the methods course) and expose them to the most recent demographic scholarship (via the proseminar which will encompass IPR's weekly seminar).

We have selected the <u>elective courses</u> in consultation with the faculty, graduate studies chairs and department chairs of each respective department with two goals in mind. First, we have selected courses that contain significant demographic content. These include courses from across the University that cover core population issues, such as PUBHHBP 7544: Fundamental Determinants of Population Health; SOC 7755: The Social Context of Human Fertility; RURLSOC 5540: Population, Place and Environment etc. Second, we selected elective courses that will provide students with particular skill sets for their future careers in demography. For example, a student interested in studying population and the environment would benefit from coursework in Geographic Information Systems offered by the geography department. Or a student studying fertility change across different contexts would benefit from coursework incorporating behavioral change models, such as PSYCH 7708: Psychology of Judgment and Decision Making.

Students must successfully complete at least 10 but no more than 20 hours of graduate-level coursework. These hours must include at least three different courses, and at least 9 hours must be from outside the home graduate program but may include cross-listed courses (cross-listed courses that comprise this 9 hours minimum must be enrolled in outside the home department).

The specialization consists of the following components:

1. A required one-credit (1) hour core proseminar course. The proseminar will focus on demography and will be divided into two components. First, a weekly one-hour class that focuses on a broad survey of the field of demography with a special emphasis on methods. Second, immediately following the proseminar, students will attend the weekly IPR seminar. Each Tuesday IPR hosts a demography seminar that brings in speakers (both internal and external to the University) to present their recent population related research. The seminar will expose GISD graduate students to cutting-edge demographic research methods.

- **2.** A required three-credit (3) hour course in Demographic Techniques (SOC 7884.13). A core component of demographic training is its methodological toolkit. This course will cover the materials and methods of fundamental demographic analysis.
- **3.** Electives will be drawn from existing courses offered across the University which contain significant demographic content and/or provide technical training that will advance research on demographic topics.

Required Courses for all Students in GISD

| College | Course # | U/G | Title | Credit | Days/Time |
|----------|-------------|-------|-----------------------|--------|-----------|
| | | Level | | Hours | |
| Arts and | SOC 7884.09 | G | Seminar in Research | 1 | Tuesdays |
| Sciences | | | Methods (Proseminar) | | 11:30am- |
| | | | | | 1:30pm |
| Arts and | SOC 7884.13 | G | Population/Demography | 3 | |
| Sciences | | | (Demographic | | |
| | | | Techniques) | | |

Elective Courses

| College | Course # | U/G/P | Title | Credit |
|----------|-----------------|-------|----------------------------------|--------|
| | | Level | | Hours |
| Arts and | ANTHROP 5645 | U/G | Biology of Senescence | 3 |
| Sciences | | | | |
| Arts and | ANTHROP 7701 | G | Modern Human Physical Variation | 3 |
| Sciences | | | | |
| Arts and | ANTHROP 7802 | G | Origins of Food Production | 3 |
| Sciences | | | | |
| Arts and | ANTHROP 8892.03 | G | Human Growth and Development | |
| Sciences | | | | |
| Arts and | ANTHROP 8892.04 | G | Population Genetics | 3 |
| Sciences | | | | |
| Arts and | ANTHROP 8892.08 | G | Biomedical Anthropology | 3 |
| Sciences | | | | |
| Arts and | ANTHROP 8892.09 | G | Biocultural Medical Anthropology | 3 |
| Sciences | | | | |
| Arts and | ANTHROP 8892.10 | G | Issues in Gerontology | 3 |
| Sciences | | | | |
| Arts and | ECON 4553 | U | Economics of Population | 3 |
| Sciences | | | | |
| Arts and | ECON 5850 | U/G | Labor Economics | 3 |
| Sciences | | | | |
| Arts and | ECON 7790 | G | Urban Economics | 3 |
| Sciences | | | | |
| Arts and | ECON 8851 | G | Labor Economics I | 3 |

| Caionaga | | | | |
|-------------|---------------|-------|--|---|
| Sciences | ECON 8852 | G | Labor Egonomica II | 3 |
| Arts and | ECON 8852 | G | Labor Economics II | 3 |
| Sciences | ECON OOE2 | G | Labor Economics III | 3 |
| Arts and | ECON 8853 | G | Labor Economics III | 3 |
| Sciences | CEOC F220 | II./C | E alemandal of CIC | |
| Arts and | GEOG 5220 | U/G | Fundamentals of GIS | 3 |
| Sciences | QTQQ (QQQ | | A la la la la companya di Gara | |
| Arts and | GEOG 6220 | G | Advanced Applications of GIS | 3 |
| Sciences | | | | |
| Arts and | GEOG 7102 | G | Fieldwork in Human Geography | 3 |
| Sciences | | | | |
| Arts and | GEOG 8102 | G | Spatial Data Analysis | 3 |
| Sciences | | | | |
| Arts and | GEOG 8200 | G | Frontiers in GIScience | 3 |
| Sciences | | | | |
| Arts and | GEOG 8401 | G | Theory of Population and Social | 3 |
| Sciences | | | Geography | |
| Arts and | GEOG 8402 | G | Problems of Population and Social | 3 |
| Sciences | | | Geography | |
| Arts and | GEOG 8501 | G | Urban Geography | 3 |
| Sciences | | | | |
| Arts and | PSYCH 7695.02 | G | Health Psychology | 3 |
| Sciences | | | | |
| Arts and | PSYCH 7695.03 | G | Developmental Psychology | 3 |
| Sciences | | | | |
| Arts and | PSYCH 7708 | G | Judgment and Decision Making | 3 |
| Sciences | | | | |
| Arts and | PSYCH 7816 | G | Action and Decision Making | 3 |
| Sciences | | | | |
| Arts and | SOC 7754 | G | Introduction to Demography | 3 |
| Sciences | | | | |
| Arts and | SOC 7755 | G | The Social Context of Human Fertility | 3 |
| Sciences | | | | |
| Arts and | SOC 7756 | G | Sociology of Immigration | 3 |
| Sciences | | | | |
| Arts and | SOC 7758 | G | Population, Health and the Life Course | 3 |
| Sciences | | | - | |
| Arts and | SOC 7884.08 | G | Seminar: the Family | 3 |
| Sciences | | | | |
| Arts and | SOC 8632 | G | Analysis of Longitudinal Data | 3 |
| Sciences | | | | |
| Education & | HDFS 7350 | G | Adolescence in Emerging Adulthood | 3 |
| Human | | | | |
| Ecology | | | | |
| Education & | HDFS 8404 | G | Adolescence: Risk in Context | 3 |
| Human | | | | |

| Ecology | | | | |
|--|------------------------------|--------|---|---|
| Education & Human Ecology | HDFS 8820 | G | Theoretical Perspectives on the Family | 3 |
| Education & Human Ecology | HDFS 8861 | G | Family in Mid to Late Years | 3 |
| Education & Human Ecology | HDFS 8862 | G | Seminar on Human Development and Family Science | 3 |
| Food, Agricultural & Environmental Sciences | AEDECON 6400 | G | Regional and International Development | 3 |
| Food, Agricultural & Environmental Sciences | AEDECON 7421 | G | Advanced Development Economics I | 3 |
| Food, Agricultural & Environmental Sciences | AEDECON 7425 | G | Advanced Development Economics II | 3 |
| Food, Agricultural & Environmental Sciences | AEDECON 7410 | G | Advanced Regional Economics I | 3 |
| Food, Agricultural & Environmental Sciences | AEDECON 7415 | G | Advanced Regional Economics II | 3 |
| Food, Agricultural & Environmental Sciences | ENR 7380 | G | Climate and Society | 3 |
| Food, Agricultural & Environmental Sciences | RURLSOC 5540 | U/G | Population, Place and Environment | 3 |
| Food, Agricultural & Environmental Sciences | RURLSOC 6500 | G | Rural Poverty | 3 |
| Public Health | PUBHLTH 6000 | G | Introduction to Global Health | 3 |
| Public Health | PUBHLTH 7000 | G | Public Health in Developing Countries | 3 |
| Public Health Public Health | PUBHBIO 7225 PUBHEHS 7390 | G G | Survey Sampling Methods Major Human Diseases in Global Public Health | 3 |

| Public Health | PUBHEPI 6410 | G | Principles of Epidemiology | 3 |
|---------------|--------------|---|---|---|
| Public Health | PUBHEPI 6411 | G | Biological Basis of Public Health | 3 |
| Public Health | PUBHEPI 6440 | G | Reproductive and Perinatal Epidemiology | 3 |
| Public Health | PUBHHBP 7544 | G | Fundamental Determinants of Population | 3 |
| | | | Health | |
| Nursing | NURSING 7430 | G | Introduction to Global Health | 3 |

Administrative Arrangements and Support of the GISD

Oversight Committee for the GISD

The GIS in Demography will be administered by the College of Arts and Sciences (ASC). The ASC Dean of the Social and Behavioral Sciences (SBS), or the Dean's designee, will chair the oversight committee for this ASC GIS. The Oversight Committee will be composed of the chair of the graduate studies committee (described below) and faculty from units offering courses in the GIS who will be appointed by the Dean.

Graduate Studies Committee for the GISD

The following faculty have agreed to serve as their college's liaison to the GISD program. This committee has representation from each of the participating colleges and will function as the graduate studies committee for the program. There will be staggered terms of service and each college will be responsible for providing a new committee member for their college when the term ends. This will provide high continuity in oversight of the program.

John Casterline, PhD will serve as the chair of the graduate studies committee for the GISD. Dr. Casterline is the Robert T. Lazarus Professor in Population Studies in the Department of Sociology and the director of the Institute for Population Research at OSU. Dr. Casterline has been selected to lead the committee because of his expertise in demography and because of his tenure as director of the Institute for Population Research which will serve as the administrative home for the program. Dr. Casterline is the PI on the R24 NIH Population Center grant awarded to OSU's Institute for Population Research in 2009.

Trevon Logan, PhD is an Associate Professor of Economics in the **College of Arts and Sciences** and a faculty affiliate of the Institute for Population Research. Dr. Logan is an economist who specializes in applied demography and economic history and whose research intersects with demography, health economics, applied econometrics, applied microeconomics and development economics. He is president of the National Economic Association and regular member of the Population Association of America. He is also on the editorial board of the demographic journal-*Demographic Research*.

Anastasia Snyder, PhD is an Associate Professor of Human Sciences in the **College of Education and Human Ecology** and a faculty affiliate of the Institute for Population Research. Dr. Snyder is a family demographer who focuses on youth development. She is currently interim chair of the department of Human Sciences.

Jodi Ford, PhD, RN is an Assistant Professor in the **College of Nursing** and a faculty affiliate of OSU's Institute for Population Research. Her program of research focuses on the social determinants of health and health care, particularly on the contribution of social contexts to adolescent and young adult health and the psychosocial, behavioral and biological pathways through which they operate. Dr. Ford is currently PI on an NIH award titled "Linking biological and social pathways to adolescent health and wellbeing."

Joyce Chen, PhD is an Assistant Professor in the department of Agricultural, Environmental and Development Economics in the **College of Food, Agricultural and Environmental Sciences.** She is an

active affiliate of the Institute for Population Research (IPR) at OSU. Her research focuses on migration and household decision-making and investments in children's human capital, particularly the roles of imperfect information and parental preferences. She has served as co-PI on grants from the National Science Foundation and the International Growth Centre.

Alison Norris, MD, PhD is an Assistant Professor in the Division of Epidemiology in the **College of Public Health**. Dr. Norris studies sexual and reproductive health with a goal of preventing sexually transmitted infections (STIs) and improving reproductive outcomes for women and men. In particular, she has an interest in understanding how context (e.g., endemic disease, social norms, demographic factors, and cultural and institutional structures) influences health and disease. With funding from several grants (including the Institute for Population Research), Dr. Norris is currently implementing a community-based survey of 1,000 households in Malawi focusing on fertility and reproductive health.

Administrative Staff

Susan Pennington will serve as the administrative director of the GISD. She has served as IPR's Office Manager since 2001, overseeing its daily operations. Susan began her career at Ohio State in August of 1993. Prior to her appointment at IPR, she served as Graduate Coordinator in the Department of Sociology; Student Services Associate in the Fisher College of Business Graduate Program Office; Social and Behavioral Human Subjects Coordinator in the Research Risks Department; and as an Office Associate in the Hematology/Oncology Department at the OSU Medical Center. As administrative director of the GISD she will be responsible for the administrative side of the program and will help Dr. Frank in managing the tracking process for students enrolled in the GISD.

Reanne Frank, PhD will serve as the faculty advisor for the program. Dr. Frank is an Associate Professor of Sociology and director of graduate training for the Institute for Population Research. Dr. Frank is a social demographer whose research centers on immigration, racial/ethnic inequality and health and mortality. As faculty advisor she will work with faculty to develop new curriculum and help Susan Pennington track progress for students enrolled in the GISD.

Plans to Enroll Students and Prospective Enrollment

The GIS in Demography is supported by the Institute of Population Research (IPR), which already has an existing community of graduate students that spans departments and colleges and which has identity and coherence. Some of these students have office space in IPR located in Townshend Hall. An annual graduate student conference has been held each Fall since 2008 (jointly with Bowling Green State University). And effective academic year 2013-14, there is a Population Research Graduate Student Organization [GS0] consisting of graduate students from across the University who are interested in demographic research. Discussions with graduate students have revealed a strong existing demand for a more formal program in demography. We will advertise the GISD heavily among these students as well as among the existing IPR affiliate faculty. The GISD is also supported by the leadership of each participating department/college, and they have all pledged to actively advertise the new program. We estimate that initial interest will be in the range of 10 students per annum. A cap has not been established as we want the flexibility to grow the program. Since all applications are subject to approval, we will control the class size as necessary.

How to Enroll in the GISD

The GISD is available to all graduate students at the Ohio State University. Students must apply to enroll in the GISD by completing a Graduate Interdisciplinary Specialization form. A letter of acceptance and a list of approved courses will be sent to the student by the coordinator of the GISD. Copies of the letter will also be sent to the Graduate School and the student's home Graduate Studies Chair. Students must follow the criteria developed by the Graduate School, and successfully complete the required and elective course work specified.

Students should work with their departmental advisor to determine how to best incorporate the specialization into their program of study. Students must complete and submit a Graduate Interdisciplinary Specialization Program form. The advisor's signature is required prior to submission of the application to the Institute of Population Research, which coordinates the administrative aspects of the Specialization.

Once student and advisor signatures are affixed, the original form will be forwarded to the Institute of Population Research at the address below. The student will be advised as soon as approval of the application has been accomplished.

The student must adhere to the curriculum for the GISD. If changes in the approved curriculum are made, the student must complete a new Graduate Interdisciplinary Specialization Program Form and once again gain approval.

For more information and to apply, please contact:
Susan Pennington, Office Manager
Institute for Population Research
pennington.41@osu.edu
614 292-2858
060 Townshend Hall
1885 Neil Ave Mall
Columbus, OH 43210

Appendix-Description of the Institute for Population Research

Institute for Population Research (IPR): IPR is a multi-disciplinary population and health research center. Infrastructure support is provided by Ohio State University and by NIH/NICHD (R24 grant). IPR occupies almost 6000 square feet of welcoming space beautifully renovated in 2010. This environment provides a physical and social space for conducting multi-disciplinary population research. There is a large conference room with in-room data projection and audiovisual equipment for presentations—this is where the two required courses for the GISD will be held.

IPR has roughly 70 faculty affiliates with appointments in <u>seven colleges and sixteen departments</u>. Faculty affiliates are highly productive and currently have 42 extramural grants totaling more than \$58 million in total for fiscal year 2012. IPR staff consists of a Director (half-time), an Office Manager, a Program Manager/ Grants Coordinator, an IT assistant (half-time), and part-time student assistants. IPR staff will assist in managing the GISD.

IPR is firmly dedicated to training graduate students in demographic research. In addition to providing office space to IPR graduate student affiliates, the Institute also supports a Population Research Graduate Student Organization [GS0] consisting of graduate students from across the University who are interested in demographic research. IPR also hosts an annual graduate student conference which has been held each Fall since 2008 (jointly with Bowling Green State University).