

Quo Vadis?
How Statistics Failed Democracy and How That Can be Remedied

Proposal for a presentation at the 2026 General Assembly of the AAC&U.

Proposal Preview:

Quo Vadis? How Statistics Failed Democracy and How That Can be Remedied

Proposal ID: 2188378

Session Format: Research Session

Meeting Track: Educating for a Democracy in Question

Proposal Status: Complete / Locked

Presenter(s)

Joel Best (he/him/his)

Position: Emeritus

Organization: University of Delaware

Role: Co-Presenter

Do you belong to a Member Institution? No

Milo Schield (he/him/his)

Position: Visiting Professor

Organization: New College of Florida

Role: Primary Presenter

Do you belong to a Member Institution? No

Proposal Submission Details

Length of Session (First Choice) 30 minutes

Length of Session (Second Choice)

Change of Session Format: I would accept if my proposal session is changed to a 30-minute session

Quo Vadis?

How Statistics Failed Democracy and How That Can be Remedied

Proposal Abstract

How did we get here? Heated arguments filled with social statistics. Numerical disparities look like solid facts that call for immediate action. Systemic discrimination that is invisible individually and can only be seen when summarized by statistics. College students graduate without learning what it means to take something into account quantitatively. Yet what is – or is not – taken into account is critical in most arguments.

For example, if women earn 76 cents for every dollar a man makes, can that disparity be reduced if we take into account work status: full-time permanent versus other? How can adult covid cases that are vaccinated have a higher death rate than those that are unvaccinated according to the British National Health Service? Could this comparison be confounded by age? Today's students want to deal with these controversial issues, but they lack the tools to have intelligent arguments.

Why aren't 'controlling for', 'taking into account', and study design shown in the VALUE quantitative literacy rubric? If these topics aren't part of quantitative literacy, should there be a new rubric?

The NIH says 300,000 adults die annually from obesity. The CDC states that 40,000 adults die annually from second-hand smoke. Yet no coroner can testify to either of these on a death certificate. Why did a director of the US Census Bureau refuse to include such statistics in the US Statistical Abstract?

This session addresses the need for a statistical literacy course that meets the needs of the 35% of college students in non-quantitative majors: majors that don't require a particular math-stat course. It should be accessible (no computers and no algebra) and valued by students.

This course exists: Statistical Literacy. Financed by a grant from the W. M. Keck Foundation "to develop statistical literacy as an interdisciplinary curriculum in the liberal arts." Based on research: 100+ papers with 2,000+ citations. Field tested on almost a thousand students. It is offered at the University of New Mexico (Math 1300) where it is required for all statistics majors. It is offered at New College of Florida (Intro to Techne) where it is required for all first-year students. Students like it. Most agree – or strongly agree – that it should be required for all students.

Yet it isn't supported by statistical educators or offered by other colleges. This session gives reasons for this and suggests actions to remedy the situation.

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How Statistics Failed Democracy and How That Can be Remedied

Brief Description

Statistical education has failed democracy by not providing the tools for students to argue productively about today's social issues involving social statistics.

Suppose women make 76 cents for every dollar a man makes. Isn't this a mixed-fruit comparison if men work more full-time permanent? What happens if we control for work status? Shouldn't students know what it means to 'take something into account' quantitatively? Statistical education has failed to provide a statistics course for the 35% of college students in non-quantitative majors.

This course exists: no computers and no algebra. Statistical Literacy is offered at the University of New Mexico (required by statistics majors) and at New College of Florida (required by all first-year students). Students agree that it should be required by all students.

Why isn't this course offered at other colleges? Why will it take pressure by deans, chairs and faculty for statistical educators to offer this course?

Background and Evidence of the Effectiveness of the Work Being Presented

Catalog course at the University of New Mexico where it satisfies a math requirement in the New Mexico Higher Education General Education curriculum. Required by statistics majors in the 2025-2026 UNM Albuquerque catalog. See www.StatLit.org/UNM.htm.

Plan for Participant Interaction

Not applicable to Research presentation

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Anticipated Learning Outcomes for Participants

1. Participants will recognize that today's students need a different statistics course. A modern democracy needs students trained to read and interpret everyday statistics as presented in tables, graphs and ordinary English: students able to ask intelligent questions. Students in non-quantitative majors need a statistics course focused on causal inference: using statistics as evidence in arguments about causal connections.
2. Participants will see that such a course exists. It has a published textbook, is accessible (no algebra and no computers), is offered at multiple colleges, satisfies a state-wide general education requirement, and is required by statistics majors at one university and by all first-year students at another college.
3. Participants will see why students see value in such a course. Why most students agreed it should be required for all college students. Why most said it did more to help their critical thinking than any other course they had taken.
4. Participants will understand why statistical educators are unlikely to offer this course without external pressure.
5. Deans, chairs and faculty will now have a basis for requesting that statistical educators offer a course designed for students in non-quantitative majors.

Session Takeaways

Participants will leave with information (one-page handout) on why students in non-quantitative majors need a different statistics course, the desired outcomes of such a course, references on where such a course is being taught, access to a published textbook, and advice on how those asking will support statistical educators in obtaining additional instructors and FTE. More importantly, deans, chairs and faculty in non-quantitative majors will be able to argue persuasively on behalf of their students