Requisition 307344

The Minnesota Population Center (MPC, www.pop.umn.edu) at the University of Minnesota is seeking a post-doctoral associate with expertise in record linkage. In this position, you will have responsibilities for linking records from the 1940 U.S. Census to records from the five major modern and ongoing surveys of health and retirement among older Americans—the Health and Retirement Survey (HRS), the Panel Study of Income Dynamics (PSID), the Wisconsin Longitudinal Study (WLS), the National Social Life, Health, and Aging Project (NSHAP), and the National Health and Aging Trends Study (NHATS).

A crucial limitation of these five studies is that they contain little information about social, economic, family, neighborhood, and environmental circumstances in childhood and young adulthood; this serious limitation of these data hinders researchers’ ability to study the long-term impacts of childhood and young adult circumstances and to understand how later-life outcomes are the result of cumulative life-course processes. Linking these studies to the 1940 U.S. Census will produce data infrastructure that vastly expands their analytic utility for a variety of substantive problems.

This project involves (1) preparing and formatting data files containing respondents’ identifying information; (2) deploying sophisticated machine linking algorithms to link the project records to the 1940 U.S. Census; (3) hand linking records that cannot be machine linked and hand-verifying a portion of those that can; (4) creating individual-, family-, and contextual/spatial-level variables that are consistent with IPUMS and comparable across projects; (5) documenting the new measures and making them available as part of projects’ restricted access dissemination systems in a manner consistent with respondents’ privacy rights; (6) publicizing the resulting measures and conducting user outreach to maximize the utility and visibility of the new data resource; and (7) conducting methodological analyses to assess the validity of existing retrospective reports of childhood social and economic circumstances.

You will report to project director Rob Warren and will potentially collaborate with graduate research assistants and other project and center staff.

Responsibilities

You will work with Warren and with HRS, PSID, WLS, NHATS, and NSHAP project leaders to set up machine and hand linking operations in those projects’ facilities. You will need to travel to projects’ home universities to oversee project work a few times throughout the year for 1-3 weeks at a time. You will develop and test machine linking algorithms; assist in implementing them; evaluate their efficacy; re-tool them as necessary; and manage resulting data. You will also develop and refine hand-linking protocols designed to link records when machine algorithms fail and to verify linkages with machines algorithms appear to succeed. Finally, you will be responsible for developing individual-, family-, and contextual-level measures that are comparable across projects and for producing associated project metadata and documentation.
In addition, you will be expected to carry out substantive and/or methodological research on your own and/or in collaboration with Warren or other MPC or project members. Ideally substantive research would make use of the data produced by the project. Methodological work would deal with challenges faced in the linking efforts. The research should be presented at relevant academic conferences and submitted for publication.

This post-doctoral appointment is for one year with renewal possible for up to two additional years, dependent upon funding and performance.

**Qualifications**

**Minimum Qualifications:** Expertise in record linkage, and familiarity with various approaches for linking records via computer algorithms. Ph.D. in a social science or computer science field. Research interests related to record linkage and/or health and aging. Experience managing, processing, and analyzing population and/or related data in a variety of data structures (e.g., microdata, aggregate census data, GIS spatial data, rasters). Excellent interpersonal and written and verbal communication skills. Ability to perform work in a timely manner while being attentive to details. Ability to work independently and as part of a diverse team.

**Additional Selection Criterion:** Experience collaborating with academics and technical staff in a diverse, interdisciplinary environment.

**Application Procedures**

Please apply using the University of Minnesota's online employment system [umn.edu/ohr/employment](http://umn.edu/ohr/employment) and search job opening ID 307344. After completing the application information, attach the following documents separately: a cover letter; a curriculum vitae; contact information for three professional references; and a one-page description of a proposed research project to be undertaken during the appointment period. The cover letter should include when you are available to start and clearly describe your expertise and experience related to record linkage.

The search committee will review and consider applications immediately upon their receipt, and the position will remain open until filled. Questions concerning the application process may be addressed to Mia Riza, HR Associate, at mpc-jobs@umn.edu.

Any offer of employment is contingent upon the successful completion of a background check. Our presumption is that prospective employees are eligible to work here. Criminal convictions do not automatically disqualify finalists from employment.

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