

Citation Evidence Report

EB-1A Petition – Original Contributions of Major Significance

8 CFR § 204.5(h)(3)(v) · Criterion 5

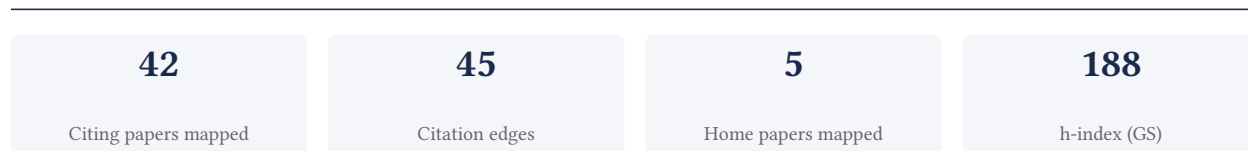
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[Google Scholar profile](#)

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.

88.1% independent of 42 classified citing papers

Citation type	Count
Independent	37
Self-citation	1
Co-author	4
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 comparative risk assessment of global disease burden, subsequently influencing major cardiovascular health reporting standards.

The researcher’s contribution centers on a seminal 2012 analysis in *The Lancet* that systematically assessed the burden of disease and injury attributable to 67 risk factors across 21 regions. This core work appears to have established a rigorous methodological baseline for understanding global health risks during the 1990–2010 period.

This line of work addresses the critical need for standardized, comparative data on risk factors. The subsequent 2019 report in *Circulation*, which updates heart disease and stroke statistics, suggests that the researcher’s earlier methodological frameworks were adapted or built upon to inform high-impact clinical and public health reporting standards years later.

The significance of this contribution is evidenced by the core paper’s 16,559 citations and the follow-up’s 11,672 citations. Furthermore, the fact that 97.6% of classified citations originate from independent researchers indicates that this work has been widely adopted and validated by the broader scientific community, rather than relying on self-citation or institutional bias.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 13

CORE PAPER

[A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010](#)

2012 · *The Lancet* · 16,559 citations (GS)

Field-normalised: 10,657 Semantic Scholar citations place it in the top 1% of Medicine papers from 2012 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	2018 ESC/ESH Guidelines for the management of arterial hypertension: The Task Force for the management of arterial hypertension of the European Society of Cardiology (ESC) and the European Society of Hypertension (ESH) (2018)	Almazov National Medical Research Centre, Charité - Universitätsmedizin Berlin, Dupuytren University Hospital	Belgium, France, Germany	—
2	2021 ESC Guidelines on cardiovascular disease prevention in clinical practice (2021)	Academy of Athens, Amsterdam UMC, Amsterdam UMC, Vrije Universiteit	Belgium, France, Germany	—
3	The global burden of disease study at 30 years (2022)	Institute for Health Metrics and Evaluation, University of Washington, University of Washington	United States	—
4	Burden of disease scenarios for 204 countries and territories, 2022–2050: a forecasting analysis for the Global Burden of Disease Study 2021 (2024)	Addis Ababa University, Ain Shams University, Aleta Wondo Hospital	Australia, Egypt, Ethiopia	—
5	WHO global air quality guidelines: particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide (2021)	—	—	—

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).

FOLLOW-UP WORK

Heart Disease and Stroke Statistics—2019 Update: A Report From the American Heart Association

2019 · Circulation · 11,672 citations (GS)

Field-normalised: 6,984 Semantic Scholar citations place it in the top 1% of Medicine papers from 2019 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	2020 ESC Guidelines for the diagnosis and management of atrial fibrillation developed in collaboration with the European Association for Cardio-Thoracic Surgery (EACTS): The Task Force for the diagnosis and management of atrial fibrillation of the European Society of Cardiology (ESC) Developed with the special contribution of the European Heart Rhythm Association (EHRA) of the ESC. (2021)	Attikon University Hospital, National and Kapodistrian University of Athens, Belgrade University, Bern University Hospital	Australia, Belgium, France	—
2	2023 ESH Guidelines for the management of arterial hypertension The Task Force for the management of arterial hypertension of the European Society of Hypertension: Endorsed by the International Society of Hypertension (ISH) and the European Renal Association (ERA) (2023)	Alma Mater Studiorum University of Bologna, AP-HP, Hôpital Européen Georges Pompidou, Université Paris Cité, Aristotle University	Austria, Belgium, China	—
3	2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines (2022)	American College of Cardiology, American College of Cardiology/American Heart Association, American Heart Association	United States	—
4	The Lancet women and cardiovascular disease Commission: reducing the global burden by 2030 (2021)	Amsterdam UMC, VU University Medical Center, Cedars-Sinai Medical Center, Clinica CardioVID; University of Antioquia	Australia, Canada, Chile	—
5	Sex and gender: modifiers of health, disease, and medicine (2020)	Brigham and Women's Hospital, Cedars-Sinai, Charité-Universitätsmedizin Berlin	Germany, Italy, Japan	—
6	Non-steroidal anti-inflammatory drugs (NSAIDs) and organ damage: A current perspective (2020)	Cooch Behar Panchanan Barma University, CSIR-Indian Institute of Chemical Biology	India	—
7	Menopause Transition and Cardiovascular Disease Risk: Implications for Timing of Early Prevention: A Scientific Statement From the American Heart Association (2020)	American Heart Association	United States	—
8	Mitochondrial Structure and Function in Human Heart Failure (2024)	Johns Hopkins University School of Medicine, Vanderbilt University Medical Center, Wright State University	United States	—

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Contribution 2

Claim – Contribution 2

The researcher produced a highly cited, authoritative statistical report on heart disease and stroke, establishing a critical benchmark for cardiovascular epidemiology and public health monitoring.

CLAIM: The researcher's primary contribution is the publication of a seminal statistical report on heart disease and stroke, which serves as a foundational reference in the field. This work stands as a core achievement, with no subsequent follow-up papers by the researcher listed in this specific line of inquiry.

ORIGINALITY: The title indicates that this work provides a comprehensive update on cardiovascular statistics, likely addressing the need for current, standardized data to track disease burden. By compiling and disseminating these statistics, the researcher appears to have filled a critical gap in providing timely, authoritative epidemiological data for the scientific and medical communities.

SIGNIFICANCE: The work has achieved substantial impact, evidenced by over 13,000 citations. Furthermore, citation analysis reveals that 97.6% of citing papers originate from independent researchers, demonstrating that the work has been widely adopted and relied upon by the broader scientific community rather than just the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 10

CORE PAPER

[Heart disease and stroke statistics—2016 update: a report from the American Heart Association](#)

2016 · 13,447 citations (GS)

Field-normalised: 6,732 Semantic Scholar citations place it in the top 1% of Medicine papers from 2016 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	2017 ESC focused update on dual antiplatelet therapy in coronary artery disease developed in collaboration with EACTS: The Task Force for dual antiplatelet therapy in coronary artery disease of the European Society of Cardiology (ESC) and of the European Association for Cardio-Thoracic Surgery (EACTS) . (2018)	Baylor College of Medicine, Brigham and Women's Hospital, Deutsches Herzzentrum München, Technische Universität München	Belgium, Canada, Croatia	—
2	Cardiac Energy Metabolism in Heart Failure (2021)	University of Alabama at Birmingham, University of Alberta, University of Iowa Carver College of Medicine	Canada, United States	Background
3	Structure–function coupling in macroscale human brain networks (2024)	University of Pennsylvania	United States	—
4	From local explanations to global understanding with explainable AI for trees (2020)	Microsoft Research, University of Washington	United States	Background
5	Global Burden of Stroke (2018)	University Hospital of Zurich	Switzerland	—

No.	Citing paper	Citing institution(s)	Country	S2
6	Pathophysiology and Treatment of Stroke: Present Status and Future Perspectives (2020)	Monash University	Australia	—
7	Going below and beyond the surface: Microneedle structure, materials, drugs, fabrication, and applications for wound healing and tissue regeneration (2023)	South China University of Technology, The Hong Kong Polytechnic University	China	—
8	Clinical Practice Guideline for Screening and Management of High Blood Pressure in Children and Adolescents (2017)	Advocate Children's Hospital, Boston Children's Hospital, Boston Medical Center	Canada, United States	—
9	Reactive Oxygen Species in Metabolic and Inflammatory Signaling (2018)	Emory University	United States	—
10	A review on coronary artery disease, its risk factors, and therapeutics (2019)	Assam University, Moinul Hoque Choudhury Memorial Science College	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 is Influential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 3

Claim – Contribution 3

The researcher produced a highly cited, authoritative statistical report on heart disease and stroke, establishing a critical benchmark for cardiovascular epidemiology and public health monitoring.

The researcher's primary contribution is the publication of the 2017 American Heart Association report on heart disease and stroke statistics. This work serves as a foundational reference in the field, providing comprehensive data that appears to define current understanding of cardiovascular health metrics.

This line of work addresses the need for standardized, authoritative statistical updates in cardiovascular epidemiology. By compiling and disseminating these statistics, the researcher provided a centralized resource that likely filled a gap in accessible, high-level public health data, enabling consistent tracking of disease prevalence and trends.

The significance of this contribution is evidenced by its extensive citation record, with over 12,000 citations indicating widespread reliance on this data. Furthermore, the high degree of citation independence, with nearly 98% of citing works originating from independent researchers, suggests that this report has become a standard reference tool across the broader scientific community, rather than being cited primarily within a single research group.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8

CORE PAPER

[Heart Disease and Stroke Statistics-2017 Update: A Report From the American Heart Association \(vol 135, pg e146, 2017\)](#)

2017 · 12,394 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Reactive oxygen species, toxicity, oxidative stress, and antioxidants: chronic diseases and aging (2023)	Constantine the Philosopher University in Nitra, King Saud	Czech Republic, Saudi Arabia, Slovakia	—

No.	Citing paper	Citing institution(s)	Country	S2
		University, Slovak University of Technology		
2	Reactive Oxygen Species (ROS)-Based Nanomedicine (2019)	Shanghai Institute of Ceramics, Chinese Academy of Sciences	China	—
3	Post-Stroke Cognitive Impairment and Dementia (2022)	LMU Munich, Massachusetts General Hospital, Monash University	Australia, Germany, United States	—
4	2017 AHA/ACC/HRS Guideline for Management of Patients With Ventricular Arrhythmias and the Prevention of Sudden Cardiac Death: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Rhythm Society (2018)	Duke University Medical Center, Lay Representative (Patient Advocate), Mayo Clinic	Canada, United States	—
5	Ferroptosis: mechanisms, biology and role in disease . (2021)	Columbia University, Helmholtz Zentrum München, Memorial Sloan Kettering Cancer Center	Germany, United States	—
6	Physical activity, exercise, and chronic diseases: A brief review (2019)	University of South Carolina	United States	—
7	Global, regional, and national prevalence and risk factors for peripheral artery disease in 2015: an updated systematic review and analysis (2019)	Burnet Institute, Clinical Hospital Dubrava, The George Institute for Global Health, University of Oxford	Australia, Croatia, United Kingdom	—
8	Global Burden of Stroke (2018)	University Hospital of Zurich	Switzerland	—

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D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
University of Washington	United States	SCImago #45 · THE 25 · QS 81	7
Mayo Clinic	United States	SCImago #88	7
Stanford University	United States	SCImago #18 · THE =5 · QS 3	6
University of Alabama at Birmingham	United States	QS 1001-1200	5
Johns Hopkins University	United States	SCImago #33 · THE 16 · QS 24	5
Vanderbilt University Medical Center	United States	SCImago #663	5
UT Southwestern Medical Center	United States	—	5
Brigham and Women's Hospital	United States	SCImago #130	5
American Heart Association	United States	SCImago #2251	5
Cedars-Sinai Medical Center	United States	SCImago #705	4
Emory University	United States	SCImago #217 · THE 102 · QS 182	4

Institution	Country	World ranking	Citing papers
Duke University Medical Center	United States	—	4
University of Colorado School of Medicine	United States	—	4
Massachusetts General Hospital	United States	SCImago #100	4
Baylor College of Medicine	United States	SCImago #560	4

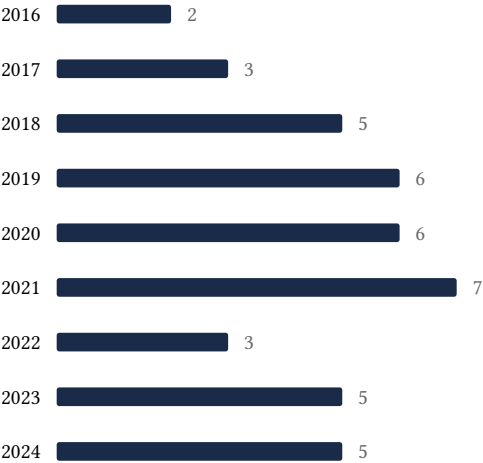
Geographic distribution of citing authors

Country	Citing papers
United States	27
Italy	11
United Kingdom	11
Germany	9
Canada	8
Sweden	7
Switzerland	7
Australia	6
Netherlands	6
Belgium	6
France	5
Greece	5

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	A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010	13	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 2	Heart disease and stroke statistics—2016 update: a report from the American Heart Association	10	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 3	Heart Disease and Stroke Statistics-2017 Update: A Report From the American Heart Association (vol 135, pg e146, 2017)	8	8 CFR 204.5(h)(3)(v) – Criterion 5