#### Citation Analysis and Hmong Studies Publications: An Initial Examination

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#### **ABSTRACT**

As a field of study, Hmong Studies has been developing and growing over the past thirty years. Has the field developed to the point of having any clearly defined sets of key journals, publishers, authors, or institutions? Bibliometrics offers a set of tools that allows library and information researchers to look for patterns of publication which might help to answer these questions. In this initial study, using a variety of publications and databases, it was found that the field is still evolving with no clear boundaries or established "best" journals, institutions for research or other clear patterns.

"You could say that citation analysis is like fishing. You start with a line and hook because you want one fish. Then you want to know which school of fish that one fish is connected to. You decide what size of a net to use; you can expand your search with a big net, but you also can narrow it down using a small net." -- Eugene Garfield (Kim, 2000)

#### INTRODUCTION: HMONG STUDIES TODAY

At most major colleges and universities, Hmong studies programs and research are integrated into the broader programs of American Studies or Asian American Studies. A few specialized publications – such as the scholarly and peer reviewed Hmong Studies Journal and the Hmong Times and Hmong Today community newspapers – have arisen, dedicated to Hmong issues.

In the past decade, Hmong Americans have achieved a variety of important 'firsts,' such as:

- In 2002, lawyer Mee Moua became the nation's first Hmong American elected to a state legislature (Minnesota).
- Along with many courses and programs related to Hmong Studies throughout North
   America, in 2004, a Center for Hmong Studies was established at Concordia University St.Paul in Minnesota.

- Zha Blong Xiong became the first Hmong to earn tenure at a major research university in the United States in 2006.
- Immigrant Blong Xiong became the first Hmong city council member in California (Fresno) in 2006.
- The Library of Congress established an Asian Pacific American Collection in 2007.

Beyond such headline-making events are the steady, less well-publicized trends, such as the growth in college enrollment of Hmong students, the rising presence of Hmong issues, events and personalities in the media, and the growing involvement of Hmong in their larger communities throughout the country. Not long after the first major wave of Hmong immigrants to North America in 1975, articles began being published in scholarly presses about Hmong people, their culture and needs. We now have hundreds, if not thousands, of published works, throughout the disciplines, in articles, dissertations and books.

This article seeks to examine the growing Hmong Studies literature – its nature, growth and dimensions – by studying the records in a sampling of scholarly databases, published dissertations and other means. Librarians and information scientists use these types of analysis to help guide collection development or assess the development of trends, key people or organizations in a field. No analysis of published literature has yet been published for Hmong Studies, let alone for the larger area of Asian American Studies.

Bibliometrics is a type of research that uses quantitative analysis and statistics to better understand patterns of publication within a given field or body of literature. (Wolfram, 2003) One common data source used for bibliometric research is the Web of Science database (composed of the Social Science Citation Index, Science Citation Index Expanded and Arts & Humanities Citation Index) to track citations by topic, publication or by specific authors. (Borgman & Furner, 2002)

This study attempts to apply bibliometric analysis to learn more about patterns of growth, authorship and publication for the growing, interdisciplinary field of Hmong Studies. (Morillo, Bordons & Gomez, 2003)

Since large numbers of Hmong began to emigrate to the West from SouthEast Asia, have we developed patterns, clear relationships or borders in the emerging field of Hmong Studies? Has the field developed to a point where we might determine, with any assurance, core publications, programs or authors?

#### **METHODS**

Bibliometrics has been a specialization within library/information science for over 40 years. (Hertzel, 2003) Bibliometric tools can be used to explore the impact of a particular field, the impact of a particular researcher or set of researchers, or a particular article, journal or book. (Borgman, 1990) By studying the accumulated corpus of published books, journals and articles – selected by using the keyword "Hmong" in core databases –bibliometrics might allow one to assess:

- The numbers and types of graduate degrees awarded in North America
- The quantitative growth in articles in various key databases over time
- Institutions affiliated with authors of published dissertations and articles
- Top journals for Hmong articles from key resources
- First author's country and institutional affiliation for key articles
- Most common subjects and types of publications of key articles
- The distribution of references in selected articles from a key journal
- The authorship patterns for highly cited articles
- The authorship, affiliations and types of degrees granted for dissertations

Hmong Studies potentially involves virtually all academic disciplines. Because of this, this study focused both on core, comprehensive databases – Digital Dissertations and Web of Science

(WoS) – as well as focusing on Hmong Studies Journal as the key, specialized journal dedicated to the field and the important reference work, Hmong-Related Works, 1996-2006: An Annotated Bibliography. Cursory searching in a selection of additional, key scholarly databases was also done in an effort to validate the results received from WoS.

Digital Dissertations provides the most comprehensive coverage of doctoral dissertations (from 1861) and Masters theses (since 1962) available for the United States and Canada, with scattered coverage from Europe and other countries. (Toulas, 2006) WoS database, remains the largest and most prestigious database for doing scientometric and bibliometric analysis.(Golderman & Connolly, 2007) Other scholarly databases accessed were: AMED (Allied & Complementary Medicine), America: History & Life, Anthropology Plus, AnthroSource, EconLit, ERIC, Family & Society Studies WorldWide, Historical Abstracts, Linguistics & Language Behavior Abstracts, MEDLINE, PAIS International, PsycINFO, Social Services Abstracts, Sociological Abstracts, and Worldwide Political Science Abstracts.

In its 12 years of publication, Hmong Studies Journal has become an importance focus for research and researchers specializing in the field. An examination of the bibliographies from a single year of publication was made to better understand the types of publications cited by specialists in the field.

Lastly, Mark Pfeifer's important bibliography, Hmong-Related Works, 1996-2006: An Annotated Bibliography was searched for most cited authors and publications as another dimension to understanding the core literature in the field. (Pfeifer, 2007)

#### **RESULTS**

The results of the different analyses are described separately in the following sections:

#### Digital Dissertations

A cursory examination of dissertations, as indexed in the Digital Dissertations database, shows a large and growing literature focusing on the issues, characteristics, needs and

Citation Analysis and Hmong Studies Publications: An Initial Examination by Nancy K. Herther, Hmong Studies Journal, 10: 1-22. contributions of this population. Dissertations are significant because they represent the primary interests of a researcher-in-training and indicate some key continuing research interests of that

individual during their initial years of professional practice. (Hart, 2005)

Searching under the general keyword of "Hmong," 255 dissertations and theses were included in the database, covering the years 1977 to 2008. [See Figure 1] Most of the dissertations (56.6%) were for the Ph.D. degree, although a wide variety of degrees were represented. [See Table 1] In terms of institutions granting the degrees, the top five institutions accounted for 35% (90 out of 255) of the graduate degrees granted. [See Table 2]

#### Searching the Web of Science for Citation Information

Using WoS from 1975 through 2008, 527 articles from the over 12,000 core journals in the database were found. [See Figure 2 ] Authors' country of affiliation in this international database is strongly American (69%), however, a wide spectrum of geographic areas are represented. [See Figure 3]

Of the 317 journals with "Hmong" articles (out of a total of over 12,000 journals in WoS), only 25% published more than two articles on Hmong topics. Of these, only three journals had published more than ten articles over the past 33 years. [See Table 3]

Institutional affiliations for these articles are also widely dispersed. The top four institutions represented were: University of Minnesota, Twin Cities; University of Wisconsin, Madison; and the University of California – Berkeley and San Francisco campuses. [See Table 4]

The widespread distribution of subjects or topics of articles covered in WoS provides good evidence of the robust research interests and areas in Hmong Studies. [See Table 5] The majority of records in WoS (60%) were journal articles. [See Table 6] Of the first authors of the Hmong articles in WoS, only one of the authors had more than ten articles indexed in WoS. [See Table 7]

In order to give credence to the trends apparent in WoS, comprehensive searches on "Hmong" were run in four discipline-oriented, scholarly databases. The results generally paralleled those found in WoS. [See Table 8] Additionally, eleven other scholarly databases were searched for their coverage of Hmong topics. [See Table 9]

#### **Hmong Studies Journal**

The only peer-review journal devoted to Hmong scholarship is the Hmong Studies

Journal. In the over 12 years of publication, 79 articles have been published. To-date, only one article from the journal was cited in the journals indexed in WoS. In order to look at the types of publications cited in this core publication, a sample of nine articles – all articles from the 2007, volume 8 of the journal – were studied. In order to focus on secondary sources, primary sources (interviews, correspondence, etc.) were ignored for this study. Of the 360 secondary citations in the nine bibliographies, the mean number of records was 40. Of these cited records, 44.7% were journal articles and 26.3% were books. [See Table 10] Of the records, 111 unique secondary sources were cited by authors in that year. 82%, or 74, of these were cited only once. [See Table 11] Although the numbers are low, eight journals were cited more than twice in the references cited in the 8th volume. [See Table 12]

#### Hmong-Related Works, 1996-2006: An Annotated Bibliography

For another perspective on published Hmong literature, the citations in Mark Pfeifer's excellent bibliography of the field, published in 2007, were examined. This reference work provides a unique effort to organize and consolidate the core literature in the field. The top books and journals cited in the bibliography are listed in Table 13. They show limited overlap with references from either *Hmong Studies Journal* or the WoS database.

Studying the most cited authors in the bibliography against the results from WoS found overlap with only ten authors. [See Table 14]

#### **DISCUSSION**

Generally, the study finds a field that is still emerging, growing and developing.

Although many key aspects, researchers and institutions can be identified, it appears to be too early to make any definitive conclusions or to predict best journals or other materials for the future. Further comments on each portion of the study include:

#### **Dissertations**

The significant number and variety of dissertations would appear to show a broad, robust, developing core of scholars with research interests and expertise related to Hmong issues and peoples. The focus on a few institutions, generally located in areas with large Hmong populations, may also be significant. This may reflect that the local/regional Hmong populations have attracted the interest of these researchers. It also may reflect the impact that the Hmong populations themselves have on higher education in their communities and the willingness or ability of both communities to seek understanding and service. Attempts to do initial citation analysis of the dissertations' authors did not provide any significant results.

#### Web of Science

The WoS information was important but, given the wide scatter in terms of subjects and publication dates, any real analysis was impossible. The numbers of publications show a general, gradual increase, but scattered development over the years. The importance of journal publication is consistent with studies of other fields in the social sciences and sciences. The scatter of authors is yet another apparent indication of the yet-evolving nature of the field, making any analysis unreliable. The searches in the eleven other scholarly databases resulted in similar scattered patterns of article publication.

The predominance of American researchers would seem to indicate the key importance of the United States as both a point of resettlement as well as a key focus for research on Hmong Studies. The concentration of research at four top-tier research institutions may indicate growing

Citation Analysis and Hmong Studies Publications: An Initial Examination by Nancy K. Herther, Hmong Studies Journal, 10: 1-22. centers of research. These institutions also are located in communities with some of the largest concentrations of Hmong populations today, which may indicate a developing synergy between the two communities.

#### **Hmong Studies Journal**

Articles in the 8<sup>th</sup> volume of *Hmong Studies Journal* provided an interesting view of the numbers and types of materials cited by authors in the field. However, with so few volumes published, the importance of individual works or the journal as-a-whole is impossible to ascertain. *Hmong Studies Journal* is now indexed in ProQuest's *Ethnic NewsWatch* and EBSCO's *Academic Search Complete* and will also soon be indexed in Gale/Cengage and H.W. Wilson databases which will enhance access to scholars doing secondary research.

#### Hmong-Related Works, 1996-2006

Study of this seminal reference work to the field found surprisingly little overlap with WoS or *Hmong Studies Journal* results. In the case of most-cited authors, for example, only ten authors were covered in both WoS and Pfeifer's work. This would appear to also indicate that the field is still in the very early stages of development and growth.

#### Other Scholarly databases

Additionally, eleven other scholarly databases were searched for their coverage of Hmong topics, which indicated a strong integration of Hmong-related topics and issues in a broad-based core of disciplines.

#### **CONCLUSIONS**

This very preliminary assessment reveals a field that is still emerging, developing and growing. It would be impossible to reliably identify any 'core' literature at this time; however, it is possible to identify some key institutions and topics of current and past interest. The developing 'invisible college' of researchers, that includes Hmong and non-Hmong participants, is a strong sign of vitality and growth. The development of significant research activity in

Citation Analysis and Hmong Studies Publications: An Initial Examination by Nancy K. Herther, Hmong Studies Journal, 10: 1-22. geographical areas that are also home to large populations of Hmong people, speaks to the strength that these relationships can engender to the mutual benefit of both communities.

Bibliometrics is an important field that can offer insights into the organization, growth and communication of knowledge within a field. Using such measures as authorship, citation, and publication pattern, researchers have been able to link the relationship of scientific domains and research communities to the structure and growth of specific fields or ideas. Hmong Studies is a field where knowledge and identity are still being worked out in the larger frameworks of Asian American Studies and Ethnic Studies, as well as in the more traditional disciplines.

Bibliometric methods provide an interesting picture of the field today; however, these analyses are too tentative yet to be useful either to predict or indicate core literature or future directions for the field. Further research may involve citation analysis of dissertations or other acknowledged sources of information/publications with Hmong related research.

#### **References Cited**

Borgman, Christine L., (1990). ed. *Scholarly Communication and B*ibliometrics. Newbury Park, CA: Sage Publications. See especially Part III.

Borgman, Christine L. & Jonathan Furner. (2002). "Scholarly Communication and Bibliometrics." *Annual Review of Information Science & Technology* 36(3-72): 14-15.

Golderman, Gail & Bruce Connolly. (2007). "Who Cited This?" *Library Journal* 132(1):18-24.

Hart, Chris. (2005). *Doing a Literature Review: Releasing the Social Science Research Imagination*. London: Sage.

Hertzel, Dorothy H. (2003). "Bibliometrics History," *Encyclopedia of Library and Information Science*, 2<sup>nd</sup> ed. New York: Marcel Dekker, 288-328.

Kim, Chungji. (2000). "In-Depth Interview: Interview with Eugene Garfield," *Medical Writing* 18(1). Accessed online @ http://www.garfield.library.upenn.edu/papers/medicalwritingy8(1)1999.html, February 21, 2009.

Morillo, Fernanda, Bordons, Maria & Isabel Gomez. (2003). "Interdisciplinarity in Science: A Tentative typology of Disciplines and Research Areas," *Journal of the American Society for Information Science and technology* 54(13):1237-1249.

Pfeifer, Mark E. (2007). *Hmong-Related Works, 1996-2006: An Annotated Bibliography*. Lanham, MD: Scarecrow Press.

Toulas, Andrew. (2006). "Dissertation Databases on the Web," Notes 63(1):159-163.

Wolfram, Dietmar. (2003). *Applied Informatics for Information Retrieval Research*. Westport: CT, 40-41.

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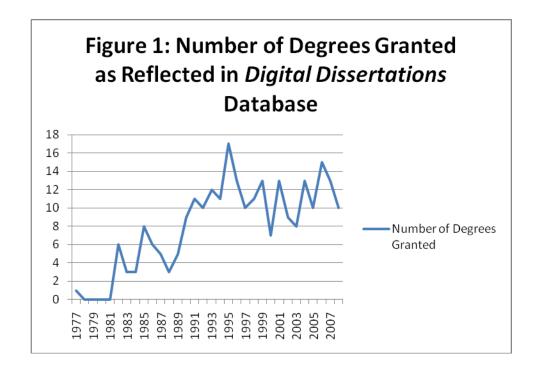


Table 1: Graduate Degrees Granted in "Hmong"
Areas
As Reflected by Digital Dissertation Records

Degree Type	Number Granted*
Ph.D.	144
Ed.D	39
M.A.	28
M.S.	17
Psy.D.	10
M.S.W.	5
M.P.H.	4
Educat.D.	4

<sup>\*</sup> Other degree types, such as:

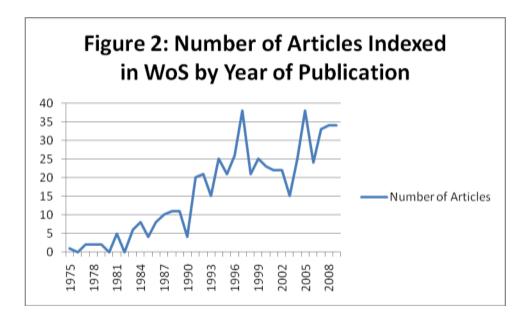
M.Ed., D.B.A., M.S.Eng., D.N.Sc., D.Mis. And D.Min.

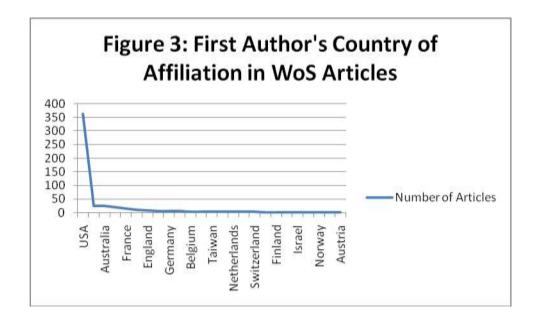
Source: Digital Dissertations database.

Accessed January 10, 2009.

# Table 2: Universities with 3 or More Published Dissertations

<u>Institution</u>	Number of Graduate Degrees Granted
California State University, Fresno	26
University of Minnesota - Twin Cities	23
California School of Professional Psychology - Fresno	14
University of Wisconsin - Madison	14
University of San Francisco	13
Alliant International University - Fresno	8
University of California, Davis	8
University of Washington	7
Michigan State University	6
California State University, Long Beach	6
University of the Pacific	5
University of St. Thomas (Minnesota)	5
Capella University	5
University of Wisconsin - Milwaukee	4
California State University, Fresno & University of California, Davis	4
University of Colorado at Boulder	3
California State University, Stanislaus	3
University of Pennsylvania	3
Marquette University	3
University of California, Los Angeles	3





### Table 3: Top Journals for "Hmong" Topics in Web of Science

#### Journal Name Number of Articles

Journal of Asian Studies 14 Journal of Nervous and Mental Disease 13 Asian Folklore Studies 11 Cancer 8 FASEB Journal 8 Social Science & Medicine 8 Amerasia Journal 7 International Migration Review 7 7 Journal of SE Asian Studies 6 American Journal of Human Biology HOMME6 6 Journal of American Folklore 5 Library Journal Medical Anthropology Quarterly 5 American Journal of Community Psychology Clinical Pharmacology & Therapeutics 4 Contemporary Sociology 4 Human Biology 4 JAMA-Journal of the American Medical Association Journal of Nutrition Education 3 American Ethnologist 3 American Journal of Psychiatry 3 American Journal of Public Health Anthropological Quarterly 3 3 Asian Music

Data accessed January 10, 2009.

Journals with less than three published articles (292) were excluded.

<sup>\*</sup> Based on numbers of articles indexed in the Web of Science 1975-2008.

## **+Table 4: Institutional Affiliations for WoS Articles**

Institution Name	<b>Number of Articles</b>
University of Minnesota - Twin Cities	81
University of Wisconsin	37
University of California - Berkeley	12
University of California - San Francisco	12
Chiang Mai University	10
University of California - Davis	9
University of California - Los Angeles	9
La Trobe University	8
University of Massachusetts	8
University of Washington	8

Source: *Web of Science* Database Accessed January 10, 2009.

## Table 5: Top Subjects Covered in WoS Articles

Subject Area	<b>Number of Articles</b>
Public, Environ. & Occup. Health	54
Anthropology	41
Psychiatry	37
Area studies	28
Asian studies	28
Education & Educational Research	25
Social Sciences, Biomedical	23
Sociology	23
Medicine, General & Internal	22
Pediatrics	20
Biology	18
Folklore	18
Clinical Neurology	17
Nursing	17
Psychology, Multidisciplinary	17
Genetics & Heredity	16
Social Work	16
Biochemistry & Molecular Biology	14
Humanities, Multidisciplinary	14
Linguistics	13
Health Policy & Services	12
Oncology	12
Pharmacology & Pharmacy	12
History	11
Demography	9

Accessed January 10, 2009.

## <u>Table 6: Types of Documents on "Hmong" Topics in Web of Science Database</u>

Document Type	Number of Records
Article	313
Book Review	100
Meeting Abstract	32
Proceedings Paper	25
Note	6
Review	6
Letter	5

Document types out of 527 records in the *Web of Science database. Accessed* Accessed January 13,2009.

Table 7: 25 Most Prolific Authors in WoS

Author	Number of Articles
Westermeyer, J	19
Straka, RJ	8
[Anonymous]	7
Kunstadter, P	7
Rice, PL	7
Clarkin, PF	6
Culhane-Pera, KA	6
Neider, J	6
Tapp, N	6
Jin, L	5
Lee, SJ	5
Li, H	5
Mills, PK	5
Walker, AR	5
Burkhardt, RT	4
Dunnigan, T	4
Hadsall, KZ	4
Hansen, SR	4
Lang, NP	4
Reicks, M	4
Tsai, MY	4
Vang, TF	4
Wakimoto, P	4
Yang, RC	4
Ying, YW	4

Based on data in the Web of Science Databas

Accessed January 10, 2009

<u>Table 8: Articles From a Sampling of Scholarly</u>
<u>Databases</u>

<u>Year</u>	<u>Database</u>				
	Web of Science	Soc Abstracts	ERIC	MEDLINE	Anthro Plus
1968	0	0	0	0	1
1969	0	0	0	0	0
1970	0	0	0	0	0
1971	0	0	0	0	0
1972	0	3	0	0	4
1973	0	0	0	0	1
1974	0	0	0	0	1
1975	1	0	0	0	0
1976	0	0	0	0	0
1977	2	0	0	1	1
1978	2	0	7	2	3
1979	2	1	1	0	5
1980	0	0	6	0	4
1981	5	9	20	5	1
1982	0	3	10	2	3
1983	6	2	12	10	8
1984	8	3	15	10	3
1985	4	2	11	4	5
1986	8	7	10	5	5
1987	10	1	10	9	9
1988	11	5	30	6	13
1989	11	4	19	10	2
1990	4	4	15	6	2
1991	20	2	14	5	3
1992	21	7	17	9	16
1993	15	6 12	12 15	2 4	6
1994 1995	25 21	12	15 8	4 11	10 0
1995	26	11	o 7	14	7
1997	38	8	18	8	11
1998	21	8	15	7	2
1999	25	9	10	6	5
2000	23	10	8	6	5
2001	22	10	12	14	3
2002	22	10	5	18	15
2003	15	13	10	10	10
2004	25	14	9	12	9
2005	38	18	11	25	7
2006	24	13	8	14	7
2007	33	11	8	27	8
2008	34	11	7	13	4

Accessed January 10, 2009.

# <u>Table 9: "Hmong" in Key Scholarly</u> <u>Databases</u>

<u>Database</u>	Number of Articles
AMED - Allied & Complementary Medicine	8
America: History & Life	67
Anthropology Plus	200
AnthroSource	11
EconLit	8
ERIC	362
Family & Society Studies WW	220
Historical Abstracts	29
Linguistics & Language Behavior Abs.	151
MEDLINE (1966-)	281
PAIS International (1972-)	49
PsycINFO (1806-)	294
Social Services Abstracts	57
Sociological Abs.	231
WW Political Science Abstracts	62

Accessed January 13, 2009.

Table 10: Types of Secondary Research Cited in Hmong Studies Journal, 2007

Type of Material	Number of Items in Bibliographies	% of Total Secondary Citations*
Journal articles	161	44.70%
Books	95	26.30%
Book Chapters	19	5.27%
Popular/News	41	11.38%
Dissertations	14	3.88%
Websites	29	8.00%

<sup>\*</sup> Correspondence, interviews and other types of primary evidence are not included

<u>Table 11: Citation Scatter in Hmong Studies</u>
<u>Journal Bibliographies 2007</u>

Times Cited	Number of Sources	Percent of Citations
1	91	82%
2	12	10.80%
3	4	3.60%
4	3	2.70%
10	1	0.90%

<u>Table 12: Journals Cited Most in Hmong</u>
<u>Studies Journal 2007</u>

<u>Journal</u>	Number of Citations *
Hmong Studies Journal	10
Am. Journal of Public Health	4
Suicide & Life Threat. Beh.	4
JAMA	4
Am. Educational Research J.	3
Diabetes Care	3
J. of Nervous & Mental Dis.	3
Am. Political Science Review	3

<sup>\*</sup> Top journals out of 111 unique journals cited.

Table 13: Top Publications Cited in Pfeifer's Bibliography

<u>Journal</u>	Number of Citations
Hmong Studies Journal	48
Hmong/Miao in Asia	21
Healing by Heart: Clinical & Ethical Case Stories	8
Hmong Census Publication: Data & Analysis	8
Hmong of Australia: Culture & Diaspora	7
Turbulent Times & Enduring Peoples	5
American Journal of Community Psychology	4

Source: Mark E. Pfeifer. Hmong-Related Works, 1996-2006: An Annotated Bibliography

(Lanham, MD: Scarecrow Press, 2007)

# Table 14: First Authors Cited in Both WoS & Pfeifer

First Author	<u>WoS</u>	<u>Pfeifer</u>
Cha, D.	3	9
Goodkind, JR	3	5
Hones, DF	3	5
Lee, SJ	5	7
Michaud, J	3	7
Mills PK	5	6
Rice, PL	7	5
Schein, L	3	5
Xiong ZB	3	9
Yang, RC	4	8