DATA ANALYST – IPUMS INTERNATIONAL

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Application Deadline: August 4, 2024

JOB DESCRIPTION

[IPUMS](#) makes the world's largest collection of population and health survey data freely accessible online. Hundreds of thousands of researchers worldwide use these data, and you can contribute to developing and enhancing this public good. We seek a data analyst interested in international census and survey data to join our diverse team of research and technology professionals. We are looking for a technically minded person who enjoys working with data and can learn new skills and knowledge quickly. The person should have some prior knowledge of spatial datasets.

The current data analyst opening is on the IPUMS International team that hosts the world's largest collection of population data, with over one billion person records from several hundred census samples and household surveys ([international.ipums.org](#)). Along with the census microdata, IPUMS International also disseminates GIS boundary files that have consistent spatial boundaries across time. In this position, you will transform information from a variety of sources to a consistently structured, fully documented, spatial dataset that is ready for use by researchers and policymakers. The Data Analyst will also participate in other tasks, including user support, outreach, and involvement in other IPUMS projects.

The signature activity of all IPUMS projects is the integration of discrete datasets into a single consistently coded and documented series that enables comparative analyses over time and space. IPUMS projects share common methods and infrastructure while each has its unique challenges and timelines of deliverables. The environment is highly collaborative, and you will work closely with research scientists, data analysts, student research assistants, and software developers. We are constantly pushing the boundaries of data processing and dissemination methods, and there is considerable opportunity for initiative and creativity by all members of the research staff.

RESPONSIBILITIES

- **50% Data processing:** Execute all stages of the IPUMS International geography data processing pipeline, including spatial data acquisition via web scraping; transforming scanned images to digital data; and running R and Python scripts to create spatially consistent boundaries across IPUMS International countries. Other data processing tasks include identifying and correcting logical inconsistencies and errors in data patterns and making adjustments according to project-specific guidelines; working with birthplace and migration information across censuses and surveys; integrating corresponding microdata to match changes in geography; and working with climate and health data.
- **20% Improving workflows and processes:** Identify, design, and implement improvements to established workflows, including modifying and developing scripts to automate data production.
- **20% Supporting other IPUMS projects:** Provide support for data production tasks on IPUMS Global Health Projects that include DHS, MICS, and PMA.
- **10% Other tasks as assigned:** Edit metadata (e.g., tables, variable descriptions, GIS metadata) for clarity and consistency; archive maps and GIS files; prepare and give public presentations on campus or at professional conferences or other venues to disseminate information about IPUMS International or other IPUMS Global health

projects.

Salary range: $48,000- $60,000 depending on qualifications
Work Location: This position is eligible for hybrid (2 days a week in the office) or fully onsite work arrangements. ISRDI is located at 50 Willey Hall in Minneapolis, MN.

QUALIFICATIONS
Required:
- BS/BA in an applied data science/analysis or quantitative social science field like geography, sociology, economics, epidemiology, biostatistics, or other related discipline or a combination of education and work experience to equal four years.
- Excellent data manipulation skills (including documenting and organizing data and code)
- Experience analyzing and visualizing complex data that vary over space and time using Python
- Experience working with GIS software like ArcGIS Pro, ArGIS Online, or QGIS
- Strong written, verbal, and interpersonal communication skills
- Ability to work independently with limited supervision and to collaborate with others
- Attentive to detail and committed to accuracy

Additional selection criteria:
Please note: Candidates who do not meet any of the additional selection criteria will be considered and are encouraged to apply.
- Experience using one of the IPUMS databases or other large-scale census or survey datasets
- Experience with statistical packages (R, SPSS, Stata, or SAS)
- Experience with technical writing, web content design, and/or public communication
- Knowledge of data restructuring with R
- Degree in a social science or other field where census data are directly applicable
- Ability to read language(s) in addition to English and/or cultural knowledge of other world regions

APPLICATION REQUIREMENTS
All applications should include a cover letter and a resume. Please detail in your cover letter how your experience (e.g., coursework, internships, employment, community involvement) addresses the required qualifications listed above.

ABOUT THE DEPARTMENT
IPUMS is part of the Institute for Social Research and Data Innovation (isrdi.umn.edu). ISRDI is an interdisciplinary research organization that includes the Minnesota Population Center (pop.umn.edu), the Life Course Center (lcc.umn.edu), and the Minnesota Research Data Center (mnrdc.umn.edu). ISRDI supports a work-life balance for our staff with 40-hour work weeks and flexible work hours. The University also offers excellent health insurance, retirement benefits, and tuition assistance. ISRDI encourages and supports staff training and development.

Diversity and inclusion are core values of our organization! We are committed to creating a work environment that celebrates and promotes diversity and advances a culture of inclusion for persons from historically excluded and underrepresented groups. We strongly encourage members of underrepresented groups to apply.

QUESTIONS?
Questions concerning the application process, including requests for accommodation, may be addressed to Alex Lunde, HR & Operations Manager, at isrdi-jobs@umn.edu