Carlton F. Gunn Public Defender Seattle, WA

Going through all the "stuff" in my mother's house after she died, I came across a little miniature "book" I'd put together when I was in sixth grade. This "book" was about what I wanted to be when I grew up, and it was about being a lawyer. I remember it was mainly about the fees I'd charge - ten cents or a dollar (I forget which) for the poor people, ten dollars for the people who were doing okay, and a million dollars (or some large number like that) for the rich. I marveled that I'd thought of being a lawyer back then, liked the fact that I'd incorporated charity for the poor into my thinking, and was disappointed in the focus on money and price.

Even without having found this, I remember thinking about being a lawyer through much, if not most, of my life as a child. It developed in sophistication as I got older. In grade school, it was defending only the innocent - a la Perry Mason, a 1950's - 1960's TV lawyer who never had a guilty client and won all his cases except one. In high school, it was being a hero and a champion of the oppressed -- a la Clarence Darrow, an early twentieth century criminal lawyer who took on and defended unpopular causes and clients. In college, law school, and now, it was -- and is -- a political, social, and personal commitment to helping those less fortunate than me who've been cheated by society, a society that, once having cheated them, discards them and seeks to blame them as individuals without trying to understand what made them what they are and what made them do what they did. I like to make society consider this and make people recognize that everyone -- even a "criminal" -- has a little bit of good in him or her, and society ought to be made to see that good and think twice before condemning the "criminal."

Mixed in with this idealism and ideology, I had a scientifically and mathematically oriented brain, probably inherited from my chemist father and mathematics/ mapmaking mother. I went to college planning on going to law school, but advisors told me I could major in anything; it really didn't matter. Mathematics being my strength in grade school and high school, I naturally gravitated toward it in college. Wanting to also do something more people-oriented, I chose in addition a social science, and the most mathematically oriented of the social sciences -- economics. The mathematics that went most logically with that was -- voila! -- statistics, and there I was, a double major in economics and statistics. After that, I went on to law school and then to my current career as a public defender.

You may think that statistics would be relatively useless in law -- and criminal law, in particular -- but you'd be surprised. The logic of statistics is useful in developing legal arguments, and the methods of statistics are often directly applicable to data pertinent to a case. The most basic thing you do in any type of law is attempt to prove things -- both facts and legal conclusions. And what do you do in statistics and mathematics? Logical proofs! That old A=>B=>C, and so on. It's the same thing you're trying to do in law, or any time you try to convince someone of something through logical argument.

The main difference between law and statistics is that law works with more inexact things, like uncertain evidence, or words. One of the things that lawyers try to do is interpret the wording in laws and argue to judges about what the laws -- and the words in them -- mean. The words in the law have special legal definitions, and you have to plug those definitions into the words in the law and trace them through to work out what the law means. Words and their definitions become like variables and the functions that relate variables to each other, and language becomes like mathematics and statistics. Almost.

Statistics can also come up occasionally in more direct ways. Suspects are now identified with DNA evidence, which depends not just on biology and genetics but also statistics. Matching DNA sequences is not always quite as exact as people think, and some interesting statistical issues can come up in unusual cases.

I personally have used statistics in trying to challenge the reliability of drug testing results. Suppose the chance of a mistake in the taking and processing of a urine sample for a drug test is just 1 in 100. And your client has a "dirty" (i.e., positive) test result. Only a 1 in 100 chance that could be wrong? Not necessarily. If the vast majority of all tests that are given -- say 99 in 100 -- are truly clean, then you get one false "dirty" (the 1 in 100 error rate times the 99 truly clean tests) and one true "dirty" in every 100 tests, so that half of the "dirty" tests are false. This is a real life argument I once tried to make to a judge -- far more slowly and carefully. My old statistics professor gave me the idea.

I often say there's nothing I'd rather be than a public defender. There are two reasons for that. One is that it's an extraordinarily interesting intellectual exercise to try to do proofs with inexact things like words and ideas instead of hard numbers. The other is that it is extraordinarily rewarding to help people and try to force others to understand them when those others' most natural tendency is to say there's no excuse for what they did and I don't want to try to understand.

I remember when I wrote that paper about Clarence Darrow in high school. I ended it with a little statement that there was one thing I thought he stood for. That was tolerance. In a way, it's the human equivalent of standard deviation.