

1 BELL SOUTH TELECOMMUNICATIONS, INC.
2 REBUTTAL TESTIMONY OF MARY K. BATCHER, PH.D.
3 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
4 DOCKET NO. 010740-TP
5 AUGUST 27, 2001
6

7 Q. PLEASE STATE YOUR NAME AND YOUR BUSINESS ADDRESS.

8
9 A. My name is Mary K. Batcher. My business address is 1225 Connecticut Ave.,
10 NW, Washington, DC 20036.
11

12 Q. BY WHOM ARE YOU EMPLOYED?

13
14 A. I am employed by Ernst & Young LLP as a Principal in the Quantitative
15 Economics and Statistics Group.
16

17 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

18
19 A. My testimony is to be used in conjunction with and in support of the rebuttal
20 testimony filed by Mr. John Ruscilli, another BellSouth witness. BellSouth has
21 provided me with a list of customers who had been customers of IDS Telecom,
22 LLC (IDS) during 2000 and 2001, but who had changed their local telephone
23 service from IDS to BellSouth during that period. My task was to conduct a
24 survey, using a statistically valid sample of these customers, for the purpose of
25 learning why these customers returned to BellSouth.

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- 1 Q. BEFORE ADDRESSING THIS SURVEY AND ITS RESULTS, WHAT IS
2 YOUR PROFESSIONAL EXPERIENCE AND EDUCATIONAL
3 BACKGROUND?
4
- 5 A. I received a BS in sociology, and an MA and Ph.D. in statistics from the
6 University of Maryland. My career as a statistical consultant spans over 15 years.
7 While at Ernst & Young, I have designed statistical samples and conducted
8 surveys in regulatory settings, including sampling to meet the requirements of the
9 IRS, the Justice Department, and the Office of the Inspector General of Health and
10 Human Services. I have conducted or critiqued surveys for the Federal
11 Communications Commission and for use in litigation. Prior to my employment
12 at Ernst & Young, I was a spokesperson and senior methodologist at the IRS,
13 where I led a group that conducted surveys and performance measures for new
14 IRS initiatives, like TeleFile, the filing of simple individual tax returns over the
15 telephone. I also designed and monitored a test call survey to measure the
16 accuracy of the telephone assistance provided to individual taxpayers by the IRS.
17 I also have worked as a statistician at the Department of Education's National
18 Center for Education Statistics, where I worked on surveys of state education
19 agencies. I am an active member of the professional statistical community. In
20 addition to my many other roles over my career, I am a past president of the
21 Caucus for Women in Statistics and the Washington Statistical Society. I have
22 been an associate editor of the Journal of the American Statistical Association and
23 am currently an associate editor of the Journal of Data Science.
24
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1 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

2

3 A. During August 2001, BellSouth contacted Ernst & Young, to ask whether there
4 was any way of determining why local telephone customers left an alternative
5 local exchange company, IDS, to go to BellSouth for local telephone service. We
6 recommended conducting a survey of a statistically valid sample of those
7 customers to determine whether the causes of this migration could be determined.
8 BellSouth agreed, and to that end, we designed a telephone survey and used it to
9 contact a representative sample of former IDS customers who had moved to
10 BellSouth for their local service during 2000 and 2001. The survey asked former
11 IDS customers about the reason they made the switch to BellSouth. Responses
12 were coded into categories including better pricing, better service, reaction to
13 slamming and brand image. Efforts were taken in the phrasing of survey
14 questions and the training of callers to ensure that the survey did not lead the
15 respondent or influence the responses in any way.

16

17 The preliminary results have been evaluated in two ways, first by looking at all of
18 the responses, and then by looking at subscribers who were with IDS more than
19 one month, and those who were with IDS for less than one month. I will provide
20 this information in some detail later in my testimony, but what stands out is that
21 almost 29% of the respondents reported that they had been "slammed" by IDS, or
22 moved to IDS without their permission. When those who left IDS after less than a
23 month are segregated out, nearly 40% reported that they had been slammed. With

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1 regard to the quality of the service that they were provided, less than 5% of the
2 respondents left IDS because they felt that BellSouth's feature reliability was
3 better, and less than 8% left because they felt the IDS telephone service was not
4 working. Nine percent left IDS because of a bad experience with an IDS
5 representative, and 20% left because of the pricing that BellSouth offered them. I
6 will address the results and survey methodology in more detail in my testimony.

7

8 Q. PLEASE DESCRIBE THE SURVEY YOU CONDUCTED.

9

10 A. The survey is attached to my testimony as Exhibit 1. It is a short telephone survey
11 which asks respondents to describe how the service changes came about, the
12 length of time they were an IDS customer (less than a month or one or more
13 months), and whether any contacts were initiated by a BellSouth representative.
14 The purpose of the last question was to see whether BellSouth was initiating calls
15 to try to induce the IDS customer to return to BellSouth. Almost 77% of the
16 respondents reported receiving no call from a BellSouth representative.
17 Survey targets were randomly selected from groups of BellSouth customers
18 identified by BellSouth as being customers who had switched from IDS to
19 BellSouth during 2000 and 2001.

20

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1 The survey was conducted beginning August 22, 2001 and continues through the
2 end of August. As of the writing of this testimony, preliminary results through
3 August 27, 2001 are available based on more than 450 responses.

4

5 Q. WHAT ARE THE RESULTS OF THE SURVEY?

6

7 A. As I noted, preliminary results are available at this point. To date, we have
8 obtained over 450 completed surveys from a population of more than 13,000
9 telephone customers who, at one point, were customers of IDS and left IDS to
10 return to BellSouth Telecommunications.

11

12 When asked to think about the reasons why they switched back to BellSouth from
13 IDS, almost 29% reported that they had been switched to IDS in the first instance
14 without their approval, 20% switched because of BellSouth pricing and rates, 9%
15 returned to BellSouth because of a bad experience with an IDS customer service
16 representative, and 9% because of better accounting and billing by BellSouth.

17 The complete list of reasons is shown in Exhibit 2.

18

19 The figure of 29% representing those who were “slammed” is even more
20 informative when the responses are broken down by the length of time the
21 customer was with IDS. Forty percent of customers who had been with IDS for
22 less than a month indicated they had been switched from BellSouth without their
23 approval; the corresponding percent for customers who had been with IDS for

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1 more than a month was 19%. The other large category was better BellSouth
2 pricing and rates: 22% for more than one month IDS customers and 15% for less
3 than one month. Exhibit 3 shows the complete breakdown of reasons for
4 switching back to BellSouth from IDS by length of time with IDS, more or less
5 than one month.

6
7 Only three percent of respondents cited company image as a reason for switching.
8 When that 3% was asked what information influenced their opinion, 12% (of the
9 3%) said mail material, 12% (of the 3%) said television or radio advertisements,
10 and 29% (of the 3%) said calls from BellSouth. Thirty-six percent (of the 3%)
11 said other or could not recall.

12
13 We asked every respondent if they received a call from a BellSouth representative.
14 In general nearly 77% said no, nearly 16% said yes, and about 7.5% did not know.
15 Exhibit 4 presents the details of these percents. Included as Exhibit 5, is a
16 breakdown of the question about calls from a BellSouth representative by length
17 of time with IDS.

18
19 We asked each respondent who said they received a call from a BellSouth
20 representative what kind of things the BellSouth representative said that
21 influenced the decision to change back to BellSouth. We received 77 statements.
22 No statements were received indicating a BellSouth representative made a
23 derogatory statement about IDS.

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1 Q. EXHIBITS 2 THROUGH 5 INCLUDE A COLUMN LABELED 95% MARGIN
2 OF ERROR. CAN YOU PLEASE EXPLAIN THAT COLUMN?
3

4 A. The 95% margin of error column contains the size of the plus or minus factor that
5 is added and subtracted to and from the estimated percent to reflect the normal
6 variability expected when we sample. It is variability due to the fact that we do
7 not expect samples to be exactly alike. Samples from the same population will
8 differ somewhat from each other and the population. The margin of error is used
9 to build an interval around the estimate. Thus the estimated 9% of customers who
10 switched from IDS to BellSouth because of a bad experience with an IDS
11 customer service representative has a confidence interval of 9% +/- 3%. We are
12 95% confident that the true percent lies between 6% and 12%. We have displayed
13 95% margins of error which is a high degree of confidence in the interval. The
14 width of the interval indicates the precision of the estimate. The smaller the
15 margin of error, the more precise the estimate.

16
17 Q. WHAT STEPS HAVE YOU TAKEN TO ENSURE THAT THE SURVEY
18 RESULTS ARE UNBIASED?
19

20 A. There are three major factors that protect against the survey results being
21 misleading or not accurately representing the population. The first is the design of
22 a statistically valid sample and the random selection of survey targets to be
23 members of that sample. The second is the series of steps taken in the wording of

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1 the survey questions, training of the telephone interviewers, and other efforts
2 made to minimize misunderstandings or any kind of influence of the interviewer
3 or survey on the response. The third factor is to minimize non-response. There
4 will always be some degree of non-response, more with a business survey, but it
5 should be kept as small as possible and efforts should be taken to determine
6 whether the reason for the non-response is related to what is measured in the
7 survey.

8

9 Q. CAN YOU DESCRIBE THE EFFORTS TAKEN TO REDUCE OR
10 ELIMINATE BIAS IN THE DESIGN OF THE SURVEY ITSELF, QUESTION
11 WORDING, AND THE WAY THE SURVEY WAS CONDUCTED?

12

13 A. The telephone survey was designed to first confirm that the correct business had
14 been dialed, and that the person who made the decision to switch from IDS to
15 BellSouth was contacted. The survey respondent was not informed about the
16 purpose of the study. The respondent was only told that:

17

18 "A number of local phone companies are interested in why customers switch
19 services. Ernst & Young, a major audit firm, has been asked to conduct a study
20 on why customers change their local telephone carrier."

21

22 Additionally, neither the persons conducting the interviews nor their management
23 were informed about the purpose of the study, so they could not communicate any
24 clues or additional information about the sponsor or purpose to the survey target.

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1 The most that these persons or their management might be able to infer from the
2 script was that either BellSouth or IDS may be the sponsor of the study, but there
3 was no way they could know which one for sure. Some multiple response choices
4 were added to help hide the identity of the survey sponsor and make the survey
5 appear as “open” as possible. For example, we provided responses to cover both
6 possibilities that a customer could be slammed by either IDS or BellSouth.

7

8 Once the correct contact was confirmed, questions were asked in a neutral tone
9 and in an open-ended manner so that the target would not be influenced by the
10 categories of responses. This prevents any tendency of the respondent to provide
11 answers that might please the interviewer or of the interviewer to give unintended
12 cues through tone of voice or emphasis as he or she is reading the response
13 categories.

14

15 Based on the response to the survey questions, the interviewers were instructed to
16 code the response into multiple categories. Only where respondents had difficulty
17 answering a question were they offered some possible response choices to help
18 jog their memory. Furthermore, the order these response choices were offered to
19 the target was randomized, so as to avoid any “order” effects which may
20 otherwise occur. The interviewers were encouraged to “let the respondent talk”,
21 and to elicit information from the respondent. In order to be thorough and capture
22 all reasons as to why a target switched service, the interviewers were instructed to
23 ask the respondents if there were any other reasons which prompted the switch,

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1 after the initial response(s) were offered, and to reiterate this question, until no
2 further reasons for the switch were provided by the target.

3
4 For many questions, if the response did not fit an existing response choice, the
5 interviewers were instructed to classify the response as “Other” and to enter as
6 much of the comment as possible. A “Don’t remember” response was included
7 among the possible response categories.

8
9 In conclusion, the script was designed to obtain as “honest” a response as possible
10 from survey targets, as to why they switched local phone service from IDS to
11 BellSouth.

12
13 Q. WHAT STEPS WERE TAKEN TO PREVENT THE INTERVIEWERS FROM
14 INFLUENCING THE RESPONSES?

15
16 A. In addition to the survey itself, the training of the interviewers is also a key factor
17 in ensuring interviews do not lead the respondent to a desirable answer. The
18 survey was implemented by a subcontractor, ORC Macro, Inc. We have worked
19 with Macro in the past on several surveys and have found them to do excellent
20 work. They train and supervise their interviewers and have a permanent staff of
21 executive business interviewers who have received additional training on
22 interviewing business executives. Macro is well aware that the cornerstone of a
23 successful survey research project is the professional and accurate administration

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1 of the survey instrument by trained survey interviewers. For this reason, the
2 vendor maintains high standards for interviewer hiring, and devotes a great deal of
3 time and attention to a comprehensive, systematic training program.

4

5 Interviewers are provided with a training manual, which includes a hard copy of
6 the questionnaire with an item-by-item explanation of each question; definitions
7 of terminology; discussions of potential sources of interviewer coding error with
8 specific coding instructions; and instructions regarding appropriate probes.

9 Interviewers also had access to a manual which contains a review of refusal
10 conversion techniques, with specific techniques to reduce non-response.

11

12 All interviewers receive initial training consisting of Computer Assisted
13 Telephone Interview (CATI) program training, interviewing protocol training, and
14 administrative issues before they are allowed to participate in project-specific
15 training.

16

17 All of the interviewers assigned to this project have prior survey experience.
18 Nevertheless, training – both new training and refresher training – remains a key
19 ingredient in the quality of Macro’s data collection efforts. Interviewers received
20 project specific training, during which purpose and scope of the survey, review of
21 questions, probing, dealing with uncooperative respondents, and disposition of
22 call attempts are covered.

23

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1 In accordance with Ernst & Young instructions, the disposition of each call
2 attempt is recorded for all of the records in the sample. The CATI system
3 automatically stores the disposition of each attempt in the sample management
4 database. This provides a complete call history for each record in the sample.
5 The call history is displayed on the interviewer's screen during each new attempt.

6
7 For this particular survey, the majority of interviewing session hours were
8 scheduled for Monday through Friday, 9 a.m. to 6 p.m. Saturday calls were 10
9 a.m. to 5 p.m. and Sunday was 11 a.m. to 5 p.m.

10

11 Q. HOW DOES THE SAMPLING REDUCE BIAS?

12

13 A. The use of a statistically valid random sample allows us to know the likelihood
14 that the sample is not representative of the population. By making the sample
15 sufficiently large and keeping the non-response as small as possible and unrelated
16 to the survey outcome, we prevent the sample and survey responses from being
17 biased.

18

19 Q. YOU MENTIONED THE NEED TO KEEP SURVEY NON-RESPONSE LOW.
20 WHAT STEPS HAVE YOU TAKEN TO DO SO?

21

22 A. Interviewers make a minimum of 15 attempts to reach an eligible business and
23 interview the person who makes the decisions about phone service for each

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1 telephone number in the sample. After three unsuccessful attempts, interviewers
2 contact the operator to determine if the number is non-working. Each call attempt
3 is given a minimum of five rings. The attempts are rotated through weekday day,
4 Saturday day, and Sunday day shifts to maximize coverage of the primarily small
5 business population. Experience suggests that one-third of the interviews from a
6 well-managed sample will be completed on the first attempt, one-third on the
7 second and one-third on the third attempt. A small but important fraction of
8 survey targets will require five or more attempts.

9
10 One of the greatest advantages of computer-assisted interviewing is the ability to
11 deal accurately and efficiently with large numbers of scheduled, definite
12 appointments. Macro's system optimizes queuing for definite callbacks by
13 continuously comparing station sample activity and the index of definite callback
14 records. When a definite appointment time arrives, the system finds the next
15 available station and delivers the record as the next call. The call history screen
16 that accompanies each record informs the interviewer that the next call is a
17 definite appointment and describes the circumstances of the original contact.

18
19 The handling of callbacks to respondents is always crucial to the success of any
20 telephone survey project. The effective management of callbacks increases the
21 response rate and the coverage of the population. Perhaps more importantly,
22 scheduling an appointment that is convenient for the respondent and ensuring that
23 the appointment is kept offers a basic courtesy to someone who has agreed to

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1 assist us with a study. If a cooperative respondent has to terminate an interview,
2 but wants to finish at a later time, it is possible to set a definite callback for that
3 exact time and restart the interview where it left off. If the interviewer who began
4 the survey is available at the prescribed time, the system will send the call back to
5 that station.

6
7 Macro's CATI system automatically handles callbacks for "no-answer," "busy"
8 and "answering machine" outcomes. There is a special set-up facility, used when
9 originally configuring the survey, which determines a schedule for calling back
10 no-answers. This ensures that repeated no-answers are retried at different times of
11 day and days of the week.

12
13 Macro's Non-response Conversion Staff (NCS) calls back 100% of initial
14 refusals. NSC interviewers are selected based on experience and performance.
15 All NCS have a minimum of six months of telephone interviewing experience,
16 have received extensive training on interviewing uncooperative respondents, and
17 are paid a salary premium.

18
19 Q. ARE THE PRELIMINARY RESULTS OF THE SURVEY VALID?

20
21 A. Yes, the preliminary survey results are valid. We have been able to reach and
22 interview over 450 former IDS customers who switched to BellSouth. For most
23 response breakdowns, the size of the plus/minus factor around the estimate is

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1 reasonable. The survey was well-designed and carefully implemented. The
2 interviewers were trained and monitored. While many members of the sample
3 have not been reached we have a lot of responses and there have been few outright
4 refusals. Refusals currently make up only about 8% of the total number of in
5 scope contacts. This is a reasonable non-response rate for a small business
6 survey.

7

8 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

9

10 A. Yes.

11

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