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united states district court

district of arizona

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| **United States of America**,  Plaintiff,  v.  **Constantine Panousopoulos, et al.,**  Defendant. | CR-22-00820-JCH-LCK-2    **Amended Notice of Defense Expert Witness Yotam Shmargad** |

Constantine Panousopoulos, through counsel and pursuant to Rule 16(b)(1)(C), Fed. R. Crim. P., files this amended notice of intent that he may call expert witness Yotam Shmargad in this case under Fed. R. Evid. 702, 703, and 705. The Defense respectfully reserves the right to supplement this notice at a later time pursuant to Fed. R. Crim. P. 16(c).

# Opinions:

The Government’s indictment alleges that “Panousopoulos and Flores offered and provided to Fuentes things of value at different intervals during the course of the conspiracy as a stream of benefits with intent to influence Fuentes in the performance of official acts as specific opportunities pertaining to property valuations and classifications arose.” [ECF 87, ¶ 19.] To further support this accusation, the indictment points to Mr. Panousopoulos’s protests of property values in 2019, which resulted in “reduced assessed valuations on 10 out of the 11 properties Panousopoulos appealed that year.” [ECF 87, ¶ 21(c).] The indictment alleges that those results were an official act of the Assessor and the fruit of Mr. Panousopoulos’s intent to influence the Assessor. [ECF 87, ¶ 21.]

 Shmargad is trained in statistics and data science. He can testify to the statistical practice of “generalization” from a data sample to a population of study. He will explain that improper “generalization” can imply, among other things, drawing conclusions regarding events that fall outside of the scope of data that are analyzed. The indictment’s reference to the 2019 appeals is an example of improper generalization. Knowing only the results of 2019, one cannot extrapolate that similar results occurred throughout other years. This is particularly important here because the Government’s main witness, the Assessor, alleges that Mr. Panousopoulos had paid the Assessor thousands of dollars over the course of around fifteen years. If Mr. Panousopoulos had provided a stream of benefits for more than a decade, but he had not received favorable treatment during much of that time, it is more likely that he was not providing those “benefits” with any intent of receiving favorable treatment.

 Shmargad can also testify to the statistical issues arising from “non-random selection” of data. Whenever data is selected in a non-random manner—such as picking data from a single year—there is the possibility that the selected data cannot accurately inform a person about more general trends or patterns in the data. Thus, if the Government wanted to argue that Mr. Panousopoulos had provided a stream of benefits for fifteen years, intended to receive favorable treatment during those fifteen years, *and* that favorable treatment actually resulted from that stream of benefits, then the sample data should be drawn randomly from those fifteen years, not just from 2019.

 Last, Shmargad can testify as to what could constitute unreliable visualizations of data. Using the statistical programming language R, Shmargad will prepare charts and summaries of the petition data and property value data for Mr. Panousopoulos’s properties and can explain, if need be, why those visualizations accurately reflect the data and any trends (or lack thereof) in the data. Similarly, if the Government proposes any charts or summaries of the data, Professor Shmargad has the expertise to criticize unreliable visualizations of the data.

# Bases and Reasons for the Opinions:

Prof. Shmargad’s opinions regarding generalization, non-random selection, and unreliable visualizations of data are commonly understood principles in the field of data science and are derived from his study and work in that field. His opinions regarding charts and summaries will be derived from the appeals and decisions on appeals related to the Santa Cruz County Assessor’s Office’s valuations of Mr. Panousopoulos’s properties, as well as business records tracking the changes in Assessor valuations of Mr. Panousopoulos’s properties over the years.

# Qualificatons and Prior Testimony:

Prof. Shmargad is an Associate Professor and the Director of Undergraduate Studies in the School of Government & Public Policy at the University of Arizona, as well as an affiliated faculty member in the School of Sociology. He is an expert in data visualization and programming languages used to generate those data visualizations, such as the programming language “R” for statistical computing. A full list of Prof. Shmargad’s publications is available at https://www.yotamshmargad.com/wp-content/uploads/2025/01/Yotam-Shmargad-CV.pdf.

# Rule 16(b)(1)(C)(v) Acknowledgement

Pursuant to Rule 16(b)(1)(C)(v), Prof. Yotam Shmargad hereby affirms that he has reviewed this document and approves of its contents.

Dated January 23, 2025

Prof. Yotam Shmargad

Respectfully submitted on January 23, 2025.

s/ Grant D. Wille   
GRANT D. WILLE

Attorney for Panousopoulos

Certificate of Service

I hereby certify that on January 23, 2025, I electronically transmitted/hand delivered the attached document to the Clerks’ Office using the CM/ECF System for filing and transmittal of a Notice of Electronic Filing/or hand delivered the following CM/ECF registrants:

Assistant United States Attorneys

Michael N. Lang

Gordon Davenport

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Peter Keller

By: Grant Wille   
Amended Expert Witness Notice Parsons 1/23/25