## **Agricultural Extension in South Asia**

## **Causal Inference Series**

Platform: <a href="https://www.mixtapesessions.io/">https://www.mixtapesessions.io/</a>

**Duration:** Varies by course — *Causal* 

*Inference I* runs for 4 days (8 hours per day)

**Certification:** Available on request

**Course Fees:** \$1 for South Asian students (and students from any low- and middle-

income countries)



When I began working as an agricultural economist, I had little idea that 'causal inference' was a distinct field within applied economics. Causal inference methods are primarily used to establish causality and estimate the impact of interventions. My first real introduction to the topic came through Professor Scott Cunningham's remarkable book, *Causal Inference: The Mixtape*. The online version is freely available, and what sets it apart is its practical orientation: every method is accompanied by supplementary data, with Stata and R code to replicate the analyses described in each chapter. This hands-on approach makes the learning process both accessible and enjoyable.

When Professor Cunningham began offering online courses on impact assessment methods, I was fortunate to be among the early cohorts. Since then, the course has evolved into a comprehensive series—Causal Inference I, II, and III—along with modules on specific methods such as Difference-in-Differences.



MIXTAPE SESSIONS

Sessions About Cont

"THE CLASSICS"

## Our flagship Causal Inference Series

This three-part series is designed to survey the large and complicated field of causal inference following the structure of Scott Cunninghams's book, Causal Inference: The Mixtape. We will review the theory behind each of these research designs in detail with the aim being comprehension, competency and confidence.

Although I have attended nearly every course on the platform, this review focuses on *Causal Inference I*. The course spans four days, with each day comprising eight hours of instruction (including a lunch break and 15-minute breaks every hour). A word of caution: there may be time zone challenges, as Professor Cunningham is based in the US. Classes are live, conducted over Zoom or a similar platform, depending on participant numbers. While the usual fee is \$500, for students from India and other low-

and middle-income countries, it is reduced to a symbolic \$1 (be sure to select the appropriate option during registration).

For anyone seeking to understand the basics of impact assessment methods, this course is a boon. Professor Cunningham begins with the conceptual foundations of causal inference and gradually introduces more complex topics in a manner that is both clear and engaging. Each concept is reinforced with practical exercises and a 'coding lab', where he codes alongside participants using actual datasets. He is meticulous in addressing every query, and all course materials are shared openly via a GitHub repository.

Assignments are given daily, mostly involving coding and inference tasks. Solutions are discussed before new lessons begin, ensuring everyone is on the same page. One of the more enjoyable aspects of the course is getting to know Professor Cunningham's lighter side: he shares stories from his professional journey and, during breaks, plays his favourite songs (at least, that was the tradition when I attended). I still use that playlist in my work routine!

In the advanced, method-specific courses, other experts sometimes take over. For instance, the upcoming *Hidden Curriculum* course will be taught by Professors Daniel Rees and D. Mark Anderson. Having attended most of these courses myself, I can recommend them without hesitation to anyone interested in learning and applying causal inference methods. I have personally benefited immensely. When the *Causal Inference Mixtape* session was offered, classes would start at 8 PM and continue until 4 AM. Teaching econometrics and causal inference for eight hours straight is no small feat, but Professor Cunningham's energy never seemed to diminish. I would often stay on until 7 in the morning to finish the coding exercises.

These courses have had a lasting impact on me. I now teach causal inference methods at ICAR-IARI and in other training programmes, and a significant share of the credit goes to Professor Cunningham for his enthusiasm for teaching and his commitment to making knowledge accessible to all. If you are interested in attending upcoming courses, keep checking the website or follow Professor Cunningham on social media.

This course is particularly useful for graduate students in the social sciences, as assessing the impact of technologies or interventions is considered one of the core roles of social scientists in agricultural research. Advanced courses on specific methods can be useful to any researcher aiming to apply these techniques in their work.



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