

1 6. I have previously been an expert witness in litigation in the California courts. I
2 have designed statistical samples and provided expert testimony based on the results of
3 statistical samples that I have designed. In 2004 I was selected as a Technical Advisor under
4 Rule 706 of the Federal Rules of Civil Procedure to advise a Federal District Court in the
5 Central District of California in matters of statistics and to assist the Court pertaining to
6 statistical sampling.

7 7. I have been retained by Curatel in its litigation with Telscape. At the request of
8 Curatel, I generated random samples of telephone numbers from a larger list, or population, of
9 telephone numbers supplied to me. I implemented a procedure known as Bernoulli sampling¹
10 to select samples of approximately 200 and 500 telephone numbers. Bernoulli samples by
11 their nature have random sample sizes that approximate the designed sample size. However, if
12 it is decided that the sample sizes must be exactly 200 and 500, 200 or 500 telephone numbers
13 could be selected from the samples of approximately of 200 or 500, respectively, and the
14 accuracy and precision of the sample would remain approximately the same and would not be
15 appreciably altered. In addition, a sample of 200 could be selected randomly from the sample
16 of 500. Put another way, randomly choosing any 200 or 500 telephone numbers from the
17 respective samples would still yield a random sample. Further, if the sample of approximately
18 500 telephone numbers were to be reduced to 200, selection of 200 random telephone numbers
19 out of the sample of approximately 500 would still yield a random sample. Put another way, a

20 ¹ In simple terms, Bernoulli sampling is an approach in which every individual or element in
21 the population being sampled is subjected to a simulated “coin flip” (where the probability of
22 “heads” or “tails” is set based on the designed sample size) to determine whether the individual is
23 included in the sample. Individuals that are associated with coin tosses that come up heads are
24 included while those associated with tails are excluded. All individuals in the population have an
25 equal chance of being included. See Sarndal, Swenson and Wretman (1992), Model Assisted
26 Survey Sampling, Springer-Verlag. Each coin flip is independent from the other coin flips, with
27 identical probability of heads for each simulated coin toss or “draw.” The random numbers that
28 simulate the coin flips are independently selected by the random number generator and there is no
correlation between any one draw and any other draw, meaning that the realized value of earlier
random numbers generated has no influence on subsequent random numbers generated. This
procedure simulates the physical process of repeatedly flipping a coin, where each coin flip is
independent of every other coin flip.

1 subset of 200 randomly selected telephone numbers out of the sample of approximately 500
2 would also be a random sample.

3 8. I generated the random samples using the uniform random number generator
4 provided in the computer software SST: Statistical Software Tools Version 3.0, Dubin-Rivers
5 Research. SST 3.0 uses Algorithm AS 83, “An Efficient and Portable Pseudo-Random
6 Number Generator” by B. A. Wichmann and I. D. Hill. This algorithm is published in *Applied*
7 *Statistics Algorithms*, 1985, Ellis Horwood Limited, editors, P. Griffiths, and I. D. Hill. With
8 regard to the term “Pseudo-Random,” the use of algorithmic random number generators
9 embodied in computer software is a commonly accepted method for generating random
10 numbers.

11 8. There has been *no manipulation of the data* to yield a pre-determined result (or
12 for any other purpose), *nor could there be*, since I do not have access to information about *any*
13 *of the* specific telephone numbers in the population. With respect to the individual telephone
14 numbers in the overall population and in the samples, I have had no access to information
15 about whether any particular individual telephone number supports the position of either of the
16 parties to the litigation. Simply put, I do not know whether there are some telephone numbers
17 the inclusion of which in the samples would be favorable or unfavorable to Curatel or Telscape
18 or, even if there are such telephone numbers, which telephone numbers those would be. Thus,
19 I lack information that could be used to favor the selection of certain telephone numbers
20 instead of others for inclusion in the samples. If I were to alter the selection of the telephone
21 numbers in the sample, I would not know whether my actions would be beneficial or
22 detrimental to one side or the other. For that reason, I have neither the information necessary
23 to skew the samples generated by the selection process nor do I have any basis for doing so.

24 9. In addition to not having a basis for preferring some telephone numbers over
25 others for inclusion in the samples or otherwise altering the sample selection process to yield a
26 particular result or include particular telephone numbers, I consider myself bound by my
27 professional ethics not to alter or skew the sample selection process. My professional and
28 scientific reputation depends on my integrity and honesty, and I would not be willing to take

