

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY**

NEWARK EDUCATION)
WORKERS CAUCUS et al.,)
)
Plaintiffs,)
)
v.)
)
CITY OF NEWARK, et al.,)
)
Defendants.)
_____)

Case No. 2:18-cv-11025

Judge Esther Salas

Magistrate Judge Cathy L. Waldor

Declaration of Rayid Ghani, M.S.

I, Rayid Ghani, do hereby affirm and state:

Introduction and Qualifications

1. I am a data scientist. I hold a B.S. in Computer Science and Mathematics from the University of the South and an M.S. in Machine Learning from Carnegie Mellon university.

2. I am the director and founder of the Center for Data Science and Public Policy, as well as a Research Associate Professor in the Department of Computer Science and a Senior Fellow for the Harris School of Public Policy, all at the University of Chicago.

3. I am also the director and founder of the Data Science for Social Good Fellowship, which brings together 40-50 data science fellows for 12 weeks to work on social good projects in collaboration with government agencies and non-profits.

4. My work focuses on the use of data by governments and non-profits to solve large-scale, high-impact social and public-policy problems. I have provided technical consulting services to government agencies and non-profits including police departments, school districts, cities, counties, and federal agencies to help them tackle policy problems in criminal justice, education, health, housing, public safety, economic development, workforce development, and urban development.

5. I have worked with government agencies in Mesa, AZ, San Francisco, CA, Chicago, IL, Johnson County, KS, Montgomery County, MD, Cabarrus, NC, Charlotte Mecklenburg County, NC, Wake County, NC, Cincinnati, OH, Muskingum Valley, OH, Tulsa, OK, Nashville, TN, Mexico, Indonesia, El Salvador, and Chile, among others.

6. I have published extensively on the use of data in public policy. I coedited *Big Data and Social Science: Theory and Practical Approaches* (CRC Press 2016), edited the Special Issue on Data for Good in the *Big Data Journal* (2015) and the Proceedings of the KDD Workshop on Data Science for Social Good (2014), and have authored numerous articles describing practical applications of data science to public issues.

7. I have taught graduate courses in *Machine Learning for Public Policy* and *Data Analytics for Campaigns* as well as executive education courses to professionals in government agencies and non-profits on the use of data analytics for public policy.

8. A more complete description of my education, work experience, and publications is available in my CV, attached as Exhibit A.

9. By virtue of my extensive experience with assisting local governments in the use of data to address public-policy problems, I consider

myself an expert in municipal data, and the use and availability of data to municipalities to solve public and social policy problems.

Availability of State and Local Data to Municipalities

10. In my experience, many municipalities are able to access data maintained by state and local agencies to tackle operational policy problems. These data can include ages and addresses of children, which may be available from state public health databases, school records, or birth records, among other sources.

11. My work with the Chicago Department of Public Health (CDPH) is an example of this type of data sharing. Starting in 2014, I have worked with CDPH to create a preventative home-inspection program targeting childhood lead exposure. The program required information about children's blood lead levels that was maintained by the Illinois Department of Public Health (IDPH) and provided to IDPH by the labs performing the test. CDPH was able to obtain the information it needed—including the blood lead levels, addresses, and ages of certain children in Chicago—from the state (IDPH), and use that information to provide services to the households most at risk for lead exposure.

12. My work with Milwaukee, WI, is another example of data sharing across agencies. This work involved getting school records of individual

students in Milwaukee Public Schools and combining them with records from the Milwaukee County District Attorney's office to understand the relationship between school records and future risk of criminal justice interactions. The City of Milwaukee recently integrated data from across several different departments and systems into a unified platform called DataShare.

Information from the health department, police, district attorney's office, pretrial records, and many more sources were combined for analyses to inform city policy and operations and improve quality of life for Milwaukee residents.

13. My work with Johnson County, KS, involved combining records from the criminal justice system, records from county mental health facilities, emergency room visits, and records from the police department to build systems that are able to identify individuals most in need of coordinated assistance to reduce their risk of incarceration.

I declare under penalty of perjury that the foregoing is true and correct.



10/12/2018

Rayid Ghani, M.S.

Date