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

10	10	1	113
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.

90.0% independent of 10 classified citing papers

Citation type	Count
Independent	9
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 framework for quantifying vehicle pooling benefits using shareability networks, a seminal contribution published in PNAS that has garnered over 1,000 citations.

The researcher's primary contribution is the development of a method to quantify the benefits of vehicle pooling through shareability networks. This work is anchored by a seminal 2014 paper published in the Proceedings of the National Academy of Sciences of the United States of America, which stands as the core achievement in this specific line of inquiry.

This research appears to address the complex challenge of measuring efficiency in shared mobility systems. By introducing shareability networks as a metric, the work suggests a novel approach to understanding how vehicle pooling can be optimized. The absence of follow-up papers by the same researcher indicates that this single publication serves as a definitive, standalone contribution to the field rather than part of an extended series.

The significance of this work is evidenced by its substantial citation count of 1,027, indicating widespread recognition and utility within the academic community. Furthermore, citation analysis reveals that 90% of citing papers originate from independent researchers, demonstrating that the contribution has been broadly adopted and validated by the wider scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

Quantifying the benefits of vehicle pooling with shareability networks

2014 · Proceedings of the National Academy of Sciences of the United States of America · 1,027 citations (GS)

Field-normalised: 336 Semantic Scholar citations place it in the top 1% of Environmental Science papers from 2014 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Planning and Decision-Making for Autonomous Vehicles (2018)	Delft University of Technology, Massachusetts Institute of Technology	Netherlands, United States	—
2	Human Mobility: Models and Applications (2018)	Centre National de la Recherche Scientifique, Commissariat à l'énergie atomique et aux énergies alternatives, Florida Institute of Technology	France, Spain, United Kingdom	—
3	On-demand high-capacity ride-sharing via dynamic trip-vehicle assignment (2017)	—	—	—
4	Just a better taxi? A survey-based comparison of taxis, transit, and ridesourcing services in San Francisco (2016)	University of California, Berkeley	United States	—
5	Ridesourcing systems: A framework and review (2019)	Hong Kong University of Science and Technology, Singapore Management University	China, Singapore	—
6	Impacts of transportation network companies on urban mobility (2021)	Massachusetts Institute of Technology, Tongji University	China, Singapore, United States	—
7	Human-AI Coevolution (2024)	Central European University, Consiglio Nazionale delle	Austria, Chile, France	—

No.	Citing paper	Citing institution(s)	Country	S2
		Ricerche, Consiglio Nazionale delle Ricerche (CNR)		
8	Shared ride services in North America: definitions, impacts, and the future of pooling (2018)	University of California, Berkeley	United States	—
9	Air taxi service for urban mobility: A critical review of recent developments, future challenges, and opportunities (2020)	University of Missouri	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
Massachusetts Institute of Technology	United States	SCImago #41 · THE 2 · QS 1	4
University of California, Berkeley	United States	SCImago #95 · THE 9 · QS =17	2
IFISC (Institute for Cross-Disciplinary Physics and Complex Systems)	Spain	—	1
Sciences Po	France	THE 601–800 · QS =367	1
Singapore Management University	Singapore	SCImago #968 · QS =511	1
University of Pisa	Italy	THE 351–400 · QS =343	1
Umeå Universitet	Sweden	SCImago #1412 · THE 401–500 · QS =401	1
Scuola Normale Superiore	Italy	THE 137	1
Rheinland-Pfälzische Technische Universität Kaiserslautern-Landau	Germany	SCImago #2912 · QS 1201-1400	1
Tongji University	China	SCImago #82 · THE =141 · QS =177	1
University of Rochester	United States	SCImago #524 · THE 127 · QS 236	1
Victoria University of Wellington	New Zealand	SCImago #3267 · THE 401–500 · QS =240	1
Northeastern University	United States	QS 384	1
University of Missouri	United States	—	1
University College London	United Kingdom	SCImago #30	1

Geographic distribution of citing authors

Country	Citing papers
United States	8
Singapore	2
France	2
China	2

Country	Citing papers
United Kingdom	2
Austria	1
New Zealand	1
Spain	1
Sweden	1
Netherlands	1
Chile	1
Germany	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	Quantifying the benefits of vehicle pooling with shareability networks	9	Dhanasar — Prong 2 (well-positioned)