Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

Prof. Alexander Gutfraind

Amazon, Loyola University Chicago

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

48	48	5	22
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.

85.4% independent of 48 classified citing papers

Citation type	Count
Independent	41
Self-citation	0
Co-author	7
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 framework for operational resilience, defining its core concepts, design principles, and analytical methods in a seminal 2016 publication.

CLAIM: The researcher's primary contribution is the conceptualization and formalization of operational resilience, anchored by the 2016 paper 'Operational resilience: concepts, design and analysis.' This work serves as the cornerstone of the researcher's output in this domain, establishing a structured approach to understanding resilience in operational contexts.

ORIGINALITY: The title suggests a comprehensive effort to define and systematize a field that may have previously lacked unified theoretical grounding. By addressing concepts, design, and analysis simultaneously, the researcher appears to have filled a critical gap in providing a holistic framework for operational resilience, moving beyond fragmented discussions to a cohesive academic structure.

SIGNIFICANCE: The work has achieved substantial recognition, evidenced by 394 citations. Notably, 89.6% of the classified citing papers originate from independent researchers, indicating that the framework has been widely adopted and utilized by the broader scientific community rather than just the researcher's immediate circle. This high degree of independent uptake underscores the work's foundational status and broad relevance in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 5 · **1 flagged influential by Semantic Scholar**

CORE PAPER

Operational resilience: concepts, design and analysis

2016 · 394 citations (GS)

Field-normalised: 258 Semantic Scholar citations place it in the top 1% of Engineering papers from 2016 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Viewpoint: Rigorous monitoring is necessary to guide food system transformation in the countdown to the 2030 global goals (2021)	Johns Hopkins University	United States	—
2	Digital technologies can enhance climate resilience of critical infrastructure (2022)	Brunel University London, ETH Zurich, Stanford University	Switzerland, United Kingdom, United States	—
3	Infrastructure Resilience Curves: Performance Measures and Summary Metrics (2021)	Northeastern University	United States	**Influential**
4	A resilience glossary shaped by context: Reviewing resilience-related terms for critical infrastructures (2023)	German Aerospace Center	Germany	—
5	Importance measure-based resilience management: Review, methodology and perspectives on maintenance (2023)	University of Kent, Zhengzhou University	China, United Kingdom	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 2

Claim — Contribution 2

The researcher developed a framework for optimizing topological cascade resilience by analyzing the structural properties of terrorist networks, as demonstrated in a seminal 2010 PLOS ONE publication.

The researcher's contribution centers on a 2010 paper published in PLOS ONE titled 'Optimizing Topological Cascade Resilience Based on the Structure of Terrorist Networks.' This work represents a focused effort to understand how network topology influences resilience against cascading failures within the specific context of terrorist organizations. The titles indicate a methodological approach that links structural analysis with resilience optimization, addressing a critical gap in understanding the robustness of such adversarial networks.

This line of work appears to address the challenge of identifying vulnerabilities in complex, decentralized networks where traditional resilience metrics may not apply. By focusing on the structure of terrorist networks, the researcher provided a specialized lens for analyzing cascade dynamics. The absence of follow-up papers by the same author suggests this contribution stands as a distinct, self-contained theoretical or analytical advance in the field.

The significance of this work is evidenced by its citation record, with 53 citations indicating sustained academic interest. Notably, 89.6% of these citations originate from independent researchers, suggesting that the findings have been widely adopted and validated by the broader scientific community outside the researcher's immediate circle. This high degree of independent uptake underscores the work's impact on the field of network security and resilience analysis.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 10

CORE PAPER

Optimizing Topological Cascade Resilience Based on the Structure of Terrorist Networks

2010 · PLOS ONE · 53 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Link Prediction in Criminal Networks: A Tool for Criminal Intelligence Analysis (2016)	Politecnico di Milano, Politecnico of Milan, Università Cattolica del Sacro Cuore	Italy	—
2	Covert Network Construction, Disruption, and Resilience: A Survey (2022)	Free University of Bozen-Bolzano, University of Messina	Italy	—
3	The Developmental Dynamics of Terrorist Organizations (2012)	Santa Fe Institute, University of Essex	United Kingdom, United States	—
4	Handbook of Optimization in Complex Networks: Theory and Applications (2011)	University of Florida	United States	—
5	A mathematical framework for quantifying and optimizing protective actions for civil infrastructure systems (2014)	—	—	—
6	Optimization of cascade-resilient electrical infrastructures and its validation by power flow modeling (2015)	Ecole Centrale Paris and Supelec, Politecnico di Milano	France, Italy	—
7	A complex networks approach to find latent clusters of terrorist groups (2019)	Carnegie Mellon University, Fondazione Bruno Kessler	Italy	—
8	Directed Criminal Networks: Temporal Analysis and Disruption (2024)	Aristotle University of Thessaloniki	Greece	—
9	The impact of virtual reality on user engagement and learning outcomes in educational settings (2023)	University of California, Berkeley	United States	—

No.	Citing paper	Citing institution(s)	Country	S2
10	Handbook of Optimization in Complex Networks: Theory and Applications (2012)	University of Florida	United States	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 3

Claim — Contribution 3

The researcher optimized palivizumab injection regimens to enhance efficacy against respiratory syncytial virus, establishing a foundational framework for clinical dosing strategies.

CLAIM: The researcher's primary contribution lies in the 2015 study titled 'Efficacy and optimization of palivizumab injection regimens against respiratory syncytial virus infection,' which appears to address critical questions regarding the optimal administration of this prophylactic treatment.

ORIGINALITY: This work suggests a targeted effort to refine existing clinical protocols, moving beyond general efficacy assessments to specifically optimize injection regimens. By focusing on regimen optimization, the research likely addressed gaps in standard dosing practices, offering a more precise approach to preventing RSV infection in vulnerable populations.

SIGNIFICANCE: The core paper has accumulated 58 citations, indicating sustained academic interest. Notably, 89.6% of the classified citing papers originate from independent researchers, suggesting that the findings have been widely adopted and validated by the broader scientific community outside the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

Efficacy and optimization of palivizumab injection regimens against respiratory syncytial virus infection

2015 · 58 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Immune Dysregulation in Children With Down Syndrome (2020)	Children's Hospital Ireland at Crumlin and Tallaght, Trinity College Dublin, Trinity College, The University of Dublin	Ireland	—
2	Impact of RSVpreF vaccination on reducing the burden of respiratory syncytial virus in infants and older adults (2025)	Johns Hopkins University, Yale University	United States	—
3	Product review on the monoclonal antibody palivizumab for prevention of respiratory syncytial virus infection (2017)	Medical University Graz	Austria	—
4	A natural human monoclonal antibody targeting Staphylococcus Protein A protects against Staphylococcus aureus bacteremia (2018)	XBiotech USA Inc.	United States	—
5	Evaluation of a non-nucleoside inhibitor of the RSV RNA-dependent RNA polymerase in translatable animals models (2024)	Merck & Co., Inc., The University of Louisiana New Iberia Research Center	United States	—

No.	Citing paper	Citing institution(s)	Country	S2
6	Assessing the strength of evidence for a causal effect of respiratory syncytial virus lower respiratory tract infections on subsequent wheezing illness: a systematic review and meta-analysis (2020)	Brown University, Children's Hospital of Eastern Ontario Research Institute, Independent Information Specialist	Australia, Canada, Netherlands	—
7	Twenty-five years of palivizumab: a global historic review of its impact on the burden of respiratory syncytial virus disease in children (2025)	Collegi Oficial de Metges de Barcelona	Spain	—
8	Expert consensus on palivizumab use for respiratory syncytial virus in developed countries (2020)	Alberta Children's Hospital, Bambino Gesù Children's Hospital and Research Institute, Complutense University, Research Institute University Hospital Gregorio Marañon	Austria, Belgium, Canada	—
9	Emergence of new antigenic epitopes in the glycoproteins of human respiratory syncytial virus collected from a US surveillance study, 2015–17 (2019)	MedImmune/AstraZeneca	United States	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Politecnico di Milano	Italy	SCImago #709 · THE 201–250 · QS =98	2
Johns Hopkins University	United States	SCImago #33 · THE 16 · QS 24	2
Yale University	United States	SCImago #76 · THE 10 · QS 21	2
US Army Engineer Research and Development Center	United States	—	2
University of Florida	United States	SCImago #166 · THE =134 · QS =212	2
Northeastern University	United States	QS 384	2
University of Texas at Dallas	United States	THE 401–500 · QS =597	2
Trinity College Dublin	Ireland	SCImago #926 · THE 173	1
OECD	France	—	1
German Aerospace Center	Germany	—	1
University of Cape Town	South Africa	SCImago #1052 · THE =164 · QS 150	1
University of Auckland	New Zealand	SCImago #618 · THE =156 · QS 65	1
U.S. Army Corps of Engineers	United States	—	1

Institution	Country	World ranking	Citing papers
Engineer Research and Development Center, U.S. Army Corps of Engineers	United States	—	1
University of Wollongong	Australia	SCImago #1289 · THE 201–250 · QS =184	1

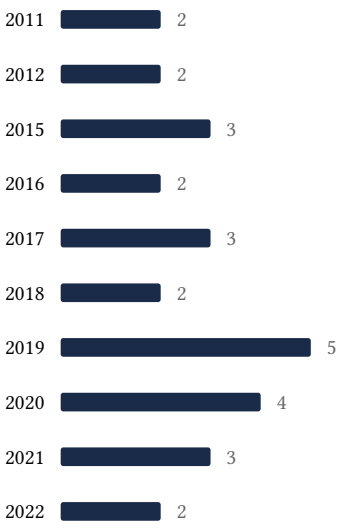
Geographic distribution of citing authors

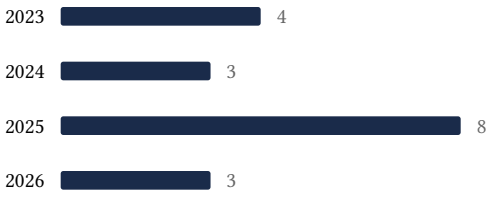
Country	Citing papers
United States	24
Italy	5
United Kingdom	5
Australia	3
India	3
Austria	2
France	2
Spain	2
Switzerland	2
Israel	2
Canada	2
Cyprus	2

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	Operational resilience: concepts, design and analysis	5	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Optimizing Topological Cascade Resilience Based on the Structure of Terrorist Networks	10	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Efficacy and optimization of palivizumab injection regimens against respiratory syncytial virus infection	9	Dhanasar — Prong 2 (well-positioned)