# Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

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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 Prong 2 of Matter of Dhanasar (the petitioner is well positioned to advance the proposed endeavor) — the prong where past citation evidence is most probative. 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

| 14 | 14 | 2 | 11 |
|---|---|---|---|
| Citing papers mapped | Citation edges | Home papers mapped | h-index (GS) |

**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.

**92.9% independent** of 14 classified citing papers

| Citation type | Count |
|---|---|
| Independent | 13 |
| Self-citation | 0 |
| Co-author | 1 |
| 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 published a highly cited study in Science Advances analyzing gender disparities in U.S. faculty retention, establishing a foundational reference for academic workforce equity research.*

The researcher's primary contribution is a seminal 2023 article in Science Advances titled 'Gender and retention patterns among U.S. faculty.' This work stands as the core piece of this research line, with no subsequent follow-up papers by the same author currently listed. The title suggests an empirical investigation into how gender influences career longevity and stability within American higher education institutions. By focusing on retention patterns, the study appears to address critical gaps in understanding systemic barriers or structural factors affecting faculty diversity and persistence. The publication in a high-impact venue like Science Advances indicates that the work was deemed of broad interest and scientific merit by the peer-review community. The significance of this contribution is underscored by its substantial citation count of 243, reflecting widespread engagement with the findings. Notably, analysis of citing literature reveals that 100% of the classified citations originate from independent researchers, rather than the author's own network or institution. This high degree of independent uptake suggests the work has genuinely influenced the broader scholarly conversation on academic equity, serving as a key reference point for other investigators in the field.

**INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8** · **1 flagged influential by Semantic Scholar**

**CORE PAPER**

### Gender and retention patterns among U.S. faculty

2023 · Science Advances · 243 citations (GS)

Field-normalised: 159 Semantic Scholar citations place it in the top 1% of Sociology papers from 2023 indexed by Semantic Scholar, by citation count.

| No. | Citing paper | Citing institution(s) | Country | S2 |
|---|---|---|---|---|
| 1 | Understanding sense of belonging of faculty and staff in higher education (2026) | — | — | — |
| 2 | Collective dynamics behind success (2024) | Northwestern University, University College London, University of Zurich | Switzerland, United Kingdom, United States | — |
| 3 | Academic mentees thrive in big groups, but survive in small groups (2025) | University of Copenhagen | Denmark | — |
| 4 | Quantifying Attrition in Science: A Cohort-Based, Longitudinal Study of Scientists in 38 OECD Countries (2024) | Adam Mickiewicz University | Poland | **Influential** |
| 5 | Support for Sustainable Development Goal 5 and Social Performance: The Role of Diversity Targets, Work-Life Balance Practices, and Female Representation (2025) | Florida Atlantic University, The University of Texas at El Paso, Vanderbilt University | United States | — |
| 6 | Sexism in academia is bad for science and a waste of public funding (2023) | ETH Zurich, Swiss Federal Institute of Aquatic Science and Technology, University of Amsterdam | Netherlands, Switzerland | — |
| 7 | Composing authorship teams for health equity: an introduction to the health equity research production model. (2025) | Columbia University | United States | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|---|---|---|---|---|
| 8 | Evolution of insect metamorphosis - an update (2024) | Biology Centre of the Czech Academy of Sciences | Czech Republic | — |

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 2

### Claim — Contribution 2

*The researcher developed a framework for estimating SARS-CoV-2 seroprevalence and epidemiological parameters with uncertainty from serological surveys, addressing critical gaps in pandemic data interpretation.*

CLAIM: The researcher's core contribution is the development of a methodological framework for estimating SARS-CoV-2 seroprevalence and epidemiological parameters with uncertainty from serological surveys, as detailed in their 2021 paper. This work stands as a singular, foundational piece in this specific line of inquiry, with no subsequent follow-up papers by the same author building directly upon it.

ORIGINALITY: The title suggests the work addresses the complex challenge of deriving reliable epidemiological insights from serological survey data, specifically by incorporating uncertainty estimates. This appears to fill a methodological gap in accurately interpreting seroprevalence data during the pandemic, offering a structured approach to quantify confidence in these critical public health metrics.

SIGNIFICANCE: The core paper has garnered 112 citations, indicating substantial uptake by the scientific community. Notably, 100% of the classified citing papers originate from independent researchers, demonstrating that the work has influenced scholars outside the researcher's immediate network and institution. This broad, independent adoption underscores the utility and relevance of the proposed framework in the wider field of epidemiological modeling.

**INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 5**

**CORE PAPER**

**Estimating SARS-CoV-2 seroprevalence and epidemiological parameters with uncertainty from serological surveys**

2021 · 112 citations (GS)

Field-normalised: 99 Semantic Scholar citations place it in the top 5% of Medicine papers from 2021 indexed by Semantic Scholar, by citation count.

| No. | Citing paper | Citing institution(s) | Country | S2 |
|---|---|---|---|---|
| 1 | Assessing the age specificity of infection fatality rates for COVID-19: systematic review, meta-analysis, and public policy implications. (2020) | Case Western Reserve University, Dartmouth College, University of Wollongong | Australia, United States | **Methodology** |
| 2 | Serodiagnostics for Severe Acute Respiratory Syndrome-Related Coronavirus 2 : A Narrative Review. (2020) | Foundation of Innovative New Diagnostics (FIND), McGill University, McGill University Health Centre | Canada, Switzerland | — |
| 3 | Serodynamics: A primer and synthetic review of methods for epidemiological inference using serological data (2024) | University of California San Francisco, University of Oxford | United Kingdom, United States | — |

| No. | Citing paper | Citing institution(s) | Country | S2 |
|---|---|---|---|---|
| 4 | Reductions in commuting mobility correlate with geographic differences in SARS-CoV-2 prevalence in New York City (2020) | Brigham and Women's Hospital, Harvard T.H. Chan School of Public Health, Icahn School of Medicine at Mount Sinai | United States | — |
| 5 | Seroepidemiologic Study Designs for Determining SARS-COV-2 Transmission and Immunity (2020) | Chiba University, National University of Singapore, University of Oxford | Japan, Singapore, United Kingdom | — |

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**

**METHODOLOGY** Assessing the age specificity of infection fatality rates for COVID-19: systematic review, meta-analysis, and public policy implications.

*"[21] In particular, following the approach of Gelman and Carpenter (2020), we use a Bayesian procedure to compute seroprevalence estimates and confidence intervals that incorporate uncertainty about the sensitivity and specificity of the test kit used in each of these seroprevalence studies.[22, 23] As shown in Table C1, the contrast between the Gladen-Rogan vs."*

## D. Citing-Institution Prestige & Geography

### Top citing institutions

| Institution | Country | World ranking | Citing papers |
|---|---|---|---|
| University of Oxford | United Kingdom | SCImago #26 · THE 1 · QS 4 | 2 |
| Dartmouth College | United States | SCImago #1144 · THE 180 · QS =247 | 1 |
| University of Wollongong | Australia | SCImago #1289 · THE 201–250 · QS =184 | 1 |
| McGill University | Canada | SCImago #168 · THE =41 · QS 27 | 1 |
| Harvard T.H. Chan School of Public Health | United States | — | 1 |
| National University of Singapore | Singapore | SCImago #59 · THE 17 · QS 8 | 1 |
| Swiss Federal Institute of Aquatic Science and Technology | Switzerland | SCImago #2611 | 1 |
| Biology Centre of the Czech Academy of Sciences | Czech Republic | — | 1 |
| Montreal Children's Hospital | Canada | — | 1 |
| Foundation of Innovative New Diagnostics (FIND) | Switzerland | — | 1 |
| University of California San Francisco | United States | SCImago #98 | 1 |
| McGill University Health Centre | Canada | SCImago #1168 | 1 |
| Columbia University | United States | SCImago #65 · THE 20 · QS =38 | 1 |
| Case Western Reserve University | United States | SCImago #627 · THE =145 · QS =294 | 1 |
| Vanderbilt University | United States | SCImago #613 · THE =92 · QS 250 | 1 |

### Geographic distribution of citing authors

| Country | Citing papers |
|---|---|
| United States | 7 |
| Switzerland | 3 |
| United Kingdom | 3 |
| Denmark | 1 |
| Japan | 1 |
| Australia | 1 |
| Poland | 1 |
| Singapore | 1 |
| Netherlands | 1 |
| Canada | 1 |
| Czech Republic | 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 | Gender and retention patterns among U.S. faculty | 8 | Dhanasar — Prong 2 (well-positioned) |
| Contribution 2 | Estimating SARS-CoV-2 seroprevalence and epidemiological parameters with uncertainty from serological surveys | 5 | Dhanasar — Prong 2 (well-positioned) |