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# The IPUMS Bibliography: Harnessing Organizational Knowledge

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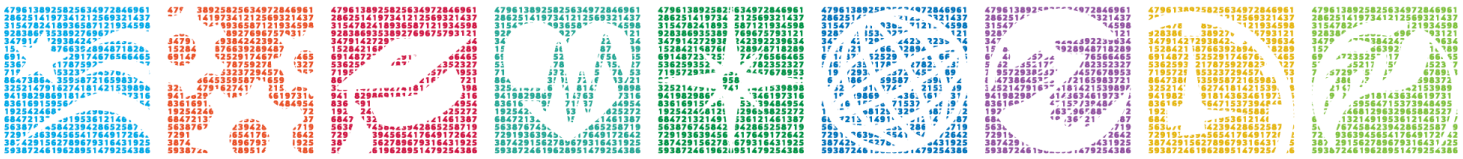


# The IPUMS Bibliography: harnessing organizational knowledge

Diana L. Magnuson[1]

## Abstract

The IPUMS Bibliography tool plays a crucial role harnessing over three decades of IPUMS organizational knowledge to support and strengthen institutional goals, demonstrating the impact of IPUMS datasets and the Institute for Social Research and Data Innovation (ISRDI, the home of IPUMS), and strengthening broader social science infrastructure. The IPUMS Bibliography captures, organizes, and makes discoverable: research analyses on tens of thousands microdata and aggregate variables over time; processes for developing and maintaining well-defined harmonized classifications; and technological innovation and advancement supporting IPUMS systems. The challenge for the IPUMS Bibliography team is threefold: refine bibliographic data capture methods; develop an efficient, scalable, and sustainable workflow for managing the expanding bibliographic database; and improve the user interface for internal and external users to discover and link to publications using IPUMS data. This article will trace the IPUMS Bibliography development from 1994 to 2025, demonstrate the benefit of harnessing organizational knowledge within an organization, and suggest the potential for leveraging organizational knowledge to support robust social science research.

## Keywords

bibliography, organizational knowledge, data capture, IPUMS

## Introduction

IPUMS is one of four centers at the Institute for Social Research and Data Innovation (ISRDI) at the University of Minnesota, and its datasets comprise the world's largest accessible database of census microdata, with over two billion records. The IPUMS suite contains nine harmonized census and survey microdata and aggregate geographic data collections. The signature activity of IPUMS is harmonizing variable codes and documentation to be fully consistent across data sets. Since the launch of its microdata harmonization work in 1991, IPUMS has expanded from historical U.S. census data to cover international censuses, health data, labor force data, and educational surveys. In addition, IPUMS integrates and disseminates area-level census data and electronic boundary files describing U.S. and international geography.[2] IPUMS data thus support research analysis on billions of microdata and aggregate cases and data points over time.

For over three decades, the IPUMS Bibliography has played a crucial role in supporting and strengthening institutional goals, demonstrating the impact of IPUMS datasets, and contributing to

broader social science research efforts. The expansion and growth of IPUMS since 1993 and the concurrent reliance by the research community on these harmonized data collections signals the significance of maintaining an accurate bibliographic record of IPUMS research analysis on billions of cases over time, on internal process for developing and maintaining well-defined harmonized variable classifications, and on technological innovation and advancement supporting IPUMS systems.

This article traces the development and user interface transformation of the IPUMS Bibliography from 1994-2025, describes the current metadata processing system that supplies the information underlying the bibliographic system, demonstrates the benefit of harnessing organizational knowledge across an organization, and suggests the potential curating IPUMS bibliographic metadata has supporting robust social science research.

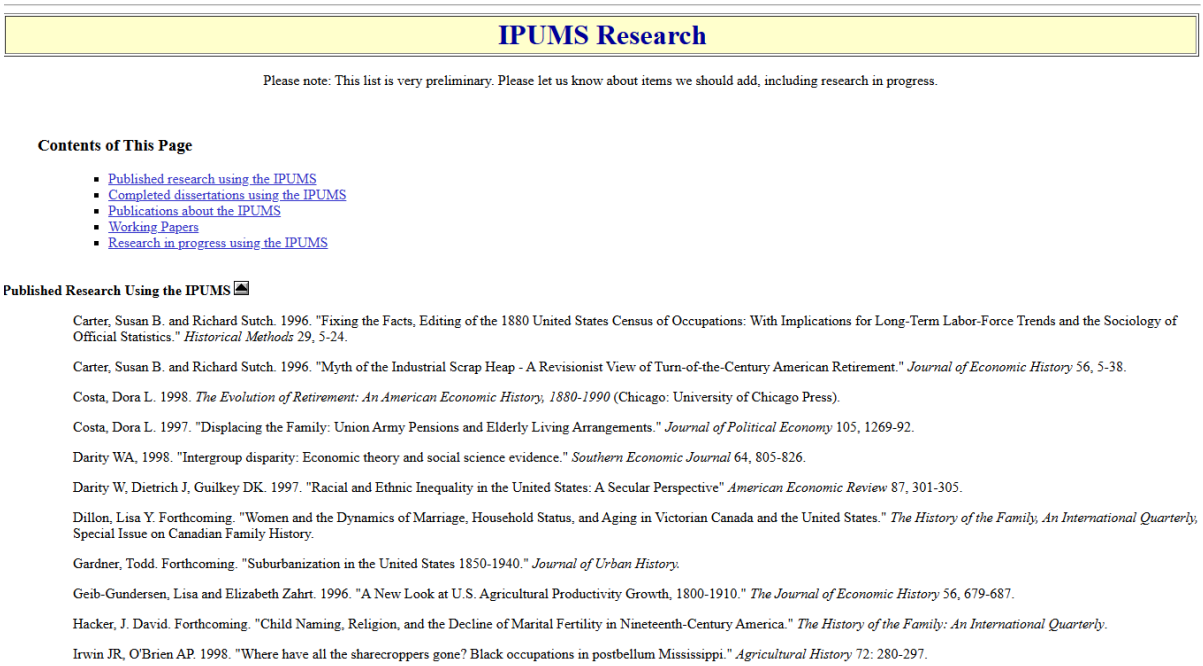
## IPUMS Bibliography user interface development

IPUMS Bibliography curation began in 1994, three years after the effort to convert the extant US public use microdata samples (1880, 1900, 1910, 1940, 1950, 1960, 1970, 1980 and 1990) into a single consistent data and documentation format began (Ruggles 1991). The first IPUMS harmonized U.S. microdata set was downloaded using an anonymous FTP site on November 19, 1993 (Magnuson and Ruggles 2022). Two articles citing IPUMS data were published in peer reviewed journals in 1994, and these citations were the beginning of the IPUMS Bibliography (Ruggles 1994a and Ruggles 1994b). The Bibliography began as a hand-curated list maintained by a single individual (S. Ruggles, personal communication, November 6, 2024).

Access to the Internet and use of the World Wide Web did not come into common use until the mid- to late 1990s (Kumar and Perakis 2022). The IPUMS Bibliography user interface development from 1995-2025 follows the contours of web design capacity and limitations by decade.[3] The first IPUMS website appeared in March 1995, one of the first 15,000 websites created (Magnuson and Ruggles 2022). The earliest retrievable screen capture of the online IPUMS Bibliography is from 1998 (Wayback Machine 1998). The 1998 landing page is titled “IPUMS Research” and is qualified as “very

preliminary" and directs researchers using "the IPUMS" to submit their published and unpublished research citations (Figure 1). The 1998 version of the IPUMS Bibliography is a static list with limited functionality for the user. The list is organized by publication type (with a hyperlink to jump down to that type in the list), author last name, and publication date. Publication types using "the IPUMS" included: published research, completed dissertations, publications about the IPUMS, working papers, and research in progress. There is no ability to access the text of the articles from the 1998 IPUMS Research user interface.

Figure 1. IPUMS Research user interface 1998 (Wayback Machine 1998)



**IPUMS Research**

Please note: This list is very preliminary. Please let us know about items we should add, including research in progress.

**Contents of This Page**

- Published research using the IPUMS
- Completed dissertations using the IPUMS
- Publications about the IPUMS
- Working Papers
- Research in progress using the IPUMS

**Published Research Using the IPUMS**

Carter, Susan B. and Richard Sutch. 1996. "Fixing the Facts, Editing of the 1880 United States Census of Occupations: With Implications for Long-Term Labor-Force Trends and the Sociology of Official Statistics." *Historical Methods* 29, 5-24.

Carter, Susan B. and Richard Sutch. 1996. "Myth of the Industrial Scrap Heap - A Revisionist View of Turn-of-the-Century American Retirement." *Journal of Economic History* 56, 5-38.

Costa, Dora L. 1998. *The Evolution of Retirement: An American Economic History, 1880-1990* (Chicago: University of Chicago Press).

Costa, Dora L. 1997. "Displacing the Family: Union Army Pensions and Elderly Living Arrangements." *Journal of Political Economy* 105, 1269-92.

Darity WA, 1998. "Intergroup disparity: Economic theory and social science evidence." *Southern Economic Journal* 64, 805-826.

Darity W, Dietrich J, Guilkey DK. 1997. "Racial and Ethnic Inequality in the United States: A Secular Perspective" *American Economic Review* 87, 301-305.

Dillon, Lisa Y. Forthcoming. "Women and the Dynamics of Marriage, Household Status, and Aging in Victorian Canada and the United States." *The History of the Family, An International Quarterly,* Special Issue on Canadian Family History.

Gardner, Todd. Forthcoming. "Suburbanization in the United States 1850-1940." *Journal of Urban History.*

Geib-Gundersen, Lisa and Elizabeth Zahrt. 1996. "A New Look at U.S. Agricultural Productivity Growth, 1800-1910." *The Journal of Economic History* 56, 679-687.

Hacker, J. David. Forthcoming. "Child Naming, Religion, and the Decline of Marital Fertility in Nineteenth-Century America." *The History of the Family: An International Quarterly.*

Irwin JR, O'Brien AP. 1998. "Where have all the sharecroppers gone? Black occupations in postbellum Mississippi." *Agricultural History* 72: 280-297.

"IPUMS Research" was renamed "IPUMS Bibliography" by 2000. The user interface layout was more colorful, including a left sidebar with hyperlinks to access other pages on the IPUMS website and, significantly, offering a hyperlink to the abstract of each identified citation in the bibliography (Figure 2). While certainly useful for users, the addition of an abstract for each citation undoubtedly increased person labor around metadata creation. Users of the 2000 version of the IPUMS Bibliography were still limited, however, to scrolling down the citation list, organized by publication type. While the inclusion of citation abstracts was an important functional upgrade, the user still had

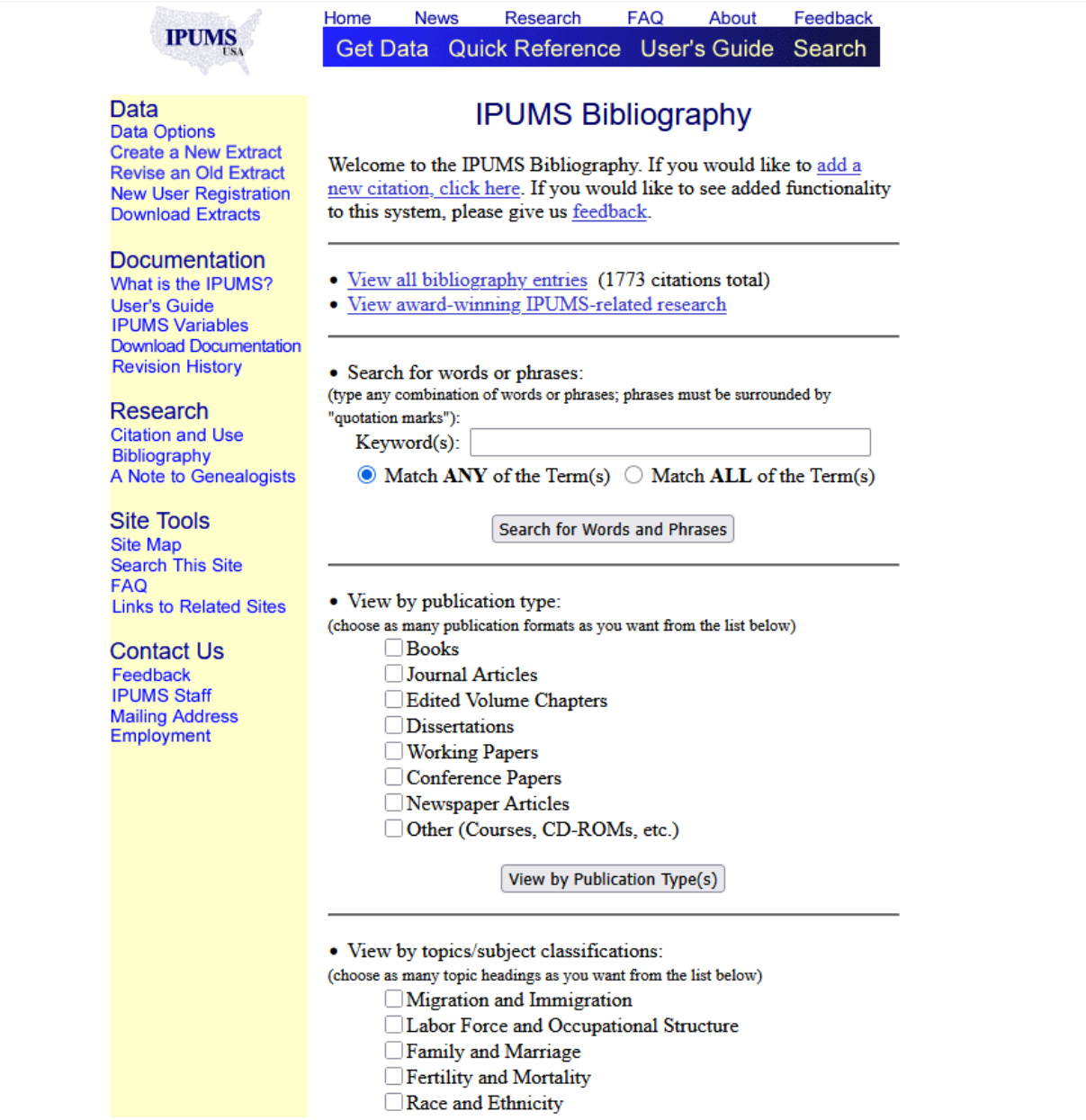
to use an alternative mechanism to locate the text of the article. During this period of data dissemination, IPUMS was a product, "the IPUMS," not a brand, "IPUMS."

Figure 2. IPUMS Bibliography user interface 2000 (Wayback Machine 2000)


The 2003 IPUMS Bibliography added important functional refinements (Figure 3). First, links took users to a form for submitting a new citation for entry consideration or viewing recently submitted citations not yet integrated into the bibliography. This type of user crowdsourcing continues to be employed by the IPUMS Bibliography. A second functional refinement encouraged users to provide feedback through a link "If you would like to see added functionality to this system." New features included a hyperlinked list with "award-winning IPUMS-related research," a keyword search with "Match ANY" and "Match ALL" radio buttons, and the option to view by publication type and/or "topic/subject" classifications. Publication types now included: books, journal articles, edited

volume chapters, dissertations, working papers, conference papers, newspaper articles, and "other" (e.g., courses, CD-ROMS). Topic/subject classifications included key demographic research areas: migration and immigration, labor force and occupational structure, family and marriage, fertility and mortality, race and ethnicity, housing and segregation, education, poverty and welfare, aging and retirement, methodology and data collection, gender, crime and deviance, and "other" category. These external facing user interface developments increased the internal complexity of managing the bibliography. As the IPUMS Bibliography user interface evolved, so too did the bibliography workflow.

Figure 3. IPUMS Bibliography user interface 2003 (Wayback Machine 2003)



More curation effort was required, which in turn necessitated expanding the training and supervision of undergraduate student workers. Developments to the IPUMS Bibliography workflow are addressed below.

Between 2005 and 2007 the IPUMS Bibliography was rebranded "The Minnesota Population Center Bibliography," a shift reflecting the organization of the Minnesota Population Center as "a university-wide interdisciplinary cooperative for demographic research" at the University of Minnesota (Magnuson and Thomas 2023). The IPUMS USA and IPUMS International harmonized microdata products were organizationally subsumed under the Minnesota Population Center (MPC). This rebranding also marked a visual refresh for the bibliography interface and some functional simplification. Radio buttons "Match ANY" and "Match ALL" were dropped in the keyword search field and "publication year" with date range was added (Figure 4). Requests for adding citations or additional functionality to the bibliography were removed from the user interface but captured through email submissions.

Figure 4. Minnesota Population Center Bibliography user interface 2007 (Wayback Machine 2007)

**Welcome to the Minnesota Population Center Bibliography!**

This bibliography contains references to publications, presentations, and works in progress that use the Integrated Public Use Microdata Series projects (IPUMS) or any other data resource created at the Minnesota Population Center. We appreciate your help in keeping the bibliography accurate and up to date.

**Keywords:** **Type:** All Citation Types
**Title:** **Publication Year:** to
**Author's Name:** Show All Search

Page: 1 2 3 ... 113 > » ***2260 total citations in bibliography***

| **Sort results by:** *Click the column heading to sort.* | Type | Pub. Year ↑ |
|---|---|---|
| What Holds Back the Second Generation? The Intergenerational Transmission of Language Human Capital Among Immigrants<br>•Bleakley, Hoyt | journal | 2008 |
| 10^{10^6} Worlds and Beyond: Efficient Representation and Processing of Incomplete Information<br>•Antova, Lyublena •Koch, Christoph •Olteanu, Dan | conference paper | 2007 |
| 493 Quantitative Historical Analysis<br>•Shammas, Carole | misc | 2007 |
| A Century of Women in Science and Engineering<br>•Norling-Ruggles, Abby | misc | 2007 |
| A Holistic Approach to the Geography of Social Distress: A Typology of U.S. Counties<br>•Rogers, Richard Lee | conference paper | 2007 |
| A Measure of Segregation Based on Social Interactions<br>•Echenique, Federico •Fryer, Roland | journal | 2007 |
| A Practical Approach to Using Multiple-Race Response Data: A Bridging Method for Public-Use Microdata<br>•Liebler, Carolyn A. •Halpern-Manners, Andrew | conference paper | 2007 |
| An Accounting Exercise for the Shift in Life-Cycle Employment Profiles of Married Women Born Between 1940 and 1960<br>•Buttet, Sebastien •Schoonbroodt, Alice | working paper | 2007 |
| An Empirical Analysis of Exploitation in the Labor Market Using a Weberian Approach: Manufacturing Industries in the U.S., 1971-1996<br>•Sakamoto, Arthur •Kim, Changhwan | conference paper | 2007 |
| An International Perspective on Scandinavia's Historical Censuses<br>•Thorvaldsen, Gunnar | journal | 2007 |
| Are Immigrant Youth Faring Better in U.S. Schools?<br>•Fry, Richard | journal | 2007 |

By 2011 users could filter their queries to search the MPC Bibliography for research using seven IPUMS harmonized data "projects" (products) (Figure 5). This reflects not only the growth of

the bibliography but the diversification of the IPUMS collections. In terms of the interface, the user is presented with a search tool with filtering options rather than a lengthy list of citations. The number of IPUMS harmonized data products in 2011 totaled seven: IPUMS-USA, IPUMS-International, National Historical Geographic Information Systems (NHGIS), Current Population Survey (CPS), American Time Use Survey (ATUS), Integrated Health Interview Series (IHIS), and North Atlantic Population Project (NAPP). The 2014 version of the bibliography interface was more colorful and the search tool more streamlined with the same functionality as the previous iteration (Figure 6). The diversification and scale of IPUMS harmonized data products was beginning to challenge the capacity of the IPUMS Bibliography Team and the infrastructure they relied on (Table 1).

Figure 5. Minnesota Population Center Bibliography user interface 2011 (Wayback Machine 2011)

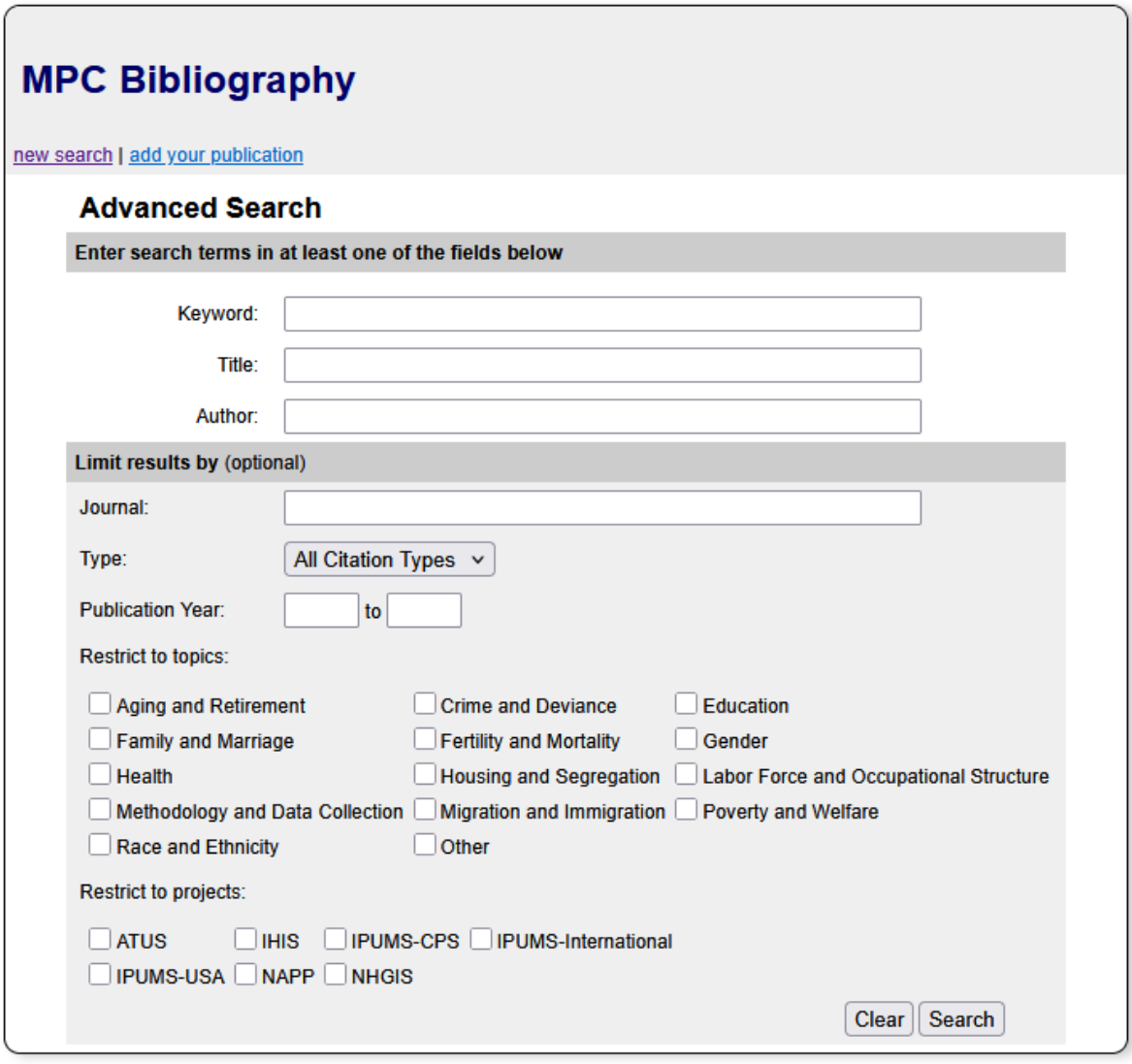
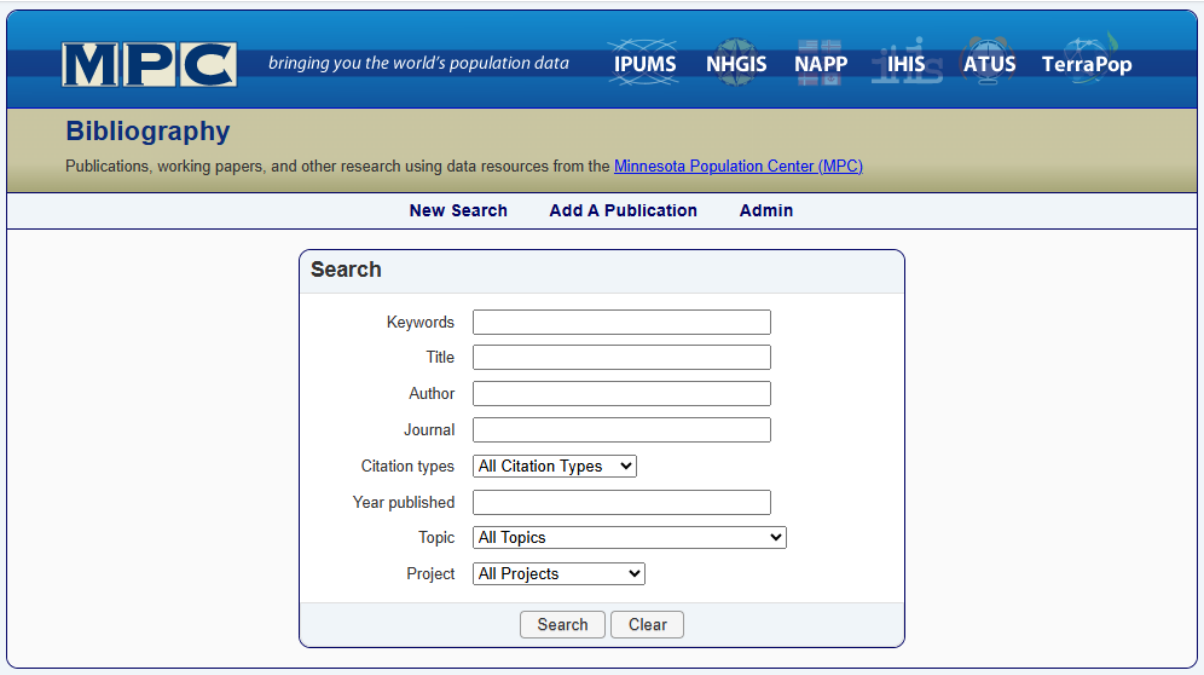
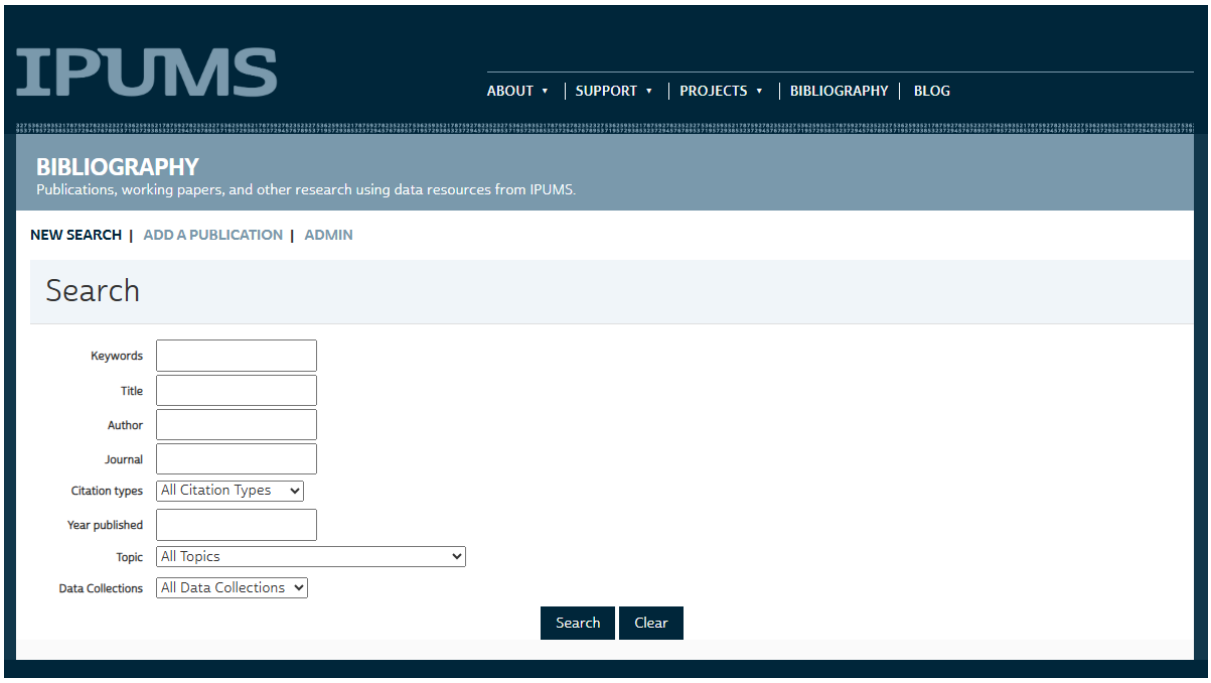


Figure 6. Minnesota Population Center Bibliography user interface 2014 (Wayback Machine 2014)



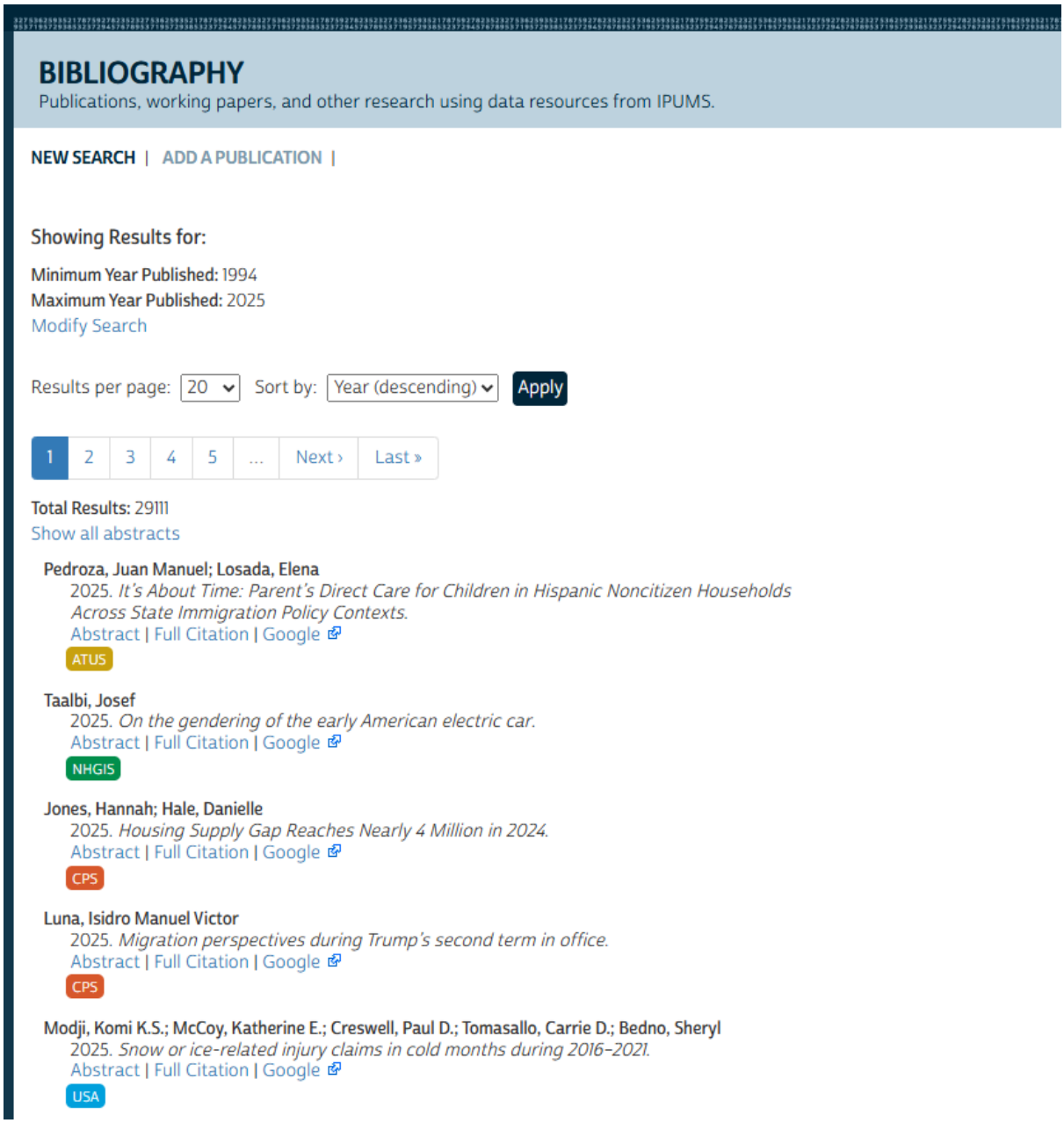

The user interface in 2018 returned to "IPUMS Bibliography," updated its branding to conform to a total refresh of the IPUMS websites' visual design, and changed the search filter "projects" to "data collections" (Figure 7). In all other respects, the functionality for the user remained the same as the 2014 version.

Figure 7. IPUMS Bibliography user interface 2018 (Wayback Machine 2018)




The IPUMS IT group undertook an overhaul of the IPUMS Bibliography user interface in 2022. The primary goals of the overhaul were useability from the perspective of internal and external users and long-term maintainability from the perspective of the IPUMS IT Product Team responsible for supporting the system. IPUMS Bibliography Team requests for feature updates were delayed by an IT reorganization and COVID disruptions in 2020. Updates to the codebase underpinning the IPUMS Bibliography raised the software team's confidence that they could maintain the tool and provide future enhancements as needed. IPUMS IT also added features to enhance the user experience and provide back-end support for the IPUMS Bibliography Team during the metadata creation stage (Fabrizio 2022). The results of the user enhancements are visible in a sample search results page (Figure 8). The updated user interface displays project tags, links to abstract, full citation, and Google Scholar (for project tag-controlled vocabulary, see Table 3).

Figure 8. IPUMS Bibliography user interface results page with project tags, 2025




## IPUMS Bibliography workflow

IPUMS harmonized data product releases have driven the growth of the IPUMS Bibliography (Table 1).[4] As the suite of IPUMS products and the number of users has expanded, so too has the challenge of capturing and managing bibliographic metadata. The previous section showed the evolution of the user interface in response to changing user and organizational needs. This section

describes the current metadata processing system that supplies the information underlying the bibliographic system.

The IPUMS Bibliography team manages three ongoing challenges to its curation work: improving bibliographic data capture methods; developing efficient, scalable, and sustainable workflows for managing the expanding bibliographic database; and refining a usable user interface for internal and external users to discover and link to publications using IPUMS data. The context of these challenges is the limited resources allocated to this work, necessitating the use of student labor, which in turn required a workflow suited to that workforce.

Table 1. IPUMS data product releases and bibliography citation count

| IPUMS data product | IPUMS data product released | IPUMS Bibliography citation cumulative count |
|---|---|---|
| USA | 1993 | [19] |
| International | 2002 | [1,098] |
| NHGIS | 2004 | [1,954] |
| CPS | 2006 | [3,093] |
| ATUS | 2008 | [4,511] |
| IHIS, NAPP | 2011 | [7,745] |
| USA Full Count* | 2013 | [10,512] |
| NHIS [formerly IHIS] | 2014 | [12,095] |
| AHTUS, HIGHER ED | 2015 | [13,779] |
| DHS, MTUS | 2016 | [15,548] |
| PMA, MEPS, NAPP | 2018 | [19,460] |
| IHGIS, MLP, USA Full Count** | 2020 | [23,092] |
| MICS, USA Full Count*** | 2024 | [28,651] |
| *Current* | 2025 | [29,268] |

*Without IPUMS codes, restricted version only. **With IPUMS codes. ***Preliminary 1950 data included.

IPUMS Bibliography data capture workflow steps are outlined in Table 2. There are three major steps to the workflow. Step one consists of organizing and allocating citations captured through Google Scholar, Google News, and Web of Science. The IPUMS Bibliography administrator receives email citation alerts from the three search engines. Citations are then copied from the email alerts and pasted into a Google document (“batch sheets”), organized by IPUMS data product and month, and then allocated to undergraduate student workers. This step is labor intensive, and it is challenging to eliminate citation duplication. The use of Google documents to organize and distribute batch sheets

to undergraduate student workers has three benefits: work is distributed and monitored in manageable chunks; the use of the comment function facilitates timely communication between the student and administrator around a troubling citation; and the batch sheets provide reference points for training and refining the bibliography workflow. Student worker turnover often occurs within academic years, so it is essential that the workflow seamlessly transfers to succeeding student workers. The IPUMS Bibliography and IT Product Teams are continually working to identify solutions to automate and increase accuracy and efficiency around identifying, organizing, and allocating captured citations.

Step two in the IPUMS Bibliography workflow consists of populating citations with metadata using the Mendeley Desktop and Mendeley Web Importer applications. Student workers verify the accuracy and completeness of the automatically ingested metadata and manually tag each citation with appropriate IPUMS Bibliography controlled vocabulary (Table 3). The development of formal IPUMS Bibliography technical and process documentation for onboarding and training has been essential and preserves institutional memory around IPUMS Bibliography process development.

The third step in the IPUMS Bibliography workflow involves manual and automated review of each new citation before it is uploaded to the IPUMS Bibliography. As part of the bibliography expansion work in 2022, the IPUMS IT team created a tool for running a report to identify inaccurate Mendeley data, including invalid project, top, or country tags (Fabrizio 2022). Validated citations are moved into an "approved" folder and ingested by the IPUMS Bibliography tool.[5]

Table 2. IPUMS Bibliography workflow

| Step | Source |
|---|---|
| Step One | Source One |
| Identify citations using IPUMS harmonized data products | Google Scholar, Google News, Web of Science [ProQuest], and user-submitted citations |
| Organize IPUMS citations into "batch sheets" by data product and month. | Google Scholar, Google News, Web of Science emails to IPUMS Bibliography email account, and user-submitted citations |
| Allocate batch sheets to undergraduate student members of IPUMS Bibliography Team | Batch sheets collated and assigned by IPUMS Bibliography project manager |
| Step Two | Source Two |
| Populate citation with automated metadata ingest and manual supplementation | Mendeley Desktop and Mendeley Web Importer apps |
| Tag citation with IPUMS projects (p-), topics (t-) and countries (c-) | IPUMS Bibliography controlled vocabulary |
| Step Three | Source Three |
| Validate bibliographic metadata through manual and automated review | Mendeley "unapproved," "forthcoming," and "approved" folders of new tagged citations; IPUMS IT generated error report |
| Disseminate IPUMS Bibliography | IPUMS Bibliography \| bibliography.ipums.org |

Table 3. IPUMS Bibliography controlled vocabulary (sample)

| Publication types | Mendeley Desktop reference management tool |
|---|---|
| book, chapter, journal, thesis (honor, master, doctorate), conference paper/proceeding, working paper (must be official working paper series with number), generic (e.g., report) | Mendeley Desktop app has twenty publication types of which IPUMS Bibliography uses seven in its controlled vocabulary |
| Project tags [p-ipums-] | IPUMS harmonized data products |
| atus, ahtus, cdoh, cps, dhs, higher-ed, ihgis, international, meps, mics, mtus, nhis, nhgis, pma, terra, usa, usa-full-count | See ipums.org for links to each IPUMS data product |
| Topic tags [t-] | Keywords |
| aging-and-retirement | aging, retirement, life course, intergenerational, gerontology |
| crime-and-deviance | trial, law, legal, crime, police |
| education | schooling, educational attainment, college, human capital |
| family-and-marriage | marriage, family, cohabitation, family structure, family formation |
| fertility-and-mortality | fertility, mortality, births, reproductive |
| gender | gender, feminization, masculine, women |
| health | anything health related |
| housing-and-segregation | home ownership, housing tenure, housing security, rent, living arrangements, redlining, affordable housing, neighborhood |

| | |
|---|---|
| labor-force-and-occupational-structure | labor force, employment status, occupation, industry, profession, labor supply, wage, earnings |
| land-use-and-urban-organization | land use, agriculture, urbanization, urban planning, transportation, property rights |
| methodology-and-data-collection | method, methodology, data collection, enumeration, questionnaire, forms, sample, modeling, data infrastructure, harmonization |
| migration-and-immigration | migrants, immigrants, nativity, foreign-born, cultural assimilation, cultural identity |
| natural-resource-management | agriculture, rainfall, water, food supply, extreme weather |
| population-data-science | longitudinal analysis, methodology, modeling, large-scale data, linking, harmonization |
| population-health-and-health-systems | public health, healthcare, health behaviors, care providers, health insurance, disability, access to care, healthcare utilization |
| population-mobility-and-spatial-demography | mobility, urbanization, neighborhood, local, displacement, spatial, mapping |
| poverty-and-welfare | poverty, minimum wage, income, social safety net, social security, inequality, material hardship, program participation |
| race-and-ethnicity | race, ethnicity, Hispanic, Latino/a/x, ethnic, culture, assimilation, minority, Great Migration |
| reproductive-and-sexual-health | reproductive, childbearing, maternal, female genital cutting, sexuality, contraceptives, family planning, pregnancy, postpartum, maternal morbidity and mortality, |
| work-family-and-time | parenting, motherhood, fatherhood, work-life-balance, single parthood, family structure, childcare, caregiving, paid leave, women's work |
| other | focus of publication not elsewhere classified (e.g., voting behavior) |
| Country tags [c-] | ISO Country List |
| Afghanistan, Albania, Algeria … Yemen, Zambia, Zimbabwe | Updated as necessary |

## Conclusion

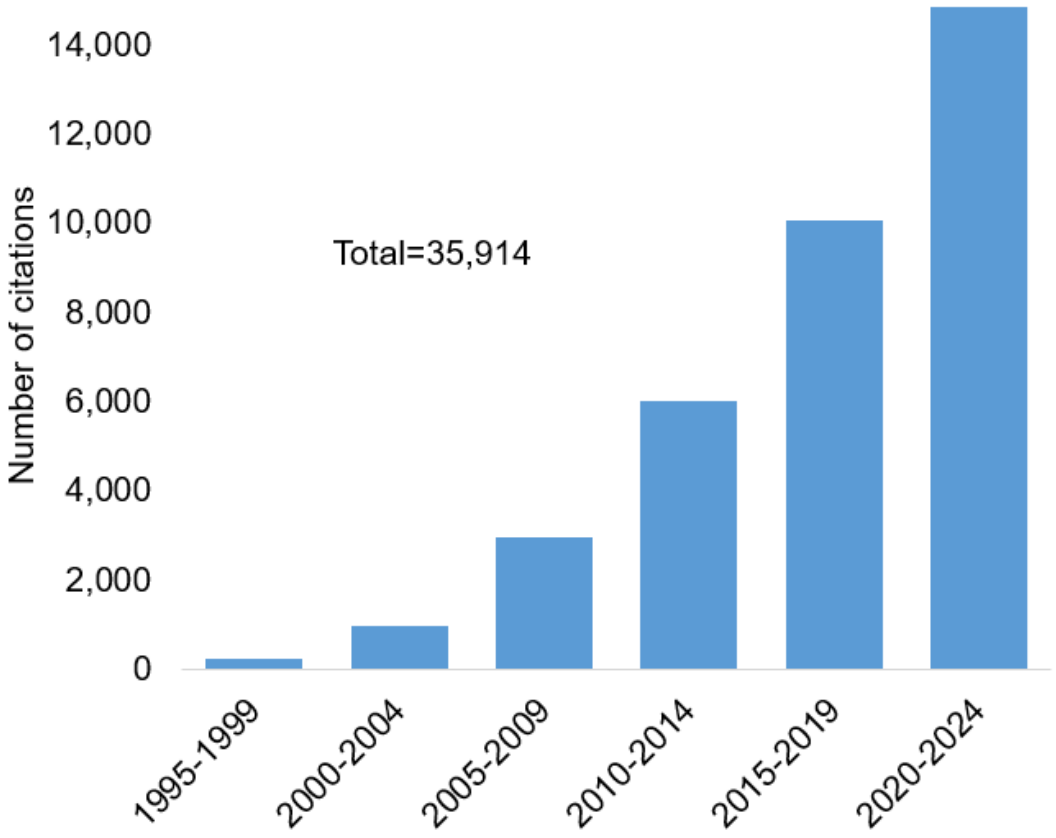
Curating, maintaining, and disseminating a bibliographic database requires significant short- and long-term investment in human, operational, and technical activities. The robust and creative use of IPUMS harmonized data products for academic research, policy, and teaching over thirty years and counting has presented an exciting challenge to curating the IPUMS Bibliography database. Internally, naming conventions around IPUMS harmonized data products were not standardized until all products were rebranded with the IPUMS prefix in 2016. Citation capture was greatly aided by

adoption of digital object identifiers (DOI) in 2016 (Magnuson and Thomas 2023). Prior to 2016, the effort to collect citations of IPUMS harmonized data products was significantly more challenging. The steady expansion and increasing diversity of IPUMS continue to present challenges of scale for the IPUMS Bibliography Team (Table 1).

From the earliest days of IPUMS, we recognized the need to compile a bibliography for both external and internal uses. Although they have evolved and we use them in our process, proprietary search engines have never proved sufficient for our purposes. For example, the use of Google Scholar can support but not replace our organization's knowledge database (Chaddaway et al. 2015). Long term curation, preservation, and access to traditional scholarly citations and citations of "gray literature" using IPUMS is the responsibility of the IPUMS Bibliography Team. Nevertheless, Google Scholar search results provide a useful tool for the IPUMS Bibliography Team to audit and measure data capture progress (Figure 9).

The IPUMS Bibliography tool is crucial for harnessing and making discoverable over three decades of IPUMS organizational knowledge. Institutional goals are supported and strengthened by the IPUMS Bibliography through capturing, organizing, and making discoverable: research analysis on tens of thousands of microdata and aggregate variables over time; processes for developing and maintaining well-defined and evolving harmonized classifications; and technological innovation and advancement supporting IPUMS systems. Intentional curation of an organizational knowledge database supports internal goals and strengthens social science infrastructure more broadly. IPUMS administration and data project managers use the IPUMS Bibliography to demonstrate the impact of IPUMS harmonized datasets to current and potential funders and to keep abreast of new directions taken by the research community using the data. IPUMS users can explore potential topics for investigation and conduct literature reviews of quantitative social science research. The IPUMS Bibliography workflow suggests a model to units situated in an organizational setting where the bibliography work is vital but secondary to the main product.

Figure 9. Google Scholar citation capture of articles using IPUMS, 1995-2024



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Ruggles, S. (1994a) ”The Transformation of American Family Structure,” The American Historical Review, Vol. 99, No. 1, pp. 103-128. https://doi.org/10.2307/2166164

Ruggles, Steven. (1994b) ”The Origins of Africa-American Family Structure,” American Sociological Review,” Vol. 59, No. 1, pp. 136-151. https://doi.org/10.2307/2096137

Ruggles, Steven (1991) “The U.S. Public Use Census Microdata Files as a Source for the Study of Long-Term Social Change,” IASSIST Quarterly, 15(2). https://doi.org/10.29173/iq703

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Wayback Machine. (2014) “Minnesota Population Center Bibliography,” August 31. https://web.archive.org/web/20140831071059/https://bibliography.ipums.org/

Wayback Machine. (2011) “Minnesota Population Center Bibliography,” May 11. https://web.archive.org/web/20110511120130/http://bibliography.ipums.org/

Wayback Machine. (2007) “Minnesota Population Center Bibliography,” June 30. https://web.archive.org/web/20070630231455/http://bibliography.ipums.org/

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Wayback Machine. (2000) “IPUMS Bibliography,” August 16. https://web.archive.org/web/20000816044420/http://www.ipums.umn.edu/~pipums/research.html

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## Endnotes


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