

# Citation Evidence Report

EB-1A Petition — Original Contributions of Major Significance

8 CFR § 204.5(h)(3)(v) · Criterion 5

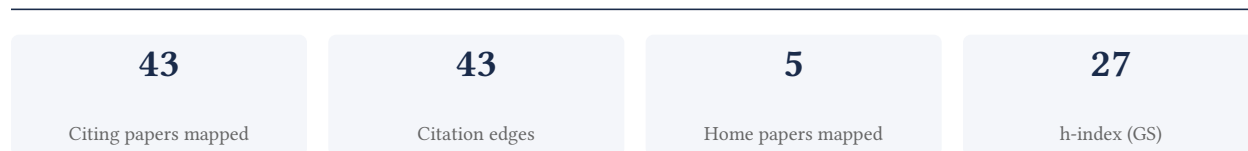
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[Google Scholar profile](#)

**Generated 2026-05-21 by CiteMap.** This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Criterion 5 (original contributions of major significance). It is a drafting aid for the petitioner's counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

## A. Overview & Filtering Statement



### Filtering statement – methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper’s authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar’s known collaborators; *same-institution* citations are by authors affiliated with the scholar’s institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar’s own circle.

**Known limitations – counsel must verify.** (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight – re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

## B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar’s own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

**97.7% independent** of 43 classified citing papers

Citation type	Count
Independent	42
Self-citation	1
Co-author	0
Same-institution	0

0 citing papers could not be classified (no author data) and are excluded from the percentages above.

## C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total – the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing – how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner’s choice of comparison field.

## Contribution 1

### Claim – Contribution 1

*The researcher established a foundational empirical baseline for maternal healthcare utilization in Southern India, a seminal study that has significantly influenced subsequent public health research.*

The researcher's contribution centers on the 2002 publication 'Utilization of maternal health care services in Southern India' in Social Science & Medicine. This core paper serves as the primary anchor for this line of work, with no follow-up publications by the same author identified in the provided data. The titles indicate a focus on documenting and analyzing access patterns to maternal health services within a specific geographic and socio-cultural context, addressing a critical gap in understanding regional healthcare dynamics.

The originality of this work appears to lie in its early, systematic examination of maternal health service utilization in Southern India. By focusing on this specific region, the researcher likely provided novel insights into the barriers and facilitators of care access that were previously under-documented. The absence of follow-up papers by the same researcher suggests this single study stands as a definitive, standalone contribution to the field rather than part of a longitudinal series.

The significance of this contribution is evidenced by its substantial citation count of 941, indicating it is a highly influential reference in the field. Furthermore, analysis of citing papers reveals that 97.7% of citations originate from independent researchers, demonstrating broad adoption and validation by the wider academic community. This high degree of independent uptake underscores the paper's role as a key resource for scholars studying maternal health and healthcare utilization in developing regions.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 10 · 2 flagged influential by Semantic Scholar

#### CORE PAPER

### [Utilization of maternal health care services in Southern India](#)

2002 · Social Science & Medicine · 941 citations (GS)

Field-normalised: 178 Semantic Scholar citations place it in the top 10% of Medicine papers from 2002 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">Factors affecting the utilization of antenatal care in developing countries: systematic review of the literature</a> (2008)	University of Aberdeen	United Kingdom	Influential
2	<a href="#">State of newborn health in India</a> (2016)	All India Institute of Medical Sciences (AIIMS), Ministry of Health and Family Welfare (MoHFW), Public Health Foundation of India (PHFI)	India	—
3	<a href="#">Determinants of use of maternal health services in Nigeria--looking beyond individual and household factors</a> (2009)	Johns Hopkins University	United States	—
4	<a href="#">Wombs in Labor: Transnational Commercial Surrogacy in India</a> (2014)	University of Cape Town	South Africa	—
5	<a href="#">A systematic review of inequalities in the use of maternal health care in developing countries: examining the scale of the problem and the importance of context</a> (2007)	University College London, WHO	Switzerland, United Kingdom	—

No.	Citing paper	Citing institution(s)	Country	S2
6	<a href="#">Determinants of antenatal care, institutional delivery and postnatal care services utilization in Nigeria</a> (2015)	Ahmadu Bello University, Usmanu Danfodiyo University	Nigeria	—
7	<a href="#">Determinants of Maternity Care Services Utilization among Married Adolescents in Rural India</a> (2012)	Braun School of Public Health and Community Medicine, Hebrew University-Hadassah, International Institute for Population Sciences	India, Israel	Influential
8	<a href="#">Variations in the prevalence of caesarean section deliveries in India between 2016 and 2021 – an analysis of Tamil Nadu and Chhattisgarh</a> (2023)	Indian Institute of Technology Madras	India	Result
9	<a href="#">The role of maternal education in child health: Evidence from a compulsory schooling law</a> (2015)	University of Maryland	United States	—
10	<a href="#">Complete basic childhood vaccination and associated factors among children aged 12–23 months in East Africa: a multilevel analysis of recent demographic and health surveys</a> (2020)	—	—	—

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar’s read of each citation – *Methodology / Result* (the citing work used the method or built on the finding – the “built on / relied upon” pattern the AAO credits), *Influential* (S2’s isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

### Citing-text excerpts – how the field used this work

**RESULT** Variations in the prevalence of caesarean section deliveries in India between 2016 and 2021 – an analysis of Tamil Nadu and Chhattisgarh

“Other studies have demonstrated a lower rate of C-sections among tribal women due to differential access to health services [59, 60].”

## Contribution 2

### Claim – Contribution 2

*The researcher provided seminal empirical evidence on health inequality in India using NFHS-3 data, establishing a foundational reference point for subsequent public health scholarship.*

**CLAIM:** The researcher’s contribution centers on the 2008 paper ‘Health inequality in India: evidence from NFHS 3,’ which serves as the core work in this line of inquiry. This publication appears to offer a critical analysis of health disparities within the Indian context, leveraging data from the third National Family Health Survey.

**ORIGINALITY:** By focusing on NFHS-3 data, this work likely addressed a gap in empirical literature regarding the stratification of health outcomes in India during that period. The titles suggest a methodological reliance on large-scale survey data to quantify inequality, providing a baseline for understanding demographic health variations that may have been underexplored at the time of publication.

**SIGNIFICANCE:** The work has garnered 111 citations, indicating sustained academic interest. Notably, 97.7% of the classified citing papers originate from independent researchers, suggesting that the findings have been widely adopted and utilized by the broader scientific community rather than merely circulating within the researcher’s immediate network. This high degree of independent uptake underscores the paper’s role as a standard reference in the field.

**INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 10**

**Health inequality in India: evidence from NFHS 3**

2008 - 111 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">Does unequal economic development contribute to the inequitable distribution of healthcare resources? Evidence from China spanning 2001–2020</a> (2024)	Shandong University	China	Background
2	<a href="#">Intersection of class, caste, gender and unmet healthcare needs in India: Implications for health policy</a> (2021)	A.N. Sinha Institute of Social Studies, Centre for Development Studies, International Institute for Population Sciences	India	Background
3	<a href="#">Socioeconomic inequality in life expectancy in India</a> (2019)	University of York	United Kingdom	—
4	<a href="#">Hospital utilization and out of pocket expenditure in public and private sectors under the universal government health insurance scheme in Chhattisgarh State, India: Lessons for universal health coverage</a> (2017)	Public Health Resource Network, Tata Institute of Social Sciences, University of the Western Cape	India, South Africa	—
5	<a href="#">Intersectionality and Cumulative Disadvantage in Access to Healthcare for Older Adults in India</a> (2025)	Indian Institute of Management Bangalore, O.P. Jindal Global University	India	—
6	<a href="#">Psycho-social factors associated with the nationwide lockdown in India during COVID-19 pandemic</a> (2021)	All India Institute of Medical Sciences, Indian Institute of Health Management Research, IIHMR University, Indian Institute of Technology Delhi	India	—
7	<a href="#">Long-term effects of access to health care: medical missions in colonial India</a> (2018)	Analysis Group, Rice University	United States	—
8	<a href="#">Predictors of (in)efficiencies of Healthcare Expenditure Among the Leading Asian Economies – Comparison of OECD and Non-OECD Nations</a> (2020)	Institute of Comparative Economics, Hosei University, Military Medical Academy, National Research University Higher School of Economics	Japan, Russia, Serbia	—
9	<a href="#">Have Socioeconomic Inequalities in Tobacco Use in India Increased Over Time? Trends From the National Sample Surveys (2000–2012)</a> (2016)	Harvard School of Public Health, Imperial College, Indian Institute of Public Health Delhi	India, United Kingdom, United States	—
10	<a href="#">Geographical health inequalities in India: the impact of the COVID-19 pandemic on healthcare access and healthcare inequality</a> (2024)	Independent Researcher, Indian Institute of Technology Kanpur, Symbiosis Institute of Business Management	India	—

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the “built on / relied upon” pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

## Contribution 3

### Claim – Contribution 3

*The researcher established a foundational link between maternal nutritional status and low birth weight in India, a seminal contribution widely adopted by independent global researchers.*

CLAIM: The researcher’s primary contribution is the seminal 2010 paper titled 'Nutritional status of mothers and low birth weight in India,' which serves as the cornerstone of this line of inquiry. This work stands alone as the core reference point, with no subsequent follow-up papers by the same author building directly upon it.

ORIGINALITY: The title suggests the work addresses a critical public health gap by examining the specific relationship between maternal nutrition and infant birth outcomes within the Indian context. By focusing on this demographic and geographic intersection, the research appears to provide essential baseline evidence for understanding determinants of low birth weight in developing regions.

SIGNIFICANCE: The paper has accumulated 176 citations, indicating substantial uptake within the scientific community. Notably, 97.7% of the classified citing papers originate from independent researchers, demonstrating that the work has influenced scholars outside the author’s immediate network and institution. This high degree of independent citation underscores the broad relevance and enduring impact of the findings on global maternal and child health research.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

#### CORE PAPER

### [Nutritional status of mothers and low birth weight in India](#)

2010 · 176 citations (GS)

Field-normalised: 121 Semantic Scholar citations place it in the top 10% of Medicine papers from 2010 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<a href="#">Poverty and the state of nutrition in India (2013)</a>	St John's Medical College, St John's Research Institute	India	—
2	<a href="#">Correlates of low birth weight and preterm birth in India (2023)</a>	International Institute for Population Sciences	India	—
3	<a href="#">Maternal employment and child nutritional status in Uganda (2019)</a>	Makerere University	Uganda	—
4	<a href="#">Between Scylla and Charybdis: renegotiating resolution of the 'obstetric dilemma' in response to ecological change (2015)</a>	UCL Institute of Child Health	United Kingdom	—
5	<a href="#">Prevalence of Low Birth Weight and Its Association With Maternal Body Weight Status in Selected Countries in Africa: A Cross-Sectional Study (2018)</a>	Health Information Center, Southwest University of Political Science and Law, University of Ottawa	Canada, China	Result
6	<a href="#">An Epidemiological Model Investigating the Association between Mothers Nutritional Status and Low Birth Weight in India (2016)</a>	—	—	Background
7	<a href="#">Impact of education on the utilization of maternal health care services: An investigation from National Family Health Survey (2015–16) in India (2019)</a>	Malda Women's College, University of Gour Banga	India	—

No.	Citing paper	Citing institution(s)	Country	S2
8	<a href="#">Relationship between low birth weight and infant mortality: evidence from National Family Health Survey 2019-21, India</a> (2023)	Erasmus MC, University Medical Center Rotterdam, International Institute for Population Sciences	India, Netherlands	Background
9	<a href="#">Food and Nutrition-Related Knowledge, Attitudes, and Practices among Reproductive-Age Women in Marginalized Areas in Sri Lanka</a> (2020)	Rajarata University of Sri Lanka, University of Kassel	Germany, Sri Lanka	—

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation – *Methodology / Result* (the citing work used the method or built on the finding – the “built on / relied upon” pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

### Citing-text excerpts – how the field used this work

**RESULT** Prevalence of Low Birth Weight and Its Association With Maternal Body Weight Status in Selected Countries in Africa: A Cross-Sectional Study

“Previously, a systematic review including 42 studies found that both in developed countries and LMICs children born to underweight mothers were at higher risk of having LBW compared with those born to women with normal weight.(31) This finding was supported by a recent meta-analysis in the context of LMICs: LBW was significantly associated with maternal underweight, but not maternal overweight/obesity.”

## D. Citing-Institution Prestige & Geography

### Top citing institutions

Institution	Country	World ranking	Citing papers
International Institute for Population Sciences	India	SCImago #7072	5
Indian Institute of Management Bangalore	India	SCImago #8773	2
UCL Institute of Child Health Analysis Group	United Kingdom	—	1
Hawassa University	Ethiopia	—	1
Mekelle University	Ethiopia	SCImago #6413	1
Public Health Foundation of India (PHFI)	Ethiopia	SCImago #6644	1
Malda Women's College	India	SCImago #4980	1
Ministry of Health and Family Welfare (MoHFW)	India	—	1
University of York	United Kingdom	—	1
Braun School of Public Health and Community Medicine, Hebrew University-Hadassah	United Kingdom	SCImago #890 · THE =154 · QS 169	1
St John's Research Institute	Israel	—	1
Southwest University of Political Science and Law	India	—	1
Health Information Center	China	SCImago #9023	1
University of Kragujevac	China	—	1
	Serbia	SCImago #5555	1

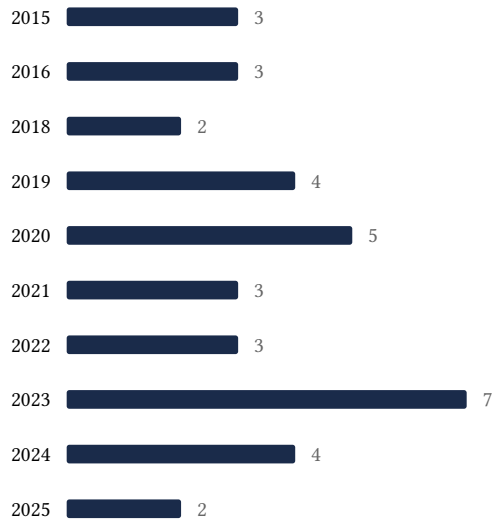
## Geographic distribution of citing authors

Country	Citing papers
India	17
Ethiopia	5
United Kingdom	5
United States	4
South Africa	3
Canada	2
China	2
Russia	2
Nigeria	2
Switzerland	1
Taiwan	1
Uganda	1

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** – the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

## E. Citation Growth Over Time

Distinct citing papers by publication year. Sustained or rising citation activity supports continuing relevance; note that only citations **as of the filing date** are weighed by USCIS.



## F. AAO Precedent Considerations

### Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- Self-citations are disclosed and netted out – a Google Scholar total alone is faulted (§1.1).
- Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- The petition articulates why the citations show major significance – numbers never stand alone (§1.5).
- For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- Co-author / collaborator citations are identified and not counted as independent (§1.7).
- Recognition is shown beyond the scholar's own institution and circle (§1.8).
- Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).
- Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- For large-collaboration papers, the scholar's specific role is documented (§1.13).
- Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

**Disclaimer**

The AAO decisions referenced here are **non-precedent** – persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition’s merits. All analysis must be reviewed by qualified immigration counsel.

## G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition’s exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	Utilization of maternal health care services in Southern India	10	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 2	Health inequality in India: evidence from NFHS 3	10	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 3	Nutritional status of mothers and low birth weight in India	9	8 CFR 204.5(h)(3)(v) – Criterion 5