EXPERT REPORT

Prepared by

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Re

Commonwealth of Pennsylvania v. Charles J. "Zeke" Goldblum

January 3, 2005

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Background and Conclusions

I am the Maurice Falk University Professor of Statistics and Social Science at Carnegie Mellon University and currently hold appointments in the Department of Statistics, the Center for Automated Learning and Discovery, and Cylab (a Center for Computer and Communications Security). My research interests include the analysis of categorical data and application of statistics in legal settings. I have taught university level courses on probability and statistics for 38 years. In addition, I taught courses on statistics and the law at the University of Minnesota and the University of Pittsburgh, and I had an appointment in the Osgoode Hall Law School at York University. I have written widely on different aspects of the topic and was the chair of the National Academy of Sciences/National Research Council's Panel on Statistical Assessments as evidence in the Courts and editor of the panels report, published in 1989 by Springer-Verlag New York.

As a statistician, I have served as an officer of several major statistical organizations, including: President of the Institute for Mathematical Statistics; President of the International Society for Bayesian Analysis; Vice-President of the American Statistical Association; and Chair of Section U (Statistics) of the American Association for the Advancement of Science. I have also served on the editorial board of numerous professional journals including as: Coordinating and Applications Editor of the *Journal of the American Statistical Association;* and statistic co-editor for the recently-issued *International Encyclopedia of the Social and Behavioral Sciences.* I have won numerous awards for my statistical work and was elected as a member of the National Academy of Sciences, a fellow of the American Academy of Political and Social Science, and as a fellow of the Royal Society of Canada. I have appended a complete curriculum vitae as an appendix to this report.

I have been retained by Lee Makowitz, attorney for Mr. Goldblum, to give an opinion on the probability that four different files could disappear or by chance.

Missing Files

My understanding, based on interaction with attorneys for Mr. Goldblum, is that the 1976 homicide generated 4 different files—the homicide unit file, the mobile crime unit file, the police photograph file, and the coroner's file. These files were kept under seperate supervision in four seperate places. During the mid 1990s, a series of depositions were taken of various police witnesses by Mr. Goldblum's attorneys. Those depositions related primarily to the handling of files generally and to the missing files in Mr. Goldblum's case in particular. I have seen excerpts from the depositions of Mr. Ralph Pampena, Ms. Felicia Guerrieri, Officer Salvatore Crisanti, and Officer Herbert Buettner. These depositions make it clear that, today, all 4 files are missing and that no explanation for there absence has been proffered. In addition, these witnesses in their depositions all claim that missing files are uncommon.

In a letter dated November 1 2004, from Dr. Cyril Wecht to Mr. David Goldblum, Dr. Wecht also refers to the occurrence of missing files in the Allegheny County Coroner's Office, and notes that since he returned to that office in 1996 he knows of no other files reported missing out of almost 65,000 case files.

In the absence of other specific empirical information on missing files from the 4 jurisdictions at issue, I have computed an "upper bound" on the probability that all 4 files would be missing if this happened to files "at random" and if the absence of files at one location is independent of the absence at other locations. Based on the deposition statements, if the witnesses had been asked to clarify what they meant by rarely were files lost, surely everyone would agree that the probability of this happening at any given location is less than 1/2. Thus the probability of losing all 4 files is less than 1/16 = .06. In fact, the deposition statements suggest that losing a file is a rare event, and thus we might assume that the probability that any given file would be lost is less than 1/10 or even 1/100. If the probability is 1/10, the upper bound on the probability that all 4 files are missing is 0.0001. If the probability is on the order of 1/100, an upper bound on the probability of loosing all 4 files totally at random is 0.00000001.

I therefore conclude that finding 4 missing files at random is an extremely rare event. The alternative to assuming that we have observed such a rare event is conclude that there is a connection among the files being lost, i.e., that they were not lost at random.

Stephen E. Fienberg