

1 ARTURO J. GONZÁLEZ (SBN 121490)
AGonzalez@mofocom
2 PENELOPE A. PREOVOLOS (SBN 87607)
PPreovolos@mofocom
3 MARGARET E. MAYO (SBN 259685)
MMayo@mofocom
4 MORRISON & FOERSTER LLP
425 Market Street
5 San Francisco, California 94105-2482
Telephone: 415.268.7000
6 Facsimile: 415.268.7522

7 PURVI G. PATEL (SBN 270702)
PPatel@mofocom
8 MORRISON & FOERSTER LLP
707 Wilshire Boulevard
9 Los Angeles, California 90017-3543
Telephone: 213.892.5200
10 Facsimile: 213.892.5454

11 Attorneys for Defendants
APPLE INC., APPECARE SERVICE
12 COMPANY, INC., and APPLE CSC INC.

13 UNITED STATES DISTRICT COURT
14 NORTHERN DISTRICT OF CALIFORNIA
15 SAN FRANCISCO DIVISION

17 VICKY MALDONADO AND JUSTIN
18 CARTER, individually and on behalf of
themselves and all others similarly situated,

19 Plaintiffs,

20 v.

21 APPLE INC., APPECARE SERVICE
22 COMPANY, INC., and APPLE CSC INC.,

23 Defendants.

Case No. 3:16-cv-04067-WHO

Related Case:
English v. Apple Inc., et al.
Case No. 3:14-cv-01619-WHO

**DEFENDANTS' OPPOSITION TO
PLAINTIFFS' MOTION FOR CLASS
CERTIFICATION**

Hearing: August 7, 2019
Time: 2:00 p.m.
Judge: William H. Orrick
Courtroom: 2, 17th Floor

Complaint Filed: July 20, 2016
Trial Date: April 20, 2020

**REDACTED VERSION OF
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STATEMENT OF ISSUES TO BE DECIDED

Plaintiffs’ Motion for Class Certification raises the following issues:

1. **Overbreadth of Proposed Class.** Is Plaintiffs’ proposed class overbroad because it (i) includes individuals who suffered no injury, and (ii) purports to include claims that are time-barred?
2. **Commonality and Predominance as to Liability.** Have Plaintiffs shown by a preponderance of the evidence that they can prove their claims by common evidence and that common questions predominate where: (i) remanufactured iPhones and iPads have different mixes of non-new parts; (ii) individualized inquiries regarding each and every remanufactured iPhone and iPad would be required to assess whether putative class members had an issue with their replacements and whether it was caused by a non-new part; (iii) the return rate data on which Plaintiffs rely does not support their claims; and (iv) Plaintiffs’ “load conditions” argument is purely theoretical, contradicted by the data, and ignores the realities of Apple’s manufacturing and testing processes.
3. **Numerosity.** Have Plaintiffs shown numerosity where they do not have any evidence that any remanufactured iPhone or iPad experienced any hardware issue that was caused by a non-new part?
4. **Predominance as to Damages.** Have Plaintiffs demonstrated that injury and damages can be proven on a classwide basis where their damages expert fails to offers a damages model consistent with *Comcast v. Behrend*?
5. **Standing, Typicality, and Adequacy of Plaintiffs.** Can Plaintiffs Justin Carter and Vicky Maldonado represent the class where (i) they do not have evidence that their alleged issues involved a hardware issue, (ii) they do not have evidence that their remanufactured replacements had an issue caused by a non-new part, and (iii) Carter engaged in improper litigation conduct, making him and his counsel inadequate to represent the class?

1 **I. INTRODUCTION**

2 Plaintiffs Justin Carter and Vicky Maldonado allege that the remanufactured iPhones and
 3 iPads they received under their AppleCare+ (AC+) plans were not “equivalent to new in
 4 performance and reliability” as the AC+ terms and conditions state. They are wrong. Apple’s
 5 remanufactured iPhones and iPads meet the same exceedingly high quality standards as brand
 6 new iPhones and iPads and are “equivalent to new in performance and reliability.” They
 7 are manufactured and tested in the same way as new iPhones and iPads, with the only difference
 8 being the inclusion of certain parts that are not new, but that have been extensively tested. Apple
 9 also conducts rigorous reliability testing on new and remanufactured iPhones and iPads,
 10 subjecting devices to extreme conditions through various tests such as [REDACTED]
 11 [REDACTED] s.

12 Plaintiffs provide no evidence that they — or anyone else — experienced an issue with a
 13 remanufactured iPhone or iPad that was caused by a non-new part. In fact, the available data
 14 shows that [REDACTED] of remanufactured devices never returned for service at
 15 all. As a result, Plaintiffs cannot prove their core allegation that all remanufactured replacements
 16 are not “equivalent to new in performance and reliability.” Despite that, Plaintiffs seek to certify
 17 a class of AC+ plan customers who received a remanufactured replacement iPhone or iPad.

18 Plaintiffs overreach. There is no evidence, much less common evidence, that putative
 19 class members ever had any “problem” with their remanufactured iPhones or iPads.¹ Even if a
 20 small subset of the class sought service for their remanufactured devices (like customers also do
 21 with new devices), Plaintiffs cannot show on a classwide basis that the need for service was due
 22 to any issue with a non-new part. Indeed, there are myriad individualized issues that preclude
 23 certification, including whether any issues customers experienced were caused by a non-new part
 24 and even if they did, whether they suffered any damages as a result. Plaintiffs ask this Court to
 25 certify a class full of uninjured consumers, and offer no classwide damages model that is
 26

27 ¹ (See Order on Motion to Dismiss, ECF No. 64 at 7 (finding Plaintiffs “must point to some
 28 ‘problem’ with their devices to support their allegations that the devices were not ‘new or
 equivalent to new in performance and reliability’”).)

1 even remotely tied to their theory of liability or would address the fact that very few (if any)
 2 putative class members were harmed due to use of a non-new part. There is no authority in the
 3 law for such overreach.

4 The opinions of Plaintiffs' experts do not cure these individualized issues. Dr. Robert
 5 Bardwell improperly relies on return data to opine that [REDACTED]
 6 [REDACTED] but, as he admits, return data is not "failure" data. Moreover, he incorrectly analyzes the
 7 data, and ignores data that does not support his conclusions. Plaintiffs' other expert, Dr. Michael
 8 Pecht, offers pure (and extreme) theory, which is contradicted by the data and his
 9 own admissions. Plaintiffs' motion should be denied.

10 **II. RELEVANT PROCEDURAL HISTORY**

11 **A. The Predecessor to this Case, the *English* Lawsuit**

12 Plaintiffs' co-counsel Renee Kennedy sought to represent a nearly-identical class making
 13 the same core allegations against the same defendants in *English v. Apple Inc., et al.*, 3:16-cv-
 14 04067-WHO. (*See English* Dkt. No. 139.) The parties fully briefed class certification twice.
 15 (*See English* Dkt. Nos. 186-1, 209, 211-3, 233, 252, 256-3.) On January 5, 2016, this Court
 16 denied English's motion for class certification with prejudice, finding that "[n]one of her theories
 17 of liability support class certification, and she has not established adequacy of counsel." (*English*
 18 Dkt. No. 225 at 1; *see also English* Dkt. No. 263 (denying motion for reconsideration).) On June
 19 9, 2016, the Ninth Circuit denied English's Rule 23(f) petition. (*English v. Apple Inc., et al.*, No.
 20 16-80041 (9th Cir. June 9, 2016), Dkt. No. 15.) On January 11, 2017, the Court granted
 21 Defendants' motion for summary judgment on English's individual claims. (*English* Dkt. Nos.
 22 334-336.) English appealed, and oral argument is scheduled for May 13, 2019. (*English v. Apple*
 23 *Inc.*, No. 17-15251 (9th Cir. Mar. 3, 2019), Dkt. No. 106.)

24 **B. This Lawsuit and Plaintiffs' Remaining Claims**

25 On July 20, 2016, Plaintiffs sued Defendants Apple Inc., AppleCare Service Company,
 26 Inc., and Apple CSC Inc.² On November 14, 2016, Plaintiffs amended the complaint, alleging

27 _____
 28 ² Defendant Apple CSC Inc. is the Texas "d/b/a" for AppleCare Service Company, Inc., and is
 not a separate entity. Defendant Apple Inc. is the administrator of AC+, and is responsible for the

1 claims for breach of contract and violation of the Consumers Legal Remedies Act, Cal. Civ. Code
 2 § 1750 *et seq.* (“CLRA”), Unfair Competition Law, Cal. Bus. & Prof. Code § 17200 *et seq.*
 3 (“UCL”), False Advertising Law, Cal. Bus. & Prof. Code § 17500 *et seq.* (“FAL”), Magnuson-
 4 Moss Warranty Act, 15 U.S.C. § 2301 *et seq.*, and Song-Beverly Consumer Warranty Act, Cal.
 5 Civ. Code § 1790 *et seq.* (First Amended Complaint, ECF No. 45 (“FAC”).)

6 Defendants moved to dismiss the amended complaint. (ECF No. 50.) On March 2, 2017,
 7 the Court granted the motion as to Plaintiffs’ fraud- and omission-based claims (CLRA, FAL, and
 8 the fraudulent prong of the UCL) because Plaintiffs failed to plead actual reliance on the AC+
 9 terms and conditions. (ECF No. 64.) Plaintiffs elected not to file a second amended complaint.
 10 Despite that, Plaintiffs appear to assert a UCL claim under the “fraudulent” prong in their motion.
 11 (Motion for Class Certification, ECF No. 103 (“Mot.”) at 23.)

12 The claims remaining in this case are for (1) breach of contract, (2) violation of
 13 Magnuson-Moss, (3) violation of Song-Beverly, and (4) alleged violations of the UCL under the
 14 “unlawful” and “unfair” prongs. Only the UCL claim is brought against all three Defendants; the
 15 remaining claims are against AppleCare Service Company, Inc. only.

16 **III. STATEMENT OF THE FACTS**

17 This case involves two extended service plans offered by Apple — AppleCare+ and its
 18 predecessor AppleCare Protection Plan — and one of the types of replacement devices provided
 19 under these plans. Because the vast majority of plans sold during the relevant time period were
 20 AppleCare+, both plans are referred to as “AppleCare+” or “AC+.”³

21 **A. AppleCare+ Service Plan**

22 Each new iPhone or iPad comes with a one-year limited hardware warranty and 90 days of
 23 free telephone technical support. AC+ significantly enhances service coverage and cost different
 24 amounts for different device models during the proposed class period:

- 25 • Extends hardware coverage for an additional year.

26 administration of claims under AC+ plans. For the sake of simplicity, AppleCare Service
 27 Company, Inc. and Apple Inc. are both referred to as “Apple” in this brief.

28 ³ AppleCare Protection Plan was offered until approximately 2012. It was identical to AC+,
 except that it did not cover accidental damage. (ECF No. 103-2.)

- 1 • Provides accidental damage coverage for two years. Apple’s basic hardware warranty, like others’ warranties, does not cover damage caused by the customer (such as cracked screens due to drops). AC+ provides up to two replacements for devices that are damaged accidentally; customers pay a service fee (which varied during the proposed class period) that is a fraction of the cost of purchasing a new device.
- 2
- 3
- 4 • Extends free telephone technical support for two years. Customers who do not have AC+ pay \$29 for each technical support call after the initial free 90-day period.
- 5

6 (ECF No. 103-3 at ¶ 3; Declaration of Purvi G. Patel (“Patel Decl.”) Ex. J.)

7 **B. Replacement iPhones and iPads Provided under AC+**

8 When an AC+ customer seeks service for a covered iPhone or iPad due to a hardware
 9 defect or accidental damage, Apple will either repair the device or replace it with a device that is
 10 either “new or equivalent to new in performance and reliability.” (ECF No. 103-3.) As is
 11 relevant to Plaintiffs’ motion, Apple provides the following types of replacements under AC+:

- 12 1. **New (or “New Buy”):** Devices made entirely of new parts and built using the same
 13 contract manufacturers, production lines, and manufacturing processes as the iPhones
 14 and iPads Apple sells as new in Apple-branded boxes at retail. (Declaration of
 15 Michael Lanigan (“Lanigan Decl.”) ¶ 3; Patel Decl. Ex. E at 20:20-21:12.) Apple
 16 refers to new devices sold at retail as “finished goods” and refers to new devices
 17 provided as service units as “new buy.” (Lanigan Decl. ¶ 3.) Parts for new buy
 18 devices come from the same sources as the new parts used in finished goods. (*Id.*;
 19 Patel Decl. Ex. E at 20:20-21:3.)
- 20 2. **Remanufactured:** Devices that, in addition to new parts, contain a limited number of
 21 recovered parts that have been extensively tested and are assembled using the same
 22 contract manufacturers, production lines, and manufacturing processes as finished
 23 goods. (Lanigan Decl. ¶ 4; Patel Decl. Ex. E at 21:21-22:22, 27:1-21, 39:22-54:15.)
 24 [REDACTED] (*Id.*)

25 Only certain parts are recovered and used in remanufactured devices (Lanigan Decl.
 26 ¶ 6; Patel Decl. Ex. E at 70:19-71:22), and before any given part is used it undergoes
 27 stringent failure analysis and other testing (Lanigan Decl. ¶ 8; Patel Decl. Ex. E at
 28 46:6-54:15). The mix of non-new parts in any given device, as well as the percentage
 of non-new parts, vary from device-to-device and depend on what is available in
 inventory at a given time. (Lanigan Decl. ¶ 7; Patel Decl. Ex. E at 55:22-56:16; Patel
 Decl. Ex. D at 28:17-29:22, 96:10-97:8.) [REDACTED] (Patel
 Decl. Ex. E at 55:14-56:16; Patel Decl. Ex. D at 28:17-29:22, 96:10-97:8.)

25 Regardless of replacement type, each device must meet the same quality standards as
 26 finished goods. (Lanigan Decl. ¶ 8; Patel Decl. Ex. E at 31:6-15, 124:10-20, 126:10-16; Patel
 27 Decl. Ex. D at 21:11-16, 35:19-36:23.) After assembly, each remanufactured device is inspected
 28 and extensively tested before it is approved for use. (Lanigan Decl. ¶ 8.) Remanufactured

1 devices are not used devices that are merely touched up and sent out; they are built from the
2 ground up using new parts and a limited number of recovered parts. (*Id.* ¶ 4.)

3 In addition to the testing that occurs on each and every iPhone and iPad before it leaves
4 the factory, Apple performs reliability testing on its remanufactured iPhones and iPads to identify
5 any quality issues, including with materials. (Declaration of Jason Fu (“Fu Decl.”) ¶ 3; Lanigan
6 Decl. ¶ 9; Patel Decl. Ex. D at 28:17-29:22, 96:10-97:8.) [REDACTED]

7 [REDACTED]
8 [REDACTED]. (Fu Decl. ¶ 4; Lanigan Decl. ¶ 10; Patel Decl. Ex. E at 46:6-51:2; Patel
9 Decl. Ex. D at 24:18-27:25, 32:18-34:21, 35:19-37:5, 109:22-110:10, 114:19-115:1.) [REDACTED]

10 [REDACTED]
11 [REDACTED] (Fu Decl.
12 ¶ 3; Lanigan Decl. ¶ 10; Patel Decl. Ex. E at 46:6-51:2; Patel Decl. Ex. D at 24:18-27:25, 32:18-
13 34:21, 35:19-37:5, 109:22-110:10, 114:19-115:1.) Contrary to Plaintiffs’ statements otherwise
14 (Mot. at 10), Apple tests a sample of these remanufactured devices. For recent iPhone models,
15 for example, these samples include devices that have (i) a random mix of non-new parts,
16 (ii) specific non-new parts (e.g., a non-new [REDACTED], and (iii) all potential non-new parts for that
17 specific model. (Fu Decl. ¶ 4; Patel Decl. Ex. D at 25:17-32:17.) [REDACTED]

18 [REDACTED] in
19 remanufactured devices. (Fu Decl. ¶ 4; Lanigan Decl. ¶ 10; Patel Decl. Ex. D at 29:1-17, 42:8-
20 43:4.)

21 C. Plaintiffs’ AC+ Purchases and Replacements

22 **Justin Carter.** Carter purchased an iPhone 6 Plus and AC+ in April 2015, and received
23 three replacement iPhones under that plan between July and November 2016. (FAC ¶¶ 100, 102-
24 104, 114; Lanigan Decl. ¶¶ 18-20; Declaration of Charlotte Gould (“Gould Decl.”) ¶¶ 4-6.) The
25 majority of his interactions with Apple in receiving these replacements, however, were driven by
26 this litigation — not for the genuine purpose of seeking service. (FAC ¶¶ 106, 116; Patel Decl.
27 Ex. A at 150:19-153:3, 156:3-160:7, 162:3-168:9, 169:14-173:21, 174:19-178:15.) Each time he
28 called Apple for a replacement, Carter complained that he had battery issues (including with

1 respect to his original, brand new iPhone). (FAC ¶¶ 102-103, 112-113; Patel Decl. Ex. A at 16:1-
 2 17:3, 38:3-12, 38:21-39:18, 103:10-104:22, 116:13-15.) But all of Carter’s replacements had a
 3 new battery (the battery is always new in remanufactured iPhones). (Lanigan Decl. ¶¶ 6, 18-20.)

4 **Vicky Maldonado.** Maldonado purchased a fourth-generation iPad and AC+ in
 5 September 2013, and received two replacement iPads under that plan in May 2015. (FAC ¶¶ 85,
 6 87, 92; Lanigan Decl. ¶¶ 21-22; Gould Decl. ¶¶ 7-8.) Maldonado sought her first replacement
 7 due to “restarting” issues with her original (brand new) iPad. (FAC ¶¶ 87-89.) After receiving
 8 her first replacement, she complained of the “same” issues. (FAC ¶¶ 92-95; Patel Decl. Ex. B at
 9 67:8-69:10, 73:4-74:21.)

10 **D. Return Rates for New and Remanufactured Replacements**

11 In discovery, Plaintiffs requested and Apple produced certain data regarding new buy,
 12 remanufactured, reclaimed, and unknown replacement iPhones and iPads provided to customers
 13 who purchased AC+ on or after July 20, 2012 (up until September 27, 2018, when the data was
 14 pulled).⁴ (Declaration of Avijit Sen (“Sen Decl.”) ¶ 3.) [REDACTED]

15 [REDACTED]
 16 [REDACTED]
 17 [REDACTED]
 18 [REDACTED]
 19 [REDACTED] (*Id.*)

20 From these raw numbers, Apple also produced “DPPM” or “defective parts per million”
 21 rates for each type of device at each interval. “DPPM” is an industry-standard term for the total
 22 number of units experiencing a particular event per one million units that potentially could
 23 experience the event; it is not a rate of “defect” or failure. (Sen Decl. ¶ 4; Patel Decl. Ex. C at
 24 37:24-39:14.) Here, “DPPM” measures, for each category of device, [REDACTED]

25 [REDACTED]
 26
 27 ⁴ Neither “new buy” nor “reclaimed” devices are at issue in this case. (Mot. at 4.)
 28 “Unknown” replacements are iPhones or iPads for which Apple is unable to determine whether
 they are new buy, remanufactured, or reclaimed.

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[REDACTED] (Sen Decl. ¶ 4.) [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] (Lanigan Decl. ¶¶ 13-14.) [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] (Lanigan Decl. ¶ 13.) Returns also vary depending on customer behavior, seasonality, environment, and fraud. (Patel Decl. Ex. E. at 103:17-106:2.) Apple’s return rates, therefore, do not constitute “failure rates,”⁵ and neither Plaintiffs nor Apple can isolate a [REDACTED]

[REDACTED] (Sen Decl. ¶ 4; Patel Decl. Ex. C at 37:24-39:14.)

Where available, Apple also produced codes, called CompTIA codes, [REDACTED]

[REDACTED]

[REDACTED] (Sen Decl. ¶ 5; Patel Decl. Ex. C at 80:20-22; Patel Decl. Ex. E at 91:18-24.) [REDACTED]

[REDACTED]

[REDACTED] (Sen Decl. ¶ 5; Patel Decl. Ex. C at 81:2-24.) [REDACTED]

[REDACTED]

[REDACTED] (Lanigan Decl. ¶ 14; Sen Decl. ¶ 5; Patel Decl. Ex. C at 81:2-24.) Nor does Apple know whether a purported reason for return is related in any way to the fact that a remanufactured replacement device contains non-new parts. (Sen Decl. ¶ 5.) Thus, just as DPPM rates are not “failure rates,” CompTIA codes are not “failure codes.” (*Id.*)

⁵ [REDACTED] Apple employees may refer to field returns (i.e., “return rate” data) as “failure rates.” [REDACTED] (Lanigan Decl. ¶ 15.)

1 **IV. LEGAL STANDARD**

2 “Before certifying a class, the trial court must conduct a ‘rigorous analysis’ to determine
3 whether the party seeking certification has met the prerequisites of Rule 23.” *Mazza v. Am.*
4 *Honda Motor Co.*, 666 F.3d 581, 588 (9th Cir. 2012) (citation omitted). That will frequently
5 “entail some overlap with the merits of the plaintiff’s underlying claim.” *Wal-Mart Stores, Inc. v.*
6 *Dukes*, 564 U.S. 338, 351 (2011). The party seeking class certification bears the burden of
7 affirmatively demonstrating, by a preponderance of the evidence, that the class meets the
8 requirements of Rule 23. *Id.* at 349-50.

9 A plaintiff must do more than identify common questions; she must show that litigation
10 will produce classwide answers to the common questions. Fed. R. Civ. P. 23(a); *Dukes*, 564 U.S.
11 at 350. Rule 23(b)(3)’s predominance analysis “is even more demanding” because Rule 23(b)(3)
12 is an “adventuresome innovation.” *Comcast Corp. v. Behrend*, 569 U.S. 27, 34 (2013) (citation
13 omitted). To certify a Rule 23(b)(3) class, a plaintiff bears the heavy burden of demonstrating
14 through “evidentiary proof” that questions “common to class members predominate over any
15 questions affecting only individual members.” *Id.* at 41 (citation omitted). Courts may certify a
16 class under Rule 23(b)(3) only if there is “evidentiary proof” showing a classwide method of
17 awarding relief that is consistent with the plaintiff’s theory of liability. *Id.*

18 **V. ARGUMENT**

19 Plaintiffs seek to certify the following nationwide class: “All individuals who purchased
20 AppleCare or AppleCare+, either directly or through the iPhone Upgrade Program, on or after
21 January 1, 2009, and received a remanufactured replacement Device.” (Mot. at 15.) Plaintiffs’
22 request for certification of this class should be rejected.

23 **A. Plaintiffs’ Proposed Class Is Overbroad.**

24 **1. Plaintiffs’ Proposed Class Includes Individuals Who Never
25 Experienced or Will Experience an Issue with Their Replacement.**

26 A class must not be defined in a way that includes individuals who do not have injury or
27 standing to sue. *Moore v. Apple Inc.*, 309 F.R.D. 532, 543 (2015) (“Plaintiff’s proposed class is
28 overbroad and cannot be certified under *Mazza* because it necessarily includes individuals who

1 could not have been injured by Defendant’s alleged wrongful conduct as a matter of law”); *see*
 2 *also Sanders v. Apple Inc.*, 672 F. Supp. 2d 978, 991 (N.D. Cal. 2009) (“The class must . . . be
 3 defined in such a way that anyone within it would have standing.”).⁶

4 This Court has already held that for Plaintiffs to establish Article III standing there must
 5 be some “problem” with their replacement devices to support Plaintiffs’ allegations that the
 6 devices were not “equivalent to new in performance and reliability.” (ECF No. 64 at 7).
 7 “Otherwise, their injuries are merely ““conjectural or hypothetical.”” (*Id.* (citing *Lujan v.*
 8 *Defenders of Wildlife*, 504 U.S. 555, 560 (1992)).) Plaintiffs nonetheless seek to certify a class of
 9 persons, the vast majority of whom never had — and will never have — any “problem” with their
 10 replacements. The proposed class — all customers who received a remanufactured iPhone or
 11 iPad under AC+ — is overbroad in at least the following ways because it includes:

- 12 • Customers who *never* returned to Apple for another replacement (which is
 13 true of the vast majority of devices in Plaintiffs’ proposed class), including
 14 those who are no longer using their replacement and/or whose AC+ plans
 have expired;
- 15 • Customers who returned to Apple, but reported issues that were not related to
 or were unlikely to be related to any hardware issue; and
- 16 • Customers who returned to Apple and reported hardware-related issues, but
 17 there is no evidence that those issues were caused by a non-new part, or by the
 fact that the part was not new.

18 The evidence shows that the vast majority of customers who received remanufactured
 19 replacements under AC+ never claimed any issue with their replacement (for the models for
 20 which there is complete data, [REDACTED] of remanufactured devices never
 21 returned).⁷ (Expert Report of Anthony Hayter (“Hayter Report”) at 67-68.) Further, given the
 22 relevant time period for this case (going back to July 2012), many of these customers are no
 23

24 ⁶ While Apple does not challenge numerosity for the proposed class as drafted, that class is
 25 overbroad. With respect to any narrower class, Plaintiffs have not and cannot show numerosity
 (i.e., that any putative class member actually had a hardware issue with their remanufactured
 replacement that was caused by a non-new part).

26 ⁷ As explained by Defendants’ expert Dr. Anthony Hayter, accurate percentages cannot be
 27 calculated using the data for more recent models of iPhones and iPads because this population
 remains in flux. (Hayter Report at 16-26.) In contrast, for older models for which there is
 28 negligible customer activity, the population is stable. These percentages are therefore based on
 iPhone models 5S and earlier and iPad models 4th generation and earlier. (*Id.* at 67-68)

1 longer using their remanufactured replacements (particularly those who received their
 2 replacements nearly seven years ago), and therefore will **never** experience an issue with their
 3 replacements. For example, Plaintiffs' proposed class includes Maldonado's second replacement
 4 iPad, which was remanufactured. But Maldonado did not complain of any issues with this iPad.
 5 (*See* Mot. at 14 (stating merely that the second replacement was remanufactured, not that she
 6 experienced any issues).) Maldonado stopped using this iPad in July 2015 — i.e., one year prior
 7 to filing this lawsuit. (Patel Decl. Ex. B at 77:16-81:22; Patel Decl. Ex. I at Response to
 8 Interrogatory No. 13.) The same is true of others in Plaintiffs' proposed class — their
 9 replacements worked exactly as expected, they never experienced any issue, and therefore have
 10 not been injured.

11 The Court should not certify Plaintiffs' overbroad class of individuals, the vast majority of
 12 whom have no injury.⁸ *Moore*, 309 F.R.D. at 532; *see also Sanders*, 672 F. Supp. 2d at 991;
 13 *O'Shea v. Epson Am., Inc.*, No. CV 09-8063 PSG, 2011 WL 4352458, at *11 (C.D. Cal. Sept. 19,
 14 2011) (denying certification of all-purchaser class of Epson printers for lack of standing because
 15 plaintiff failed to show that all purchasers "suffered an injury which was caused by Epson's
 16 alleged misrepresentation"), *aff'd*, 648 F. App'x 717 (9th Cir. 2016).

17 **2. Plaintiffs' Proposed Class Is Overbroad as to Time.**

18 Plaintiffs seek to certify a class of consumers who purchased AC+ dating back to
 19 January 1, 2009, rather than July 20, 2012 (i.e., four years before Plaintiffs filed suit). Cal. Civ.
 20 Proc. Code § 337(a). Plaintiffs provide no support for their start date, despite the parties' meet
 21 and confer on this subject a year and a half ago in September 2017. (Patel Decl. ¶ 2.)

22 To the extent Plaintiffs rely on tolling under *American Pipe & Construction Co. v. Utah*,
 23 414 U.S. 538 (1974) based on the related *English* action, which was filed on November 4, 2013,
 24 that argument is meritless.⁹ The Supreme Court has made clear that individuals seeking to file

25 _____
 26 ⁸ While individualized issues would still predominate for the subset of the proposed class who
 27 returned their replacement, including whether each consumer's alleged issue was caused by a
 non-new part (*see* Section V.B., *infra*), that class would not suffer from the same overbreadth
 issues that Plaintiffs' proposed class does.

28 ⁹ Even with tolling, it is unclear how Plaintiffs reached January 1, 2009, as the start date for
 their proposed class given that the claims in *English* only went back to November 4, 2009, based

1 class action complaints do not benefit from *American Pipe* tolling of applicable statutes of
 2 limitations. *China Agritech, Inc. v. Resh*, 138 S. Ct. 1800 (2018). As the Supreme Court
 3 explained, the *American Pipe* tolling rule was intended to promote “efficiency and economy of
 4 litigation” by preserving individual claims until after denial of class certification. *Id.* at 1802.
 5 But the same reasoning does not support the “maintenance of untimely successive class actions,”
 6 as Plaintiffs seek to do here, because successive class actions are in fact the opposite of efficient.
 7 *Id.* Thus, Plaintiffs’ proposed start date of January 1, 2009, is not only unsupported, it is in direct
 8 contravention of binding Supreme Court authority to the contrary.¹⁰

9 **B. Plaintiffs Fail to Show Common Questions, Much Less That They**
 10 **Predominate.**

11 With respect to Plaintiffs’ primary claim for breach of contract, they fail to show that the
 12 issues of breach, causation, and injury can be adjudicated on a classwide basis. Plaintiffs base
 13 their contract claim solely on the theory that the use of non-new parts in remanufactured iPhones
 14 and iPads caused the replacement devices to not be “equivalent to new in performance and
 15 reliability.” (Mot. at 1, 20.) All of Plaintiffs’ other claims — under Magnuson-Moss, Song-
 16 Beverly, and the “unlawful” and “unfair” UCL prongs — are based on this same theory.¹¹ (Mot.
 17 at 1, 22-24.) But Plaintiffs cannot prove this theory on a classwide basis.¹²

18 Plaintiffs have not proposed an interpretation of “new or equivalent to new in performance
 19 and reliability” in their motion. To the extent they intend to take the position that it means that all
 20 replacements will be “new,” as their deposition testimony suggests, no reasonable person would

21 on its November 4, 2013 filing date. The parties discussed this issue as well in meet and confer.
 22 (Patel Decl. ¶ 2.)

23 ¹⁰ Additionally, all discovery regarding specific replacements (e.g., number of replacements
 24 provided under AC+ and number that returned) in this case has been limited to July 20, 2012 and
 25 onward. (ECF Nos. 73, 74-3.)

26 ¹¹ Plaintiffs do not cite any evidence that is independently relevant to these other claims. (*See*
 27 Mot. at 22-24.) Plaintiffs also appear to assert a UCL “fraudulent” claim (*see* Mot. at 23), but the
 28 Court dismissed that claim in March 2017 (ECF No. 64).

¹² Plaintiffs’ purportedly common question — “whether Apple must employ comparison
 testing” — is not a basis for breach of contract. (Mot. at 17.) The point is whether the
 replacements Plaintiffs received were “equivalent to new in performance and reliability,” and
 Apple has determined that remanufactured devices meet that standard through its extensive and
 stringent manufacturing and testing processes. This argument appears to be an attempt to avoid
 the myriad individual questions necessary to adjudicate their claims.

1 interpret the language in the same (unreasonable) way. Interpreting this language to mean all
 2 devices would be “new” is contrary to the plain reading of the language. *See English v. Apple*
 3 *Inc.*, No. 3:14-cv-01619-WHO, 2017 WL 106299, at *16 (N.D. Cal. Jan. 11, 2017) (holding the
 4 language “new or equivalent to new in performance and reliability” means that the replacements
 5 are “not necessarily new” (internal citation omitted)); (*see also* Patel Decl. Ex. G at 163:13-20
 6 (Plaintiffs’ expert Dr. Lance Kaufman admitting that devices that are “equivalent to new” are not
 7 “new”).) While each Plaintiff’s deposition testimony is internally inconsistent, they both appear
 8 to take the position that “equivalent to new in performance and reliability” means “new.”
 9 Maldonado first testified that she interpreted the language to mean “used,” then changed her
 10 testimony to say she believed it meant her replacement would be “new” in response to a redirect
 11 by Plaintiffs’ counsel. (Patel Decl. Ex. B at 31:22-25, 108:20-109:1.) Carter first testified that he
 12 thought the language meant that his replacement would be “either a new phone or something
 13 that’s going to operate exactly like [his] new phone did,” and then said he is “expecting, reading
 14 [the language] to receive a new phone through Apple.” (Patel Decl. Ex. A at 108:10-22.)

15 **1. Whether All Putative Class Members’ Devices Were “Equivalent to**
 16 **New in Performance and Reliability” Cannot Be Decided Classwide.**

17 Plaintiffs contend that remanufactured devices are not “equivalent to new in performance
 18 and reliability” due to the inclusion of some non-new parts. (Mot. at 1, 20.) Plaintiffs are wrong.
 19 For the reasons discussed below, Plaintiffs’ claims cannot be resolved on a classwide basis, but
 20 rather require resolution of myriad individual issues as to each putative class member.

21 Apple’s remanufactured iPhones and iPads are built from the ground up using new parts
 22 and a limited number of recovered parts, and each remanufactured device contains a **different**
 23 **mix** of non-new parts. (Lanigan Decl. ¶¶ 4, 7; Patel Decl. Ex. E at 55:14-60:16; Patel Decl. Ex. D
 24 at 28:17-30:8, 95:2-97:8.) That is to say, while one remanufactured iPhone may have a non-new
 25 [REDACTED], another may have a non-new [REDACTED] and another may not have either a non-new
 26 [REDACTED] or a non-new [REDACTED]. (Lanigan Decl. ¶ 7.) And a customer could receive a
 27 remanufactured device with all new parts because of the [REDACTED]
 28 [REDACTED]. (Patel

1 Decl. Ex. E at 55:14-60:16; Patel Decl. Ex. D at 28:17-30:8, 95:2-97:8.) [REDACTED]
 2 [REDACTED]
 3 [REDACTED] (Lanigan Decl. ¶ 7; Patel Decl. Ex. D at
 4 28:17-29:22, 96:10-97:8.) [REDACTED]

5 [REDACTED]
 6 [REDACTED]¹³ (Lanigan Decl. ¶¶ 18-22; Gould Decl. ¶¶ 4-8.) Plaintiffs
 7 make no attempt to address how the Court can resolve classwide whether all remanufactured
 8 iPhones or iPads — all of which vary in the number and mix of non-new parts — were not
 9 “equivalent to new in performance and reliability” as a result of their respective non-new part(s).

10 *Bruce v. Teleflora, LLC*, No. 2:13-CV-03279-ODW, 2013 WL 6709939 (C.D. Cal.
 11 Dec. 18, 2013) illustrates why this type of assessment cannot be done on a classwide basis. In
 12 *Bruce*, the plaintiffs alleged that the defendant online floral retailer was systematically providing
 13 “materially inferior floral arrangements” to customers. 2013 WL 6709939 at *1. The plaintiffs
 14 claimed these inferior flower arrangements breached the defendant’s written substitution policy,
 15 which stated that if the “exact flowers or container” selected were not available, substitutions
 16 would be made with “items of equal or higher value.” *Id.* at *1 (internal citations omitted). The
 17 court denied class certification, finding that to resolve the case the court would need to “assess
 18 **each individual arrangement delivered to each putative class member** to determine whether
 19 she received an inferior-quality arrangement.” *Id.* at *6 (emphasis added). The individual
 20 inquiries required would have included “how each arrangement looked, the quality and number of
 21 the flowers used, [and] whether superior-quality flowers were substituted.” *Id.* at *5.

22 The same is true here. To adjudicate the claims of the putative class, the Court would
 23 need to assess each individual remanufactured iPhone and iPad to determine, at a minimum:

- 24 1. Which parts (if any) were not new;
- 25 2. Which customers experienced an issue with the replacement;
- 26 3. Whether the issue was a hardware issue;

27
 28 ¹³ Carter’s third replacement was “new buy,” and is not a part of this case. (Mot. at 14.)

1 4. Whether the issue was caused by a non-new part; and

2 5. Whether the issue with the non-new part was due to the fact it was not new.

3 These individualized inquiries are impossible to perform on a classwide basis. Carter's
4 experience, for example, confirms that this is true.

5 Carter complains only of experiencing "battery" issues with his replacements, but Apple
6 always uses new batteries in its remanufactured devices. (Patel Decl. Ex. A at 16:1-17:3, 38:3-
7 39:1; Lanigan Decl. ¶¶ 6, 18-20.) Carter has no evidence that any of the limited non-new parts
8 [REDACTED], depending on replacement) caused the battery issues
9 he allegedly experienced, much less that they rendered his replacements not "equivalent to new in
10 performance and reliability." (Gould Decl. ¶¶ 4-6; Lanigan Decl. ¶¶ 6, 16, 18-20.)¹⁴

11 To compensate for these individualized evidentiary issues, Plaintiffs contend that one
12 common question is "whether remanufactured devices' higher rate of failure or shorter life span
13 establishes those devices are not equivalent to new." (Mot. at 17.) Plaintiffs point to two sources
14 of purportedly common evidence to prove their claims: (1) return rate data, and (2) the opinions
15 of their expert, Dr. Pecht, regarding "load conditions." (Mot. at 20.)¹⁵ But neither of these
16 sources of "evidence" can be used to prove on a classwide basis that remanufactured devices are
17 not "equivalent to new in performance and reliability."

18 **2. Plaintiffs Cannot Rely on Return Rate Data to Prove Their Claims on
19 a Classwide Basis.**

20 Plaintiffs rely on the opinion of Dr. Robert Bardwell and his analysis of return rate data to
21 argue that remanufactured iPhones and iPads "fail at a rate higher" than new iPhones and iPads.
22 (Mot. at 8-9.) But this argument is neither supported by the data itself or Dr. Bardwell's analysis,
23 which is flawed and unreliable.

24 As an initial matter, Plaintiffs and Dr. Bardwell improperly characterize return rates as
25 "failure rates." (Mot. at 8-9; ECF No. 103-23 at 1-19.) Return rate data only shows that a

26 ¹⁴ (See also Defendants' concurrently-filed motion for summary judgment.)

27 ¹⁵ Plaintiffs also purport to point to differences in the language in the Limited Warranty and
28 AC+ as a source of "common evidence" of breach. (Mot. at 21.) But the Court already rejected
Plaintiffs' argument regarding "variations" among different contracts, finding that such
allegations were not relevant to Plaintiffs' breach of contract claim. (ECF No. 64 at 9 n.7.)

1 customer returned a remanufactured device for service. It does not indicate that an iPhone or iPad
2 was “defective” or “failed.” (See Section III.D.) Dr. Bardwell agrees. (Patel Decl. Ex. F at
3 29:25-30:6, 36:10-12 (admitting that the return rate data does not track failures, and that
4 [REDACTED]).) Nor does the return
5 rate data show whether any issue the customer experienced was caused by a non-new part. Dr.
6 Bardwell again agrees. (Patel Decl. Ex. F at 42:9-21, 62:24-63:7 (admitting he does not know
7 which parts were not new in devices that returned, or whether a non-new part failed in those
8 devices).)

9 As Plaintiffs’ expert Dr. Pecht explains, while information from users “sometimes
10 provide[] some insights,” the only way to truly understand the reasons why a product has failed is
11 to investigate the “root cause,” including by analyzing the “components themselves and the
12 mechanisms of failure of the components themselves.” (Patel Decl. Ex. H at 39:1-43:8.) Despite
13 these admissions, Dr. Bardwell concludes that [REDACTED]
14 [REDACTED], and that the higher “failure rate” is due to non-new parts. (ECF No.
15 103-23 at 4.) But that conclusion is flawed because, as Dr. Bardwell admits, he has no “definitive
16 evidence” that replacement iPhone and iPad return rates are driven by devices with non-new
17 parts. (Patel Decl. Ex. F at 53:9-24, 62:24-63:7.)

18 Even if return rates could be used as a proxy for failure rates, the return rate data still does
19 not support Plaintiffs’ claim that all remanufactured iPhones and iPads “fail” at a higher rate than
20 new devices. The data also has inherent limitations, including that it cannot be used to accurately
21 calculate the percentage of replacements returned for more recent models. As Defendants’
22 expert, Dr. Anthony Hayter, explains, the data can reliably be used only for models for which the
23 data is largely static (i.e., iPhone 5S and earlier, and iPad 4th generation and earlier). (Hayter
24 Report at 16-31.)

25 Dr. Bardwell’s opinions are flawed because he incorrectly analyzes the data, calculating
26 odds ratios for recent models for which there is insufficient data and ignoring data points that are
27 not favorable to his conclusions. Dr. Hayter has analyzed the same data and concluded that for
28 the models for which there is sufficient data, there is no evidence of any systematic difference

1 between the relative return rates of remanufactured and new replacement devices. (Hayter Report
 2 at 42-66.) Dr. Bardwell presents odds ratios (a statistic that quantifies the strength of the
 3 association between two events) between the return rates of new and remanufactured devices for
 4 each iPhone and iPad model at issue. (ECF No. 103-23 at 10-11.) He then uses the Mantel-
 5 Haenszel method to create a combined odds ratio for all models. (*Id.* at 8-9.) Dr. Bardwell
 6 claims that these odds ratios show the ratio of the “odds of a remanufactured phone failing to the
 7 odds of a new replacement phone failing.” (*Id.* at 8 n.17.) His analysis contains at least the
 8 following flaws in methodology:

- 9 • The odds ratios he calculates for more recent models are not actual odds ratios because
 10 the devices that have returned within the last 13 weeks are reflected in the numerator
 (returns) but not the denominator (total number issued at least 13 weeks ago);
- 11 • The combined odds ratios using the Mantel-Haenszel method are not meaningful
 because they are based on numbers that are not actual odds ratios; and
- 12 • Ignores all data past 13 weeks, despite the fact that doing so is inconsistent with
 13 Plaintiffs’ theory that the “load conditions” on the non-new parts purportedly cause
 the devices to wear out later in the life of a particular device (not at the beginning).¹⁶

14 (Hayter Report at 32-36.)

15 An analysis of the data that is largely static (i.e., iPhone 5S and earlier, and iPad 4th
 16 generation and earlier) shows that [REDACTED]

17 [REDACTED]. (See Hayter Report at 42-66.) For example:

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 [REDACTED]

24 _____
 25 ¹⁶ Dr. Bardwell claims that there are two types of censoring in the data. First, he claims that
 26 because the data is dynamic, he is missing data. But if he had focused his analysis on the models
 27 for which there is complete data, as Dr. Hayter did, the amount of data missing (if any) is
 28 negligible. (See Hayter Report at 16-31 (explaining information ratios and providing information
 ratios for each iPhone and iPad model).) Second, he claims that data is missing because the data
 is limited to the two-year AC+ plan term. (ECF No. 103-23 at 13-14.) But, as Defendants have
 clarified, the data is not limited in that way. (Sen Decl. ¶ 3.) This clarification only affects Dr.
 Bardwell’s right-censoring arguments, not on his analysis of the 13-week data.

1 (See Hayter Report at 47, 52, 59, 62.) This [REDACTED] refutes Plaintiffs’ theory that all
2 remanufactured devices are not “equivalent to new in performance and reliability.” If Plaintiffs
3 were correct, including with respect to the impact of “load conditions” (discussed below), [REDACTED]
4 [REDACTED]
5 [REDACTED] (Glew Report ¶ 59.) But that is not
6 what it shows.

7 Dr. Bardwell selectively excludes or downplays data for certain models, which glosses
8 over the [REDACTED] in the data over time and across models.¹⁷ For example, Dr. Bardwell
9 excludes the [REDACTED]
10 [REDACTED]. (ECF No. 103-23 at 8-9.) He claims
11 that the [REDACTED] was an anomaly that “was out of line with the other models.”
12 (Patel Decl. Ex. F at 80:10-22, 88:24-89:2.) But at the same time, Dr. Bardwell does not find any
13 “anomaly” in the iPad Pro data, which by Dr. Bardwell’s calculations shows a much lower rate of
14 return for new replacements versus remanufactured replacements (based on incomplete data) —
15 specifically at an odds ratio that is more than double the next-highest iPad odds ratio. (ECF No.
16 103-23 at 11, tbl. 2.) Dr. Bardwell also seeks to discount the [REDACTED] because he recalled
17 “anecdotal evidence” that there was an issue with [REDACTED] when it launched. (Patel Decl. Ex. F
18 at 80:14-22.) After his deposition, Plaintiffs served discovery seeking “all documents or
19 communications documenting performance and reliability issues with the iPhone 5.” (Patel Decl.
20 ¶ 13.) This only serves to evidence the highly individualized issues that affect whether any
21 particular iPhone or iPad returns to Apple.

22 3. Plaintiffs “Load Conditions” Theory Is Unsupported by the Evidence 23 and Cannot Be Used to Prove Their Claims on a Classwide Basis.

24 Plaintiffs rely on the opinion of Dr. Michael Pecht for the proposition that remanufactured

25 _____
26 ¹⁷ Dr. Bardwell’s report is rife with false or misleading conclusions drawn from this selective
27 view of the data. For example, [REDACTED]. (ECF
28 No. 103-23 at 3 n.3.) In support of this sweeping claim, Dr. Bardwell cited a document relating
to the iPhone 5. (*Id.*) At his deposition, Dr. Bardwell conceded this was an error, stating
“[m]aybe the paragraph should be clearer.” (Patel Decl. Ex. F at 44:9-15.)

1 devices can “never” be “equivalent to new in performance and reliability” because they contain
 2 “used parts” that have been subject to “load conditions.” (Mot. at 20.) Specifically, Dr. Pecht
 3 opines that “loading (stress) conditions” such as temperature, mechanical stresses, moisture,
 4 vibration, or dust cause parts of an electronic device to degrade. (ECF No. 103-20 ¶ 12.) He then
 5 concludes that all non-new parts have some amount of these “load conditions” that inherently
 6 render them not “equivalent to new in performance and reliability.” (*Id.* ¶ 10.)

7 **Dr. Pecht’s opinions regarding the sufficiency of Apple’s testing procedures are**
 8 **contradicted by evidence.** Dr. Pecht largely ignores Apple’s extensive and stringent testing
 9 processes, taking the position that Apple tests only to a “minimum” standard.¹⁸ (ECF No. 103-20
 10 ¶ 16; *see also* Mot. at 9-10.) But this opinion is unsupported¹⁹ and fundamentally misunderstands
 11 the basics of manufacturing. It is common to have engineering specifications for each product to
 12 ensure that the products coming out of a factory meet the same standards. Yet notably, Apple’s
 13 specifications are more stringent than those of other manufacturers. (Patel Decl. Ex. E at 126:17-
 14 127:10 (Apple’s standards are at the “upper end of any performance spec of any product”).)
 15 Apple’s specifications are therefore not merely a “minimum” standard — they are **the** standard.
 16 (*Id.* at 126:10-127:10; *see also* Expert Report of Alexander Glew (“Glew Report”) ¶ 33.)²⁰ Every
 17 iPhone and iPad — including finished goods and remanufactured — must meet the same
 18 comprehensive engineering specifications and pass the same tests on the same sophisticated
 19 machinery. (Lanigan Decl. ¶ 8; Patel Decl. Ex. E at 21:21-22:22, 23:11-24:2, 27:1-21, 39:22-
 20

21 ¹⁸ Plaintiffs claim that “whether passing Apple’s uniform minimum test standards proves that
 22 remanufactured devices are equivalent to new” is a common question. (Mot. at 17.) But even if
 23 Plaintiffs were successful in proving that the answer to this **could be** “no” — and as Apple’s
 evidence demonstrates, it is not — Plaintiffs would still be no closer to proving classwide that all
 remanufactured replacements are **not** “equivalent to new in performance and reliability.”

24 ¹⁹ Dr. Pecht admittedly does not understand the details of Apple’s testing and manufacturing
 processes, and has not reviewed even a handful of the tens of thousands of testing documents that
 Apple has produced in this case. (Patel Decl. Ex. H at 62:23-64:11.)

25 ²⁰ Dr. Bardwell also purports to opine on Apple’s reliability and performance testing. (ECF
 26 No. 103-23 at 4, 18.) He concedes, however, that he has never been retained as an expert on such
 27 testing, true failure analysis, or electronics manufacturing, and indeed has no experience on these
 subjects. (Patel Decl. Ex. F at 69:15-70:25.) His “testing” opinions from Page18:Line14 to
 28 Page19:Line1, therefore, should be stricken. *See Sport Dimension, Inc. v Coleman Co., Inc.*, No.
 CV 14-00438 BRO, 2015 WL 12732710, at *7 (C.D. Cal. Jan. 29, 2015) (striking testimony of
 expert whose “admitted lack of expertise” in the subject matter rendered him unqualified).

1 54:15.) These tests are highly effective at eliminating products that do not meet Apple’s high
 2 standards, including where there are materials issues. (Lanigan Decl. ¶ 8.) There is simply no
 3 evidence in support of Plaintiffs’ theory that Apple’s testing processes are insufficient to identify
 4 (and eliminate) any quality issues with non-new parts.

5 Plaintiffs and Dr. Pecht appear to take an even more absurd position with respect to
 6 reliability testing, suggesting that Apple should be performing that testing on replacements that
 7 are provided to customers, rather than on a sample. (ECF No. 103-20 at 9; *see also* Mot. at 10-
 8 13.) But that argument fundamentally misunderstands the basics of manufacturing, as well as the
 9 nature and purpose of reliability testing — which is designed to test the product in extreme
 10 conditions, the result of which is often destructive. (Lanigan Decl. ¶ 12; Patel Decl. Ex. E at
 11 49:19-50:21, 53:8-15; Patel Decl. Ex. D at 25:21-26:9.) Dr. Pecht agrees, and admits that “[n]o
 12 company in their right mind would test something to failure and then send it out to a customer.”
 13 (Patel Decl. Ex. H at 78:6-14.) Dr. Pecht’s opinions regarding Apple’s testing should thus be
 14 disregarded because they are not based on how manufacturing and testing actually works.

15 **Dr. Pecht’s opinion is highly theoretical, and is not supported by any evidence.** (Patel
 16 Decl. Ex. H at 38:21-25; *see also* Glew Report ¶ 55.) Dr. Pecht admitted that to understand why
 17 a device failed, it is important to gain an understanding of the “components themselves and the
 18 mechanisms of failure of the components themselves.” (Patel Decl. Ex. H at 39:1-43:8.) Despite
 19 that, Dr. Pecht has not tested any Apple remanufactured iPhones or iPads, nor performed any
 20 assessment of the specific non-new parts that Apple uses, or considered the fact that the mix and
 21 percentage of non-new parts varies from device to device. (Patel Decl. Ex. H at 56:19-23.)

22 More problematic for Plaintiffs, however, is that Dr. Pecht claims that his conclusions
 23 would remain the same regardless of the product at issue, but at the same time admits the
 24 following facts regarding variables that affect the life of a product and specific parts therein:

- 25 • Different parts degrade at different rates;
- 26 • The rates at which parts degrade depend on the “load conditions” to which they are
 subjected;
- 27 • It is possible that there could be “no degradation on performance” of a remanufactured
 iPhone or iPad due to “load (stress) conditions”;
- 28 • It is possible for a remanufactured iPhone or iPad to have a longer life than a new

1 iPhone or iPad; and

- 2 • The life of an iPhone or iPad, new or remanufactured, will vary based on the customer, geography, environment, and use.

3 (Patel Decl. Ex. H at 57:13-14, 88:15-21, 107:16-108:1, 106:12-107:12; *see also* Glew Report ¶
4 46.) In sum, Dr. Pecht’s highly theoretical opinions cannot be used to prove Plaintiffs’ contention
5 that remanufactured devices are not “equivalent to new in performance and reliability.”

6 **C. Plaintiffs’ Failure to Present a Methodology for Calculating Classwide Injury**
7 **or Damages Defeats Predominance and Precludes Certification.**

8 Under *Comcast*, a “model purporting to serve as evidence of damages in [a] class action
9 must measure only those damages attributable to” Plaintiffs’ theory of liability. 569 U.S. at 35.
10 “If the model does not even attempt to do that, it cannot possibly establish that damages are
11 susceptible of measurement across the entire class for purposes of Rule 23(b)(3).” *Id.*;
12 *Werdebaugh v. Blue Diamond Growers*, No. 12-CV-02724-LHK, 2014 U.S. Dist. LEXIS
13 173789, at *26 (N.D. Cal. Dec. 15, 2014).²¹ That is precisely the case here.²²

14 Plaintiffs and the putative class bought service contracts, and their liability theory is that
15 Apple breached those contracts. (Mot. at 1 n.1, 2, 19-24.) Yet neither of Plaintiffs’ two proffered
16 theories measures damages flowing from that alleged breach. Their purported expert, Dr. Lance
17 Kaufman, concedes that his report “may or may not be consistent with the class . . . [t]hat’s not
18 my area of expertise.” (Patel Decl. Ex. G at 64:6-11.)

19 Equally fatal, Dr. Kaufman has not presented concrete damages models. He repeatedly
20 testified that it would be “premature” to “limit” his models or “formulate a specific model.”
21 (Patel Decl. Ex. G at 67:20-68:22, 159:17-24.) He has not done empirical research or performed
22 any calculations. (*Id.* at 38:5-13, 140:21-141:18.) Nor has he determined what specific factors
23

24 _____
25 ²¹ *See also In re Dial Complete Mktg. & Sales Practices Litig.*, 312 F.R.D. 36, 78 (D.N.H. 2015) (rejecting damages analysis where plaintiff’s “efforts to identify a workable model fall short”).

26 ²² Plaintiffs’ reliance on *Just Film, Inc. v. Buono*, 847 F.3d 1108, 1121 (9th Cir. 2017), is
27 misplaced. (Mot. at 24.) There, the court concluded that the fact that “some individualized
28 calculations may be necessary does not defeat finding predominance.” 847 F.3d at 1121. That is not the issue here; Plaintiffs have wholly failed to come forward with a model that measures damages limited to those resulting from their theory of liability.

1 his “models” would include, much less made any attempt to test or apply his “models.” (*Id.* at
 2 56:7-13, 159:11-19, 38:16-25.) As detailed by Defendants’ expert, Dr. Alan Cox, Dr. Kaufman’s
 3 models are riddled with fatal factual and methodological errors. (Expert Report of Alan Cox
 4 (“Cox Report”) at 7-26.) Plaintiffs fall woefully short of presenting a damages model that
 5 satisfies *Comcast*.

6 **1. Plaintiffs’ “Price Difference” Damages Measure Is Not Tethered to**
 7 **Their Liability Theory, and Does Not Satisfy *Comcast*.**

8 Plaintiffs’ liability theory is clear: Plaintiffs and the purported class “overpaid for [AC+]
 9 and did not receive the benefit of their bargain.” (FAC ¶ 191.) But Dr. Kaufman made no effort
 10 to measure the “diminished value” of AC+, i.e., the amount by which Plaintiffs “overpaid.”
 11 (Patel Decl. Ex. G at 192:5-193:6.) Rather, he purports to calculate damages based on the
 12 “difference between the retail price of new and remanufactured devices.” (ECF No. 103-25 at 4.)
 13 He acknowledged, however, that Plaintiffs are suing about the AC+ plans they bought, not the
 14 purchase of devices. (Patel Decl. Ex. G at 163:8-12.) Plaintiffs’ “device price difference”
 15 damages theory thus is not, as *Comcast* requires, tethered to their theory of liability.

16 Dr. Kaufman admitted that AC+ provides multiple benefits (see Section III.A., *supra*),
 17 each of which has economic value. (See Patel Decl. Ex. G at 174:12-23.) Yet he made no effort
 18 to determine the economic value of those benefits, or to measure the alleged reduction in the
 19 overall value of the plan resulting from the receipt of a remanufactured replacement device that in
 20 most cases functioned without issue. Nor did he make any attempt to show how he would
 21 account for customers of the iPhone Upgrade Program, who pay a monthly fee that includes the
 22 cost of AC+ and are entitled to upgrade to a new iPhone every year. (Cox Report at 12-13, 25.)

23 That failure is fatal under *Comcast*. As Dr. Cox explains, “any appropriate measure of
 24 damage in this case must be based on the price of the service plans,” rather than the prices of
 25 replacement devices that were not directly purchased by consumers. (Cox Report at 9.) As
 26 Dr. Cox notes, the difference in “new” and “refurbished” device prices identified by Dr. Kaufman
 27 could equal or exceed the entire cost of the plan. (*Id.*) The “device price differences” model thus
 28 fails to limit damages to those resulting from Plaintiffs’ liability theory.

1 Plaintiffs’ “device price difference” theory is also untethered from the facts of this case
2 because Plaintiffs do not and cannot allege that the AC+ plans ever promised that replacement
3 devices would be “new.” To the contrary, as this Court has held (Section II.A., *supra*) and as Dr.
4 Kaufman admitted, devices that are “equivalent to new” are not “new.” (Patel Decl. Ex. G at
5 151:20-152:24, 163:13-20.) Yet Plaintiffs improperly base their damages calculation on *new*
6 devices that putative class members were never promised.

7 Finally, Dr. Kaufman’s “device price model” is not a model at all, but merely a theory,
8 and one that is riddled with methodological flaws. Dr. Kaufman contends that he will calculate
9 the price of new and “certified refurbished” Apple devices of the same model and configuration at
10 the time each putative class member received his remanufactured device. (ECF No. 103-25 at 6-
11 7.) But even if this were a proper comparison, as Dr. Cox notes, for much of the class period,
12 Apple did not sell certified refurbished iPhones, and it certainly does not sell refurbished devices
13 comparable to every model and configuration covered by an AC+ plan at the time. (Cox Report
14 at 13, 23-24.) Dr. Kaufman admitted that he had not considered any of these issues. (Patel Decl.
15 Ex. G at 153:11-157:16.)

16 Similarly, Dr. Kaufman’s model severely overstates new device prices. As Dr. Cox
17 explains, Dr. Kaufman uses full, “unlocked” prices for new iPhones (i.e., iPhones sold without a
18 cellular service contract), but the prices actually paid by the great majority of consumers during
19 the class period were far less and included discounts Dr. Kaufman completely ignores. (Cox
20 Report at 14-15, 25.) Moreover, Dr. Kaufman testified that he had not developed a “specific”
21 pricing model and that it was “early” to speculate about the factors he would include. (Patel Decl.
22 Ex. G at 67:11-23, 153:11-155:5, 157:17-160:17.) But *Comcast* requires that Dr. Kaufman come
23 forward with a concrete methodology proving that he can reliably measure damages resulting
24 from Plaintiffs’ theory of liability on a classwide basis; his failure to do so bars class certification.

25 **2. Plaintiffs’ “Rescission” Damages Measure Is Without Basis, Is Not**
26 **Tethered to Their Liability Theory, and Does Not Satisfy *Comcast*.**

27 Plaintiffs’ second proposed damages measure, rescission, is without legal or economic
28 basis. Plaintiffs do not allege, seek, or even mention rescission in their complaint. Nor do they

1 articulate a legal or factual basis for rescission. They include one sentence in their motion, barren
2 of authority, asserting that Dr. Kaufman “could also” calculate rescission damages. (Mot. at 25.)
3 Dr. Kaufman, however, testified that he was not aware of any *economic* basis for rescission
4 damages, but included it because Plaintiffs’ counsel told him to do so. (Patel Decl. Ex. G at
5 51:14-53:6, 181:2-188:23.) Plaintiffs’ rescission theory cannot possibly support certification of a
6 damages class here. As Dr. Cox notes, rescission would hugely overstate any possible measure of
7 damages, because it assumes that Plaintiffs and the putative class received no economic value
8 from their AC+ plans. (Cox Report at 9-10, 22.) That is plainly not the case: they received
9 extended hardware coverage, accidental damages coverage, and extended telephone technical
10 support. (*Id.* at 10.) Moreover, the majority of putative class members received replacement
11 devices that functioned without issue. (Section V.C.1., *supra.*)

12 Further, Dr. Kaufman’s rescission “model” does not exist. When questioned, the best he
13 could offer was that rescission involved “unwinding both sides of the contract to where the parties
14 were prior to agreeing to the contract.” (Patel Decl. Ex. G at 51:14-53:6.) But he observed that
15 such “unwinding” would likely require putative class members to return their devices to Apple,
16 and admitted that he had not thought about how that would work. (*Id.* at 54:14-55:6.) Dr.
17 Kaufman admitted that he has not developed or even considered how to implement such a model;
18 it thus cannot support certification of a damages class.

19 3. Dr. Kaufman Purports to Award “Future” Damages to Consumers 20 Who Are Not Members of Plaintiffs’ Proposed Class.

21 Dr. Kaufman states that his model will also include “future damages” reflecting a
22 “probabilistic” measure of damages for consumers who have time remaining on their AC+ plans
23 and may receive a remanufactured device in the future. (ECF No. 103-25 at 7; Patel Decl. Ex. G
24 at 61:9-23.) Plaintiffs’ proposed class, however, is defined as individuals *who have received a*
25 *remanufactured replacement device*. (Mot. at 15 (emphasis added).) Dr. Kaufman thus purports
26 to award damages to individuals who not only have not been injured, but are not even members of
27 the class Plaintiffs seek to certify. Plaintiffs have not presented evidence that measures classwide
28 damages tethered to their theory of liability.

1 **D. Plaintiffs Are Not Typical or Adequate.**

2 As set forth in Defendants' concurrently-filed motion for summary judgment, Plaintiffs do
3 not have viable claims. They are also not typical or adequate class representatives.

4 **1. Plaintiffs Have No Standing and Are Not Typical.**

5 Plaintiffs each received two remanufactured replacement devices under AC+. (Lanigan
6 Decl. ¶¶ 18-22; Gould Decl. ¶¶ 4-8; FAC ¶¶ 89, 95, 102-104, 114.) But Plaintiffs have not
7 identified any issues they experienced with their remanufactured replacements [REDACTED]
8 [REDACTED]. Indeed, the repeated issues Plaintiffs each allegedly experienced across their
9 devices suggests that they were software-related (e.g., an app draining Carter's battery or causing
10 Maldonado's iPad to unexpectedly restart) or caused by usage or geography (e.g., phone habits or
11 distance from cellular towers causing Carter's battery to drain more quickly). (Lanigan Decl.
12 ¶ 16.) Carter complains only of issues with the battery — which is always new — not of any
13 issues with any non-new part (which, depending on the replacement, included [REDACTED]
14 [REDACTED]). (Patel Decl. Ex. A at 38:3-12, 38:21:39:18, 103:10-104:22, 116:13-
15 15; Lanigan Decl. ¶¶ 6, 18-20; Gould Decl. ¶ 4; FAC ¶¶ 102, 103, 112, 113.) Similarly,
16 Maldonado has not identified any issue that was caused by the non-new [REDACTED] in her
17 remanufactured iPads. (Lanigan Decl. ¶¶ 21-22; Gould Decl. ¶¶ 7-8.) Because Plaintiffs cannot
18 connect the issues they allegedly experienced with any non-new part, they have no viable claims
19 and their experiences are not typical of the putative class they seek to represent.

20 **2. Carter's Improper Litigation Conduct Makes Him Inadequate.**

21 The manner in which Carter obtained his second two replacements raises serious concerns
22 regarding his adequacy as a class representative. Carter obtained his first replacement in July
23 2016 when he complained to Apple that he was having battery issues with his iPhone 6 Plus.
24 (FAC ¶ 102; Patel Decl. Ex. A at 16:1-23, 95:10-96:3, 110:14-116:3; Gould Decl. ¶ 4.) Then, in
25 October 2016, Carter learned about this lawsuit through an ad on Facebook, retained counsel, and
26 in rapid succession obtained two more replacements under his AC+ contract. (FAC ¶¶ 106, 116;
27 Patel Decl. Ex. A at 15:3-25, 125:14-24, 127:1-13, 131:6-14; Gould Decl. ¶ 5.)

28 Carter obtained two of his replacement iPhones for the purposes of this litigation — not

1 for the purpose of genuinely obtaining service. Immediately upon receipt, Carter's counsel had
 2 these replacements opened and the parts inside inspected by Thang Huynh in the trunk of his car.
 3 (FAC ¶¶ 104-106, 114-116; Patel Decl. Ex. A at 150:19-153:3, 154:1-160:7, 162:3-168:9, 171:4-
 4 173:21, 174:19-177:4, Exs. 7, 8, 10-12, 17.) These inspections proceeded despite Defendants'
 5 objection to any inspection without a protocol and without Defendants' expert present. (*See*
 6 *English* Dkt. No. 294 (objecting to proposal for Huynh to inspect English's iPhones); Patel Decl.
 7 ¶ 13, Ex. K (e-mail to Hagens Berman regarding preservation of Carter's iPhone).)

8 Moreover, Carter obtained his third replacement **after** he had already purchased a new
 9 iPhone that was paid for by his counsel. (Patel Decl. Ex. A at 169:14-171:3, 172:6-15, Exs. 15,
 10 16.) He then gave the second replacement to Huynh to be preserved, but returned the third
 11 replacement to Apple. (*Id.* at 156:3-160:7, 165:22-168:9, 171:4-172:2, 172:16-173:21, 175:22-
 12 177:4.) These facts suggest that Carter would not have sought his second and third replacements
 13 but for his involvement in this lawsuit, thus rendering his claims atypical of those he seeks to
 14 represent, and demonstrating his lack of adequacy to represent those individuals. Defendants'
 15 concerns apply with equal force to Plaintiffs' counsel given that the evidence shows that Hagens
 16 Berman was involved in, and in some cases orchestrated, Carter's improper conduct. (FAC
 17 ¶¶ 106, 116; Patel Decl. Ex. A at 157:22-159:8, 170:9-172:12, 175:22-176:21.)²³

18 VI. CONCLUSION

19 For all these reasons, the Court should deny Plaintiffs' motion for class certification.

20 Dated: April 8, 2019

MORRISON & FOERSTER LLP

21
 22 By: /s/ Purvi G. Patel
 Purvi G. Patel

23 *Attorneys for Defendants*
 24 *Apple Inc., AppleCare Service Company,*
Inc., and Apple CSC Inc.

25
 26 _____
 27 ²³ Plaintiffs appear to seek to appoint only Hagens Berman as class counsel, and are silent as
 28 to the adequacy of Renee Kennedy. This Court has already found Ms. Kennedy to be inadequate
 class counsel in *English*. (*English* Dkt. No. 225 at 23.) There is no evidence in the record that
 Ms. Kennedy has remedied any of the adequacy issues identified by the Court in *English*.

1 ARTURO J. GONZALEZ (SBN 121490)
AGonzalez@mofocom
2 PENELOPE A. PREVOLOS (SBN 87607)
PPrevolos@mofocom
3 MARGARET E. MAYO (SBN 259685)
MMayo@mofocom
4 MORRISON & FOERSTER LLP
425 Market Street
5 San Francisco, California 94105-2482
Telephone: 415.268.7000
6 Facsimile: 415.268.7522

7 PURVI G. PATEL (SBN 270702)
PPatel@mofocom
8 MORRISON & FOERSTER LLP
707 Wilshire Boulevard
9 Los Angeles, California 90017-3543
Telephone: 213.892.5200
10 Facsimile: 213.892.5454

11 Attorneys for Defendants
APPLE INC., APPLE CARE SERVICE
12 COMPANY, INC., and APPLE CSC INC.

13 UNITED STATES DISTRICT COURT
14 NORTHERN DISTRICT OF CALIFORNIA
15 SAN FRANCISCO DIVISION
16

17 VICKY MALDONADO AND JUSTIN
18 CARTER, individually and on behalf of
themselves and all others similarly situated,

19 Plaintiffs,

20 v.

21 APPLE INC., APPLE CARE SERVICE
22 COMPANY, INC., and APPLE CSC INC.,

23 Defendants.
24
25
26
27
28

Case No. 3:16-cv-04067-WHO

Related Case:
English v. Apple Inc., et al.
Case No. 3:14-cv-01619-WHO

**DECLARATION OF
PURVI G. PATEL IN SUPPORT OF
DEFENDANTS' OPPOSITION TO
PLAINTIFFS' MOTION FOR CLASS
CERTIFICATION**

Judge: William H. Orrick
Courtroom: 2, 17th Floor

Complaint Filed: July 20, 2016
Trial Date: April 20, 2020

1 I, Purvi G. Patel, hereby declare as follows:

2 1. I am a partner in the law firm of Morrison & Foerster LLP, counsel of record for
3 Defendants Apple Inc., AppleCare Service Company, Inc., and Apple CSC Inc. in this action.
4 I make this declaration based on my own personal knowledge, and if called as a witness to testify,
5 I could and would testify competently to the following facts.

6 2. The parties met and conferred in and about September 2017 through November
7 2017 regarding the relevant time period for discovery. In meet and confer, Plaintiffs took the
8 position that the relevant time period began in March 2010 because the limitations period was
9 tolled by *English v. Apple Inc., et al.*, Case No. 3:14-cv-01619-WHO, pursuant to the *American*
10 *Pipe* tolling doctrine. (See ECF No. 73 at 5.) During meet and confer, Defendants explained that
11 *American Pipe* does not apply to state law claims, and therefore no claims were tolled by *English*.
12 Defendants provided two cases in support: *Centaur Classic Convertible Arbitrage Fund Ltd. v.*
13 *Countrywide Fin. Corp.*, 878 F. Supp. 2d 1009 (C.D. Cal. 2011) and *Williams v. Countrywide*
14 *Fin. Corp.*, No. 2:16-cv-04166-CAS (AGRx), 2017 WL 986517 (C.D. Cal. Mar. 13, 2017).
15 Plaintiffs refused to provide support for their position, and instead stated that they would provide
16 authority during briefing on class certification.

17 3. Attached as **Exhibit A** is a true and correct copy of excerpts from the deposition
18 of Justin Carter, taken on August 30, 2017, as well as Exhibits 5, 7, 8, 10, 11, 12, 15, 16, and 17.

19 4. Attached as **Exhibit B** is a true and correct copy of excerpts from the deposition
20 of Vicky Maldonado, taken on October 9, 2017, as well as Exhibit 31.

21 5. Attached as **Exhibit C** is a true and correct copy of excerpts from the deposition
22 of Avijit Sen, taken on October 9, 2018.

23 6. Attached as **Exhibit D** is a true and correct copy of excerpts from the deposition
24 of Jason Fu, taken on January 8, 2019.

25 7. Attached as **Exhibit E** is a true and correct copy of excerpts from the deposition
26 of Michael Lanigan, taken on January 11, 2019.

27 8. Attached as **Exhibit F** is a true and correct copy of excerpts from the deposition
28 of Robert Bardwell, Ph.D., taken on March 6, 2019.

Exhibit A

1 UNITED STATES DISTRICT COURT
2 NORTHERN DISTRICT OF CALIFORNIA
3 SAN FRANCISCO DIVISION
4

5 VICKY MALDONADO AND JUSTIN
6 CARTER, individually and on
7 behalf of themselves and all
8 others similarly situated,

9 Plaintiffs,

10 vs.

Case No. 3:16-cv-04067
WHO

11 APPLE INC., APPECARE
12 SERVICE COMPANY, INC., and
13 APPLE CSC INC.,

14 Defendants.
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VIDEO DEPOSITION OF JUSTIN CARTER

San Francisco, California

August 30, 2017

Volume I

REPORTED BY:

REBECCA L. ROMANO, RPR, CSR No. 12546

JOB NO. 153340

PAGES 1 - 198

Transcript of Justin Carter
Conducted on August 30, 2017

10

1	MS. KRAS: Michella Kras with	10:04:40
2	Hagens Berman on behalf of Plaintiffs.	10:04:40
3	MS. VYAS: Pami Vyas --	10:04:44
4	MS. KENNEDY: Renee Kennedy, attending	10:04:46
5	silently on behalf of plaintiff.	10:04:46
6	MS. VYAS: Pami Vyas from Apple.	10:04:49
7	THE VIDEOGRAPHER: Thank you.	10:04:52
8	The court reporter today is	10:04:52
9	Rebecca Romano, representing Planet Depos.	10:04:54
10	Would the reporter please administer the	10:04:58
11	oath.	10:05:00
12	THE REPORTER: If you could raise your	09:41:18
13	right hand for me, please.	12:22:22
14	THE DEPONENT: (Complies.)	12:22:22
15	THE REPORTER: You do solemnly state,	12:22:22
16	under penalty of perjury, that the testimony you	12:22:22
17	are about to give in this deposition, shall be the	12:22:22
18	truth, the whole truth and nothing but the truth.	12:22:22
19	THE DEPONENT: I do.	12:22:22
20		12:22:22
21		12:22:22
22		12:22:22
23		12:22:22
24		12:22:22
25	/////	12:22:22

Transcript of Justin Carter
Conducted on August 30, 2017

15

1	Q.	Okay. Do you know Joanne McRight?	10:09:02
2	A.	No.	10:09:05
3	Q.	How did you first learn about this	10:09:06
4		lawsuit?	10:09:08
5	A.	Through a ad on Facebook.	10:09:09
6	Q.	Have you responded to other ads on	10:09:12
7		Facebook before?	10:09:14
8	A.	I have responded to ads and I -- maybe	10:09:16
9		lawsuit ads, but, yes.	10:09:18
10	Q.	Do you recall any other lawsuit ads that	10:09:21
11		you've responded to?	10:09:23
12	A.	There was one for Red Bull.	10:09:24
13	Q.	With respect to the ad you saw in this	10:09:34
14		case, when did you see it?	10:09:37
15	A.	I don't remember the exact date.	10:09:39
16	Q.	Do you remember what it said?	10:09:42
17	A.	Something to the effect: If you have	10:09:44
18		purchased AppleCare and had a damaged device or had	10:09:46
19		to file a claim, to click the link below.	10:09:50
20	Q.	Did -- did you then click the link below?	10:09:57
21	A.	I did click the -- I did.	10:10:00
22	Q.	Why -- why did you do so?	10:10:02
23	A.	Because I had had an experience with my	10:10:03
24		device purchased through Apple and had AppleCare on	10:10:08
25		it.	10:10:11

Transcript of Justin Carter
Conducted on August 30, 2017

16

1	Q.	Can you tell me about that experience?	10:10:11
2	A.	The first device was having battery	10:10:13
3		issues, so I got a replacement. And the second	10:10:16
4		device was having battery issues as well, so...	10:10:20
5	Q.	And to be specific, are you referring to	10:10:26
6		your iPhone 6 Plus?	10:10:28
7	A.	I am.	10:10:30
8	Q.	And when you said the "first" one, are	10:10:31
9		you referring to the -- the original phone that you	10:10:33
10		purchased?	10:10:36
11	A.	The original phone, yes.	10:10:38
12	Q.	And the second one -- when you said	10:10:41
13		"second one," that means -- are you referring to	10:10:41
14		the first replacement device you received?	10:10:44
15	A.	Yes.	10:10:47
16	Q.	Is that the replacement received --	10:10:47
17		excuse me -- is that the replacement you received	10:10:50
18		in or about July 2016?	10:10:53
19	A.	I believe so, yes.	10:10:57
20	Q.	And I believe you just said you had	10:11:00
21		battery issues with that --	10:11:04
22	A.	Yes.	10:11:06
23	Q.	-- replacement.	10:11:06
24		And you also had battery issues with your	10:11:08
25		original phone?	10:11:11

Transcript of Justin Carter
Conducted on August 30, 2017

17

1	A. Yes.	10:11:12
2	Q. Any other issues?	10:11:12
3	A. Just the charge and the battery issues.	10:11:13
4	Q. Once you clicked on the link, what --	10:11:21
5	what happened then?	10:11:23
6	A. It sent me to a Website to fill out a	10:11:23
7	form to get in contact with the attorney.	10:11:26
8	Q. And did you fill out that form?	10:11:28
9	A. I did.	10:11:30
10	Q. What happened once you filled out the	10:11:31
11	form?	10:11:33
12	A. I would say the next -- within a week, I	10:11:34
13	got a call from Audrey, which works at the	10:11:37
14	attorney's office -- or maybe an email. I -- I	10:11:41
15	don't remember exactly the first form of	10:11:43
16	communication.	10:11:46
17	Q. Do you remember approximately when that	10:11:48
18	was?	10:11:50
19	A. I don't.	10:11:52
20	Q. How long after you submitted the form did	10:11:55
21	you -- let me start over.	10:11:58
22	Do you remember roughly how long it was	10:12:01
23	between the submission of the form and when Audrey	10:12:04
24	called you or emailed?	10:12:06
25	A. I believe it was around -- a -- a week.	10:12:08

Transcript of Justin Carter
Conducted on August 30, 2017

38

1	claims on each of those three phones, correct?	10:37:15
2	A. Yes.	10:37:18
3	Q. With respect to the first iPhone or first	10:37:29
4	replacement, what is the basis of your claims for	10:37:31
5	that replacement?	10:37:36
6	A. That after I received the phone, that it	10:37:37
7	was still having -- I was still having issues with	10:37:38
8	my battery and it charging.	10:37:43
9	Q. Anything else?	10:37:50
10	A. It would get to like 20 percent -- or it	10:37:51
11	would get to a low percentage and just power off.	10:37:52
12	So it was all battery-related.	10:37:55
13	Q. What was your understanding, when you	10:38:02
14	received that phone, as to whether it was new or	10:38:03
15	not?	10:38:07
16	A. That I was getting a replacement phone.	10:38:09
17	When they actually shipped that phone, there was no	10:38:10
18	clarification if it would be new or used. My	10:38:14
19	understanding from when I purchased my AppleCare	10:38:17
20	was it would be a new phone.	10:38:24
21	Q. With respect to your second iPhone,	10:38:29
22	what's the basis of your claims for the -- that	10:38:35
23	iPhone?	10:38:38
24	A. The same issues. The battery issue.	10:38:38
25	Q. Anything else?	10:38:41

Transcript of Justin Carter
Conducted on August 30, 2017

39

1	A. No.	10:38:42
2	Q. With respect to your third, what about	10:38:48
3	that one?	10:38:50
4	A. That third replacement would have been	10:38:50
5	for the second phone having issues, so I actually	10:38:52
6	mailed that third replacement back.	10:38:56
7	Q. To clarify my question --	10:39:01
8	A. Uh-huh.	10:39:03
9	Q. -- so you say your -- your claims are	10:39:04
10	based on that third replacement, correct?	10:39:06
11	A. Right.	10:39:08
12	Q. What is the basis of those claims?	10:39:08
13	A. So that phone was not a new phone as well	10:39:11
14	because -- I mean, I had received two devices and	10:39:14
15	they were not new. So I felt that at -- after	10:39:18
16	getting the third replacement, it -- it wouldn't be	10:39:24
17	new, you know. It had the same issues, so I kept	10:39:25
18	the second replacement.	10:39:30
19	Q. So backing up a little bit, there's some	10:39:42
20	terminology things that I just want to get out of	10:39:44
21	the way.	10:39:47
22	I'm going to go through a couple of	10:39:49
23	different terms or phrases, and I'd like you to	10:39:51
24	tell me what you -- what your understanding of	10:39:55
25	those phrases is.	10:39:56

Transcript of Justin Carter
Conducted on August 30, 2017

90

1	(Discussion off the stenographic record.)	11:47:44
2	(Exhibit 5 was marked for identification	11:47:59
3	by the court reporter and is attached hereto.)	11:47:59
4	Q. (By Ms. Mayo) The court reporter has	11:48:09
5	handed you what's been marked as Exhibit 5, and it	11:48:09
6	has a number at the bottom, CARTER39.	11:48:16
7	Do you recognize this document?	11:48:22
8	A. Yes.	11:48:23
9	Q. What is it?	11:48:24
10	A. It is my receipt for my iPhone 6 Plus	11:48:25
11	and my AppleCare+.	11:48:29
12	Q. Is this some -- or when did you receive	11:48:33
13	this receipt?	11:48:36
14	A. I'm not sure the exact date, but it was	11:48:38
15	after the -- after the case started, I called to	11:48:44
16	get a duplicate of my receipt.	11:48:46
17	Q. When you were in the store, were you	11:48:50
18	given a receipt?	11:48:52
19	A. Yes.	11:48:53
20	Q. Were you given a paper copy or an email?	11:48:55
21	A. Paper copy.	11:49:01
22	Q. Were you -- did you also receive an	11:49:02
23	email?	11:49:04
24	A. I'm not sure. I couldn't find it when I	11:49:04
25	searched for it. Put it that way.	11:49:07

Transcript of Justin Carter
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1	Q.	Do you tend to keep receipts in a certain	11:49:08
2		place?	11:49:12
3	A.	Not -- not necessarily. I will say that	11:49:14
4		I found what we think was the original Apple	11:49:17
5		receipt. But, you know, a lot of the receipts	11:49:21
6		are -- what -- like thermal. So it had faded. So	11:49:24
7		we couldn't really tell if it was the receipt or	11:49:31
8		not. So that's the reason -- because I had the	11:49:33
9		box, the brochure. I had everything, like	11:49:36
10		everything that come with it. But I'm not	11:49:37
11		100 percent sure if it was the Apple receipt or if	11:49:40
12		it was, you know, from one of the other stores in	11:49:43
13		the mall, because it was faded to where you	11:49:44
14		couldn't read it.	11:49:49
15	Q.	Okay. So turning to this document, it	11:49:50
16		looks like you paid 849 for the phone?	11:49:53
17	A.	Yes.	11:50:01
18	Q.	And 99 for AppleCare+?	11:50:01
19	A.	Yes.	11:50:06
20	Q.	Did you ask any questions about your	11:50:13
21		receipt when you got it?	11:50:14
22	A.	No.	11:50:16
23	Q.	Did you look at it when you received it?	11:50:18
24	A.	Yes.	11:50:20
25	Q.	And what were you looking for when you	11:50:21

Transcript of Justin Carter
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1 repairs as opposed to replacements of the iPhone? 11:53:29

2 A. I do remember a conversation. And I'm 11:53:34

3 not sure if it was at the Apple Store, if it was 11:53:38

4 when I needed my first phone, you know, replaced, 11:53:42

5 but that if I brought it back to the Apple Store, 11:53:45

6 that they could repair it or replace it. But I'm 11:53:50

7 not 100 percent sure if that was when I purchased 11:53:53

8 the phone or if that was when I was getting the 11:53:58

9 replacement. 11:54:00

10 Q. So after you purchased the iPhone 6 Plus, 11:54:03

11 tell me about your experiences with it. 11:54:05

12 A. I mean, it's just like my experience with 11:54:08

13 all the other iPhones. I mean, it was a good 11:54:10

14 experience. I mean, it was what I wanted and I 11:54:12

15 used it and... 11:54:14

16 Q. And I think before -- earlier today you 11:54:18

17 said you eventually experienced some battery 11:54:20

18 issues; is that correct? 11:54:23

19 A. Yes. 11:54:24

20 Q. When did you start experiencing those? 11:54:25

21 A. I believe it was like the first part of 11:54:27

22 2016. 11:54:29

23 Q. So almost year after you had the phone? 11:54:31

24 A. Almost a year, yes. 11:54:37

25 Q. Okay. And tell me about those battery 11:54:38

Transcript of Justin Carter
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1	issues.	11:54:39
2	A. The battery life just wasn't lasting as	11:54:40
3	long as it had been.	11:54:42
4	Q. Did you notice those battery issues at	11:54:44
5	sort of a certain time of day or in a certain	11:54:45
6	location?	11:54:50
7	A. Well, I would notice that when I woke up	11:54:50
8	in the morning, it -- my phone would last all day.	11:54:55
9	And then, you know, the first part of the year, it	11:54:57
10	would not last all day. It would last maybe to	11:54:59
11	lunch or maybe to 2:00 or 3:00 o'clock and I'd have	11:55:02
12	to find a charger.	11:55:04
13	Q. Do you -- is it habit to charge your	11:55:07
14	phone overnight?	11:55:10
15	A. Yes.	11:55:10
16	Q. And you leave it in the charger	11:55:10
17	overnight?	11:55:12
18	A. Yes.	11:55:13
19	Q. Do you tend to leave a lot of apps open?	11:55:15
20	A. No.	11:55:19
21	Q. In your experience, what are the --	11:55:22
22	there are various reasons why batteries might --	11:55:24
23	you know, the battery life might be a little lower.	11:55:27
24	A. I guess use, by using it. I mean...	11:55:31
25	Q. And -- and working in the Verizon store,	11:55:35

Transcript of Justin Carter
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1	A.	Yes.	01:08:01
2	Q.	When did you receive this document?	01:08:06
3	A.	When I purchased the phone.	01:08:08
4	Q.	The sales associate gave it to you?	01:08:09
5	A.	Yes.	01:08:12
6	Q.	Did you look at it at that time?	01:08:12
7	A.	I flipped through it, yes.	01:08:16
8	Q.	Did you look at any particular provision?	01:08:17
9	A.	Not at that time, no.	01:08:19
10	Q.	Did you look at any provisions at a later	01:08:23
11		time?	01:08:26
12	A.	Yes.	01:08:28
13	Q.	When?	01:08:28
14	A.	After my first replacement.	01:08:30
15	Q.	And -- and when exactly was that?	01:08:35
16	A.	I don't remember the exact date. I think	01:08:38
17		we said it was the first of 2016 -- or	01:08:41
18		July of 2016, maybe.	01:08:45
19	Q.	So you -- you received your -- or can you	01:08:49
20		just walk me thorough exactly when --	01:08:52
21	A.	Yes. So --	01:08:54
22	Q.	-- after your replacement you looked at	01:08:54
23		it?	01:08:56
24	A.	So after I received my replacement, I	01:08:56
25		referenced back to this to see -- because I didn't	01:08:58

Transcript of Justin Carter
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1 feel like at the first, when I received my 01:09:01
2 replacement, that it was a new phone. So I 01:09:02
3 referenced back to this to kind of read more 01:09:05
4 in depth to see like what -- you know, what I 01:09:07
5 was -- to be expected. 01:09:12
6 Q. And what caused you to think that? 01:09:13
7 A. Because just right out of the box, I was 01:09:17
8 having issues with it. 01:09:20
9 Q. What issues are those? 01:09:21
10 A. That when it got to, like, 16 percent, 01:09:23
11 20 percent, 22 percent, the phone would just shut 01:09:25
12 off. 01:09:32
13 Q. So battery issues? 01:09:32
14 A. Yes. Power issues, yes. 01:09:33
15 Q. And are these the same battery issues you 01:09:35
16 were experiencing with the original phone? 01:09:37
17 A. The original phone, the battery life just 01:09:39
18 was not as fast -- I mean not as good. But it 01:09:41
19 wouldn't shut off at, like, a low percentage. 01:09:43
20 Q. Any other issues other than battery 01:09:46
21 issues? 01:09:50
22 A. No. 01:09:51
23 Q. And -- and what did these -- I guess, 01:09:54
24 what caused you to think that these battery issues 01:09:56
25 meant that the iPhone was not new? 01:09:59

Transcript of Justin Carter
Conducted on August 30, 2017

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1	new in performance and reliability" --	01:13:38
2	A. Uh-huh.	01:13:40
3	Q. -- what -- what does that mean to you?	01:13:40
4	A. That my new phone held a charge to	01:13:46
5	100 percent and died to 20 percent, 18, you know,	01:13:48
6	12, 6, 3, 1 percent. That replacement phone I	01:13:51
7	never seen at 1 percent or 3 percent. Like it	01:13:55
8	would die before it got to that. So that wasn't	01:13:58
9	equivalent to what my new phone was.	01:14:01
10	Q. Understood.	01:14:04
11	So -- and -- and -- and just, I guess,	01:14:05
12	more generally, when you were reading this and you	01:14:07
13	saw the term -- or the phrase "new or equivalent to	01:14:09
14	new in performance and reliability," what -- what	01:14:14
15	does that mean?	01:14:17
16	A. That it's going to be either a new phone	01:14:19
17	or something that's going to operate exactly like	01:14:21
18	my new phone did. So to know that I've, like,	01:14:23
19	worked in this industry since 2005, I'm expecting,	01:14:29
20	reading this, to receive a new phone through Apple.	01:14:32
21	Like, that was what my expectation was and that's	01:14:35
22	not what I received.	01:14:39
23	Q. Okay. And I'm just trying to understand.	01:14:40
24	So you see that it says "new or	01:14:46
25	equivalent to new in performance and reliability."	01:14:47

Transcript of Justin Carter
Conducted on August 30, 2017

110

1	to be there.	01:15:49
2	Q. Is there anything else you looked at when	01:16:00
3	you looked at -- back at this -- the terms and	01:16:02
4	conditions?	01:16:03
5	A. Not really. I might have flipped -- I	01:16:04
6	continue to flip through like the tech support, but	01:16:04
7	nothing really in depth. That's kind of where I	01:16:08
8	stopped at.	01:16:10
9	Q. Did you read any provisions relating to	01:16:13
10	opening the phone?	01:16:18
11	A. No, I did not.	01:16:19
12	Q. You can put that aside.	01:16:33
13	A. Okay.	01:16:33
14	Q. So turning back to your original iPhone,	01:16:33
15	I think you said you started experiencing battery	01:16:35
16	issues in -- in January or February of 2016; is	01:16:38
17	that right?	01:16:41
18	A. Uh-huh.	01:16:41
19	Q. What did you do when you started	01:16:44
20	experiencing those issues?	01:16:45
21	A. The normal troubleshooting, you know,	01:16:47
22	trying -- trying it with the -- the lighter screen,	01:16:48
23	like, you know, cutting the brightness down. I	01:16:54
24	even replaced my charger; thought, you know, I	01:16:57
25	guess, we've all had Apple -- I think every one of	01:16:59

Transcript of Justin Carter
Conducted on August 30, 2017

111

1 us has an Apple phone in here, so the cable starts 01:17:01
2 to, you know, give a little. So I tried a new 01:17:05
3 cable thinking maybe it's not doing that. Tried 01:17:07
4 not charging it all night. 01:17:10
5 Just, you know, tried a few things 01:17:12
6 that -- even things that I probably wouldn't tell 01:17:13
7 my customers to try just because I didn't want to 01:17:16
8 have to get a replacement. I didn't want to have 01:17:18
9 to back my phone up and lose information, so... 01:17:20
10 Q. Did you -- before, you testified about 01:17:26
11 Verizon having a machine that can test the battery. 01:17:28
12 Did you try that on your own phone? 01:17:34
13 A. Well, we didn't -- we don't have a 01:17:35
14 machine. We just call and then we check the 01:17:36
15 percentage on the phone. 01:17:39
16 Q. Understood. That makes sense. 01:17:40
17 Did you do that for your own phone? 01:17:42
18 A. Yes. 01:17:44
19 Q. And what was the result? 01:17:44
20 A. It would drop like 8 to 10 percent. 01:17:45
21 Q. When did you do this? 01:17:49
22 A. Sometime between probably January and 01:17:51
23 July. And I don't know the exact -- I didn't keep 01:17:54
24 notes of exact dates. 01:18:00
25 Q. Did you -- other than these -- these -- 01:18:02

Transcript of Justin Carter
Conducted on August 30, 2017

112

1	or did you do anything else to help the battery	01:18:05
2	issue?	01:18:11
3	A. I changed -- I mean, I changed the	01:18:11
4	brightness and replaced the charger -- the cable.	01:18:13
5	That's it.	01:18:15
6	Q. Anything else?	01:18:17
7	A. (Deponent shakes head.)	01:18:17
8	Q. Did you reach out to anyone for help on	01:18:18
9	this issue?	01:18:20
10	A. I talked to Apple.	01:18:21
11	Q. When did you first reach out to Apple?	01:18:24
12	A. I believe it was June. I talked to them	01:18:30
13	twice before they shipped the replacement.	01:18:32
14	Q. When you first reached out to Apple,	01:18:35
15	what did -- what did the conversation go like?	01:18:38
16	A. They told me I had to do a master reset	01:18:40
17	on the phone. And they had to link into my phone	01:18:43
18	through developer options, or something, to,	01:18:48
19	you know, run their own test on the battery, I	01:18:50
20	guess.	01:18:53
21	Other than that -- I mean, I think -- I	01:18:57
22	don't -- I don't remember. I know I had to hang up	01:18:58
23	and then call back because I had to do a backup	01:19:00
24	because they -- even though I had did the backup on	01:19:04
25	iCloud, they wanted me to do the backup on the	01:19:07

Transcript of Justin Carter
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1	computer, too, just in case.	01:19:08
2	And when I did the -- the reset of the	01:19:10
3	phone, I couldn't reset it on my phone. I had to	01:19:13
4	reset it on the computer so it would be like the	01:19:17
5	complete reset. So that was the -- that's what took	01:19:20
6	so long to actually get the replacement.	01:19:24
7	Q. And that -- so the first time you reached	01:19:26
8	out to Apple, approximately when do you think that	01:19:29
9	was? You said June?	01:19:30
10	A. I would say probably May -- end of May,	01:19:32
11	June.	01:19:35
12	Q. And -- and between January and February,	01:19:36
13	when you first started experiencing the issue, you	01:19:38
14	didn't reach out to anyone else during that time?	01:19:42
15	A. No.	01:19:44
16	Q. Why did you finally reach out to Apple in	01:19:49
17	May?	01:19:51
18	A. Because it -- it got worse. So it	01:19:52
19	started that it would get to 15 percent and just	01:19:53
20	die. So I just knew that when it would get,	01:19:56
21	you know, to a low percentage, to just make sure I	01:19:59
22	charged it. But then it would be like 30 percent	01:20:00
23	and cut off, or, you know, it would just randomly	01:20:03
24	power off. And I would have to push, you know, the	01:20:06
25	home button and the side button to restart it. So	01:20:09

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1 the -- I guess it just got worse. The signals got 01:20:13
2 worse. 01:20:17

3 Q. Okay. So that original iPhone that you 01:20:17
4 had, it would hit a certain percentage and it would 01:20:19
5 shut off entirely? 01:20:21

6 A. But you'd never know what percentage. I 01:20:22
7 mean, some days it may be 15 percent. Some days it 01:20:23
8 may be 32 percent. So I remember 32 percent being 01:20:25
9 like the -- like, I guess, the most charged that it 01:20:28
10 would just die at. 01:20:34

11 Q. After -- so you did the reset sometime 01:20:41
12 in -- in May, you think? 01:20:43

13 A. I would say either May or June I did the 01:20:44
14 reset. 01:20:47

15 Q. And did you do that in connection with 01:20:47
16 the first time you called Apple? 01:20:49

17 A. No. Because the first time I called on 01:20:53
18 it they told me, you know, to try the brightness. 01:20:54
19 They -- they might check their developer settings, 01:20:56
20 or whatever they had me do through the phone. I 01:20:59
21 know it took a few minutes for them to do all their 01:21:02
22 stuff. 01:21:05

23 And I don't -- I don't think she said 01:21:06
24 that there's nothing wrong. I don't think that was 01:21:07
25 her terminology of wording, but she -- she 01:21:09

Transcript of Justin Carter
Conducted on August 30, 2017

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1 basically told me, you know, to try it for a little 01:21:13
2 while longer; that she had did some stuff and to 01:21:15
3 try the brightness, which I had told her I already 01:21:17
4 done. And then, if not, then I would need to call 01:21:20
5 back in, do the backup on my computer, then do the 01:21:21
6 reset. She went ahead and kind of prepped me for 01:21:23
7 what I was going to be doing -- 01:21:25
8 Q. Okay. 01:21:27
9 A. -- and to call back in. 01:21:28
10 Q. Do you remember any other, essentially, 01:21:31
11 troubleshooting that she talked to you about during 01:21:33
12 that first call? 01:21:35
13 A. I mean, I basically -- when the call 01:21:36
14 started, I kind of went ahead and told her 01:21:39
15 everything that I had already done, so... 01:21:41
16 Q. Okay. When -- or how long after the 01:21:43
17 first call did you call back in to Apple? 01:21:52
18 A. I mean, it would have been within a 01:21:56
19 month. 01:21:59
20 Q. And how -- what happened during that 01:21:59
21 conversation? 01:22:00
22 A. That's when they had me do the backup and 01:22:01
23 I had did the backup on my iCloud. And then they 01:22:05
24 wanted me to do it on the computer and reset it 01:22:08
25 from the computer. So, of course, I wasn't where I 01:22:11

Transcript of Justin Carter
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1	could do that. So I had to call them back, or	01:22:13
2	maybe they set up a call to call me back. I'm not	01:22:14
3	completely sure.	01:22:17
4	Q. Once you -- strike that.	01:22:44
5	Did you perform any research about --	01:22:44
6	about other ways you could deal with the battery	01:22:47
7	issues?	01:22:51
8	A. No. Besides wanting to go crazy, my	01:22:51
9	phone randomly dying, no.	01:22:58
10	Q. We -- we rely a lot on our phones, don't	01:23:00
11	we?	01:23:02
12	A. Yes.	01:23:02
13	Q. But when you first reached out to Apple,	01:23:03
14	was the battery the only reason you called?	01:23:10
15	A. Yes.	01:23:12
16	Q. But when you called in -- when you first	01:23:12
17	called in, did you have -- was there any other	01:23:23
18	damage to the phone?	01:23:25
19	A. No.	01:23:26
20	Q. Had you cracked the screen?	01:23:29
21	A. No.	01:23:30
22	Q. Was there any other physical damage to	01:23:30
23	the phone?	01:23:32
24	A. No.	01:23:34
25	Q. What about the second time you called in?	01:23:39

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123

1	A.	Just restore from my backup.	01:29:26
2	Q.	So that first day, upon having that	01:29:34
3		iPhone, what was your experience with that first	01:29:36
4		replacement?	01:29:39
5	A.	I mean, I don't think the first day or	01:29:47
6		two I probably didn't have any major complaints	01:29:49
7		with it. I mean, it was probably the third or	01:29:50
8		fourth day that I noticed, dang, this one isn't	01:29:53
9		charging either. So, you know, it was...	01:29:57
10	Q.	And it was that same issue where it	01:30:01
11		would -- it would reach a certain percentage and it	01:30:02
12		would stop working?	01:30:04
13	A.	Yes. So --	01:30:05
14	Q.	Do you remember what percentage?	01:30:08
15	A.	I don't. I'll say that it -- you know, I	01:30:09
16		know you asked earlier why I waited because it --	01:30:12
17		it really didn't bother me because I work in a	01:30:15
18		cellphone store so I can, you know, find a charger,	01:30:18
19		but there's no backup that you can do that you're	01:30:20
20		going to get every single thing.	01:30:23
21		I mean, yes, you'll get your contacts,	01:30:26
22		you'll get all your -- all your stuff. But,	01:30:27
23		you know, some of your apps, like the password	01:30:30
24		keeper that I used wasn't a cloud-based service, so	01:30:32
25		I lost all my passwords. So I just didn't want to	01:30:34

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1 go through the hassle. But then when, you know, I 01:30:37
2 started going to work out of town or doing this, 01:30:40
3 that's when it become more aggravating. That's why 01:30:43
4 I went ahead and did the replacement. 01:30:47
5 Q. And when was that, that you were 01:30:48
6 traveling more? 01:30:49
7 A. Between the -- probably March and May or 01:30:56
8 June. 01:30:58
9 Q. Did you -- so I think you said it was 01:31:11
10 maybe a couple days or a week? 01:31:13
11 A. Yeah, I would say two or three days that 01:31:15
12 I noticed it just -- it wasn't holding a charge. 01:31:16
13 And I don't -- I don't think that the replacement 01:31:19
14 was actually dying at a certain percentage. If so, 01:31:21
15 it was a low percentage in the beginning. But I 01:31:25
16 think that it was just not holding the charge like 01:31:30
17 my new phone would in the beginning. 01:31:33
18 Q. Can you walk me through that a little bit 01:31:36
19 more. 01:31:38
20 What do you mean by "holding" a charge? 01:31:38
21 A. So let's see. It is 1:30 and I'm at 01:31:40
22 73 percent. So that would be the expectation for 01:31:46
23 my old phone. So at 1:30 I should still be at, 01:31:50
24 you know, 60 or 70 percent versus my replacement 01:31:55
25 phone at 1:30 would be at 50 -- 40 or 50 percent. 01:31:58

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Conducted on August 30, 2017

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1 So it wasn't holding the same charge that my 01:32:02
2 original phone was in the beginning. 01:32:06

3 I remember in one of my conversations 01:32:11
4 with Apple, they -- they said maybe it was 01:32:12
5 something in my -- in my backup. Well, maybe it's 01:32:15
6 an app or maybe it was something causing that, 01:32:19
7 so -- and, again, I don't remember exactly which 01:32:22
8 replacement or which time -- which time I called, 01:32:25
9 but I know we went a couple of days without me 01:32:28
10 backing anything or restoring. I didn't even 01:32:31
11 log in to my Apple ID to see if maybe that was the 01:32:33
12 cause, so -- but, again, I don't remember which 01:32:36
13 phone, which replacement. 01:32:38

14 Q. So once you started to notice this issue 01:32:44
15 with the first replacement, did you do anything 01:32:46
16 about it? 01:32:48

17 A. I mean, immediately, no. I was just kind 01:32:52
18 of frustrated with the situation, you know. I -- I 01:32:54
19 think it was -- I don't remember the exact dates on 01:32:59
20 the replacements, but, I mean, eventually I got 01:33:02
21 another replacement. 01:33:05

22 Q. Do you recall approximately how long 01:33:08
23 after before you reached out to Apple? 01:33:09

24 A. I don't. 01:33:16

25 Q. Do you recall a -- 01:33:16

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Conducted on August 30, 2017

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1 A. I remember replacing my SIM card -- I'm 01:33:19
2 sorry. I didn't mean to cut you off. 01:33:20
3 But I remember replacing my SIM card 01:33:23
4 because someone I talked to -- and I'm pretty sure 01:33:25
5 it was Apple or maybe I -- I did, at this point, 01:33:28
6 say something. So one of my supervisors was like, 01:33:30
7 you-all having a lot of people, you know, saying 01:33:31
8 that their iPhone is not holding charge anymore. 01:33:34
9 So maybe replace the SIM card. Maybe it's 01:33:36
10 searching for service too much. Because, you know, 01:33:39
11 on an airplane your phone dies a lot quicker, even 01:33:40
12 on airplane mode because it's still searching for 01:33:42
13 stuff, like searching for your apps. So we tried a 01:33:45
14 replacement SIM card which didn't help. 01:33:49
15 Q. You did that at Verizon; you replaced 01:33:52
16 your SIM card? 01:33:54
17 A. Yeah -- well, I had -- since I'm an 01:33:55
18 employee, we can't pull up our account. So I had 01:33:56
19 to call in and wait for them to mail me a SIM card. 01:33:57
20 So it's a -- it's a little bit of a hassle, yeah. 01:34:00
21 Q. Understood. 01:34:03
22 And you did that first with respect -- 01:34:04
23 respect to -- or the first time you tried that, was 01:34:06
24 it on your -- on your first replacement device? 01:34:08
25 A. Yeah, my first replacement device. 01:34:11

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1	Q. Okay. Do you recall if you reached out	01:34:14
2	to Apple about these issues before you heard about	01:34:17
3	this lawsuit?	01:34:20
4	A. I believe that it happened about the same	01:34:27
5	time, so I'm not sure it -- because, let's see, we	01:34:29
6	had three replacement devices. So my second	01:34:34
7	replacement -- yeah, so I reached out to Apple	01:34:41
8	about the same time that the -- you know, I met or	01:34:44
9	talked to Audrey, so...	01:34:47
10	Q. Did you -- did you reach out to Apple	01:34:51
11	after -- after seeing the Facebook ad about this	01:34:55
12	case?	01:34:57
13	A. Yes.	01:34:58
14	Q. When you called Apple, what -- what --	01:35:11
15	how did that conversation go?	01:35:13
16	A. That I had had a previous replacement	01:35:14
17	that I was still having issues with, and I believe	01:35:17
18	that conversation kind of went -- it -- it wasn't	01:35:20
19	as in-depth as far as the tech troubleshooting. I	01:35:25
20	don't know if it was because they didn't want to	01:35:28
21	troubleshoot it or if they just wanted -- had	01:35:31
22	realized, okay, he's already been shipped a	01:35:33
23	replacement. Let's, you know, expedite this, so...	01:35:35
24	Q. What did you tell Apple was the issue?	01:35:39
25	A. That my phone was not holding a charge.	01:35:41

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1	Q. Anything else?	01:35:45
2	A. Uh-uh. I believe maybe at one point we	01:35:46
3	talked about dropped calls. So that was that I --	01:35:51
4	you know, I had tried a new SIM card as well, so...	01:35:53
5	Q. And so the dropped calls, is that	01:36:01
6	something you experienced with your original	01:36:04
7	iPhone?	01:36:06
8	A. No.	01:36:06
9	Q. When did you first experience any issues	01:36:08
10	with a dropped call?	01:36:09
11	A. I believe it was -- it was definitively	01:36:13
12	with the first replacement, so...	01:36:14
13	Q. And in your experience working at the	01:36:16
14	Verizon store, is that typically sort of a	01:36:18
15	service-related issue?	01:36:21
16	A. Yeah, that's a service-related issue. So	01:36:23
17	that's when we replaced the SIM card. But the	01:36:25
18	design of some phones -- I'm not a technician by	01:36:28
19	far, so -- but the design of some phones, the	01:36:31
20	antenna and, you know, the battery is right next to	01:36:35
21	each other.	01:36:38
22	So that's why I replaced the SIM card,	01:36:38
23	thinking if it's, you know -- if it's a SIM card --	01:36:40
24	if it's a Verizon issue, the SIM card normally will	01:36:43
25	clear that up, because I have a work phone and a	01:36:46

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1	personal phone, so -- my work phone had service, my	01:36:49
2	personal phone didn't.	01:36:52
3	Q. And are they both Verizon?	01:36:54
4	A. Yes.	01:36:56
5	Q. You just mentioned something about the	01:37:02
6	antenna being near the battery.	01:37:03
7	What do you mean? What -- how is that	01:37:06
8	relevant?	01:37:07
9	A. Oh, so the -- you know, the antenna -- I	01:37:08
10	guess the SIM card runs the service to your phone.	01:37:12
11	So when I was having the dropped calls, I could	01:37:15
12	call back in and say this is what I've tried,	01:37:19
13	because I don't like -- I guess I'm kind of like	01:37:21
14	being in the business. I don't want them to tell	01:37:25
15	me, "Oh, well, you need to try this." And I'm	01:37:27
16	thinking, that's not going to work.	01:37:29
17	So I can tell them I've already replaced	01:37:30
18	the -- the SIM card. So it's not a Verizon issue.	01:37:32
19	It could be the antenna in the phone or -- I mean,	01:37:35
20	I guess it's not relevant that -- where the	01:37:38
21	antenna's at, but it's just that it could have been	01:37:40
22	the antenna. I don't know.	01:37:44
23	Q. Got it.	01:37:47
24	And you're just --	01:37:48
25	A. I'm just speculating on that, yeah.	01:37:51

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1	Q. Okay.	01:37:53
2	A. I will say that one of the	01:37:54
3	conversations -- again, I'm -- I'm not 100 percent	01:37:58
4	sure -- I would assume that it was when I was	01:38:00
5	getting the second replacement that they mentioned	01:38:02
6	the motherboard could possibly -- I mean, this is	01:38:07
7	them speculating on what it could possibly be just	01:38:10
8	by telling them what I -- you know, you get on the	01:38:13
9	phone with some of the techs and they're really	01:38:15
10	techie. So, oh, it's potentially the motherboard	01:38:17
11	or it's the antenna, so -- but, again, that's all	01:38:19
12	speculation. They hadn't seen the phone.	01:38:25
13	Q. Understood.	01:38:27
14	So do you recall approximately when this	01:38:47
15	was when you called in for the first replacement to	01:38:48
16	be replaced?	01:38:52
17	A. It would have been sometime in July, I	01:38:57
18	believe, is when I received it. So it only takes	01:38:59
19	them a couple of days -- oh, the first replacement	01:39:01
20	to be replaced. I'm sorry.	01:39:04
21	Q. I -- I realized that, that I was saying	01:39:05
22	it. I -- so let me --	01:39:06
23	A. Yeah.	01:39:07
24	Q. Let me back up.	01:39:08
25	So where we're at the point in time where	01:39:09

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1	you have the first replacement --	01:39:11
2	A. Right.	01:39:11
3	Q. -- and you've called in to Apple,	01:39:11
4	correct?	01:39:13
5	A. Yes.	01:39:13
6	Q. And -- and you've told me a little bit	01:39:14
7	about that conversation.	01:39:18
8	So how did that conversation end?	01:39:19
9	A. That they sent me a replacement device.	01:39:22
10	And I believe it was August -- I believe. I'm --	01:39:24
11	I'm not 100 percent sure.	01:39:29
12	Q. And this was after you had spoken with	01:39:31
13	counsel about this lawsuit?	01:39:34
14	A. Yes.	01:39:37
15	Q. When you received what would now be	01:39:42
16	the -- the -- or, actually, backing up a bit.	01:39:48
17	Your first replacement phone, so be- --	01:39:53
18	before -- before you had that conversation or --	01:39:55
19	anyway, your first replacement phone, have we	01:40:00
20	talked about all the various troubleshooting you've	01:40:06
21	done to help or try to address the battery issue?	01:40:10
22	A. So -- I mean, I had purchased the -- the	01:40:16
23	new charger. And like I said, I'm not sure if it	01:40:18
24	was the first replacement or the second	01:40:23
25	replacement, but I went some time without even	01:40:24

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1	logging into my Apple ID because we thought maybe	01:40:28
2	it was an app. But I'm not sure if that was the	01:40:30
3	troubleshooting on the first replacement or the	01:40:34
4	second one.	01:40:35
5	Q. Okay. Anything else?	01:40:36
6	A. No.	01:40:43
7	Q. With this first replacement iPhone, did	01:40:44
8	you at any point give this iPhone to counsel?	01:40:46
9	A. The first replacement?	01:40:50
10	Q. Yeah.	01:40:52
11	A. I don't -- I don't recall.	01:40:55
12	I didn't give it to counsel, no. No.	01:41:02
13	Q. Did you give that replacement phone to	01:41:06
14	anyone else?	01:41:08
15	A. I'm not sure if that's the one that I had	01:41:08
16	inspected, if that's what you're asking.	01:41:19
17	Q. And that's -- that's one of my questions.	01:41:20
18	So you had -- so you had first that	01:41:21
19	iPhone inspected, correct?	01:41:26
20	A. I don't remember if I had my first --	01:41:28
21	there was so much -- like I don't remember the	01:41:30
22	first replacement or the second replacement was	01:41:32
23	inspected.	01:41:36
24	Q. And -- and --	01:41:36
25	A. I had two phones replaced -- or	01:41:37

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1	inspected.	01:41:39
2	Q. I'm -- I'm sorry. When you say "so	01:41:40
3	much," what -- what do you mean by that?	01:41:42
4	A. Well, like so much going back -- back and	01:41:44
5	forth with Apple and, you know, having the issues	01:41:47
6	with the phone and having it inspected and looked	01:41:50
7	at. So I don't remember if it was the first	01:41:52
8	replacement or the second one that was inspected.	01:41:55
9	(Exhibit 7 was marked for identification	01:41:57
10	by the court reporter and is attached hereto.)	01:41:57
11	Q. (By Ms. Mayo) The court reporter has	01:42:20
12	handed to you what has been marked as Exhibit 7 --	01:42:21
13	A. Okay.	01:42:26
14	Q. -- which is entitled "Plaintiff	01:42:26
15	Justin Carter's Responses to Defendants' First Set	01:42:28
16	of Interrogatories."	01:42:30
17	And if you could flip to the last page	01:42:32
18	first, it says "Verification" at the top?	01:42:35
19	A. Yes.	01:42:40
20	Q. Is that your signature?	01:42:41
21	A. Yes.	01:42:42
22	Q. And you signed this on August 18th?	01:42:43
23	A. Yes.	01:42:46
24	Q. And if you could turn to page 3 of the	01:43:05
25	document, which is the answer to	01:43:09

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1	Interrogatory No. 1.	01:43:11
2	A. Okay.	01:43:13
3	Q. Do you see the question first on -- on	01:43:14
4	page 2? It says: Describe in detail all	01:43:15
5	inspections performed on your devices, including	01:43:18
6	the date each inspection occurred and a description	01:43:22
7	of each of the inspections.	01:43:25
8	A. Okay.	01:43:26
9	Q. Oh, sorry. Of each type of the	01:43:27
10	inspections.	01:43:30
11	And if you look at lines 3 to 6 of	01:43:30
12	page 3 --	01:43:34
13	Do you see that?	01:43:35
14	A. Okay.	01:43:36
15	Q. -- does that refresh your recollection as	01:43:36
16	to whether you had the first replacement phone	01:43:38
17	inspected?	01:43:40
18	A. Yes.	01:43:41
19	Q. Does it -- so do you recall now that it	01:43:43
20	was inspected?	01:43:45
21	A. Yes. It was the first replacement that I	01:43:47
22	had inspected.	01:43:49
23	Q. And -- and did that inspection take place	01:43:52
24	on or about October 18th, 2016?	01:43:53
25	A. Yes.	01:43:56

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1	Q.	We can put that aside for now.	01:44:07
2		So turning to that first inspection, tell	01:44:09
3		me how that came about.	01:44:11
4	A.	So after --	01:44:15
5		MS. KRAS: Okay. I mean, you can talk	01:44:15
6		about --	01:44:16
7		THE DEPONENT: Okay.	01:44:17
8		MS. KRAS: -- not necessarily	01:44:17
9		conversations we had --	01:44:18
10		THE DEPONENT: Right. So --	01:44:19
11		MS. KRAS: -- but directions are fine.	01:44:21
12		THE DEPONENT: Yeah.	01:44:23
13		After having talked to my counsel, I	01:44:25
14		explained that I was still having issues and it was	01:44:27
15		inspected.	01:44:32
16	Q.	(By Ms. Mayo) Did you -- who was it	01:44:38
17		inspected by?	01:44:40
18	A.	It was inspected by -- Thang is what I	01:44:40
19		called him. I don't remember his -- his	01:44:43
20		mother-given name. But Thang is who inspected it.	01:44:46
21	Q.	And I can look at -- is -- your	01:44:52
22		understanding of the spelling of his name is	01:44:54
23		T-H-A-N-G for the first name?	01:44:56
24	A.	I don't remember if Thang was his first	01:45:02
25		name or his last name.	01:45:04

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1	Q. Understood.	01:45:06
2	So Thang?	01:45:07
3	A. Thang. It's on some of the emails, I'm	01:45:09
4	sure, that --	01:45:13
5	Q. We can take a look later.	01:45:14
6	A. Yeah.	01:45:16
7	Q. How did you come into contact with Thang?	01:45:20
8	A. My counsel set it up.	01:45:22
9	Q. When did you first speak with Thang?	01:45:31
10	A. Giving him directions to where to come to	01:45:34
11	inspect it.	01:45:35
12	Q. Was that over -- by the phone or by	01:45:36
13	email?	01:45:37
14	A. We -- we talked a couple -- we talked a	01:45:41
15	couple times that day, so I don't remember -- I	01:45:41
16	think the first time he emailed me and I responded	01:45:43
17	with the address and he called when he got closer.	01:45:46
18	Q. When you say "counsel," who set it up?	01:45:50
19	A. Audrey and Michella.	01:45:56
20	Q. Was Ms. Kennedy involved?	01:45:59
21	A. No.	01:46:01
22	Q. Not to your knowledge?	01:46:02
23	A. Not -- not -- yeah, not -- she -- not	01:46:04
24	directly with me, I'll put it that way. I'm not	01:46:04
25	sure what they discussed.	01:46:06

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1	Q. Do you have any understanding of,	01:46:08
2	you know, how Thang came to be the person to do the	01:46:11
3	inspection?	01:46:15
4	A. I -- I relied that on my counsel to find	01:46:16
5	somebody, you know, to do that.	01:46:20
6	Q. Where -- where did you meet with Thang?	01:46:25
7	A. At my job.	01:46:26
8	Q. At the Verizon store?	01:46:29
9	A. He came to Verizon.	01:46:31
10	(Exhibit 8 was marked for identification	01:46:31
11	by the court reporter and is attached hereto.)	01:46:31
12	THE DEPONENT: See, Maggie, there you go.	01:46:52
13	There -- there's the emails. I told you.	01:46:53
14	Q. (By Ms. Mayo) The court reporter has	01:47:03
15	handed to you what has been marked as Exhibit 8,	01:47:04
16	with a Bates stamp CARTER150.	01:47:06
17	A. Okay.	01:47:13
18	Q. Do you recognize this document?	01:47:14
19	A. Yes.	01:47:14
20	Q. What is it?	01:47:15
21	A. It is email communications between me and	01:47:15
22	Thang.	01:47:18
23	Q. And so we now know from this document,	01:47:18
24	Thang Huynh.	01:47:25
25	Is that -- do you know if that's how he	01:47:27

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1	pronounces his name?	01:47:27
2	A. I'm -- that's -- sounds good to me. It	01:47:29
3	says Thang --	01:47:30
4	Q. You refer to him as "Thang"?	01:47:31
5	A. -- yeah.	01:47:33
6	Q. So if you flip to the second page, which	01:47:34
7	is CARTER151, you sent him an email on	01:47:39
8	October 17, 20-- 2016 at 10:00 p.m.; is that	01:47:42
9	right?	01:47:45
10	A. Yes.	01:47:46
11	Q. Is that the first time you emailed him?	01:47:47
12	A. Yes, it looks like it is.	01:47:58
13	Q. Do you recall any earlier communications?	01:47:59
14	A. I don't.	01:48:01
15	Q. And it kind of looks like this is in	01:48:02
16	response to something?	01:48:04
17	A. Yeah.	01:48:05
18	Q. Do you recall if it was email or phone	01:48:06
19	call?	01:48:08
20	A. That's just -- that's what I was just	01:48:08
21	about to say. I would have had to get his email	01:48:10
22	from somewhere. I don't know if Audrey gave me his	01:48:14
23	email and told me to, you know, contact him or...	01:48:18
24	or if he, you know, emailed me saying, I'll meet	01:48:23
25	you tomorrow. I'm not -- I'm not exactly sure,	01:48:26

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1	so...	01:48:30
2	Q. And turning the -- the first page, 150,	01:48:31
3	the next email on the chain, October 17, 2016 --	01:48:37
4	A. Uh-huh.	01:48:39
5	Q. -- at 10:42 p.m., is that an email you	01:48:40
6	received from Thang?	01:48:44
7	A. Yes.	01:48:46
8	Q. When he or -- so did the inspection take	01:48:50
9	place -- or strike that.	01:48:56
10	He drove to your store, correct?	01:48:58
11	A. Yes.	01:49:00
12	Q. And where did the inspection actually	01:49:01
13	take place?	01:49:02
14	A. He inspected it -- he drove an SUV, so he	01:49:03
15	lifted, like, the back of his SUV and used the --	01:49:07
16	the area back there.	01:49:11
17	Q. Was the car door -- or the back car door	01:49:12
18	open when he did the inspection?	01:49:15
19	A. Yes, for part of his inspection. I think	01:49:16
20	he took some pictures. I was there with him for	01:49:18
21	the first 10 or 15 minutes and then I went back	01:49:21
22	inside. And I know that it was open while I was	01:49:25
23	there, but at some point he got in his vehicle	01:49:27
24	and -- I assume to, you know, run diagnostics	01:49:29
25	probably.	01:49:33

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1	Q.	But you weren't there for that part?	01:49:34
2	A.	I wasn't there for that part.	01:49:36
3	Q.	This was in the -- was it -- is there a	01:49:37
4		parking lot at your work?	01:49:40
5	A.	Yes.	01:49:41
6	Q.	So this was in the parking lot at the	01:49:41
7		Verizon store?	01:49:43
8	A.	Yes.	01:49:44
9	Q.	And turning to the next email on this	01:49:48
10		chain, the one at -- on October 17th, 2016,	01:49:50
11		10:56 p.m., is that the address of the store?	01:49:52
12	A.	Yes, it is.	01:49:59
13	Q.	And is this an email that you sent at	01:49:59
14		that time?	01:50:00
15	A.	Yes.	01:50:02
16	Q.	When -- so for that first part -- well,	01:50:14
17		so when you first met with Thang, did you discuss	01:50:17
18		anything about the phone or anything else?	01:50:19
19	A.	No. I -- we -- I kind of handed him my	01:50:21
20		phone. And I think he needed my password for my	01:50:26
21		Apple ID to log out of it or to do something. But	01:50:30
22		there was really no -- no discussion on it. I	01:50:33
23		stood -- I kind of felt awkward standing beside him	01:50:36
24		because he wasn't saying anything. That's one of	01:50:39
25		the reasons I kind of just bebopped back inside.	01:50:41

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1	Q.	Why did you have this inspection take	01:50:47
2		place?	01:50:49
3	A.	To verify if it was a new or used phone.	01:50:50
4	Q.	And -- and what was your understanding or	01:50:52
5		how -- how do you think that was going to happen?	01:50:54
6	A.	I -- I guess he would look at the inside	01:50:59
7		of the phone to see if he seen new -- new parts	01:51:02
8		or -- I mean, if he could tell. I'm not	01:51:07
9		100 percent sure on how he would tell. Maybe	01:51:10
10		there's some way to check and see what the talk	01:51:13
11		time was on that phone, you know. Before a master	01:51:16
12		reset -- I don't know. They say once you delete	01:51:19
13		something, it's never really deleted. So I don't	01:51:20
14		know.	01:51:23
15	Q.	And why did you want to find out whether	01:51:24
16		it was a new phone or not a new phone?	01:51:26
17	A.	Because I was told I would get a new --	01:51:30
18		or I -- my AppleCare states that I would get a new	01:51:31
19		phone, so...	01:51:34
20	Q.	And you're referring to the terms and	01:51:36
21		conditions?	01:51:37
22	A.	Yes.	01:51:38
23	Q.	For the part of the inspection you were	01:51:38
24		there for, what -- so what did Thang do when he --	01:51:51
25		when you gave him the phone?	01:51:54

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1	A.	He kind of looked at the phone, took	01:51:56
2		pictures of the front and the back of the phone and	01:51:58
3		the -- I would say the first six or seven minutes	01:52:00
4		it took him to, you know, set up his -- he kind of	01:52:02
5		had a -- something similar to behind us, which -- a	01:52:05
6		lot smaller and the camera set up and -- but that	01:52:09
7		was the first probably six or seven minutes. I	01:52:12
8		didn't personally see him -- you know, from 6 to	01:52:15
9		10, I didn't see him do that.	01:52:21
10	Q.	Okay. And you're turning back to	01:52:23
11		Exhibit 7, correct?	01:52:25
12	A.	Yes. Exhibit -- yes, 7.	01:52:26
13	Q.	And the response to interrogatory 1.	01:52:28
14		So I guess looking at this step -- so you	01:52:32
15		said 6 through 7 you weren't there for?	01:52:35
16	A.	Yes, I was not there for 6 through -- 6	01:52:38
17		through 10.	01:52:41
18	Q.	So you weren't there when he opened the	01:52:42
19		phone; is that correct?	01:52:44
20	A.	No, I was not.	01:52:49
21	Q.	Were -- did you come back at any point	01:52:49
22		while the phone was still open?	01:52:52
23	A.	No. He --	01:52:53
24	Q.	So when you came back --	01:52:57
25	A.	He actually brought the phone back to the	01:52:58

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1	store whenever he was done.	01:53:00
2	Q. And he had closed up the phone by then?	01:53:02
3	A. Yes.	01:53:04
4	Q. Did Thang provide you anything in writing	01:53:07
5	about the inspection he had done?	01:53:09
6	A. No. Or verbal.	01:53:11
7	Q. Or verbal?	01:53:15
8	A. No. He didn't give me any like -- any	01:53:16
9	findings. He just said thank you and...	01:53:17
10	Q. Did he at any point after that tell you	01:53:20
11	any of his findings?	01:53:24
12	A. I know at one -- I'm pretty sure it was	01:53:26
13	the -- October 27th that he -- he made reference to	01:53:32
14	the previous device about having fingerprints and	01:53:39
15	scratches on the parts. It wasn't until later that	01:53:44
16	I found like that there was more, you know, in his	01:53:46
17	findings.	01:53:51
18	(Exhibit 9 was marked for identification	01:53:51
19	by the court reporter and is attached hereto.)	01:53:51
20	Q. (By Ms. Mayo) The court reporter -- the	01:54:36
21	court reporter has handed to you what has been	01:54:37
22	marked as Exhibit 9.	01:54:39
23	A. Yes.	01:54:42
24	Q. Yeah. And it's marked CARTER101 to 113.	01:54:45
25	Do you recognize this document?	01:54:55

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1 Q. -- a part maybe, or -- 02:02:06

2 A. Well, the way our business was set up, 02:02:07

3 like when you walked Apple Store back of the store, 02:02:10

4 his desk was on one side and mine was on the other 02:02:12

5 side. So like his desk was where we had to access 02:02:15

6 our security cameras, because we had multiple 02:02:20

7 locations in different cities. 02:02:22

8 So I would sit at his desk sometime to 02:02:23

9 access the security cameras. So I would see, like, 02:02:27

10 parts that he may have, you know, left or -- 02:02:29

11 because he may use this phone to replace the 02:02:32

12 screen, or something. Like if he had a phone that 02:02:35

13 the motherboard was bad in, then he may use the 02:02:39

14 screen from one of the other ones to put on the 02:02:42

15 other one, you know, to piece it together, I guess. 02:02:44

16 Q. Did he replace anything other than 02:02:47

17 screens? 02:02:49

18 A. Not that I know of or have... 02:02:51

19 Q. Once Thang performed this inspection, 02:03:03

20 what did you do with the phone, then? Did you 02:03:05

21 continue using it? 02:03:09

22 A. Yes. 02:03:10

23 Q. How long did you use it? 02:03:10

24 A. About a week. 02:03:11

25 Q. And then what did you do? 02:03:14

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1	A.	I got another replacement.	02:03:15
2	Q.	During that week, what was -- what was	02:03:16
3		your experience with the battery?	02:03:19
4	A.	The same thing: It was still dying.	02:03:22
5	Q.	So the same issues you were experiencing?	02:03:24
6	A.	Yes.	02:03:26
7	Q.	Were you experiencing any other issues?	02:03:33
8	A.	No.	02:03:35
9	Q.	So you called in to Apple again?	02:03:37
10	A.	(Deponent nods head.)	02:03:40
11	Q.	And what did you tell them?	02:03:40
12	A.	That my phone was still dying.	02:03:42
13	Q.	Did you tell them that you had opened up	02:03:44
14		the phone?	02:03:47
15	A.	No.	02:03:48
16	Q.	Did you tell them that you had had the	02:03:48
17		phone inspected?	02:03:51
18	A.	No.	02:03:52
19	Q.	Did you tell Apple that the -- the iPhone	02:03:57
20		was the subject of litigation?	02:04:00
21	A.	No. They didn't ask any of these	02:04:05
22		questions either, so I didn't volunteer any	02:04:06
23		information.	02:04:10
24	Q.	So -- and walk me through again exactly	02:04:10
25		what you did tell them.	02:04:13

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1	A.	What I didn't tell them?	02:04:14
2	Q.	What you did.	02:04:16
3	A.	Oh, that my phone was still not holding a	02:04:17
4		charge or it was still dying, you know, through the	02:04:20
5		process of -- or through the day. I mean, it would	02:04:24
6		get to a certain percent -- a low percentage --	02:04:32
7		because this was the -- this was -- are we talking	02:04:33
8		about my first or second -- we're talking about	02:04:33
9		second replacement now, right?	02:04:33
10	Q.	We're talking about your first	02:04:36
11		replacement.	02:04:36
12	A.	Okay. So this one would get to --	02:04:37
13	Q.	Calling in about the issue.	02:04:39
14	A.	Right. So it would get to a low	02:04:40
15		percentage and then die.	02:04:41
16	Q.	And -- and was this the first time you	02:04:43
17		had called Apple about your issues with the first	02:04:45
18		replacement?	02:04:50
19	A.	No, I don't think so.	02:04:50
20	Q.	What -- if -- if you had called earlier,	02:04:59
21		do you recall --	02:05:02
22	A.	It would just have been --	02:05:04
23	Q.	Did you call at a time about the first	02:05:05
24		replacement that wasn't -- didn't result in a	02:05:07
25		replacement?	02:05:09

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1	A.	If so, then it would have just been the	02:05:10
2		same thing they had told me before to, you know, do	02:05:12
3		the brightness, yada, yada, but...	02:05:15
4	Q.	Did you do a hard reset on that first	02:05:18
5		replacement?	02:05:20
6	A.	Yes.	02:05:21
7	Q.	And did that -- did that have any effect?	02:05:24
8	A.	No.	02:05:26
9	Q.	When did you do the hard replacement --	02:05:28
10		or the hard reset?	02:05:29
11	A.	I'm not sure.	02:05:31
12	Q.	Do you recall if it was before or after	02:05:32
13		Thang did his inspection?	02:05:34
14	A.	I'm -- I'm not sure. I know one would	02:05:35
15		have been done after as well to -- because you had	02:05:41
16		to do it before you send the phone back, so...	02:05:44
17	Q.	What -- you have to do -- I'm sorry.	02:05:47
18	A.	You have to do a hard reset before you	02:05:50
19		send your phone back to get all your information	02:05:53
20		off of it.	02:05:56
21	Q.	Understood.	02:05:57
22		And -- and I guess my question is: Did	02:05:58
23		you do a hard reset and then continue using the	02:05:59
24		phone?	02:06:01
25	A.	I'm not sure.	02:06:01

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1 (Exhibit 10 was marked for identification 02:06:05
2 by the court reporter and is attached hereto.) 02:06:05
3 Q. (By Ms. Mayo) The court reporter has 02:06:57
4 handed to you what has been marked as CARTER115 -- 02:06:58
5 or, sorry, as Exhibit 10, with Bates Nos. 152 02:07:00
6 through 157. 02:07:07
7 Do you recognize this document? 02:07:11
8 A. Yes. 02:07:13
9 Q. What is it? 02:07:14
10 A. It is the repair request from Apple. 02:07:15
11 Q. Does this -- did you -- do you recall if 02:07:23
12 you requested that replacement on 02:07:28
13 October 26th, 2016? 02:07:30
14 A. Yes. 02:07:37
15 Q. And turning to the second page, it says 02:07:39
16 "Display Blank Black Screen-Power On." 02:07:41
17 Do you see that? 02:07:46
18 A. Yes. 02:07:46
19 Q. Is that something you told Apple as being 02:07:46
20 the issue? 02:07:48
21 A. Display blank screen power on, no. 02:07:51
22 Now, I do remember, after doing some 02:07:55
23 troubleshoot, one of them pouring off, but I think 02:07:58
24 it was close to being dead. So I think that this 02:08:03
25 is the one for -- for -- I think this is the one 02:08:05

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1	where I was speaking with the lady and I'm sure	02:08:13
2	Apple can verify who actually shipped the	02:08:15
3	replacement. But she just was ready to get me off	02:08:17
4	the phone. So she just went ahead and shipped the	02:08:20
5	replacement.	02:08:23
6	But the phone died, so I told her,	02:08:26
7	you know, "My phone's about to die." And it was	02:08:28
8	late in the afternoon and she just went ahead and	02:08:31
9	shipped the replacement. So maybe that's the	02:08:33
10	verbiage that she used. But, again, that wasn't	02:08:35
11	the issue with the phone.	02:08:38
12	Q. You -- so you didn't tell Apple that you	02:08:39
13	had a power-on-black-screen issue?	02:08:41
14	A. No, unless this is the one when I was	02:08:45
15	talking to her and the phone died and I told her,	02:08:50
16	"Now the phone is dead. It won't power back on.	02:08:51
17	So do you want me to charge it or..."	02:08:54
18	Q. Do you recall if there were any	02:09:05
19	attachments to this email?	02:09:07
20	A. I don't -- I don't think there would have	02:09:10
21	been, no.	02:09:12
22	MS. MAYO: Is this a good time for	02:09:32
23	everyone for a quick break?	02:09:35
24	MS. KRAS: Yeah.	02:09:37
25	THE VIDEOGRAPHER: Going off the record.	02:09:38

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1	The time is 2:09 p.m.	02:09:38
2	(Recess taken.)	02:21:33
3	(Exhibit 11 was marked for identification	02:21:33
4	by the court reporter and is attached hereto.)	02:21:33
5	THE VIDEOGRAPHER: We are back on the	02:24:16
6	record. The time is 2:24 p.m.	02:24:17
7	Q. (By Ms. Mayo) The court reporter has	02:24:26
8	handed you what's been marked as Exhibit 11 --	02:24:28
9	A. Okay.	02:24:30
10	Q. -- which has Bates Nos. CARTER202 through	02:24:30
11	CARTER204.	02:24:34
12	Do you recognize this document?	02:24:36
13	A. Yes.	02:24:37
14	Q. What is it?	02:24:38
15	A. It is letting me know that my replacement	02:24:39
16	is on the way and that an adult needs to be there	02:24:45
17	to sign for it.	02:24:48
18	Q. Where did you ship this -- this	02:24:54
19	replacement?	02:24:55
20	A. I shipped it to my job.	02:24:56
21	Q. And did you receive it the next day, on	02:25:04
22	October 27th?	02:25:06
23	A. Yes.	02:25:07
24	Q. What did you do when you received it?	02:25:07
25	A. Left it in the box.	02:25:14

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1	Q. Why did you do that?	02:25:16
2	A. So that when I had this device inspected,	02:25:17
3	that he could tell me for sure that I had a used or	02:25:19
4	a new phone.	02:25:24
5	Q. Did you do anything with the box?	02:25:27
6	A. I put it in my locker until I met with	02:25:33
7	Thang.	02:25:37
8	Q. Did you take any photos of the box?	02:25:37
9	A. I think that I did. I think I took a --	02:25:43
10	just a picture, you know, of like the front of the	02:25:45
11	box.	02:25:47
12	Q. Had you arranged with Thang, before	02:26:04
13	ordering this replacement, for him to come inspect	02:26:06
14	it?	02:26:09
15	A. I talked with him during the -- during	02:26:10
16	the times to let him know that I was having another	02:26:13
17	replacement and that it would be there on the 28th	02:26:18
18	to make sure that, you know, he'd be able to come.	02:26:19
19	Q. So it sounds like, yes, you did	02:26:27
20	rearrange --	02:26:29
21	A. Yes. Right.	02:26:29
22	Q. Have you talked with your counsel about	02:26:30
23	the fact that you were returning the first	02:26:33
24	replacement?	02:26:35
25	A. I -- I don't remember the exact	02:26:39

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1	conversation, but I'm sure that, you know, I made	02:26:41
2	sure that it was okay to get another replacement.	02:26:45
3	Q. And you had that conversation with	02:26:51
4	counsel?	02:26:53
5	A. Yes.	02:26:54
6	(Exhibit 12 was marked for identification	02:26:54
7	by the court reporter and is attached hereto.)	02:26:54
8	Q. (By Ms. Mayo) The court reporter has	02:27:15
9	handed to you what has been marked as Exhibit 12,	02:27:17
10	and it has a Bates No. CARTER174.	02:27:19
11	Do you recognize this document?	02:27:25
12	A. Yes.	02:27:26
13	Q. What is it?	02:27:29
14	A. It is a email between me -- or Thang and	02:27:30
15	I.	02:27:35
16	Q. Turning to Thang's email at -- on	02:27:41
17	October 26th, 2016, at 8:30 p.m., this is an email	02:27:42
18	that you received from him?	02:27:47
19	A. Yes.	02:27:48
20	Q. Do you -- so it refers to his having	02:27:55
21	heard that you re- -- you were receiving a phone.	02:27:57
22	Do you know how he knew that?	02:28:01
23	A. I'm sure my counsel set up for him to	02:28:08
24	come, so...	02:28:10
25	Q. So did your -- did your counsel arrange	02:28:11

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1 for him to inspect the phone in advance of 02:28:13
2 receiving your replacement? 02:28:16
3 A. Well, once they knew that I was having a 02:28:19
4 replacement done, then they wanted it inspected, 02:28:22
5 yes. 02:28:24
6 Q. And -- and your counsel set up that 02:28:25
7 inspection? 02:28:26
8 A. Yes. 02:28:27
9 Q. Turning to your email at 8:36 p.m., it 02:28:32
10 states, "If you want to come get it then I will let 02:28:36
11 you" take -- "let you get it and take pictures 02:28:39
12 before I even restore my info to show that if this 02:28:43
13 one is open, bent or has fingerprints inside then 02:28:46
14 it came from Apple that way." 02:28:50
15 Do you see that? 02:28:53
16 A. Yes. 02:28:54
17 Q. Can you explain that statement? 02:28:55
18 A. I wanted him to see it before I put any 02:28:56
19 of my information on it so that when -- when it got 02:29:01
20 to a point where someone said that that was a new 02:29:07
21 phone, I could say, "No. Before I even use the 02:29:11
22 phone, it was in that condition with the -- had 02:29:20
23 bent pieces," which is what -- I guess his findings 02:29:22
24 were, you know. 02:29:26
25 Between October the 18th and the 26th, I 02:29:28

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1 had, I guess, spoken to my counsel and got some of 02:29:33
2 this information. So I wanted him to see that it's 02:29:35
3 not something that I had done to the device. 02:29:38
4 Q. And why did you want to find this out for 02:29:42
5 this replacement device? 02:29:44
6 A. Because I was told I would get a new 02:29:46
7 phone and didn't get a new phone. 02:29:49
8 Q. And, again, you're referring to the 02:29:51
9 AppleCare+ terms and conditions? 02:29:53
10 A. Yes. 02:29:58
11 (Exhibit 13 was marked for identification 02:29:58
12 by the court reporter and is attached hereto.) 02:29:58
13 Q. (By Ms. Mayo) So the court reporter has 02:30:38
14 given you a document labeled Exhibit 13, 02:30:42
15 Bates Nos. CARTER114 through 148. 02:30:46
16 Turning to the first couple pictures, did 02:30:52
17 you take these photos? 02:30:57
18 A. No. 02:30:59
19 Q. Do you know who took them? 02:31:00
20 A. I assume that Thang took them. 02:31:02
21 Q. And I believe you said -- did you -- did 02:31:05
22 you take any photos of the packaging of this -- 02:31:07
23 this second replacement device? 02:31:12
24 A. I don't think so. I think that that was 02:31:14
25 most likely the first replacement that I took the 02:31:16

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1	difference.	02:32:15
2	Q. (By Ms. Mayo) Understood.	02:32:15
3	So turning back to -- so October 27th --	02:32:16
4	A. Uh-huh.	02:32:18
5	Q. -- did Thang come down to your store	02:32:19
6	again?	02:32:24
7	A. Yes.	02:32:25
8	Q. And did he conduct the inspection in --	02:32:25
9	in the same way, to the best of your --	02:32:27
10	A. Yes.	02:32:28
11	Q. -- or to --	02:32:28
12	A. I didn't go outside with him at all this	02:32:29
13	time.	02:32:31
14	Q. Okay.	02:32:31
15	A. I'm sorry for interrupting you. I'm	02:32:31
16	sorry.	02:32:33
17	Q. So -- yeah, it -- it makes it easier for	02:32:33
18	the court reporter.	02:32:34
19	As far as you know, the inspection	02:32:38
20	progressed in the same way as the first one,	02:32:39
21	correct?	02:32:41
22	A. Yes.	02:32:42
23	Q. And you believe he did it in the trunk of	02:32:42
24	his car again?	02:32:49
25	A. Yes.	02:32:49

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1	Q. Were -- and you weren't there for any	02:32:50
2	portion of the inspection this time?	02:32:51
3	A. No.	02:32:53
4	Q. Did Thang relay the results of his -- his	02:33:01
5	inspection to you?	02:33:03
6	A. After handing me this one back, I do	02:33:04
7	remember -- remember him saying that it wasn't as	02:33:07
8	bad. But, again, I had customers in there and,	02:33:10
9	you know, he just kind of handed it back. And I	02:33:14
10	said, "Is it -- are we good?" And he said it	02:33:17
11	wasn't as bad.	02:33:20
12	Q. And what did you took -- take that to	02:33:21
13	mean?	02:33:22
14	A. That this one probably wasn't bent or	02:33:23
15	had, you know, defective parts or fingerprints in	02:33:25
16	the back.	02:33:31
17	Q. And did he tell you whether he thought it	02:33:32
18	was new or not?	02:33:35
19	A. He didn't.	02:33:37
20	Q. Did you ask him whether it was new or	02:33:45
21	not?	02:33:46
22	A. I didn't. I get paid to sell Apple	02:33:47
23	products. I don't want no one to think that -- you	02:33:52
24	know, that I was not wanting to sell them an Apple	02:33:54
25	product, so, I mean...	02:33:59

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1 Q. And -- and can you explain that one. 02:34:00
2 I -- I'm not sure I follow. 02:34:02
3 A. I'm just saying, like I -- he's 02:34:03
4 inspecting my iPhone. So I don't want it to seem 02:34:05
5 like they're -- you know, he's bringing my iPhone 02:34:07
6 back in, and I'm asking, "Is it used?" You know, 02:34:09
7 so, I mean, I just kind of left it like that. 02:34:11
8 Q. So you're saying it's because you were -- 02:34:14
9 A. I mean, in my work -- 02:34:16
10 Q. -- at work? 02:34:17
11 A. -- I didn't ask any additional questions 02:34:18
12 to him, yes. 02:34:19
13 Q. Did you later ask him what -- what -- 02:34:20
14 what he found out? 02:34:22
15 A. No. 02:34:24
16 Q. So at no point you ask him -- did you ask 02:34:26
17 him whether he thought the phone was new or not? 02:34:29
18 A. No. 02:34:33
19 Q. Then what did you do with the phone? 02:34:40
20 A. I used it for a day or two. And this 02:34:42
21 one -- this phone -- I believe this one had the 02:34:46
22 worst battery, yeah. This one had the worst 02:34:56
23 battery. This one -- like, immediately I knew from 02:34:59
24 the get-go that this one was going to have issues. 02:35:02
25 Like, the screen on this one, it -- the 02:35:07

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1 brightness was automatically set down. It could 02:35:12
2 have been something, you know, that Thang changed 02:35:14
3 the brightness, but the brightness was set down. 02:35:18
4 The battery didn't last well at all. I woke up the 02:35:22
5 next day and it was only at 99 percent. It didn't 02:35:24
6 even charge to 100 percent. So this one is where I 02:35:26
7 called Apple back and, you know, requested -- I 02:35:30
8 even -- I think they even transferred me to a 02:35:33
9 supervisor. 02:35:36
10 Q. And so going back to -- to the battery 02:35:37
11 issues you experienced, so can you explain to me -- 02:35:43
12 so you said you thought this was the worst. 02:35:44
13 Can you -- can you fill that out a bit? 02:35:46
14 A. Yeah. It only charged to 99 percent 02:35:48
15 versus 100. And it, like, 1:00 o'clock in the 02:35:51
16 afternoon would be at 20 percent versus 40 or 50, 02:35:56
17 like the other one. And my new one would be at 70. 02:35:59
18 Q. The -- for the 99-percent issue, do you 02:36:03
19 know if you had any apps open when it wasn't 02:36:06
20 charging to 100? 02:36:11
21 A. I'm not sure. 02:36:12
22 Q. And -- and about how many days do you say 02:36:13
23 you used this phone? 02:36:16
24 A. Maybe four or five. 02:36:17
25 Q. And at what point did you call Apple? 02:36:20

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1	A. Within three days -- three or four days.	02:36:25
2	I mean, again, it's been a year, so I don't	02:36:28
3	remember exact dates.	02:36:31
4	Q. What did you tell Apple when you called	02:36:33
5	back in?	02:36:35
6	A. That this is my, you know, second	02:36:36
7	replacement, having issues with it. What do we	02:36:38
8	need to do? Got me my case number; supervisor got	02:36:42
9	me another phone.	02:36:47
10	Q. What did you tell them -- what did you	02:36:48
11	tell them the issues were?	02:36:49
12	A. That it wasn't taking a charge.	02:36:51
13	Q. Anything else?	02:36:55
14	A. Or what -- (Deponent shakes head.)	02:36:55
15	Q. Why -- do you -- do you know why you	02:36:56
16	ended up talking to a supervisor?	02:36:59
17	A. I guess because I had already had two	02:37:01
18	replacements.	02:37:04
19	Q. But do you know why?	02:37:08
20	A. (Deponent shakes head.)	02:37:09
21	Q. Did you -- did you expressly ask for a	02:37:11
22	replacement?	02:37:15
23	A. Possibly. I'm sure I told them that I	02:37:16
24	needed another replacement phone.	02:37:19
25	Q. Okay. And why did you want another	02:37:21

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1	replacement phone?	02:37:23
2	A. Because the phone that they mailed me	02:37:24
3	wasn't -- again, wasn't a new phone like they had	02:37:27
4	told me I would get or like -- that my AppleCare	02:37:30
5	says I would get. And it would only charge to	02:37:33
6	99 percent. So immediately out the box, I knew	02:37:37
7	that I was going to have issues with this phone.	02:37:40
8	Q. And is there any reason, other than the	02:37:47
9	ones we discussed, why you thought that it was not	02:37:50
10	a new phone?	02:37:52
11	A. No.	02:37:54
12	Q. Why did you want a replacement?	02:37:59
13	A. To have a replacement -- I mean, I want a	02:38:03
14	new phone. I wanted my phone -- that it's going to	02:38:07
15	work. I want a phone that's going to work like a	02:38:09
16	new phone.	02:38:12
17	Q. And what do you think you would get as	02:38:12
18	the replacement?	02:38:14
19	A. Well, they said I was going to get a new	02:38:15
20	phone.	02:38:17
21	Q. And, again, you're talking about the	02:38:18
22	terms and conditions?	02:38:19
23	A. No. The supervisor actually said that I	02:38:20
24	would get a new phone this time.	02:38:22
25	Q. Did you ask any questions about that?	02:38:30

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1	A.	Uh-uh. No. I'm sorry. No, I didn't.	02:38:35
2	Q.	Thank you.	02:38:37
3		What else did you have -- say during that	02:38:39
4		conversation?	02:38:43
5	A.	Clarify what you mean. I don't know --	02:38:47
6	Q.	So --	02:38:48
7	A.	-- like what -- what else to --	02:38:49
8	Q.	Anything else that was said?	02:38:51
9	A.	No, not that I recall.	02:38:52
10	Q.	What --	02:38:59
11		(Exhibit 14 was marked for identification	02:39:07
12		by the court reporter and is attached hereto.)	02:39:07
13	Q.	(By Ms. Mayo) The court reporter has	02:39:46
14		handed you what has been marked as Exhibit 14,	02:39:47
15		Bates-numbered CARTER175 through 179.	02:39:50
16		Do you recognize this document?	02:40:00
17	A.	Yes.	02:40:02
18	Q.	What is it?	02:40:07
19	A.	It is a -- an email between Thang and I.	02:40:07
20	Q.	And turning to the most recent one -- or	02:40:12
21		the last one on -- on page 175, the front page,	02:40:15
22		that's an email from you to Thang; is that correct?	02:40:21
23	A.	Yes.	02:40:24
24	Q.	On November 2nd, 2016?	02:40:24
25	A.	Yes.	02:40:27

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1	Q.	And in the pages that follow, are -- are	02:40:27
2		these screenshots from your phone?	02:40:29
3	A.	They are.	02:40:31
4	Q.	Why did you send these screenshots?	02:40:32
5	A.	I believe -- I believe he requested them.	02:40:37
6		I mean, I don't know why I would have just sent him	02:40:42
7		screenshots without him requesting the screenshots.	02:40:45
8		But I see it was in an email, so -- I mean, he had	02:40:50
9		to request them to get screenshots.	02:40:57
10	Q.	You don't know any other reason --	02:40:59
11	A.	No.	02:41:00
12	Q.	-- for sending them?	02:41:00
13	A.	No.	02:41:01
14		(Exhibit 15 was marked for identification	02:41:01
15		by the court reporter and is attached hereto.)	02:41:01
16	Q.	(By Ms. Mayo) The court reporter has	02:41:33
17		handed you Exhibit 15. It's CARTER- -- it's	02:41:34
18		Bates-numbered CARTER180 to 181.	02:41:36
19		Do you recognize this document?	02:41:41
20	A.	Yes.	02:41:42
21	Q.	What is it?	02:41:43
22	A.	It's an email from Apple asking me to	02:41:44
23		give them my credit card information, to put a hold	02:41:47
24		on my credit card until they receive the phone	02:41:50
25		back.	02:41:53

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Conducted on August 30, 2017

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1	Q.	Based on this document, do you -- do you	02:41:58
2		believe it was on or about November 2nd that you	02:41:59
3		requested the replacement?	02:42:03
4	A.	Yes.	02:42:04
5	Q.	And this was the replaced unit in	02:42:06
6		connection with your second replacement requesting	02:42:09
7		a replacement of that phone?	02:42:12
8	A.	Yes.	02:42:13
9		(Exhibit 16 was marked for identification	02:42:13
10		by the court reporter and is attached hereto.)	02:42:13
11	Q.	(By Ms. Mayo) The court reporter has	02:43:01
12		handed to you Exhibit 16, Bates-numbered CARTER209.	02:43:01
13		Do you recognize this document?	02:43:09
14	A.	Yes.	02:43:10
15	Q.	What is it?	02:43:10
16	A.	It is from where I purchased a iPhone	02:43:11
17		from Verizon.	02:43:17
18	Q.	And what iPhone is this that you	02:43:19
19		purchased?	02:43:21
20	A.	The iPhone 6 Plus.	02:43:24
21	Q.	You purchased this on November 1st,	02:43:25
22		correct?	02:43:28
23	A.	Yes.	02:43:28
24	Q.	Why did you purchase an iPhone 6 on that	02:43:34
25		day?	02:43:37

Transcript of Justin Carter
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1	A. Because I wanted a new device, so I	02:43:37
2	purchased a new device and I gave my counsel my	02:43:39
3	used device or device I had received from Apple.	02:43:47
4	Q. Which -- which device -- which	02:43:53
5	replacement did you -- sorry.	02:43:54
6	Which iPhone did you give to your	02:43:55
7	counsel?	02:43:57
8	A. I gave them my second replacement.	02:43:57
9	Q. When did you give it to them?	02:44:00
10	A. I believe I gave it to Thang and he	02:44:07
11	delivered it to them.	02:44:09
12	Q. And -- and my question was when?	02:44:10
13	A. I'm not sure the date.	02:44:11
14	Q. So you had the second replacement	02:44:18
15	inspected on October 22nd -- 27th, correct?	02:44:19
16	A. Yes.	02:44:23
17	Q. And I believe you said you used it for	02:44:24
18	four or five days, correct?	02:44:25
19	A. Uh-huh.	02:44:32
20	Q. And what -- so after that, what -- what	02:44:33
21	did you do with the phone? Did you -- you gave it	02:44:36
22	to Thang?	02:44:38
23	A. Yes.	02:44:39
24	Q. Did he drive back down and get it from	02:44:41
25	you?	02:44:43

Transcript of Justin Carter
Conducted on August 30, 2017

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1	A. Yes, when he inspected -- when he	02:44:44
2	inspected the third replacement.	02:44:47
3	Q. So there wasn't a middle visit in between	02:44:49
4	the second and the third inspection?	02:44:51
5	A. Not that I recall.	02:44:53
6	Q. Turning to this iPhone 6 Plus that you	02:44:57
7	purchased on November 1st, 2016, did you personally	02:44:59
8	pay for this iPhone?	02:45:03
9	A. I did personally pay, and I was	02:45:04
10	reimbursed.	02:45:06
11	Q. Who were you reimbursed by?	02:45:08
12	A. My counsel.	02:45:10
13	Q. And is this the iPhone that you used	02:45:15
14	until you upgraded to the 7 Plus?	02:45:21
15	A. Yes.	02:45:23
16	(Exhibit 17 was marked for identification	02:45:23
17	by the court reporter and is attached hereto.)	02:45:23
18	Q. (By Ms. Mayo) The court reporter has	02:45:56
19	handed you what has been marked as Exhibit 17, with	02:45:57
20	Bates Nos. CARTER149 -- and it ends at that.	02:46:00
21	Do you recognize this document?	02:46:09
22	A. Yes.	02:46:10
23	Q. What is it?	02:46:10
24	A. It is letting me know that my third	02:46:11
25	replacement is on the way.	02:46:13

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1	Q. And you received this email on	02:46:16
2	November 3rd, 2016?	02:46:17
3	A. Yes.	02:46:20
4	Q. Did you -- or when did you receive	02:46:29
5	that -- and this is the shipment of your third	02:46:29
6	replacement, correct?	02:46:34
7	A. Yes.	02:46:34
8	Q. When did you receive that replacement?	02:46:34
9	A. November the 4th.	02:46:36
10	Q. When you received it, what did you do?	02:46:37
11	A. Again, I put it in my locker until Thang	02:46:40
12	got there.	02:46:43
13	Q. When -- did he come that same day on	02:46:44
14	November 4th?	02:46:47
15	A. I'm pretty sure that he did.	02:46:49
16	Q. And when he arrived, did you give it to	02:46:57
17	him for the same type of inspection as before?	02:46:59
18	A. Yes.	02:47:01
19	Q. Were you present for any part of this	02:47:02
20	inspection?	02:47:04
21	A. No.	02:47:04
22	(Exhibit 18 was marked for identification	02:47:04
23	by the court reporter and is attached hereto.)	02:47:04
24	Q. (By Ms. Mayo) The court reporter has	02:47:30
25	handed to you what has been marked as Exhibit 18,	02:47:37

Transcript of Justin Carter
Conducted on August 30, 2017

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1	Bates-numbered CARTER53 through 100.	02:47:39
2	Do you recognize this set of photos?	02:47:51
3	A. Yes.	02:47:52
4	Q. What are they?	02:47:52
5	A. Pictures of the third replacement.	02:47:53
6	Q. And this is the one that arrived on	02:47:57
7	November 4th?	02:48:00
8	A. Yes.	02:48:01
9	Q. Were you present for any -- for when	02:48:08
10	Thang took any of these photos?	02:48:10
11	A. No.	02:48:11
12	Q. Did -- were you present for any portion	02:48:11
13	of this inspection?	02:48:13
14	A. No.	02:48:20
15	Q. Do you know the significance of any of	02:48:21
16	these photos?	02:48:22
17	A. I mean, it -- I know that the phone --	02:48:24
18	no, I don't.	02:48:30
19	Q. After Thang inspected that third phone,	02:48:31
20	did he tell you anything about his findings?	02:48:35
21	A. He said that he -- he still felt that	02:48:38
22	this phone was not new. And from looking at the	02:48:41
23	phone, I felt that it wasn't new either, so...	02:48:44
24	Q. Looking at the outside of the phone,	02:48:48
25	you're talking about?	02:48:49

Transcript of Justin Carter
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1	A.	Uh-huh.	02:48:50
2	Q.	And -- and what do you -- what makes you	02:48:51
3		say that?	02:48:53
4	A.	The plastic on the phone -- let me see if	02:48:54
5		I can find a picture of it.	02:48:57
6		In CARTER00 -- or 70 and 71, there was,	02:49:09
7		like, trash under the plastic and then -- I don't	02:49:15
8		think you can see it from --	02:49:23
9	Q.	Are you referring to the -- the plastic	02:49:24
10		that's attached to the screen?	02:49:27
11	A.	Yes.	02:49:29
12	Q.	And he -- okay. Go on.	02:49:30
13	A.	And then, like around the edges of the	02:49:34
14		phone, it's -- it was like -- I don't think I would	02:49:36
15		say "scuffed," but maybe like dirty. It just	02:49:47
16		didn't -- like, as far as cosmetically, this one	02:49:50
17		looked worse than the other ones.	02:49:55
18	Q.	And at what point did you -- did you look	02:50:00
19		at the phone and come to the conclusion? After	02:50:01
20		Thang had done his inspection?	02:50:04
21	A.	Yes.	02:50:05
22	Q.	After Thang completed this inspection,	02:50:12
23		what do you do with the phone?	02:50:16
24	A.	He gave it back to me.	02:50:20
25	Q.	And then what did you do with it?	02:50:22

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1	A.	I kept it for a day or two and then	02:50:24
2		decided just to mail it back to Apple.	02:50:26
3	Q.	During that -- that interaction, was that	02:50:32
4		when you gave Thang your -- your second	02:50:34
5		replacement?	02:50:37
6	A.	Yes.	02:50:38
7	Q.	And had he asked for it to -- to give to	02:50:39
8		him, or how did you know to give that phone to him?	02:50:44
9	A.	A conversation I had with my counsel.	02:50:47
10	Q.	Did you tell your counsel that you would	02:50:51
11		be mailing back the third one?	02:50:53
12	A.	Well, when I talked to my counsel --	02:50:58
13		MS. KRAS: I just -- I'm just	02:51:01
14		cautioning -- I mean, I just don't want to get into	02:51:02
15		any conversations that we had, so...	02:51:05
16		THE DEPONENT: I mean, they knew I was	02:51:08
17		mailing back the third phone, yes.	02:51:10
18	Q.	(By Ms. Mayo) Okay. You -- you told	02:51:12
19		them that you would be mailing back the third phone	02:51:13
20		before you did it?	02:51:15
21	A.	Yes.	02:51:16
22	Q.	Did you have any conversations with Apple	02:51:24
23		before you returned the third phone?	02:51:25
24	A.	No.	02:51:27
25	Q.	Why did you decide to return it?	02:51:29

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Conducted on August 30, 2017

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1	A.	Because it still was not a new phone.	02:51:32
2	Q.	And at that time you were already using	02:51:35
3		the 6 Plus that you had purchased on November 1st?	02:51:36
4	A.	Uh-huh. Yes. I'm sorry.	02:51:40
5	Q.	Thank you for catching yourself.	02:51:43
6		Did you have any conversations with Apple	02:51:49
7		before you mailed back the third replacement phone?	02:51:51
8	A.	No.	02:51:53
9	Q.	Once you mailed it back, did you have any	02:52:00
10		conversations with Apple?	02:52:02
11	A.	Yes.	02:52:04
12	Q.	What -- what were those conversations?	02:52:06
13	A.	They -- they didn't release the hold on	02:52:08
14		my card, so I ended up having to call them to -- to	02:52:13
15		get them -- I think they did a ticket or something	02:52:15
16		to figure out why the hold hadn't been released off	02:52:18
17		the card.	02:52:21
18	Q.	And during those conversations, did you	02:52:22
19		tell Apple why you would mail back that replacement	02:52:24
20		phone?	02:52:27
21	A.	That it wasn't in, like, new condition,	02:52:27
22		yes.	02:52:30
23	Q.	You -- you said that to a representative?	02:52:32
24	A.	I told them that it wasn't -- or it	02:52:35
25		wasn't a new phone. It wasn't the new	02:52:37

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Conducted on August 30, 2017

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1	replacement --	02:52:39
2	Q. Okay.	02:52:39
3	A. The replacement wasn't new, so -- I mean,	02:52:40
4	I don't remember the exact wording, but I let them	02:52:41
5	know that I purchased a new phone because that's	02:52:44
6	what I was supposed to be getting, was a new phone.	02:52:49
7	Q. What phone did you tell them you had	02:52:51
8	purchased?	02:52:53
9	A. I don't think they asked.	02:52:54
10	Q. Did you tell Apple, during those	02:53:03
11	conversations, that the phone you had returned is	02:53:05
12	the subject of litigation?	02:53:08
13	A. No.	02:53:10
14	MS. KRAS: Objection. Foundation.	02:53:10
15	THE DEPONENT: No.	02:53:16
16	Q. (By Ms. Mayo) When did you return the	02:53:33
17	6 Plus that you purchased on November 1st for the	02:53:35
18	7 Plus?	02:53:41
19	A. I'm not sure of the date. I'm not --	02:53:42
20	Q. Do you recall roughly? You know, a	02:53:48
21	couple days? Weeks? Months?	02:53:49
22	A. I mean, it was probably weeks. Within	02:53:51
23	the 14 days, I'm sure.	02:53:55
24	Q. You believe it was within the 14 days of	02:53:58
25	November 1st?	02:54:00

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Conducted on August 30, 2017

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C E R T I F I C A T E

1
2
3 I, REBECCA L. ROMANO, the officer before whom
4 the foregoing deposition was taken, do hereby
5 certify that the foregoing transcript is a true and
6 correct record of the testimony given; that said
7 testimony was taken by me stenographically and
8 thereafter reduced to typewriting under my
9 direction; that the reading and signing was
10 requested, as appropriate; and that I am neither
11 counsel for, related to, nor employed by any of the
12 parties to this case and have no interest,
13 financial or otherwise, in its outcome.
14

15 IN WITNESS WHEREOF, I have hereunto set
16 my hand this 13th day of September, 2017.
17
18
19

20 
21

22 _____
23 REBECCA L. ROMANO, RPR
24 CSR No. 12546
25

DUPLICATE RECEIPT



Apple St. Johns
4712 River City Drive, Ste. 117
Jacksonville, FL 32246
stjohns@apple.com
904-997-8570

www.apple.com/retail/stjohnstowncenter

April 16, 2015 02:42 PM

IPHONE 6 PLUS GOLD 64GB VERZN \$ 849.00

Part Number: MGCU2LL/A
Serial Number: FK1NW29QG5QL
ICCID: 8914800001524240065
IMEI: 354453062379980
Return Date: Apr. 30, 2015
Return date with carrier plan is 1 day prior to date listed

Verizon Account Information
No Wireless Service Activation during iPhone Sale

APPLECARE+ FOR IPHONE SE, 6, OR EARLIER \$ 99.00

Part Number: S4574LL/A
Agreement Number: 970111015003377
Provided by AppleCare Service Co, Inc
Sales Representative: 72308
Plan End Date: Apr. 16, 2017
Sales Associate ID : 973523509
Serial Number: FK1NW29QG5QL

This plan is registered automatically.
Verify your coverage at
apple.com/support/applecare/ww/

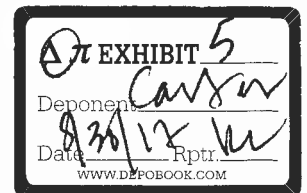
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apple.com/legal/sales-support/applecare/applecareplus
For Support, Visit:
www.apple.com/support

To update your mailing address on your plan,
please contact us at 1-800-APL-CARE

Sub-Total	\$ 948.00
Tax@7.0%	\$ 66.36
Total	\$ 1,014.36
Amount Paid Via Master Card (A)	\$ 1,014.36
XXXXXXXXXX	
088104	
Trace Number	
00420486	



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http://apple.com/legal/sales-support/sales-policies/retail.html

CARTER000039

1 Shana E. Scarlett (SBN 217895)
HAGENS BERMAN SOBOL SHAPIRO LLP
2 715 Hearst Avenue
Berkeley, California 94710
3 Telephone: (510) 725-3000
Facsimile: (510) 725-3001
4 Email: shanas@hbsslaw.com

5 Steve W. Berman (*Pro Hac Vice*)
HAGENS BERMAN SOBOL SHAPIRO LLP
6 1918 Eighth Avenue, Suite 3300
Seattle, WA 98101
7 Telephone: (206) 623-7292
Facsimile: (206) 623-0594
8 Email: steve@hbsslaw.com

9 Robert B. Carey (*Pro Hac Vice*)
Michella A. Kras (*Pro Hac Vice*)
10 HAGENS BERMAN SOBOL SHAPIRO LLP
11 11 West Jefferson, Suite 1000
Phoenix, Arizona 85003
12 Telephone: (602) 840-5900
Facsimile: (602) 840-3012
13 Email: rob@hbsslaw.com
michellak@hbsslaw.com

14 *Attorneys for Plaintiffs*
15 *[Additional Counsel on Signature Page]*

16 UNITED STATES DISTRICT COURT
17 NORTHERN DISTRICT OF CALIFORNIA
18 SAN FRANCISCO DIVISION

19 VICKY MALDONADO AND JUSTIN CARTER,
20 individually and on behalf of themselves and all
21 others similarly situated,
22
23 v.
24 APPLE INC., APPECARE SERVICE
COMPANY, INC., AND APPLE CSC INC.
25
26 Defendants.

No. 3:16-cv-04067-WHO

Related Case:
English v. Apple Inc. et al.
Case No. 3:14-cv-01619-WHO

**PLAINTIFF JUSTIN CARTER'S
RESPONSES TO DEFENDANTS'
FIRST SET OF INTERROGATORIES**



1 **PROPOUNDING PARTY:** APPLE INC., APPLECARE SERVICE COMPANY, INC.,
2 AND APPLE CSC INC.

3 **RESPONDING PARTY:** JUSTIN CARTER

4 **SET NUMBER:** ONE

5 Plaintiff Justin Carter hereby serves these objections and responses to Defendants' First Set
6 of Interrogatories. These objections and responses are made solely for the purpose of this action,
7 and are based upon information presently available to Plaintiff. Except for any explicit facts
8 admitted herein, no incidental or implied admissions are intended hereby.

9 To the extent Plaintiff provides answers to any Interrogatory, notwithstanding the
10 objectionable nature of any of the Interrogatories, the answers are not intended to be nor shall they
11 be construed as an admission that the material offered is relevant, that there is a waiver of the
12 General Objections or the objections asserted in connection with any specific answer, or that there
13 is an agreement that a request for similar information will be treated in a similar manner.

14 **GENERAL OBJECTIONS**

15 Plaintiff incorporates the following General Objections into each Response below:

16 Plaintiff objects to each Interrogatory to the extent that they seek information protected
17 from disclosure by the attorney-client privilege; the work-product doctrine; the privilege for
18 settlement discussions pursuant to Federal Rule of Evidence 408; or any other applicable federal,
19 state, or local privilege or exemption from disclosure. Any accidental disclosure of privileged
20 information shall not be deemed a waiver of the applicable privilege and Plaintiff reserves the right
21 to demand the return of any privileged information that may be inadvertently provided.

22 Plaintiff objects to the Definitions and Instructions to the extent that they attempt to impose
23 burdens, obligations, definitions, and/or instructions greater than or different from the obligations
24 imposed on Plaintiffs under the Federal Rules of Civil Procedure and the Local Rules for the
25 Northern District of California.

26 Plaintiff objects to the Interrogatories, including any Definition or Instruction, to the extent
27 that they contain, call for, or presuppose unwarranted factual and legal conclusions. Plaintiff's
28 response to a particular Interrogatory is not and shall not be construed as an admission by Plaintiff

1 that any factual or legal conclusions or assertions contained in any of the Interrogatories are true or
2 accurate.

3 Plaintiff objects to the Interrogatories to the extent that they are overly broad, unduly
4 burdensome, vague and ambiguous, and seek information that is irrelevant to any party's claim or
5 defense and/or are not reasonably calculated to lead to discovery of relevant admissible evidence.

6 Plaintiff objects to the Interrogatories to the extent that they require Plaintiff to provide
7 information already in the possession of the Defendants or their affiliates, or readily available from
8 third party sources, particularly those with whom Defendants may have pre-existing contractual or
9 cooperative relationships or are available in the public domain.

10 The information provided in these Responses is based on Plaintiff's investigation to date
11 and information that is reasonably available at this time. It is anticipated that further discovery,
12 independent investigation, legal research and analysis will supply additional facts, add meaning to
13 the known facts, as well as establish entirely new factual conclusions and legal contentions, all of
14 which may lead to substantial additions to, changes in, and variations from the responses herein set
15 forth. Plaintiff accordingly reserves the right to change or supplement any and all objections and
16 answers herein as additional facts are ascertained, analysis is made, legal research is completed,
17 and contentions are made, and to assert general and specific objections arising from matters
18 discovered during the course of litigation in accordance with the Federal Rules of Civil Procedure.

19 Subject to and without waiving each of these General Objections, which are asserted and
20 incorporated in every response, Plaintiff responds separately to each Interrogatory as follows:

21
22 **INTERROGATORY NO. 1:**

23 Describe in detail all INSPECTIONS performed on YOUR DEVICES, including the date
24 each INSPECTION occurred and a description of each step of the INSPECTIONS.

25 **ANSWER:**

26 Plaintiff objects to the Interrogatory to the extent that it seeks documents protected from
27 disclosure by the attorney-client privilege, the work-product doctrine, or any other applicable
28

1 federal, state or local privilege or exemption from disclosure. Plaintiff further objects to the
2 Interrogatory on the grounds that it is vague and ambiguous.

3 Subject to, and without waiving Plaintiff's objections, Plaintiff had his first replacement
4 iPhone 6 Plus inspected on or about October 18, 2016; his second replacement iPhone 6 Plus
5 inspected on or about October 27, 2016; and his third replacement iPhone 6 Plus inspected on or
6 about November 4, 2016.

7 Plaintiff's inspections involved the following steps:

- 8 1) Unpacking the iPhone (when iPhone was still in the shipping container) and
9 inspecting the packaging.
- 10 2) Visual inspection of the exterior of the iPhone.
- 11 3) Powering on the iPhone and going through the activation process (when the iPhone
12 was not yet activated).
- 13 4) Performing pre-inspection tests and diagnostics, including testing the cameras,
14 microphone, and touch functionality.
- 15 5) Powering down the iPhone.
- 16 6) Unscrewing the two bottom screws and lifting the screen assembly.
- 17 7) Inspecting the interior of the iPhone for fingerprints, dirt, scratches or dents.
- 18 8) Removing the screen assembly and visually inspecting it.
- 19 9) Checking the flex cables and connectors.
- 20 10) Closing the iPhone.

21 **INTERROGATORY NO. 2:**

22 IDENTIFY any written protocol(s) that were followed during each INSPECTION of
23 YOUR DEVICES.

24 **ANSWER:**

25 Plaintiff objects to the Interrogatory to the extent that it seeks documents protected from
26 disclosure by the attorney-client privilege, the work-product doctrine, or any other applicable
27 federal, state or local privilege or exemption from disclosure. Plaintiff further objects to the
28

1 Interrogatory on the grounds that it is vague and ambiguous.

2 Subject to, and without waiving Plaintiff's objections, the inspections did not have a written
3 protocol.

4 **INTERROGATORY NO. 3:**

5 IDENTIFY each PERSON who conducted or was present at each INSPECTION of YOUR
6 DEVICES (whether in person or via other means such as videoconference, Skype, etc.).

7 **ANSWER:**

8 Thang Huynh conducted each inspection. Plaintiff was also present at the inspections.

9 **INTERROGATORY NO. 4:**

10 Describe the manner in which each INSPECTION was documented.

11 **ANSWER:**

12 Plaintiff objects to the Interrogatory to the extent that it seeks documents protected from
13 disclosure by the attorney-client privilege, the work-product doctrine, or any other applicable
14 federal, state or local privilege or exemption from disclosure. Plaintiff further objects to the
15 Interrogatory on the grounds that it is vague and ambiguous.

16 Subject to, and without waiving Plaintiff's objections, the inspections were documented in
17 the photos produced on March 24, 2017, bates numbers CARTER000053-000148.

18 **INTERROGATORY NO. 5:**

19 Describe the manner in which YOU first learned of this ACTION, including the date and
20 the name of the PERSON with whom YOU first communicated with about this lawsuit.

21 **ANSWER:**

22 Plaintiff objects to the Interrogatory to the extent that it seeks documents protected from
23 disclosure by the attorney-client privilege, the work-product doctrine, or any other applicable
24 federal, state or local privilege or exemption from disclosure.

25 Subject to, and without waiving Plaintiff's objections, on or about October 11, 2016,
26 Plaintiff saw an ad on Facebook about the case and filled out an online form. Plaintiff does not
27 recall the exact Facebook ad he saw, but it was one of the advertisements produced at
28

1 CARTER000184-189; CARTER000190-193 is a copy of the landing page where Plaintiff was
2 directed when he clicked on the Facebook advertisement. The first person Plaintiff Carter
3 communicated with about this lawsuit was Audrey Moore on October 14, 2016.

4 **INTERROGATORY NO. 6:**

5 IDENTIFY all APPLE PRODUCTS YOU have purchased and/or used.

6 **ANSWER:**

7 Plaintiff objects to the Interrogatory on the grounds that it is overly broad, unduly
8 burdensome, vague and ambiguous, and seeks documents that are neither relevant nor reasonably
9 calculated to lead to the discovery of admissible evidence.

10 Subject to, and without waiving Plaintiff's objections, Plaintiff has personally owned the
11 following APPLE PRODUCTS: iPhone 4, iPhone 5, iPhone 5s, iPhone 6, iPhone 6 Plus, iPhone 7
12 Plus, iPad Air, iPad Air 2, Series 2 Apple Watch. and an Apple TV.

13 **INTERROGATORY NO. 7:**

14 IDENTIFY all SERVICE PLANS YOU have purchased and/or used.

15 **ANSWER:**

16 Plaintiff objects to the Interrogatory on the grounds that it is overly broad, unduly
17 burdensome, vague and ambiguous, and seeks documents that are neither relevant nor reasonably
18 calculated to lead to the discovery of admissible evidence.

19 Subject to, and without waiving Plaintiff's objections, Plaintiff purchased AppleCare+ for
20 his iPhone 6, iPhone 6 Plus, iPad Air, and Apple Watch. Plaintiff returned the Apple Watch after
21 three days and was also refunded the cost of the AppleCare+. Plaintiff used the AppleCare+ he
22 purchased for his iPhone 6 Plus for the replacements identified in the First Amended Complaint.
23 Plaintiff currently has a service plan through Verizon for his iPhone 7 Plus and iPad Air 2, and that
24 plan covered Plaintiff's iPad Air 2 when it stopped powering on.

1 DATED: July 18, 2017

HAGENS BERMAN SOBOL SHAPIRO LLP

2 By: /s/ Steve W. Berman

3 Shana E. Scarlett (SBN 217895)
4 715 Hearst Avenue
5 Berkeley, California 94710
6 Telephone: (510) 725-3000
7 Facsimile: (510) 725-3001
8 Email: shanas@hbsslaw.com

9 Steve W. Berman (*Pro Hac Vice*)
10 HAGENS BERMAN SOBOL SHAPIRO LLP
11 1918 Eighth Avenue, Suite 3300
12 Seattle, WA 98101
13 Telephone: (206) 623-7292
14 Facsimile: (206) 623-0594
15 Email: steve@hbsslaw.com

16 Robert B. Carey (*Pro Hac Vice*)
17 Michella A. Kras (*Pro Hac Vice*)
18 HAGENS BERMAN SOBOL SHAPIRO LLP
19 11 West Jefferson, Suite 1000
20 Phoenix, Arizona 85003
21 Telephone: (602) 840-5900
22 Facsimile: (602) 840-3012
23 Email: rob@hbsslaw.com
24 michellak@hbsslaw.com

25 Renee F. Kennedy (*Pro Hac Vice*)
26 P.O. Box 2222
27 Friendswood, Texas 77549
28 Telephone: (832) 428-1552
Email: kennedyrk22@gmail.com

Attorneys for Plaintiffs

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CERTIFICATE OF SERVICE

I hereby certify that on July 18, 2017, I served the foregoing Plaintiff Justin Carter's Responses to Defendants' First Set of Interrogatories upon the following counsel of record via electronic mail:

Penelope A. Preovolos	Purvi G. Patel
Margaret E. Mayo	MORRISON & FOERSTER LLP
MORRISON & FOERSTER LLP	707 Wilshire Boulevard
425 Market Street	Los Angeles, California 90017-3543
San Francisco, California 94105-2482	PPatel@mofocom
PPreovolos@mofocom	
MMayo@mofocom	

Counsel for Defendants, Apple Inc., AppleCare Service Company, Inc., and Apple CSC Inc.


DATED: July 18, 2017

/s/ Audrey Moore
Audrey Moore

VERIFICATION

I, Justin Carter, declare under penalty of perjury that all of the information provided in my Answers and Responses to Defendant Apple Inc., AppleCare Service Company, Inc. and Apple CSC Inc.'s First Set of Interrogatories are true and correct to the best of my knowledge.

Executed this 18th day of August, 2017.


Justin Carter

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Begin forwarded message:

From: Thang Huynh [REDACTED]
Date: October 18, 2016 at 11:49:03 AM EDT
To: Justin Carter [REDACTED]
Subject: Re: Justin Carter-Moultrie GA

Justin,
Which iPhone model will i inspect for you today? I'm still on the way there.

Thank you.

Thang Huynh

On Oct 17, 2016, 10:56 PM -0400, Justin Carter <[REDACTED]> wrote:

I work at Verizon so it would not really be good for you to do it inside the store.

The Address is 1430 US HWY 82 W
Tifton, GA 31793

Thanks,
Justin Carter
[REDACTED]

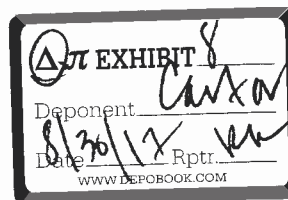
Sent from my iPhone

On Oct 17, 2016, at 10:42 PM, Thang Huynh <[REDACTED]> wrote:

Hi Justin,
No worries about late hour. I can meet you in Tifton. Please send address. I should be in Tifton around noon.

I need a place so I can set up my cameras. Do you have an office in can use? If not, I can work from my car.

Thank you.



Thang Huynh

On Oct 17, 2016 10:07 PM, "Justin Carter" [REDACTED]
wrote:

Hi I am sorry for such late contact I work in Tifton, GA if we could meet there tomorrow for you to inspect my phone? Give me a call or text and let me know I will be in Tifton from 930-7 tomorrow.

Thanks,

Justin Carter
[REDACTED]

Sent from my iPhone

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Begin forwarded message:

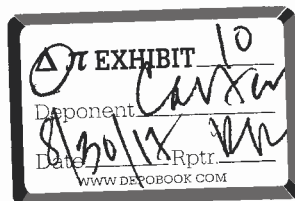
From: Apple <AppleSupport@email.apple.com>
Date: October 26, 2016 at 4:04:46 PM EDT
To: [REDACTED]
Subject: We got your repair request.
Reply-To: AppleSupport@email.apple.com



Hi Justin Carter,

Thanks for choosing Apple Support for your repair request. Be sure to read the important information at the end of this email.

1



CARTER000152



Problem Description: Display - Blank Black Screen-Power On

Serial Number: [REDACTED]

Repair ID: D214050864

[Track the status of your repair >](#)

What happens next?

Shipping

We'll send you the replacement product in a few days. You'll get an email with tracking information after the product has shipped.

Temporary authorization

We've placed a temporary authorization on your card. It's for \$599 ("Equipment Replacement Value"). If we receive your original product within ten business days and if we confirm that the product is eligible for service coverage, the temporary authorization will expire.

If we don't receive your product within ten days, or if our technicians find that the product has been subjected to accidental damage or unauthorized modifications, we'll charge you the Equipment Replacement Value. We'll send an email to let you know about this charge.

If we receive your product before the due date and find that it's not eligible for full coverage, but IS eligible for out-of-warranty service, we'll charge you the Out-of-Warranty Service Fee. Please find the Out-of-Warranty Service Fee for your product in

the list below. We'll send an email to let you know if we charge this fee.

If we receive your original product within the first ten days after the due date, and if our technicians confirm that it's eligible for service, we'll charge you the Late Fee. Please find the Late Fee for your product in the list below. We'll also give you a refund of the Equipment Replacement Value.

Express Replacement Service Fee

If your iPhone is covered by AppleCare+, there's no charge for this Express Replacement Service. If your iPhone is not covered by AppleCare+, you will be charged an Express Replacement Service fee of \$29.

Coverage

Based on the information you have provided, we believe that your repair will be covered by the warranty, AppleCare+, or an Apple repair program.

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Out-of-Warranty Service Fees:

iPhone 7 Plus: \$349

iPhone 6s Plus, iPhone 6 Plus: \$329

iPhone 7: \$319

iPhone 6s, iPhone 6: \$299

iPhone SE, iPhone 5s, iPhone 5c, iPhone 5: \$269

iPhone 4s: \$199

iPhone 4: \$149

Late Plus!

iPhone 7 Plus
32 GB: \$710
128 GB: \$260
256 GB: \$310

iPhone 7
32 GB: \$165
128 GB: \$215
256 GB: \$265

iPhone 6s Plus
16 GB: \$150
32 GB: \$160
64 GB: \$185
128 GB: \$210

iPhone 6s
16 GB: \$115
32 GB: \$125
64 GB: \$150
128 GB: \$175

iPhone 6 Plus
16 GB: \$110
64 GB: \$135
128 GB: \$260

iPhone 6
16 GB: \$75
64 GB: \$100
128 GB: \$225

iPhone SE
16 GB: \$65
64 GB: \$90

iPhone 5s
16 GB: \$90.50
32 GB: \$115.00
64 GB: \$290.00

iPhone 5c
8 GB: \$90.50
16 GB: \$140.00
32 GB: \$190.00

iPhone 5

iPhone 4s

32 GB: \$190
64 GB: \$240

iPhone 4s

8 GB: \$125.50
16 GB: \$150.00
32 GB: \$225.00
64 GB: \$275.00

iPhone 4

8 GB: \$150.50
16 GB: \$225.00
32 GB: \$250.00

If the repair is covered under the _____ an _____ or an _____, those terms and conditions will apply. Otherwise, the _____ apply. For your convenience, the terms and conditions are attached to this email.

WARNING: Apple has discovered that some of the unauthorized unlocking programs available on the Internet may cause irreparable damage to the operating system for your device. As part of the service process, Apple will update the operating system software to the latest version. **IF YOU HAVE MODIFIED THE OPERATING SYSTEM SOFTWARE, YOUR DEVICE MAY BECOME PERMANENTLY INOPERABLE WHEN APPLE UPDATES THE SOFTWARE.** Making unauthorized modifications to the operating system software violates Apple's software license agreement and the inability to use your device due to unauthorized software modifications is not covered under your hardware.

Apple Inc.
BEAR License Number: E78234

APPLECARE MAIL-IN REPAIR SERVICE LOCATION:

Apple Service Center
3011 Laguna Blvd.
Elk Grove, CA 95756
BEAR License Number: E82824

Apple may charge you a diagnostic fee, including shipping charges, of no more than one hundred (\$100) dollars US, plus applicable tax, if Apple inspects your product and determines based on the inspection that the product does not require service. If Apple determines while inspecting your product, that service is needed due to the failure of parts that are neither supplied by Apple nor Apple-branded, Apple may return the product to you without servicing it, and may charge you the diagnostic fee plus applicable sales tax.

Please note that if you decline service because the repair is not covered by Apple or no issue is found with the product, a diagnostic fee of no more than \$100 USD may be charged.

You are entitled to a written estimate of the cost of repairs. The estimate must include all costs for parts and labor. Apple will not charge for work done or parts supplied in excess of the estimate unless you, the customer, approve the additional charge. This estimate of repair charges is valid for 30 days from the date of estimate. You must notify Apple if you claim a tax exemption and provide Apple with a tax exemption number at the time you receive this estimate. The cost of shipping is included in the estimate.

Appri, Inc. (PO Box 171, EURE (800-275-2273) | Infinite Loop, Cupertino, CA 95111)

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Begin forwarded message:

From: Apple <AppleSupport@email.apple.com>
Date: October 26, 2016 at 9:03:11 PM EDT
To: [REDACTED]
Subject: Your replacement product has shipped.
Reply-To: AppleSupport@email.apple.com



On its way!

We've shipped the replacement product you requested. You should receive it in about two business days.

Model
IPHONE 6 PLUS

1



CARTER000202

Repair ID

D214050864

Tracking number

FedEx [708427162260](#)

(active within 24 hours)

An adult will need to sign for the package, otherwise the courier will return the next business day.

Serial number of original product

██████████

Serial number of replacement product

F9CSC0TNG5QL

IMEI of original product

359320061903570

IMEI of replacement product

359322061861543

MEID of original product

35932006190357

MEID of replacement product

35932206186154

We're including shipping materials as well as instructions for sending your original product back to us. Be sure to send us only the item you're replacing. If you include extra items in the package, we won't be able to return them to you. To avoid being

charged a non-return fee, make sure we receive your original product by 2016-11-09.

Please keep this email. It shows that your product's identification numbers have changed with this repair. You can track this request at our [Repair Status](#) website.

Thanks,
Apple Support

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Begin forwarded message:

From: Justin Carter <[REDACTED]>
Date: October 26, 2016 at 8:36:10 PM EDT
To: Thang Huynh <[REDACTED]>
Subject: Re: iPhone 6 Plus

The phone will be delivered before 430 tomorrow via FedEx. If you want to come get it then I will let you get it and take pictures before I even restore my info to show that if this one is open, bent or has fingerprints inside then it came from Apple that way.

Sent from my iPhone

On Oct 26, 2016, at 8:30 PM, Thang Huynh <[REDACTED]> wrote:

Hi Justin,

I heard you would receive a new phone either tomorrow or Friday. When can we meet?

Thank you

Thang Huynh



CARTER000174

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Begin forwarded message:

From: Apple <noreply@email.apple.com>
Date: November 2, 2016 at 3:31:39 PM EDT
To: [REDACTED]
Subject: Your repair request is pending.



One more step.

Hi Justin,

To finish creating your repair request, please click this button and provide payment information. This transaction will expire on 2016-11-12.

1



CARTER000180

Pay Securely

Repair ID: D214954642

Thanks,
Apple Support

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VERIZON WIRELESS
1120 Sanctuary Pkwy
Alpharetta, GA 30009-7629
(000)000-0000

DUPLICATE

Order Location: Q2742 01 #342905 Pmt 1 of 1
Order Type: PS
Receive Location: Q2742 01 Register: 11
11/01/16 18:18 ESC - ENC

	Retail Cost	Sale Price
EMBD4GSIM-N 4G		\$0.00
MGCF2LL/A IPHO	\$549.99	\$549.99
SHP002 2 DAY B		\$0.00
UPGRADEFEE20 U		\$0.00
WAR6002 1 YR.		\$0.00
Tax on Phones:		\$38.50
Other Tax:		\$0.00
Total Tax:		\$38.50
Total:		\$588.49
This Payment:		\$588.49

A/C

Mobile # [REDACTED]

Signature: _____

Return Policy

New and Certified Pre-Owned merchandise items in like-new condition may only be returned or exchanged within 14 days. You are permitted to make one exchange.

A restocking fee of \$35 applies to any return or exchange of a wireless device (excluding Hawaii). See vzw.com/returnpolicy for complete details.

To receive a credit for the activation fee, cancellations must occur within 3 days of activation of service.

Thank You!



CARTER000209

Sent from my iPhone

Begin forwarded message:

From: Apple <AppleSupport@email.apple.com>
Date: November 3, 2016 at 11:03:12 AM EDT
To: [REDACTED]
Subject: Your replacement product has shipped.
Reply-To: AppleSupport@email.apple.com



On its way!

We've shipped the replacement product you requested. You should receive it in about two business days.

Model
IPHONE 5 PLUS

Repair ID
D214954642

Tracking number
FedEx [708427381168](https://www.fedex.com/track/708427381168)
(active within 24 hours)

An adult will need to sign for the package, otherwise the courier will return the next business day.

Serial number of original product
F9CSC0TNG5QL

Serial number of replacement product
DTRSG0D5G5QL

IMEI of original product
359322061881543

IMEI of replacement product
Not applicable

MEID of original product
35932206188154

MEID of replacement product
Not applicable

We're including shipping materials as well as instructions for sending your original product back to us. Be sure to send us only the item you're replacing. If you include extra items in the package, we won't be able to return them to you. To avoid being charged a non-return fee, make sure we receive your original product by 2016-11-17.

Please keep this email. It shows that your product's identification numbers have changed with this repair. You can track this request at our [Repair Status](#) website.

Thanks,
Apple Support

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CARTER000149

Exhibit B

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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

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VICKY MALDONADO AND JUSTIN : Case No.
CARTER, individually and on : 3:16-cv-04067-WHO
behalf of themselves and all :
others similarly situated, :
Plaintiffs, :
v. :
APPLE INC., APPECARE SERVICE :
COMPANY, INC., and APPLE CSC :
INC., :
Defendants. :

-----x

VIDEOTAPED DEPOSITION OF VICKY MALDONADO
San Francisco, California
Monday, October 9, 2017
10:11 a.m.

Job No.: 159640
Pages: 1 - 112
Reported By: Charlotte Lacey, RPR, CSR No. 14224

Transcript of Vicky Maldonado
Conducted on October 9, 2017

9

1	Depos.	10:13:06
2	Would the reporter please administer the oath.	10:13:11
3	VICKY MALDONADO,	10:13:11
4	the witness herein, having been first duly sworn, was	10:13:11
5	examined and testified as follows:	10:13:26
6	THE VIDEOGRAPHER: Please begin.	10:13:26
7	EXAMINATION	10:13:27
8	BY MS. MAYO:	10:13:27
9	Q Good morning, Ms. Maldonado.	10:13:28
10	A Good morning.	10:13:28
11	Q My name is Maggie Mayo. I represent Apple,	10:13:28
12	AppleCare Service Company, Inc., and Apple CSC, Inc.	10:13:28
13	Could you please state your name for the	10:13:34
14	record.	10:13:36
15	A Vicky Maldonado.	10:13:36
16	Q And will you spell that for the record as	10:13:37
17	well.	10:13:42
18	A Vicky is V-i-c-k-y; Maldonado is	10:13:42
19	M-a-l-d-o-n-a-d-o.	10:13:48
20	Q Have you ever been deposed before?	10:13:48
21	A No.	10:13:50
22	Q Have you ever testified in court before?	10:13:50
23	A No.	10:13:52
24	Q Do you understand that a deposition is	10:13:53
25	proceeding under oath, just as if you were testifying in	10:13:55

Transcript of Vicky Maldonado
Conducted on October 9, 2017

31

1	something that you would consider to be used?	10:42:36
2	A Something that is used, it won't perform the	10:42:38
3	same way as a new device.	10:42:41
4	Q And putting aside, you know, devices for the	10:42:43
5	moment, can you think of something else that you would	10:42:48
6	think of that would be used?	10:42:49
7	A Some shoes. If you buy used shoes, the other	10:42:51
8	person probably -- even if it's the same size, you know,	10:42:57
9	they wear different. So unless you put them on, they	10:43:01
10	might be bad for your feet. I don't know. So.	10:43:05
11	Q So used shoes meaning someone else has worn	10:43:07
12	those shoes?	10:43:13
13	A That's right.	10:43:13
14	Q Can you tell me what the term "new" means to	10:43:14
15	you?	10:43:16
16	A New is new. New is new.	10:43:16
17	Q Can you give me an example of something that	10:43:19
18	would be new?	10:43:24
19	A Something that is new, it's something that	10:43:24
20	nobody -- no one used. Something that when you open,	10:43:26
21	everything is completely new. You start fresh.	10:43:31
22	Q Can you tell me in your own words what the	10:43:35
23	phrase "equivalent to new in performance and	10:43:38
24	reliability" means?	10:43:40
25	A Used.	10:43:43

Transcript of Vicky Maldonado
Conducted on October 9, 2017

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1	Q	Did you ever take it to any third-party repair	11:42:11
2		place?	11:42:15
3	A	No.	11:42:15
4	Q	After the iPad third generation -- or strike	11:42:36
5		that.	11:42:40
6		Other than the iPad third generation that you	11:42:40
7		bought, what's the next iPad you bought? Not including	11:42:44
8		the replacements of the iPad third generation.	11:42:48
9	A	I bought the newest right after that one. I	11:42:52
10		don't know if it was the fourth generation or -- I don't	11:42:57
11		understand those terms, so...	11:43:00
12	Q	So you were buying the next one that came out?	11:43:02
13		Which I can tell you was the fourth generation.	11:43:07
14	A	Okay. Yeah.	11:43:11
15	Q	Why did you buy the iPad fourth generation?	11:43:13
16	A	Because this one wasn't functioning properly.	11:43:16
17	Q	When did you buy the iPad fourth generation?	11:43:19
18	A	Wow. I just don't know the exact date.	11:43:30
19		(Deposition Exhibit 31 was marked for	11:44:02
20		identification.)	11:44:04
21	Q	And let me know if you need a break anywhere	11:44:04
22		in here.	11:44:07
23	A	I'm good.	11:44:07
24	Q	The court reporter has handed you what has	11:44:08
25		been marked as Exhibit 31, which is Bates stamped	11:44:11

Transcript of Vicky Maldonado
Conducted on October 9, 2017

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1	MALDONADO	1 to 2. Have you seen this document before?	11:44:14
2	A	Yes.	11:44:18
3	Q	What is it?	11:44:19
4	A	It's a receipt when I purchased the	11:44:21
5		fourth generation.	11:44:24
6	Q	Where did you find this document?	11:44:27
7	A	This one -- this one, I think I had a hard	11:44:35
8		copy also, on my hand.	11:44:40
9	Q	Okay. Did you e-mail it to yourself?	11:44:42
10	A	I probably did. I don't remember, but I'm	11:44:47
11		pretty sure I had an original copy with me.	11:44:50
12	Q	Did you retain that original copy?	11:44:52
13	A	Yeah.	11:44:55
14	Q	And do you still have it today?	11:44:56
15	A	Yes.	11:44:58
16	Q	What caused you to save that hard copy?	11:44:59
17	A	That's a good question. I don't know.	11:45:04
18	Q	Where do you keep -- where did you keep it?	11:45:07
19	A	With all the papers, I guess.	11:45:11
20	Q	Do you have a certain place where you keep	11:45:13
21		papers like this?	11:45:16
22	A	Yes, I have a file cabinet.	11:45:17
23	Q	Is that at work or at home?	11:45:19
24	A	At home.	11:45:22
25	Q	Do you recall if that's where you found this	11:45:24

Transcript of Vicky Maldonado
Conducted on October 9, 2017

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1	document?	11:45:26
2	A Yes.	11:45:27
3	Q Is that where you found the document?	11:45:29
4	A I -- I think that's where I found it. I don't	11:45:31
5	know.	11:45:35
6	Q I was just clarifying my question since it	11:45:35
7	said -- I had asked you if you recalled. So now I have	11:45:39
8	to ask the question of whether that's actually where you	11:45:41
9	found it.	11:45:45
10	A I found it. I don't know exactly where. But	11:45:46
11	it -- if it was at home for sure.	11:45:48
12	Q Okay. You bought the -- the iPad fourth	11:45:50
13	generation at the First Colony Mall store; is that	11:45:55
14	right?	11:46:01
15	A That's right.	11:46:01
16	Q When you purchased that, did you have a	11:46:02
17	conversation with -- with the store or, you know, Apple	11:46:07
18	employee about the purchase?	11:46:11
19	A I don't remember exactly but... I just wanted	11:46:15
20	it 'cause I needed another device and I purchased this	11:46:23
21	one. But I just don't remember talking about it.	11:46:27
22	Q Why did you need another device?	11:46:31
23	A The other one wasn't working properly.	11:46:33
24	Q Did you -- at that -- at this time in -- in	11:46:35
25	September of 2013, seek any assistance on that -- on the	11:46:37

Transcript of Vicky Maldonado
Conducted on October 9, 2017

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1 during that transaction? 11:48:10

2 A I don't remember. 11:48:11

3 Q But you remember what they told you? 11:48:16

4 A I remember they tried to -- always try to sell 11:48:18

5 you a warranty, and at that moment I bought it. Don't 11:48:22

6 remember exactly what we talked about. But I know if I 11:48:25

7 bought it, it's because they -- they offered. 11:48:30

8 Q Once you bought the -- this iPad fourth 11:48:38

9 generation, tell me about your experiences with that 11:48:41

10 iPad. 11:48:44

11 A It was -- it was working -- it was working 11:48:46

12 good for -- for the beginning. Then I remember bringing 11:48:50

13 it back because I was -- I was having technical issues, 11:48:58

14 you know. Don't remember exactly. And they -- they 11:49:01

15 kept the iPad, and they said they were going to fix the 11:49:07

16 problem. And when they called me that it was ready to 11:49:12

17 be picked up, I came back, and they gave me -- they told 11:49:18

18 me that they couldn't fix it, that they were going to 11:49:22

19 give me another one. 11:49:25

20 When they gave me another one, same thing 11:49:27

21 happened. The device that I took with me, which from my 11:49:30

22 understanding was a brand-new device, was not working 11:49:34

23 properly. It was turning on and off, and it even had 11:49:37

24 information from other people. Then I called, and they 11:49:41

25 told me to bring it back, and they replaced it with 11:49:44

Transcript of Vicky Maldonado
Conducted on October 9, 2017

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1	another one.	11:49:49
2	Q To break that down a little bit, when -- or	11:49:52
3	how long after buying the iPad did you go to Apple to	11:49:57
4	talk -- to talk about issues you were having?	11:50:01
5	A I think it was within the same year, but I	11:50:06
6	don't remember exactly the dates.	11:50:08
7	Q Before you came into Apple, did you do	11:50:12
8	anything else to try to correct issues you were	11:50:14
9	experiencing?	11:50:17
10	A No.	11:50:17
11	Q And about how long after buying the iPad did	11:50:20
12	you start experiencing these issues?	11:50:23
13	A I don't remember exactly the time, you know.	11:50:27
14	But maybe a couple months. I'm just guessing.	11:50:30
15	Q And I don't want you to guess. But if you	11:50:37
16	can --	11:50:41
17	A Oh, I don't remember. I just don't remember.	11:50:41
18	Q So was the first thing you did once you	11:50:50
19	started to experience issues was to go into the Apple	11:50:52
20	Store or to call?	11:50:56
21	A I don't remember if I called. I don't	11:50:57
22	remember if I called. But I know I went to an Apple	11:51:01
23	Store.	11:51:04
24	Q And what did you tell them?	11:51:10
25	A I bought the device. I told them that I had	11:51:13

Transcript of Vicky Maldonado
Conducted on October 9, 2017

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1	some issues.	11:51:16
2	Q What issues did you tell them that you were	11:51:17
3	having?	11:51:19
4	A I told them that my -- it was just not working	11:51:20
5	properly. It was really slow, and it was -- sometimes I	11:51:23
6	would see like a black screen, and -- and it would turn	11:51:29
7	off automatically. And that's when they took and tried	11:51:32
8	to fix it, I guess.	11:51:37
9	Q Any other issues?	11:51:38
10	A Not that I remember.	11:51:40
11	Q Before you came in, did you buy any other iPad	11:51:45
12	during that time?	11:51:49
13	A No.	11:51:50
14	Q Did you buy an iPad 2nd generation at any	11:51:50
15	point in time?	11:51:58
16	A I don't recall.	11:51:58
17	Q Is there anything that would refresh your	11:52:00
18	recollection?	11:52:05
19	A No. Not at this point.	11:52:05
20	Q Do you recall ever using an iPad 2nd	11:52:11
21	generation?	11:52:14
22	A I don't remember.	11:52:15
23	Q Is there anyone else who uses your Apple	11:52:21
24	account?	11:52:26
25	A Not that I know.	11:52:26

Transcript of Vicky Maldonado
Conducted on October 9, 2017

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1	Q	And did not find any one that looked like	12:54:21
2		this?	12:54:24
3	A	Nope.	12:54:24
4	Q	When you went in to pick up the -- your	12:54:40
5		replacement iPad, did you have any questions about it?	12:54:46
6	A	No. I just picked it up. I remember asking	12:54:51
7		them what was the problem, and they said we couldn't	12:54:55
8		repair it so they handed me another one.	12:54:59
9	Q	And what happened next?	12:55:02
10	A	Then I tried to use it, and it was not	12:55:04
11		working.	12:55:07
12	Q	How soon after you received it?	12:55:08
13	A	Immediately.	12:55:10
14	Q	All right. Do you remember -- did you go	12:55:11
15		home, or did you try to use it in the store?	12:55:13
16	A	I think I tried to turn it on in the store.	12:55:16
17		Then I went all the way to the car. I looked at it,	12:55:19
18		turned it on. It did turn on. By the time I got home,	12:55:27
19		it was going on and off, on and off, and it had some	12:55:31
20		other people's information on the iPad.	12:55:34
21	Q	All right. Did you take any pictures of it?	12:55:37
22	A	No.	12:55:40
23	Q	What other information was on there?	12:55:40
24	A	I think I saw, maybe, a picture or something	12:55:42
25		that didn't belong to -- to me.	12:55:44

Transcript of Vicky Maldonado
Conducted on October 9, 2017

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1	Q	What kind of picture?	12:55:45
2	A	I don't know. It was just an image. I don't	12:55:47
3		remember exactly what it was.	12:55:50
4	Q	So --	12:55:51
5	A	And it was turning on and off, and that's when	12:55:51
6		I immediately called, and I say, "I just picked up my	12:55:55
7		iPad and it's -- it's not working." So they asked me to	12:55:59
8		bring it back.	12:56:02
9	Q	You called that same day?	12:56:03
10	A	Yes.	12:56:05
11	Q	And when did you bring it back?	12:56:05
12	A	Same day.	12:56:07
13	Q	Other than a photo, was there any other	12:56:11
14		information you saw on the iPad?	12:56:17
15	A	I don't remember. Don't remember.	12:56:18
16	Q	What happened when you brought it back to the	12:56:27
17		iPad -- or Apple Store?	12:56:29
18	A	They -- they got it back, and they took it to	12:56:29
19		the back, and they said that they were going to give me	12:56:32
20		another one because -- yeah. They determined that it	12:56:35
21		wasn't working properly.	12:56:39
22	Q	And -- and they gave you another replacement	12:56:40
23		that same day?	12:56:43
24	A	I think they did, yes.	12:56:44
25	Q	If you could turn to Exhibit 33. Have you --	12:56:57

Transcript of Vicky Maldonado
Conducted on October 9, 2017

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1	A	Yes.	13:00:28
2	Q	And -- and tell me about the rest of your	13:00:29
3		experiences with it?	13:00:31
4	A	Well, use it just to, you know, like, watch a	13:00:32
5		movie while I was on the plane.	13:00:36
6	Q	Uh-huh.	13:00:39
7	A	And maybe listen to music. I didn't have the	13:00:39
8		WiFi, you know, feature for that one, so I didn't really	13:00:46
9		know exactly...	13:00:51
10	Q	You didn't have the WiFi feature meaning --	13:00:52
11	A	You know, like the Internet, you know. I --	13:00:57
12		if I -- if I didn't -- if I was on a plane, I didn't --	13:00:59
13		I couldn't use, you know, the device.	13:01:04
14	Q	Meaning you didn't pay for the plane's WiFi?	13:01:05
15	A	Right.	13:01:09
16	Q	Is that the iPad that you're still using	13:01:11
17		today?	13:01:14
18	A	No.	13:01:14
19	Q	What's the iPad that you're using today?	13:01:15
20	A	It's an older -- older one. And I don't	13:01:17
21		really use it. It's just there for music. It's at home	13:01:20
22		and...	13:01:24
23	Q	How long did you use the -- the second iPad	13:01:25
24		four -- fourth generation replacement?	13:01:30
25	A	I really don't remember exactly. For the	13:01:32

Transcript of Vicky Maldonado
Conducted on October 9, 2017

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1 dates, I'm pretty sure it was not too long because I 13:01:35
2 was -- that's around the time that I took off to my 13:01:38
3 mission trip. So I didn't use it for -- for too long, 13:01:40
4 but I don't know exactly how long. 13:01:43

5 Q But you said you brought it with you on your 13:01:45
6 mission trip? 13:01:48

7 A Yeah, I brought it on my mission trip from -- 13:01:48
8 from Houston, Atlanta and Atlanta to LA, and then to 13:01:52
9 Brisbane, Australia, and it was stolen on -- on the 13:01:57
10 plane. I don't know -- 13:02:03

11 Q Oh, it was stolen on the plane? 13:02:03

12 A Yeah. 13:02:07

13 Q Oh, sorry. I missed that. 13:02:08
14 When was it stolen? 13:02:08

15 A It was right on -- I believe it was around 13:02:09
16 September. That's when my mission trip, I believe it 13:02:14
17 was. 13:02:14

18 Q Was that at the end of your mission trip? 13:02:14

19 A No. It was at the beginning. I wasn't even 13:02:17
20 on my mission. I was going to my mission trip. 13:02:19

21 Q In September of what year? 13:02:23

22 A I think it was September 2015. That's my 13:02:25
23 mission trip. 13:02:28

24 Q That was the mission trip you left on soon 13:02:36
25 after getting the second replacement? 13:02:40

Transcript of Vicky Maldonado
Conducted on October 9, 2017

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1	A	Correct.	13:02:42
2	Q	You can put that down. You don't need to keep	13:02:47
3		holding that.	13:02:51
4		How -- how was it stolen?	13:03:00
5	A	It -- you know, I was -- I remember I was	13:03:03
6		watching a movie, and I -- we had a huge layover between	13:03:06
7		Atlanta to LA, and I don't know exactly if it was stolen	13:03:13
8		on the plane from Atlanta to -- from Houston to Atlanta	13:03:17
9		or from Atlanta to -- to Los Angeles.	13:03:24
10	Q	Uh-huh.	13:03:30
11	A	I just don't remember exactly. I'm trying to	13:03:31
12		go back, and I just don't remember exactly. But it was	13:03:35
13		in between -- but it was in the U.S. It wasn't in	13:03:37
14		Australia, I think. Because once we catch a flight	13:03:39
15		after seven, nine hours of layover in Los Angeles, it	13:03:43
16		was gone.	13:03:50
17	Q	Were you -- is -- this was while you were on a	13:03:50
18		flight or while in the airport?	13:03:56
19	A	That, I don't know exactly.	13:04:00
20	Q	You don't remember?	13:04:01
21	A	No, I don't remember.	13:04:01
22	Q	Did you do anything to try to recover it?	13:04:02
23	A	Oh, yeah. I called Apple and I gave them the	13:04:08
24		serial number and everything. And I have an app that	13:04:12
25		says, you know, "Find My iPad," and I -- I just couldn't	13:04:16

Transcript of Vicky Maldonado
Conducted on October 9, 2017

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1 recover. I went to delta.com so I can go to the lost 13:04:18
2 and stolen department and did everything to recover it, 13:04:22
3 but no luck. 13:04:25

4 Q When you did the Find My iPad app, what showed 13:04:27
5 up? 13:04:31

6 A Nothing. 13:04:32

7 Q It didn't have any -- 13:04:32

8 A No. 13:04:35

9 Q -- location? 13:04:36

10 A Nope. 13:04:37

11 Q Was that feature turned on? 13:04:37

12 A I don't know. 13:04:40

13 Q Have you lost any -- or lost or stolen -- or 13:04:41
14 had any other iPads stolen? 13:04:45

15 A No. 13:04:48

16 Q Can you tell me about the timing of this 13:04:51
17 mission trip? When -- when did you leave? 13:04:54

18 A I don't know exactly the date, but it was back 13:04:56
19 in 2015. 13:04:59

20 Q Was it in the summer, our summer? 13:05:00

21 A It was like -- it was summer here, yes, 13:05:03
22 definitely. Gosh, it's -- I don't know exactly the 13:05:07
23 dates. I have it on my passport, but -- because it was 13:05:12
24 like a -- from here to Brisbane. We were there on a 13:05:18
25 mission trip for about five days, and then we end up -- 13:05:22

Transcript of Vicky Maldonado
Conducted on October 9, 2017

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1 we went another four, five days to Singapore, and our 13:05:25
2 final destination was Thailand, and we were there for 13:05:31
3 another week. And then we came back in the States. So 13:05:35
4 I really don't remember the exact -- I've done so many 13:05:35
5 of them. 13:05:37
6 Q How long was this trip in total? 13:05:38
7 A It was almost two weeks. 13:05:41
8 Q When you came back, did you buy another iPad? 13:05:51
9 A No. I didn't bought another iPad for me. 13:05:55
10 Q Did you have another one that you started 13:05:59
11 using? 13:06:02
12 A I had an old one. I just don't know which one 13:06:02
13 it is. 13:06:05
14 Q And you said the current one you're using 13:06:16
15 is -- the color is silver? 13:06:19
16 A Silver-white, yeah. Silver. 13:06:21
17 Q Silver? 13:06:24
18 A I think it's, like, the oldest ones. I 13:06:29
19 don't -- I don't remember. 13:06:33
20 Q Okay. 13:06:33
21 A It's -- I think it's more white than silver. 13:06:33
22 I don't know. It's just old. 13:06:38
23 Q I'm handing you what has been marked as 13:07:13
24 Exhibit 20 to the deposition of Justin Carter. If you 13:07:17
25 could flip to page 10 of this document, which is the 13:07:23

Transcript of Vicky Maldonado
Conducted on October 9, 2017

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1	you -- you have seen this document before; is that	14:00:25
2	correct?	14:00:27
3	A I have seen it, yes.	14:00:27
4	Q And you just don't recall if or when you read	14:00:29
5	it; is that correct?	14:00:31
6	A I don't recall when I read it, yes.	14:00:32
7	Q Okay. And if you look at the first page under	14:00:34
8	3.1 B -- let me see.	14:00:39
9	Can you -- can you read that out loud just for	14:00:49
10	the record?	14:00:53
11	A Which one is it you said?	14:00:53
12	Q 3.1 B.	14:00:55
13	A 3.1 B.	14:00:58
14	Q Yes.	14:00:59
15	A You want me to read from here?	14:01:00
16	Q Yes.	14:01:02
17	A "Exchange the covered iPad with a replacement	14:01:03
18	product that is new or the equivalent to new in	14:01:08
19	performance and reliability."	14:01:12
20	Q Okay. You can stop there. And as you sit	14:01:14
21	here today, what is your understanding of the term "new	14:01:18
22	or equivalent to new"?	14:01:20
23	A New. It's new.	14:01:23
24	Q And why do you think "equivalent to new" means	14:01:25
25	new?	14:01:28

Transcript of Vicky Maldonado
Conducted on October 9, 2017

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1	A	Equivalent to new for me is -- is new.	14:01:28
2	Q	Okay.	14:01:33
3		MS. KRAS: I don't have any further questions.	14:01:35
4		I knew you were going to follow up, but...	14:01:39
5		FURTHER EXAMINATION	14:01:42
6		BY MS. MAYO:	14:01:42
7	Q	With respect to -- you said Ms. Kennedy	14:01:42
8		e-mailed you the agreement that you then signed,	14:01:44
9		correct?	14:01:47
10	A	Correct.	14:01:48
11	Q	When exactly did she e-mail it to you?	14:01:48
12	A	When she was meeting me at the office.	14:01:52
13	Q	During the meeting in your office?	14:01:56
14	A	In my office, yes.	14:01:58
15	Q	Earlier, you testified that "equivalent to new	14:02:03
16		in performance and reliability" meant "used" to you;	14:02:06
17		isn't that correct?	14:02:11
18	A	I didn't understand your question. I was a	14:02:11
19		little confused. Now that I can read a little bit, kind	14:02:13
20		of, refresh, it's just a lot.	14:02:28
21	Q	Can you explain why you think equivalent to	14:02:31
22		new in performance or reliability -- or, you know,	14:02:33
23		explain your -- your meaning of that.	14:02:37
24	A	Well, when you asked me, I was a little	14:02:39
25		confused. Now that I read it, as she's telling me, the	14:02:42

Transcript of Vicky Maldonado
Conducted on October 9, 2017

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CERTIFICATE OF SHORTHAND REPORTER

1
2
3 I, Charlotte Lacey, the officer before whom the
4 foregoing deposition was taken, do hereby certify that
5 the foregoing transcript is a true and correct record of
6 the testimony given; that said testimony was taken by me
7 stenographically and thereafter reduced to typewriting
8 under my direction; that reading and signing was
9 requested; and that I am neither counsel for, related
10 to, nor employed by any of the parties to this case and
11 have no interest, financial or otherwise, in its
12 outcome.

13
14 IN WITNESS WHEREOF, I have hereunto subscribed my
15 hand this 18th day of October, 2017.

16
17
18 

19 Charlotte Lacey, RPR, CSR #14224
20
21
22
23
24
25



Apple Store, First Colony Mall
 16535 Southwest Freeway, Suite 8
 Sugarland, TX 77479
 firstcolonymall@apple.com
 281.269.3410

www.apple.com/retail/firstcolonymall

September 09, 2013 04:16 PM

VICKY MALDONADO
 vickyandabraham@msn.com

iPad Wi-Fi Cellular 64GB White \$ 829.00

Part Number: MD521LL/A
 Serial Number: DMPKNOFZF18G
 ICCID Number: 89014104254962693704
 IMEI Number: 013367009297258
 Return Date: Sep. 23, 2013
 For Support, Visit: www.apple.com/support

AT&T Account Information
 No Wireless Service Activation during iPad Sale

APPLECARE+ FOR IPAD \$ 99.00

Part Number: S4736LL/A
 Agreement Number: 970205013001532
 Plan End Date: Sep. 09, 2015
 Sales Associate ID : 2022639766
 Serial Number: DMPKNOFZF18G

This plan is registered automatically.
 Verify your coverage at
apple.com/support/applecare/ww/

Terms & Conditions:
apple.com/legal/applecareplus/terms/ipad
 For Support, Visit:
www.apple.com/support

Use of iPad constitutes acceptance of the iPad terms and conditions and other third party terms and conditions found in the iPad box, or at <http://www.apple.com/legal/sla/> This iPad model is configured to work only with the wireless services of AT&T Wireless

The sales tax for iPad varies by state and may be based on the unbundled purchase price rather than the actual purchase price.

If you are not fully satisfied with your iPad purchase, you can return your undamaged iPad within 14 days of purchase for a full refund with no restocking fee.

If you disagree with these terms and conditions you can return the iPad in accordance with the Apple Store's return policy http://www.apple.com/legal/sales_policies/retail.htm

For information on Apple's privacy policy see www.apple.com/privacy

Sub-Total	\$ 928.00
Tax@8.25%	\$ 76.56
Total	\$ 1,004.56
Amount Paid Via Master Card (A)	\$ 1,004.56
xxxxxxxxxxxx7186	
06268P	

Exhibit 31
Witness: Maldonado
Date: 10/9/17
Charlene Lacey, RPR
 CSR #14224



* R 2 0 5 6 1 2 2 9 5 4 *

http://www.apple.com/legal/sales_policies/retail.html
Tell us about your experience at the Apple Store.
Visit www.apple.com/feedback/retail.html

Exhibit C

**REDACTED VERSION OF DOCUMENT
SOUGHT TO BE SEALED**

1
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3
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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

- - - - -x
VICKY MALDONADO AND JUSTIN : No. 3:16-cv-04067-WHO
CARTER, individually and on :
behalf of themselves and all :
others similarly situated, :
Plaintiffs, :
v. :
APPLE INC., APPECARE SERVICE :
COMPANY, INC., AND APPLE CSC :
INC., :
Defendants. :
- - - - -x

** HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY **

VIDEOTAPED DEPOSITION OF AVIJIT SEN
Redwood City, California
Tuesday, October 9, 2018
10:00 a.m.

Job No.: 209319
Pages: 1 - 147
Reported By: Charlotte Lacey, RPR, CSR No. 14224

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Transcript of Avijit Sen

Conducted on October 9, 2018

7

1 the oath to the witness. 10:01:19

2 AVIJIT SEN, 10:01:19

3 the witness herein, having been first duly sworn, was 10:01:19

4 examined and testified as follows: 10:01:33

5 THE VIDEOGRAPHER: Please begin, Counsel. 10:01:33

6 MR. CAREY: Thank you. 10:01:35

7 EXAMINATION 10:01:36

8 BY MR. CAREY: 10:01:36

9 Q Sir, could you state your name and spell it 10:01:38

10 for the record. 10:01:39

11 A Sure. My name is Avijit Sen. The first name 10:01:39

12 is spelled A-v-i-j-i-t; last name is Sen, S-e-n. 10:01:45

13 Q Have you ever had your deposition taken 10:01:48

14 before? 10:01:49

15 A Yep. 10:01:50

16 Q How many times? 10:01:50

17 A Once. 10:01:51

18 Q When was that? 10:01:52

19 A Three or four years ago. 10:01:54

20 Q Was it on behalf of Apple? 10:01:56

21 A Yes. 10:01:59

22 Q And what was -- so you did it as a part of 10:01:59

23 your employment? 10:02:03

24 A Yeah. 10:02:06

25 Q Okay. 10:02:06

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Transcript of Avijit Sen
Conducted on October 9, 2018

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1 A No. I didn't write -- I didn't write it, but 10:42:01
2 my team supplied some of the data -- supplied the data 10:42:06
3 in the exhibit. 10:42:11
4 Q Okay. So Exhibit -- you're referring to 10:42:11
5 Exhibit A and -- I think it's Exhibit A and B. Let me 10:42:12
6 look. 10:42:12
7 Exhibit A and Exhibit B on the back are the 10:42:16
8 tables that were provided by you for your team? 10:42:19
9 A Yes. Correct. 10:42:23
10 Q All right. If you could look on page 4 of the 10:42:25
11 text. I think I understand DPPM, but I just want to 10:42:30
12 make sure we're -- 10:42:38
13 THE WITNESS: Oh, thank you. 10:42:40
14 MS. PATEL: You're welcome. 10:42:41
15 Q -- both on the same page here. 10:42:42
16 A Uh-huh. 10:42:42
17 Q The DPPM, when it's talking about parts per 10:42:47
18 million, is it talking about unit failures? Or is it 10:42:52
19 actually talking about parts within the units? 10:42:55
20 A In the -- so I'll elaborate a little bit and 10:42:57
21 kind of describe this -- 10:43:00
22 Q Sure. 10:43:00
23 A -- the easiest way I can. 10:43:02
24 So DPPM reflects a rate of a certain amount of 10:43:05
25 event. Over here, it -- it says, "Defective parts per 10:43:08

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Transcript of Avijit Sen
Conducted on October 9, 2018

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1 million," but what's in these exhibits, really 10:43:10
2 reflecting a record of interactions between customers 10:43:14
3 who possess these iPhones and iPads with the contracts 10:43:16
4 and their interaction with Apple customer service and 10:43:19
5 outcomes in which a replacement product was provided. 10:43:23
6 So DPPM is just a -- an industry term used for 10:43:26
7 rate, and it's out of a million events. 10:43:33
8 Q Okay. 10:43:36
9 A Out of a million -- it's -- it's events out of 10:43:37
10 a million devices out there. 10:43:40
11 Q So it's essentially -- correct me if I'm wrong 10:43:44
12 on this. 10:43:47
13 A Uh-huh. 10:43:47
14 Q Successful returns would be -- a return would 10:43:48
15 be a defective part, in the term of DPPM, correct? 10:43:54
16 A If you're -- so you're -- so you used the word 10:44:03
17 "defective part." That sounds like there's an 10:44:05
18 engineering failure mode on a part of the device. 10:44:10
19 Q I'm -- let me rephrase that -- 10:44:14
20 A Yeah. 10:44:14
21 Q -- because that's not what I'm saying. 10:44:17
22 I'm saying in the phrase, "defective parts per 10:44:20
23 million" -- 10:44:21
24 A Uh-huh. 10:44:21
25 Q -- "defective part" really is referring to an 10:44:22

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Transcript of Avijit Sen
Conducted on October 9, 2018

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1	exchange that was agreed to, it occurred?	10:44:25
2	A Right. There is a -- there is a replacement	10:44:28
3	device provided to the customer --	10:44:31
4	Q Right.	10:44:34
5	A -- as a part of this.	10:44:34
6	Q Okay. But that's --	10:44:35
7	A That's the event -- that's the event where	10:44:37
8	we're sizing as a proportion --	10:44:39
9	Q Right.	10:44:39
10	A -- of the population, yeah.	10:44:41
11	Q So we don't know if 50 percent of the phones	10:44:43
12	that came back were actually not defective at all. That	10:44:47
13	would not be factored into these numbers?	10:44:51
14	A Correct, yeah.	10:44:55
15	Q Okay. And if a person came in and had -- I	10:44:55
16	know we'll go through these later, but there is	10:45:16
17	different reasons that you could return your phone, and	10:45:16
18	they're cataloged.	10:45:16
19	If a person said this has a -- three of these	10:45:18
20	things, a broken display, a bad volume, and a bad	10:45:21
21	accessory, it would be one -- it would be one -- counted	10:45:26
22	as one incident for purposes of the DPPM rate?	10:45:29
23	A Right. There would be one device furnished as	10:45:34
24	a replacement.	10:45:38
25	Q So the DPPM, as we're using the term in	10:45:39

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Transcript of Avijit Sen
Conducted on October 9, 2018

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1 fields on identifying what type of product it is? Your 11:49:24
2 answers would be the same? 11:49:29
3 A Yes. 11:49:30
4 Q Okay. 11:49:31
5 (Deposition Exhibit 44 was marked for 11:49:52
6 identification.) 11:49:54
7 Q Okay. I'm handing you Exhibit 44. Could you 11:49:54
8 take a look at that and tell me I know it's long, but 11:49:57
9 just if you could see if you recognize it. 11:50:03
10 A Yes, I recognize it. 11:50:04
11 Q Okay. And is this something that you or your 11:50:05
12 team prepared? 11:50:07
13 A Yes, it is. 11:50:09
14 Q And what does this represent? 11:50:09
15 A This let me just look at something. Then 11:50:12
16 I'll tell you which which cut of the data this is. 11:50:19
17 So this is similar data but with a broken out by the 11:50:28
18 CompTIA code. 11:50:32
19 Q Okay. And what is that code? 11:50:35
20 A [REDACTED] 11:50:37
21 [REDACTED] 11:50:44
22 [REDACTED] 11:50:50
23 [REDACTED] 11:50:51
24 [REDACTED] 11:50:55
25 [REDACTED] 11:50:57

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Transcript of Avijit Sen
Conducted on October 9, 2018

1	[REDACTED]	11:51:01
2	Q Okay. But I but my question was, really,	11:51:03
3	do you [REDACTED]	11:51:06
4	[REDACTED]	11:51:08
5	[REDACTED]	11:51:11
6	[REDACTED]	11:51:12
7	[REDACTED]	11:51:17
8	[REDACTED]	11:51:19
9	[REDACTED]	11:51:20
10	[REDACTED]	11:51:21
11	[REDACTED]	11:51:25
12	[REDACTED]	11:51:29
13	MS. PATEL: Vague and ambiguous.	11:51:31
14	A I'm I'm not could you repeat the	11:51:32
15	question again.	11:51:37
16	Q Yeah. You're anything you do with the	11:51:37
17	CompTIA codes is dependent on well, let me rephrase	11:51:40
18	it.	11:51:45
19	[REDACTED]	11:51:46
20	[REDACTED]	11:51:49
21	[REDACTED]	11:51:50
22	[REDACTED]	11:51:51
23	[REDACTED]	11:51:55
24	[REDACTED]	11:51:57
25	Q Okay. Do you know if anyone does?	11:51:57

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Transcript of Avijit Sen
Conducted on October 9, 2018

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CERTIFICATE OF SHORTHAND REPORTER

I, Charlotte Lacey, the officer before whom the foregoing deposition was taken, do hereby certify that the foregoing transcript is a true and correct record of the testimony given; that said testimony was taken by me stenographically and thereafter reduced to typewriting under my direction; that reading and signing was not requested; and that I am neither counsel for, related to, nor employed by any of the parties to this case and have no interest, financial or otherwise, in its outcome.

IN WITNESS WHEREOF, I have hereunto subscribed my hand this 11th day of October, 2018.



Charlotte Lacey, RPR, CSR #14224

Exhibit D

**REDACTED VERSION OF DOCUMENT
SOUGHT TO BE SEALED**

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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

----- X

VICKY MALDONADO AND :
JUSTIN CARTER, :
individually and on :
behalf of themselves and :
all others similarly :
situated, :
:
Plaintiffs, :
v. : Case No. 3:16-CV-04067-WHO
:
APPLE INC., APPLECARE :
SERVICE COMPANY, INC., :
AND APPLE CSC INC., :
:
Defendants. :
:
----- X

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RESTRICTED ACCESS

Videotaped Deposition of JASON FU

Palo Alto, California

Tuesday, January 8, 2019

9:04 A.M.

Job No.: 222741

Pages: 1 - 168

Reported By: Michael P. Hensley, RDR, CSR No. 14114

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Transcript of Jason Fu

Conducted on January 8, 2019

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1	JASON FU,	09:04:55
2	having been first duly sworn, was examined and testified	09:04:55
3	as follows:	09:04:55
4	EXAMINATION BY COUNSEL FOR THE PLAINTIFFS	09:05:12
5	BY MS. KRAS:	09:05:12
6	Q. Good morning.	09:05:13
7	A. Good morning.	09:05:13
8	Q. My name is Michella Kras. I'm one of the	09:05:13
9	attorneys for the plaintiffs. Can you just state your	09:05:16
10	name for the record.	09:05:19
11	A. Jason Fu.	09:05:19
12	Q. Okay. And have you had your deposition taken	09:05:22
13	before?	09:05:24
14	A. Yes.	09:05:25
15	Q. How many times?	09:05:27
16	A. Twice.	09:05:28
17	Q. Twice. Okay. And when was that? When -- well,	09:05:29
18	both times, give me both times.	09:05:34
19	A. One was a long time ago.	09:05:37
20	Q. Okay.	09:05:39
21	A. More than five, six years.	09:05:40
22	Q. Okay.	09:05:42
23	A. One was about a month ago.	09:05:42
24	Q. A month ago. Okay.	09:05:46
25	And the one that was a month ago, was that as	09:05:47

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Transcript of Jason Fu

Conducted on January 8, 2019

21

1	Q.	Okay. As far as cosmetically, are there any	09:26:52
2		differences between a remanufactured and a new iPhone?	09:27:28
3	A.	Can you define what you mean -- what you mean by	09:27:36
4		"cosmetically"?	09:27:39
5	Q.	In the appearance of a device, will you -- would	09:27:40
6		a user see any difference in how the device looks?	09:27:43
7	A.	No. We use the same cosmetic criteria.	09:27:46
8	Q.	Okay. So the criteria for the -- the criteria	09:27:49
9		is the same?	09:27:51
10	A.	Yes.	09:27:52
11	Q.	So what does Apple do to determine that	09:28:08
12		remanufactured iPhones are equivalent to new in	09:28:11
13		performance and reliability to new iPhones?	09:28:16
14	A.	We have the same quality standards and quality	09:28:20
15		process to qualify the remanufactured products to make	09:28:24
16		the decision to make the conclusion they are the same.	09:28:30
17	Q.	Okay. Can you -- can you read that back for me?	09:28:36
18		(The Reporter read the record as	09:28:42
19		requested.)	09:29:11
20	Q.	So from Apple's perspective, what does	09:29:11
21		"equivalent to new" mean?	09:29:18
22	A.	Equivalent to new, from an engineering	09:29:22
23		perspective, it means it meets the same engineering	09:29:26
24		specifications.	09:29:29
25	Q.	Okay. So from your -- from Apple's perspective,	09:29:46

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Transcript of Jason Fu

Conducted on January 8, 2019

22

1	is there a difference between performance and	09:29:56
2	reliability?	09:29:58
3	A. Performance and reliability are based on the	09:30:07
4	different, like, timing of the products. Performance is	09:30:09
5	more related to the time when the product leaving the	09:30:12
6	factory. And reliability is the point of, like, it's	09:30:15
7	starting to have a lifetime in the field.	09:30:21
8	Q. Okay. So performance is how the iPhone	09:30:24
9	functions when it leaves the factory. Is that a fair	09:30:34
10	statement?	09:30:37
11	A. Depends on the context, yes.	09:30:38
12	Q. Okay. When -- when would that not be a correct	09:30:42
13	statement?	09:30:46
14	A. We have to look at the meaning of performance,	09:30:50
15	if there is a context.	09:30:55
16	Q. Okay. So I'm just trying to understand what you	09:30:56
17	mean by "context."	09:31:11
18	So the performance of a device is how the device	09:31:15
19	functions when it leaves the factory. You said that's	09:31:34
20	correct. Is that correct?	09:31:37
21	A. Yes.	09:31:40
22	Q. Did you qualify that in any way? I'm just	09:31:40
23	trying to understand your testimony.	09:31:48
24	A. So we have all the test stations to make sure	09:31:50
25	the device are fully functional to engineering	09:31:54

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Transcript of Jason Fu

Conducted on January 8, 2019

1	specification. That's what we call performance.	09:31:58
2	Q. Okay. So it meets the engineering	09:32:00
3	specifications of Apple?	09:32:03
4	A. Yes.	09:32:04
5	[REDACTED]	09:32:04
6	[REDACTED]	09:32:14
7	[REDACTED]	09:32:19
8	[REDACTED]	09:32:25
9	[REDACTED]	09:32:28
10	[REDACTED]	09:32:34
11	[REDACTED]	09:32:37
12	[REDACTED]	09:32:37
13	[REDACTED]	09:32:38
14	[REDACTED]	09:32:48
15	[REDACTED]	09:32:51
16	[REDACTED]	09:32:55
17	[REDACTED]	09:33:03
18	[REDACTED]	09:33:05
19	[REDACTED]	09:33:09
20	[REDACTED]	09:33:14
21	[REDACTED]	09:33:17
22	[REDACTED]	09:33:18
23	[REDACTED]	09:33:22
24	[REDACTED]	09:33:25
25	[REDACTED]	09:33:25

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Transcript of Jason Fu

Conducted on January 8, 2019

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1	[REDACTED]	09:33:32
2	[REDACTED]	09:33:36
3	[REDACTED]	09:33:41
4	[REDACTED]	09:33:41
5	[REDACTED]	09:33:46
6	[REDACTED]	09:33:47
7	[REDACTED]	09:33:47
8	[REDACTED]	09:33:50
9	[REDACTED]	09:33:51
10	[REDACTED]	09:33:52
11	[REDACTED]	09:33:53
12	[REDACTED]	09:33:54
13	[REDACTED]	09:34:09
14	[REDACTED]	09:34:12
15	[REDACTED]	09:34:14
16	Q. Okay. And how does Apple test or determine the	09:34:14
17	reliability I'm sorry. Let me say that again.	09:34:20
18	How does Apple determine the reliability of	09:34:23
19	their devices?	09:34:26
20	A. We have reliability tests.	09:34:26
21	Q. Okay. And can you tell me what those those	09:34:29
22	tests are?	09:34:35
23	A. I can give you examples.	09:34:36
24	Q. Sure.	09:34:38
25	A. Because the test suite is very complicated.	09:34:41

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Transcript of Jason Fu

Conducted on January 8, 2019

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1	Q.	Okay.	09:34:43
2	A.	[REDACTED]	09:34:44
3		[REDACTED]	09:34:47
4		[REDACTED]	09:34:53
5		[REDACTED]	09:34:58
6		[REDACTED]	
7	Q.	Okay.	
8		THE REPORTER: May I clarify?	
9		MS. KRAS: Yes.	
10		[REDACTED]	
11		[REDACTED]	
12		[REDACTED]	
13		[REDACTED]	
14		[REDACTED]	
15		[REDACTED]	
16		THE REPORTER: Thank you.	09:35:38
17	Q.	[REDACTED]	09:35:38
18		[REDACTED]	09:35:41
19		[REDACTED]	09:35:47
20		[REDACTED]	09:35:54
21		[REDACTED]	09:35:58
22		[REDACTED]	09:36:01
23		[REDACTED]	09:36:04
24	Q.	And is that true for new and remanufactured	09:36:10
25		devices?	09:36:14

1	[REDACTED]	09:36:15
2	[REDACTED]	09:36:15
3	[REDACTED]	09:36:29
4	[REDACTED]	09:36:33
5	[REDACTED]	09:36:37
6	[REDACTED]	09:36:44
7	[REDACTED]	09:36:48
8	[REDACTED]	09:36:54
9	[REDACTED]	09:36:57
10	[REDACTED]	09:36:59
11	[REDACTED]	09:37:06
12	[REDACTED]	09:37:08
13	[REDACTED]	09:37:09
14	[REDACTED]	09:37:13
15	[REDACTED]	09:37:20
16	Q. Okay. For example, would you say that an	09:37:23
17	iPhone X has more features than an iPhone 7?	09:37:30
18	A. No.	09:37:33
19	Q. [REDACTED]	09:37:35
20	[REDACTED]	09:37:40
21	[REDACTED]	09:37:41
22	[REDACTED]	09:37:45
23	[REDACTED]	09:37:49
24	[REDACTED]	09:37:56
25	[REDACTED]	09:37:59

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Transcript of Jason Fu

Conducted on January 8, 2019

1	[REDACTED]	09:38:03
2	[REDACTED]	09:38:08
3	[REDACTED]	09:38:12
4	[REDACTED]	09:38:18
5	[REDACTED]	09:38:23
6	[REDACTED]	09:38:38
7	[REDACTED]	09:38:59
8	[REDACTED]	09:39:02
9	[REDACTED]	09:39:07
10	[REDACTED]	09:39:10
11	[REDACTED]	09:39:15
12	[REDACTED]	09:39:17
13	[REDACTED]	09:39:17
14	[REDACTED]	09:39:20
15	[REDACTED]	09:39:23
16	[REDACTED]	09:39:24
17	[REDACTED]	09:39:29
18	[REDACTED]	09:39:32
19	[REDACTED]	09:39:39
20	[REDACTED]	09:39:43
21	[REDACTED]	09:39:44
22	[REDACTED]	09:39:45
23	[REDACTED]	09:39:48
24	[REDACTED]	09:39:52
25	[REDACTED]	09:39:59

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Transcript of Jason Fu

Conducted on January 8, 2019

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1	THE REPORTER: [REDACTED]	09:39:59
2	[REDACTED]	09:40:13
3	Q. So maybe I need to back up.	09:40:13
4	So on the remanufacturing line, you said that	09:40:16
5	you have used parts going into some of those devices;	09:40:19
6	correct?	09:40:27
7	A. We have the parts recovered from field returned	09:40:27
8	units.	09:40:31
9	Q. Okay. So when you have a remanufactured line	09:40:31
10	and it's got the parts recovered from field units, as	09:40:35
11	the line is going, could one device have a used	09:40:42
12	[REDACTED]	09:40:45
13	[REDACTED]	09:40:49
14	Is that how it would function?	09:40:53
15	Not every do you understand my question?	09:40:55
16	A. If you can clarify.	09:40:58
17	Q. Yes. So as a device is being built on the	09:41:00
18	remanufactured line, is every device on that line going	09:41:11
19	to have a different mix of parts from a field unit?	09:41:15
20	A. Not necessarily.	09:41:23
21	Q. [REDACTED]	09:41:24
22	[REDACTED]	09:41:31
23	[REDACTED]	09:41:37
24	[REDACTED]	09:41:40
25	[REDACTED]	09:41:47

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Transcript of Jason Fu

Conducted on January 8, 2019

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1	Q.	Okay. Can you explain the process to me and how	09:41:49
2		it incorporates those recovered parts from field devices	09:41:51
3		into the iPhones.	09:41:56
4	A.	When a part gets recovered from the	09:41:58
5		field returned iPhones	09:42:02
6	Q.	Mm hmm.	09:42:04
7	A.	they were tested using the same functional	09:42:05
8		criteria similar as the new parts. [REDACTED]	09:42:09
9		[REDACTED]	09:42:13
10		[REDACTED]	09:42:18
11		[REDACTED]	09:42:22
12		[REDACTED]	09:42:27
13		[REDACTED]	09:42:32
14		[REDACTED]	09:42:35
15		[REDACTED]	09:42:39
16		[REDACTED]	09:42:43
17		[REDACTED]	09:42:48
18		[REDACTED]	09:42:51
19		[REDACTED]	09:43:00
20		[REDACTED]	09:43:03
21		[REDACTED]	09:43:06
22	A.	That would be a hypothetical scenario.	09:43:09
23	Q.	That would be a what? I'm sorry.	09:43:12
24		MR. CAREY: Hypothetical.	09:43:18
25	Q.	Hypothetical. Well, let me ask you this: Is	09:43:21

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Transcript of Jason Fu

Conducted on January 8, 2019

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1 when you do a [REDACTED] 09:43:23
2 [REDACTED] 09:43:35
3 [REDACTED] 09:43:34
4 [REDACTED] [REDACTED] 09:43:36
5 [REDACTED] [REDACTED] 09:43:37
6 [REDACTED] 09:43:40
7 [REDACTED] 09:43:44
8 [REDACTED] [REDACTED]. 09:43:45
9 Q. Okay. And does Apple do anything to test for 09:43:46
10 those differences between the recovered parts that are 09:43:53
11 in each device? 09:43:56
12 MR. GONZALEZ: Objection. Vague. 09:43:57
13 A. Can you clarify the question. 09:43:59
14 Q. So you say you sample from the remanufactured 09:44:00
15 line; correct? 09:44:10
16 A. Yes. 09:44:11
17 Q. [REDACTED] 09:44:11
18 [REDACTED] 09:44:16
19 [REDACTED] 09:44:21
20 [REDACTED] [REDACTED] 09:44:23
21 [REDACTED] [REDACTED] 09:44:23
22 [REDACTED] [REDACTED] 09:44:28
23 [REDACTED] 09:44:33
24 Q. Can you explain that a little more. 09:44:37
25 [REDACTED] [REDACTED], 09:44:42

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Transcript of Jason Fu

Conducted on January 8, 2019

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1	[REDACTED]	09:44:47
2	[REDACTED]	09:44:50
3	[REDACTED]	09:44:56
4	[REDACTED]	09:45:00
5	[REDACTED]	09:45:04
6	[REDACTED]	09:45:08
7	[REDACTED]	09:45:10
8	[REDACTED]	09:45:19
9	[REDACTED]	09:45:23
10	[REDACTED]	09:45:27
11	[REDACTED]	09:45:31
12	[REDACTED]	09:45:35
13	[REDACTED]	09:45:38
14	[REDACTED]	09:45:43
15	[REDACTED]	09:45:47
16	MS. KRAS: Can you read that back to me.	09:45:54
17	(The Reporter read the record as	09:45:55
18	requested.)	09:46:05
19	Q. [REDACTED]	09:46:05
20	[REDACTED]	09:46:08
21	[REDACTED]	09:46:10
22	[REDACTED]	09:46:16
23	[REDACTED]	09:46:17
24	[REDACTED]	09:46:20
25	[REDACTED]	09:46:21

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Transcript of Jason Fu

Conducted on January 8, 2019

1	Q. [REDACTED]	09:46:24
2	[REDACTED]	09:46:30
3	[REDACTED]	09:46:33
4	[REDACTED]	09:46:33
5	[REDACTED]	09:46:47
6	[REDACTED]	09:46:51
7	[REDACTED]	09:46:51
8	[REDACTED]	09:46:55
9	[REDACTED]	09:47:02
10	[REDACTED]	09:47:06
11	[REDACTED]	09:47:11
12	[REDACTED]	09:47:14
13	[REDACTED]	09:47:14
14	[REDACTED]	09:47:21
15	[REDACTED]	09:47:30
16	[REDACTED]	09:47:33
17	[REDACTED]	09:47:36
18	[REDACTED]	09:47:40
19	[REDACTED]	09:47:42
20	[REDACTED]	09:47:47
21	[REDACTED]	09:47:49
22	[REDACTED]	09:47:53
23	[REDACTED]	09:48:00
24	[REDACTED]	09:48:02
25	[REDACTED]	09:48:05

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Transcript of Jason Fu

Conducted on January 8, 2019

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1	is that correct?	09:48:11
2	A. [REDACTED]	09:48:11
3	[REDACTED]	09:48:17
4	[REDACTED]	09:48:18
5	[REDACTED]	09:48:21
6	[REDACTED]	09:48:22
7	[REDACTED]	09:48:24
8	[REDACTED]	09:48:25
9	[REDACTED]	09:48:29
10	[REDACTED]	09:48:35
11	[REDACTED]	09:48:39
12	[REDACTED]	09:48:39
13	[REDACTED]	09:48:46
14	[REDACTED]	09:48:49
15	[REDACTED]	09:48:51
16	[REDACTED]	09:48:59
17	[REDACTED]	09:49:02
18	A. Yes.	09:49:03
19	Q. Okay. So does Apple have what does Apple do	09:49:03
20	with that data that it gets from that reliability	09:49:24
21	testing?	09:49:27
22	A. What do you mean what Apple do?	09:49:29
23	Q. Well, so, for example, the it's the	09:49:32
24	performance testing, all of those devices are going to	09:49:36
25	go into the field if they they pass performance	09:49:42

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Transcript of Jason Fu

Conducted on January 8, 2019

34

1 testing; is that correct? 09:49:44

2 A. Yes. 09:49:45

3 Q. With the reliability testing, those are tests on 09:49:45

4 devices that are never going to be sent to customers; is 09:49:49

5 that correct? 09:49:57

6 A. Yes. 09:49:57

7 Q. So what does Apple do with the information it 09:49:57

8 gets from the reliability testing to determine whether 09:50:01

9 devices are are reliable? 09:50:03

10 A. [REDACTED] 09:50:04

11 [REDACTED] 09:50:07

12 [REDACTED] 09:50:10

13 [REDACTED] 09:50:15

14 [REDACTED] 09:50:19

15 Q. [REDACTED] 09:50:20

16 [REDACTED] 09:50:32

17 [REDACTED] 09:50:35

18 [REDACTED] 09:50:37

19 Q. Mm hmm. 09:50:40

20 A. For every failure in reliability test, we need 09:50:41

21 to understand why. 09:50:44

22 Q. Okay. So if you're doing, for example, [REDACTED] 09:51:02

23 [REDACTED] on remanufactured devices, and the failure rate is 09:51:09

24 higher than the failure rate in new devices, what would 09:51:15

25 Apple do as a result of that? 09:51:21

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Transcript of Jason Fu

Conducted on January 8, 2019

35

1 MR. GONZALEZ: Objection. Vague. 09:51:23

2 A. Can you clarify what you mean the failure rate 09:51:26

3 high? 09:51:29

4 Q. [REDACTED] 09:51:31

5 [REDACTED] 09:51:37

6 [REDACTED] 09:51:41

7 them fail. 09:51:44

8 How would Apple use that information to make 09:51:46

9 sure that their remanufactured devices are as reliable 09:51:48

10 as new devices? 09:51:57

11 MR. GONZALEZ: Objection. Vague. 09:51:58

12 A. That information is not much useful if you only 09:51:59

13 look as the comparison of these two numbers. We have to 09:52:03

14 understand what failed and what caused it to fail. It 09:52:05

15 doesn't necessarily mean there's a difference, because, 09:52:10

16 based on statistics, you need to understand what's the 09:52:13

17 population or the sample size. So 10 percent and 09:52:16

18 20 percent doesn't give any actionable items. 09:52:21

19 Q. So if you let me ask you this: If you take 09:52:28

20 your sample from the remanufactured devices to do your 09:52:35

21 reliability testing and those devices is there you 09:52:38

22 take your sample. 09:52:44

23 Is there a are those pass or fail tests? Or 09:52:46

24 how does Apple determine whether it passed the 09:52:54

25 reliability testing? 09:53:00

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Transcript of Jason Fu

Conducted on January 8, 2019

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1 A. New phones and remanufactured phones, the 09:53:04
2 reliability tests are the same from monitoring 09:53:09
3 perspective. The pass/fail criteria are also exactly 09:53:14
4 the same. The units were tested on the same stations 09:53:19
5 using the same test software 09:53:24

6 Q. Okay. 09:53:25

7 A. so all the criteria are the same. 09:53:26

8 Q. So if you do this reliability testing and the 09:53:32
9 devices fail, what happens to the rest of the devices 09:53:38
10 that were not tested? Do those still go out to to 09:53:43
11 the customers, or what happens? 09:53:48

12 MR. GONZALEZ: Objection. Vague. 09:53:50

13 A. So same process for remanufactured phones we 09:53:53
14 have been doing on the new phones. [REDACTED] 09:53:59

15 [REDACTED] 09:54:03

16 [REDACTED] 09:54:06

17 [REDACTED] 09:54:09

18 [REDACTED] 09:54:12

19 [REDACTED] 09:54:14

20 [REDACTED] 09:54:17

21 [REDACTED] 09:54:21

22 The population we are manufacturing on the lines 09:54:24
23 are perfectly okay for customer to use. 09:54:27

24 Q. Okay. [REDACTED] 09:54:30

25 [REDACTED] 09:54:40

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Transcript of Jason Fu

Conducted on January 8, 2019

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1	[REDACTED]	09:54:42
2	MR. GONZALEZ: Objection. Vague.	09:54:47
3	A. [REDACTED]	09:54:49
4	[REDACTED]	09:54:53
5	[REDACTED]	09:54:56
6	Q. [REDACTED]	09:54:56
7	[REDACTED]	09:55:50
8	[REDACTED]	09:55:54
9	[REDACTED] [REDACTED]	09:55:55
10	[REDACTED] [REDACTED]	09:55:56
11	[REDACTED]	09:56:00
12	[REDACTED] [REDACTED]	09:56:05
13	[REDACTED]	09:56:09
14	[REDACTED]	09:56:15
15	Q. Okay. And what would that be called normally?	09:56:15
16	A. That's [REDACTED]	09:56:19
17	Q. The [REDACTED]	09:56:20
18	A. Mm hmm.	09:56:22
19	(Exhibit 47 was marked for identification	09:56:22
20	and is attached to the transcript.)	09:56:49
21	MS. KRAS: That's going to be 47.	09:56:49
22	Q. Is this one of the [REDACTED] documents that you	09:57:04
23	were talking about?	09:57:07
24	A. Yes.	09:57:08
25	Q. Okay. And at the top, it says [REDACTED] What does	09:57:08

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Transcript of Jason Fu

Conducted on January 8, 2019

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1 Q. What do you mean the test results for the 10:04:11
2 field returned units? 10:04:13
3 A. [REDACTED] 10:04:15
4 [REDACTED] 10:04:20
5 [REDACTED] 10:04:24
6 [REDACTED] 10:04:30
7 [REDACTED] 10:04:34
8 [REDACTED] 10:04:38
9 [REDACTED] 10:04:44
10 [REDACTED] 10:04:53
11 [REDACTED] 10:04:53
12 Q. Okay. And then do they pull out the parts that 10:04:53
13 they want to re use, and do they scrap the rest? What 10:05:01
14 happens when they disassemble the device? 10:05:07
15 A. All the parts go to two different buckets. 10:05:10
16 Q. Okay. 10:05:14
17 A. One is the potentially to be recovered. 10:05:15
18 Q. Okay. 10:05:17
19 A. One's just, like, either scrapped or recycled. 10:05:18
20 Q. [REDACTED] 10:05:22
21 [REDACTED] 10:05:33
22 [REDACTED] 10:05:34
23 A. Yes. 10:05:38
24 Q. Okay. And then if it passes the test, it would 10:05:38
25 be put onto the remanufactured line; is that correct? 10:05:41

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Transcript of Jason Fu

Conducted on January 8, 2019

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1	MR. GONZALEZ: Objection. Vague.	10:05:44
2	A. The parts, after they passed all of the test	10:05:51
3	stations, they will treat as the same for ready to input	10:05:57
4	on the production line.	10:06:01
5	Q. It also says here [REDACTED] Can you tell me	10:06:15
6	what that is?	10:06:22
7	A. [REDACTED]	10:06:25
8	[REDACTED]	10:06:29
9	[REDACTED]	10:06:32
10	[REDACTED]	10:06:36
11	[REDACTED]	10:06:38
12	[REDACTED]	10:06:38
13	[REDACTED]	10:06:43
14	[REDACTED]	10:06:44
15	[REDACTED]	10:06:45
16	[REDACTED]	10:06:49
17	[REDACTED]	10:06:54
18	[REDACTED]	10:06:57
19	[REDACTED]	10:07:05
20	[REDACTED]	10:07:07
21	[REDACTED]	10:07:15
22	[REDACTED]	10:07:16
23	[REDACTED]	10:07:19
24	[REDACTED]	10:07:19
25	[REDACTED]	10:07:19

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Transcript of Jason Fu

Conducted on January 8, 2019

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1 A. Yes. 11:53:03

2 Q. Okay. I just want to go back and clean 11:53:04

3 something up on the remanufacturing line so just so I 11:53:48

4 have a clear understanding of how this how this line 11:53:53

5 works and how the parts are put into the line. 11:53:58

6 When you have a remanufacturing line that has 11:54:01

7 new and used parts on it, how are those used parts 11:54:07

8 integrated into the line? 11:54:13

9 A. What do you mean "integrated"? 11:54:17

10 Q. Well so, for example, if you had used [REDACTED] 11:54:20

11 would those be mixed in with the new [REDACTED] that are being 11:54:27

12 drawn from in building the devices, or is it always, 11:54:32

13 okay, these ones are used, these ones are new? 11:54:37

14 How does that work? 11:54:40

15 A. [REDACTED] 11:54:42

16 [REDACTED] 11:54:47

17 [REDACTED] 11:54:54

18 [REDACTED] 11:54:58

19 [REDACTED] 11:54:58

20 [REDACTED] 11:54:58

21 [REDACTED] 11:54:58

22 [REDACTED] 11:55:09

23 [REDACTED] [REDACTED] 11:55:09

24 [REDACTED] [REDACTED] 11:55:17

25 [REDACTED] [REDACTED] 11:55:21

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Transcript of Jason Fu

Conducted on January 8, 2019

1	A.	[REDACTED]	11:55:22
2		[REDACTED]	11:55:26
3		[REDACTED]	11:55:30
4		[REDACTED]	11:55:36
5		[REDACTED]	11:55:38
6		[REDACTED]	11:55:39
7		[REDACTED]	11:55:42
8		[REDACTED]	11:55:47
9		[REDACTED]	11:55:49
10		[REDACTED]	11:55:49
11		[REDACTED]	11:55:55
12		[REDACTED]	11:56:03
13		[REDACTED]	11:56:09
14		[REDACTED]	11:56:13
15		[REDACTED]	11:56:15
16		[REDACTED]	11:56:16
17		[REDACTED]	11:56:17
18		[REDACTED]	11:56:24
19		[REDACTED]	11:56:27
20		[REDACTED]	11:56:31
21		[REDACTED]	11:56:35
22		[REDACTED]	11:56:37
23		[REDACTED]	11:56:40
24	Q.	Okay.	11:56:40
25	A.	Yeah.	11:56:41

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Transcript of Jason Fu

Conducted on January 8, 2019

1	Q. [REDACTED]	11:56:41
2	[REDACTED]	11:56:48
3	[REDACTED]	11:56:53
4	[REDACTED] [REDACTED]	11:56:54
5	[REDACTED] [REDACTED]	11:56:55
6	[REDACTED]	11:57:05
7	[REDACTED]	11:57:09
8	[REDACTED] [REDACTED]	11:57:12
9	[REDACTED] [REDACTED]	11:57:13
10	[REDACTED]	11:57:24
11	[REDACTED]	11:57:30
12	[REDACTED] [REDACTED]	11:57:34
13	[REDACTED] [REDACTED]	11:57:37
14	[REDACTED] [REDACTED]	11:57:37
15	[REDACTED] [REDACTED]	11:57:40
16	[REDACTED]	11:57:44
17	[REDACTED] [REDACTED]	11:57:44
18	[REDACTED] [REDACTED]	11:57:45
19	[REDACTED]	11:57:49
20	[REDACTED] [REDACTED]	11:57:51
21	Q. Okay. Do you know what the acronym [REDACTED] stands	11:57:52
22	for?	12:00:13
23	A. [REDACTED]	12:00:14
24	[REDACTED] [REDACTED]	12:00:25
25	[REDACTED]	12:00:34

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Transcript of Jason Fu

Conducted on January 8, 2019

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1	MS. KRAS: That's fine.	12:22:30
2	MR. GONZALEZ: How long you guys want to break?	12:22:31
3	MR. CAREY: 30 minutes.	12:22:35
4	MS. KRAS: Thirty minutes is fine.	12:22:36
5	MR. GONZALEZ: Unless you need more.	12:22:36
6	MR. CAREY: No.	12:22:37
7	MR. GONZALEZ: We'll try thirty minutes.	12:22:37
8	MR. CAREY: All right.	12:22:39
9	THE VIDEOGRAPHER: Please stand by. This marks	12:22:39
10	the end of Media Number 2. We are off the record at	12:22:41
11	12:22.	12:22:45
12	(A break was taken.)	12:22:48
13	THE VIDEOGRAPHER: Here marks the beginning of	13:14:37
14	Media Number 3. We are back on the record at 13:14.	13:14:39
15	BY MS. KRAS:	13:14:45
16	Q. Jason, so I just want to go back and clarify a	13:14:48
17	few things to make sure I have it clear on the record	13:14:54
18	before we get into more documents.	13:14:57
19	You testified that reliability tests the life of	13:15:00
20	the product; is that correct?	13:15:08
21	A. I'm not sure that's the words I said.	13:15:10
22	Q. Okay. What does reliability test?	13:15:12
23	A. Reliability test give a benchmark to how device	13:15:17
24	will perform at a -- certain stress conditions and for a	13:15:24
25	certain time period defined by the duration of the	13:15:29

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Transcript of Jason Fu

Conducted on January 8, 2019

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1	tests.	13:15:32
2	Q. Is there anything Apple does to test the life of	13:15:38
3	its iPhones?	13:15:44
4	A. The definition for life of iPhones is highly	13:15:49
5	dependent on how the phones will be used. I am not	13:15:53
6	aware of a specific test for a life. We have the	13:15:58
7	reliability test to cover what I just described.	13:16:02
8	Q. Okay. The reliability tests for certain	13:16:04
9	stressors over a time period; is that correct?	13:16:12
10	A. That's what I just said, yes.	13:16:18
11	Q. Okay. You said that the life of the product	13:16:21
12	depends on how the product is used; is that correct?	13:16:41
13	A. Is that the same words I just said?	13:16:46
14	Q. Well, let me ask you this: Does Apple look at	13:16:49
15	the life of the iPhone?	13:16:57
16	MR. GONZALEZ: Objection. Vague.	13:17:02
17	A. Is it -- is that a question or a comment?	13:17:05
18	Q. Does Apple look at the life of the iPhone in	13:17:08
19	determining performance and reliability?	13:17:12
20	A. Depends on how you define the life. We look at	13:17:17
21	all sorts of, like, datas from different sources.	13:17:22
22	Q. Okay. Does Apple look at the life of the iPhone	13:17:26
23	in determining reliability?	13:17:43
24	A. You used "life" in all the questions you just	13:17:50
25	asked. I don't understand what you mean by "life."	13:17:55

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Transcript of Jason Fu

Conducted on January 8, 2019

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1 the phone is is shutting down 13:23:48

2 A. Then we 13:23:48

3 Q. without being prompted. 13:23:51

4 What what would you do in that situation? 13:23:52

5 A. We have a list of failure analysis process we 13:23:55

6 follow on to identify the root cause. 13:24:02

7 Q. And do you use that information to determine 13:24:04

8 whether remanufactured devices are equivalent to new in 13:24:08

9 performance and reliability? 13:24:13

10 A. We look at those data, but we don't rely on that 13:24:13

11 data. We look at the reliability test. That's our 13:24:17

12 benchmark. 13:24:20

13 Q. Are you familiar with the term "intermittent 13:24:25

14 failures"? 13:24:30

15 A. Yes. 13:24:30

16 Q. What is an intermittent failure? 13:24:32

17 A. The nature of intermittent, that means you 13:24:34

18 cannot repeat it all the time. 13:24:39

19 Q. [REDACTED] 13:24:47

20 [REDACTED] 13:24:59

21 A. [REDACTED] 13:25:02

22 [REDACTED] 13:25:08

23 [REDACTED] 13:25:12

24 [REDACTED] 13:25:16

25 [REDACTED] 13:25:21

Highly Confidential - Restricted Access

Transcript of Jason Fu

Conducted on January 8, 2019

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1	repeatedly they show that issue.	13:25:26
2	Q. If Apple can't replicate the failure, is that	13:25:52
3	the end of the analysis?	13:26:00
4	A. No.	13:26:02
5	Q. What would Apple do next?	13:26:03
6	A. Replicate the failure is just a starting of the	13:26:06
7	finding actions to fix it.	13:26:10
8	Q. Are there situations where there would be an	13:26:13
9	intermittent failure Apple could not replicate it, but	13:26:16
10	as they do further testing, they do find issues with the	13:26:22
11	device?	13:26:26
12	A. Yes.	13:26:26
13	Q. And in that situation, what would Apple do with	13:26:26
14	that information?	13:26:34
15	A. That would be the same for any root cause	13:26:35
16	analysis. We find the root cause, and if this is	13:26:39
17	related to the process of the production, we fix it.	13:26:42
18	Q. In doing root cause analysis, is Apple's goal to	13:26:52
19	fix any issues with the process of the device?	13:27:04
20	A. That's part of one of the ultimate goal. The	13:27:08
21	other is that we just need to understand what's causing	13:27:13
22	it.	13:27:16
23	Q. Other than fixing the process of building the	13:27:26
24	device, would there be anything else that Apple would do	13:27:34
25	with that root cause analysis data?	13:27:39

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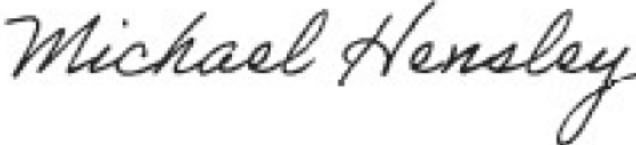
Transcript of Jason Fu

Conducted on January 8, 2019

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1 CERTIFICATE OF SHORTHAND REPORTER

2
3 I, Michael P. Hensley, Registered Diplomate
4 Reporter for the State of California, CSR No. 14114, the
5 officer before whom the foregoing deposition was taken,
6 do hereby certify that the foregoing transcript is a
7 true and correct record of the testimony given; that
8 said testimony was taken by me stenographically and
9 thereafter reduced to typewriting under my direction;
10 that reading and signing was not requested; and that I
11 am neither counsel for, related to, nor employed by any
12 of the parties to this case and have no interest,
13 financial or otherwise, in its outcome.
14

15
16 Handwritten signature of Michael Hensley in cursive script.

17
18 Michael P. Hensley, CSR, RDR
19
20
21
22
23
24
25

1 UNITED STATES DISTRICT COURT
2 NORTHERN DISTRICT OF CALIFORNIA
3 SAN FRANCISCO DIVISION

4 - - - - -x
5 VICKY MALDONADO AND JUSTIN : Case No.
6 CARTER, individually and on : 3:16-cv-04067-WHO
7 behalf of themselves and all :
8 others similarly situated, :
9 Plaintiffs, :
10 v. :
11 APPLE INC., APPECARE SERVICE :
12 COMPANY, INC., and APPLE CSC :
13 INC., :
14 Defendants. :

15 - - - - -x

16
17 ** HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY **
18

19 VIDEOTAPED DEPOSITION OF ROBERT BARDWELL, Ph.D.

20 San Francisco, California

21 Wednesday, March 6, 2019

22 10:31 a.m.

23 Job No.: 232236

24 Pages: 1 - 147

25 Reported By: Charlotte Lacey, RPR, CSR No. 14224

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Transcript of Robert Bardwell, Ph.D.

Conducted on March 6, 2019

7

1	witness.	10:32:59
2	ROBERT BARDWELL, Ph.D.,	10:32:59
3	the witness herein, having been first duly sworn, was	10:32:59
4	examined and testified as follows	10:32:59
5	EXAMINATION	10:33:01
6	BY MS. PATEL:	10:33:01
7	Q All right. Dr. Bardwell, we met before the	10:33:03
8	deposition started, but I'm Purvi. I represent the	10:33:05
9	defendants. Thank you for being here today.	10:33:05
10	MS. PATEL: I do want to just note at the	10:33:09
11	outset that the deposition transcripts will be, per the	10:33:12
12	parties' agreement, designated highly confidential and	10:33:13
13	restricted access for 30 days until the parties can	10:33:20
14	make -- review and make designations.	10:33:20
15	Q Dr. Bardwell, can you state and spell your	10:33:24
16	name for the record, please.	10:33:27
17	A Robert Bardwell, B-a-r-d-w-e-l-l.	10:33:27
18	Q Dr. Bardwell, I see from your CV that you've	10:33:31
19	been deposed a number of times. Can you tell me when	10:33:36
20	the most recent time was.	10:33:39
21	A I think the most recent time was in a case	10:33:48
22	against Grande Communications in Washington, DC.	10:33:56
23	Q All right. And so would you say roughly that	10:34:10
24	was 2017? Does that sound like the right time period?	10:34:14
25	A Yes.	10:34:18

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Transcript of Robert Bardwell, Ph.D.

Conducted on March 6, 2019

29

1 A I believe the data we -- that I analyzed shows 11:08:31
2 actual failure rates. [REDACTED] 11:08:39
3 [REDACTED] 11:08:44
4 [REDACTED] 11:08:47
5 [REDACTED] 11:08:50
6 [REDACTED] 11:08:56
7 [REDACTED] 11:08:56
8 [REDACTED] 11:09:01
9 Q It sounds like you didn't review any data that 11:09:01
10 showed an actual failure, but you reviewed return rate 11:09:06
11 data. Is that accurate? 11:09:09
12 A What I'm trying to say is I believe that 11:09:10
13 return rate data does show actual failures. If there's 11:09:10
14 a difference between the return rate and the failure 11:09:14
15 rate, I don't have any additional data on that. 11:09:18
16 Q And, I guess, my -- then my question is what 11:09:20
17 makes you believe that a return rate -- the return rate 11:09:22
18 data shows failure rates? 11:09:24
19 A That is the most accurate information I have. 11:09:26
20 And I believe that's, essentially, how Apple treats that 11:09:30
21 replacement data also. All right? 11:09:37
22 Q Do you have a sense of whether return rates 11:09:41
23 could be driven by non-failure-related reasons? 11:09:44
24 A Could you repeat the question. 11:09:47
25 Q Sure. Could return rates be driven by 11:09:48

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Transcript of Robert Bardwell, Ph.D.

Conducted on March 6, 2019

30

1	non-failure-related factors or reasons?	11:09:52
2	A It seems possible.	11:09:56
3	Q Did you consider any of those factors in	11:09:57
4	deciding the return rates are the same thing as failure	11:10:01
5	rates?	11:10:03
6	A No.	11:10:04
7	Q If we could look at page 3. It's roughly the	11:10:08
8	second paragraph where you say -- in your report, you	11:10:13
9	say, "I have been asked to evaluate if there is a	11:10:15
10	material and significant difference in performance and	11:10:20
11	reliability between new and remanufactured iPhones and	11:10:21
12	iPads."	11:10:26
13	Do you see that?	11:10:26
14	A I do.	11:10:27
15	Q What's your understanding of the term	11:10:27
16	"performance"?	11:10:31
17	A Well, in this context, performance would mean	11:10:32
18	just how often the devices need to be replaced.	11:10:36
19	Q And where do you get that understanding?	11:10:44
20	A I'm saying that's the way I used the word	11:10:51
21	"performance" in this context.	11:10:54
22	Q And why are you using the word "performance"?	11:10:57
23	A It seems like a quite reasonable term to use.	11:11:08
24	I consider how my phone performs, and one of the key	11:11:12
25	factors is reliability, whether I have to deal with	11:11:18

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Transcript of Robert Bardwell, Ph.D.

Conducted on March 6, 2019

36

1 term, but "defective" really means dispatches or 11:19:08

2 returns? 11:19:12

3 A Again, I believe this is a semantic difference 11:19:14

4 that Apple is making. Defective parts per million in 11:19:17

5 the industry would often be used on an assembly line 11:19:22

6 where a product is defective and it failed to pass a 11:19:27

7 quality test. 11:19:34

8 Q What industry? 11:19:34

9 A Any industry that modifies -- monitors 11:19:36

10 performance. So I -- I just think -- I'm conceding your 11:19:38

11 point. Apple is tracking replacement devices not 11:19:43

12 failures. 11:19:47

13 Q Okay. That's fair. So why did you use the 11:19:47

14 word "failure" repeatedly throughout your report if 11:19:50

15 Apple gave you return rate data? 11:19:54

16 A I believe the word "failure" is appropriate, 11:20:01

17 and if I define the word "failure" to be a device that 11:20:06

18 didn't meet the customer's expectations and couldn't be 11:20:10

19 adequately repaired on the spot by the Apple Genius Bar, 11:20:16

20 that's what I mean by failure. 11:20:23

21 Q Was it your choice or your decision to use 11:20:24

22 failure, failure rate, failure mode, failed devices? Or 11:20:31

23 did plaintiffs' counsel ask you to do that? 11:20:34

24 A It was my decision. 11:20:36

25 Q Okay. So on page 9, paragraph 3 in your 11:20:38

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Transcript of Robert Bardwell, Ph.D.

Conducted on March 6, 2019

42

1 particular returned remanufactured iPhone or iPad is not 11:29:13
2 new? 11:29:19
3 A Could you repeat that. 11:29:19
4 Q Yeah. Do you have a basis to know which part 11:29:20
5 in a particular returned remanufactured device is not 11:29:22
6 new? 11:29:28
7 A Do I have a basis? I'm not sure I know what 11:29:28
8 you mean, do I have a basis. 11:29:34
9 Q Do you have any reason to know, when looking 11:29:36
10 at the data you're looking at, whether any of those 11:29:39
11 returned remanufactured devices -- what [REDACTED] 11:29:44
12 [REDACTED] 11:29:48
13 A In the data that was provided to us? 11:29:49
14 Q Uh-huh. 11:29:51
15 A No. 11:29:51
16 Q And so you can't use the CompTIA codes [REDACTED] 11:29:52
17 [REDACTED] 11:29:56
18 A Correct. 11:29:59
19 Q And the CompTIA codes [REDACTED] 11:30:00
20 [REDACTED] 11:30:03
21 A Correct. 11:30:06
22 Q If we look at page 3, paragraph 4, of your 11:30:10
23 report, it says, in the second sentence -- 11:30:13
24 A I -- let me just modify that. I'm -- my last 11:30:20
25 answer. The answer's correct. But the data do show 11:30:25

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Transcript of Robert Bardwell, Ph.D.

Conducted on March 6, 2019

44

1	A	I do.	11:31:51
2	Q	What do you base that opinion on? Maybe a	11:31:51
3		more direct question, is it anything more than what you	11:31:57
4		cite in footnote 3?	11:32:00
5	A	No.	11:32:26
6	Q	And would you agree that footnote 3 [REDACTED]	11:32:28
7		[REDACTED]	11:32:31
8	A	Yes.	11:32:36
9	Q	Am I reading correctly that you're taking the	11:32:36
10		[REDACTED]	11:32:39
11		[REDACTED]	11:32:43
12	A	That was not the intent. Maybe the paragraph	11:32:47
13		should be clearer that it's specifying -- I think this	11:32:51
14		was one example. Should -- that could -- would be	11:32:55
15		clarified by [REDACTED]	11:32:58
16	Q	So you -- you would -- we can revise it on the	11:33:05
17		record, but you would revise that paragraph to replace	11:33:09
18		[REDACTED]	11:33:12
19		[REDACTED]	11:33:18
20	A	Yes.	11:33:26
21	Q	Okay. It also says that there's internal	11:33:27
22		documents in the plural, but you've only cited one. Are	11:33:32
23		there other documents that you're aware of?	11:33:38
24	A	If we're going to wordsmith this paragraph, I	11:33:48
25		would leave the first sentence alone, and then the	11:33:52

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Transcript of Robert Bardwell, Ph.D.

Conducted on March 6, 2019

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1 to the population that's subject to the analysis and to 12:07:20
2 the resulting output; so the variation from 1.0? Or 12:07:25
3 does the extreme level just refer to the population 12:07:30
4 size? 12:07:35

5 A The extreme level refers to the results of the 12:07:35
6 analysis, implying that we can be absolutely confident 12:07:38
7 that this is not due to chance. 12:07:45

8 Q Thank you. 12:07:52

9 If we could look at finding 5. [REDACTED] 12:07:52

10 [REDACTED] 12:07:56

11 [REDACTED] Do you see that? 12:08:00

12 A I do. 12:08:02

13 Q And so why did -- why did you hedge in this 12:08:03

14 finding and say [REDACTED] 12:08:06

15 [REDACTED] 12:08:10

16 A We have testimony that indicates that's a 12:08:19

17 possibility, and also there's an association of -- we 12:08:23

18 [REDACTED] 12:08:30

19 [REDACTED] 12:08:35

20 [REDACTED] 12:08:39

21 [REDACTED] All of those are 12:08:45

22 evidence of association. But I don't have any 12:08:51

23 definitive evidence that [REDACTED] 12:08:55

24 [REDACTED] 12:09:01

25 Q Do you know, generally, which parts are reused 12:09:13

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Transcript of Robert Bardwell, Ph.D.

Conducted on March 6, 2019

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1 A [REDACTED] 12:26:22
2 [REDACTED] 12:26:25
3 [REDACTED] 12:26:27
4 [REDACTED] 12:26:31
5 Q Okay. And -- 12:26:35
6 A And then that is divided by -- since it's a 12:26:37
7 ratio of rates, the -- some of the [REDACTED] 12:26:42
8 [REDACTED] 12:26:49
9 [REDACTED] 12:26:53
10 [REDACTED] 12:26:54
11 [REDACTED] 12:26:58
12 [REDACTED] 12:27:02
13 A Correct. 12:27:02
14 Q Did you calculate this ratio separately for 12:27:02
15 iPhone and iPad? 12:27:07
16 A No. 12:27:07
17 Q So -- and I just want to make sure I 12:27:26
18 understand the words in finding 5. It says, 12:27:28
19 [REDACTED] What does 12:27:32
20 that mean? 12:27:50
21 A It actually, I believe, [REDACTED] 12:27:52
22 [REDACTED] 12:27:56
23 [REDACTED] 12:28:12
24 Q Okay. [REDACTED] 12:28:21
25 [REDACTED] 12:28:23

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Transcript of Robert Bardwell, Ph.D.

Conducted on March 6, 2019

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1	[REDACTED]	12:28:25
2	[REDACTED]	12:28:30
3	A I did not. Correct.	12:28:32
4	Q And we -- [REDACTED]	12:28:41
5	[REDACTED]	12:28:46
6	[REDACTED]	12:28:51
7	A Correct.	12:28:52
8	Q [REDACTED]	12:28:56
9	[REDACTED]	12:29:00
10	[REDACTED]	12:29:10
11	[REDACTED]	12:29:12
12	[REDACTED]	12:29:15
13	Q If we could mark as 63.	12:29:27
14	(Deposition Exhibit 63 was marked for	12:29:27
15	identification.)	12:29:49
16	A Are we going to be coming back to this	12:29:49
17	document, do you think?	12:29:52
18	Q We probably will, but we'll see how we're	12:29:53
19	doing on time. I think everyone probably needs to eat.	12:30:00
20	A I'll just put it to sleep for now and can open	12:30:05
21	it back up.	12:30:05
22	Q Okay.	12:30:05
23	A Thank you.	12:30:08
24	Q Dr. Bardwell, was this the document that was	12:30:08
25	part of your -- the materials you reviewed?	12:30:10

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Transcript of Robert Bardwell, Ph.D.

Conducted on March 6, 2019

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1	Q	Then why would it be prohibitively large?	12:39:19
2	A	Cost.	12:39:23
3	Q	Any other reason?	12:39:24
4	A	I would say it would be unnecessary, because	12:39:26
5		they have such detailed data on the failure already.	12:39:32
6		MS. PATEL: Okay. I have a few more	12:39:39
7		questions, and then I think we can break for lunch, if	12:39:41
8		that's okay.	12:39:44
9		MS. KRAS: Sure.	12:39:45
10	Q	And you don't have to look at data to answer	12:39:46
11		these questions.	12:39:52
12	A	I've put it to bed. So...	12:39:52
13	Q	So -- so we'll revisit it after -- after we	12:39:55
14		eat some food.	12:39:55
15		Have you ever -- outside of this matter --	12:39:55
16		which, I think you haven't been retained on these issues	12:39:57
17		in this matter, either -- but have you ever been	12:40:00
18		retained as an expert on reliability or performance	12:40:03
19		testing?	12:40:07
20	A	No.	12:40:08
21	Q	True failure analysis?	12:40:08
22	A	No.	12:40:10
23	Q	What about electronics manufacturing?	12:40:10
24	A	No.	12:40:15
25	Q	Do you have any experience at all in	12:40:15

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Transcript of Robert Bardwell, Ph.D.

Conducted on March 6, 2019

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1	electronics manufacturing outside of expert engagements?	12:40:17
2	A A little.	12:40:23
3	Q What would that be?	12:40:24
4	A I've dabbled in building things, electronic	12:40:27
5	things, and my son is very much into that, and he uses	12:40:33
6	me as a sounding board. So...	12:40:38
7	Q What kinds of things have you built?	12:40:40
8	A It was too long ago to be of interest. But in	12:40:43
9	my -- robots back in the day.	12:40:46
10	Q How long ago?	12:40:50
11	A I was in high school.	12:40:52
12	Q I won't ask what year that was in. We do have	12:40:56
13	your CV.	12:41:02
14	All right. Do you have any experience in	12:41:03
15	testing that's performed on a manufacturing line?	12:41:05
16	A No.	12:41:12
17	Q What about experience in reliability testing?	12:41:12
18	A No.	12:41:17
19	Q Performance testing?	12:41:18
20	A No.	12:41:20
21	Q And then I think -- I'm going to ask you kind	12:41:22
22	of a broader question than have you been retained to	12:41:25
23	provide expert opinion in failure analysis, but any kind	12:41:30
24	of other experience in true failure analyses?	12:41:32
25	A No.	12:41:36

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Transcript of Robert Bardwell, Ph.D.

Conducted on March 6, 2019

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1 numbered paragraphs. So it's the fifth paragraph on the 14:02:20
2 page. And it's a little bit of a long sentence, but 14:02:27
3 it's that sentence begins "I compute a common odds ratio 14:02:30
4 across the entire set of models using the 14:02:34
5 Mantel-Haenszel methods, [REDACTED] 14:02:39
6 [REDACTED] 14:02:44
7 [REDACTED] 14:02:45
8 [REDACTED] Do you see that? 14:02:47
9 A I do. 14:02:51
10 Q Could you break it down and just tell me in 14:02:51
11 simple terms why [REDACTED] 14:02:55
12 [REDACTED] I know it's included in the table -- 14:03:00
13 but here why you excluded it? 14:03:06
14 A So for two reasons, and both are stated in 14:03:07
15 this sentence. [REDACTED] 14:03:11
16 [REDACTED] 14:03:17
17 [REDACTED] 14:03:22
18 [REDACTED] 14:03:36
19 [REDACTED] 14:03:37
20 [REDACTED] So that would make it 14:03:42
21 inappropriate to include it in a computation of the 14:03:46
22 common odds ratio. 14:03:51
23 [REDACTED] 14:03:52
24 [REDACTED] 14:04:00
25 [REDACTED] 14:04:08

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Transcript of Robert Bardwell, Ph.D.

Conducted on March 6, 2019

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1	Q	Well, you excluded the [REDACTED]	14:17:10
2		[REDACTED]	14:17:13
3		[REDACTED]	14:17:19
4	A	I think I --	14:17:19
5		MS. KRAS: Objection; misstates prior	14:17:19
6		testimony.	14:17:21
7	A	Yeah, that's not correct. I spent a lot of	14:17:21
8		time discussing [REDACTED]	14:17:24
9		[REDACTED]	14:17:28
10	Q	Right. But then you excluded it from one of	14:17:28
11		your calculations.	14:17:31
12	A	Correct.	14:17:32
13	Q	And you said to me one of the reasons was	14:17:33
14		[REDACTED]	14:17:36
15	A	Correct.	14:17:41
16	Q	[REDACTED]	14:17:41
17		[REDACTED]	14:17:46
18		[REDACTED] Why are you treating those differently?	14:17:51
19	A	You asked that before, and I answered it. [REDACTED]	14:17:51
20		[REDACTED]	14:17:52
21		[REDACTED]	14:17:56
22		[REDACTED]	14:18:00
23		[REDACTED]	14:18:04
24		[REDACTED]	14:18:08
25		[REDACTED]	14:18:12

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Transcript of Robert Bardwell, Ph.D.

Conducted on March 6, 2019

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1	[REDACTED]	14:18:15
2	[REDACTED]	14:18:23
3	[REDACTED]	14:18:30
4	[REDACTED]	14:18:34
5	A I think we've agreed I would review my --	14:18:41
6	the -- the notes that I had about -- familiarity I had	14:18:48
7	with those -- [REDACTED]	14:18:53
8	[REDACTED]	14:19:00
9	Q Right. My question -- [REDACTED]	14:19:01
10	[REDACTED]	14:19:03
11	[REDACTED]	14:19:06
12	[REDACTED]	14:19:10
13	[REDACTED]	14:19:14
14	But -- so I think you said -- and if you meant	14:19:16
15	"finished goods" instead of "new buy," then I -- that's	14:19:18
16	fine for you to look at your notes, and if there are	14:19:20
17	notes, we'd like that to be produced if they're part of	14:19:24
18	your file.	14:19:28
19	A Okay.	14:19:29
20	Q Okay. Let's go to page 8, paragraph 2. And	14:19:29
21	this is really just the setup for using the	14:19:37
22	Mantel-Haenszel method. You say it's the accepted	14:19:40
23	statistical test for comparing proportions of two	14:19:44
24	groups; here, remanufacturing devices across multiple	14:19:49
25	categories; here, device models.	14:19:50

No. 232236

Re: Deposition of **Robert Bardwell, Ph.D.**
Date: 3/6/2019
Case: Maldonado, et al. -v- Apple, Inc., et al.
Return to: transcripts@planetdepos.com

ACKNOWLEDGMENT OF DEPONENT

I, Robert Bardwell, Ph.D., do hereby acknowledge that I have read and examined the foregoing testimony, and the same is a true, correct and complete transcription of the testimony given by me and any corrections appear on the attached Errata sheet signed by me.

April 4, 2019

(Date)



(Signature)

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Transcript of Robert Bardwell, Ph.D.

Conducted on March 6, 2019

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CERTIFICATE OF SHORTHAND REPORTER

I, Charlotte Lacey, the officer before whom the foregoing deposition was taken, do hereby certify that the foregoing transcript is a true and correct record of the testimony given; that said testimony was taken by me stenographically and thereafter reduced to typewriting under my direction; that reading and signing was not requested; and that I am neither counsel for, related to, nor employed by any of the parties to this case and have no interest, financial or otherwise, in its outcome.

IN WITNESS WHEREOF, I have hereunto subscribed my hand this 13th of March, 2019.



Charlotte Lacey, RPR, CSR #14224

Exhibit G

1
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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

- - - - -x

VICKY MALDONADO AND JUSTIN : Case No.
CARTER, individually and on : 3:16-cv-04067-WHO
behalf of themselves and all :
others similarly situated, :
Plaintiffs, :
v. :
APPLE INC., APPLCARE SERVICE :
COMPANY, INC., and APPLE CSC :
INC., :
Defendants. :

- - - - -x

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DEPOSITION OF LANCE KAUFMAN, Ph.D.
San Francisco, California
Thursday, March 7, 2019
10:10 a.m.

Job No.: 232237
Pages: 1 - 209
Reported By: Charlotte Lacey, RPR, CSR No. 14224

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Transcript of Lance Kaufman, Ph.D.

Conducted on March 7, 2019

6

1 P R O C E E D I N G S

2 LANCE KAUFMAN, Ph.D.,

3 the witness herein, having been first duly sworn, was
4 examined and testified as follows:

5 EXAMINATION

6 BY MS. PREOVOLOS:

7 Q Good morning, Dr. Kaufman. Could you state
8 and spell your name for the record, please.

9 A Lance Kaufman, L-a-n-c-e, K-a-u-f-m-a-n.

10 MS. PREOVOLOS: And, Counsel, I take it we
11 will have the same stipulations we did yesterday. But
12 just so they're on the record, this deposition will be
13 marked highly confidential and restricted access for
14 30 days to allow the parties to review and designate.

15 MS. KRAS: We agree.

16 MS. PREOVOLOS: Okay. And, Dr. Kaufman,
17 you'll have 30 days from the receipt of the transcript
18 to review it, make corrections, and sign. If you don't
19 sign within that period, as you know, it becomes
20 effective without your signature. But I have to say
21 that on the record.

22 If you do make changes, I can comment on those
23 changes in a way that can reflect on your credibility or
24 the accuracy of your testimony, but it is your right to
25 make changes. So you understand that?

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Transcript of Lance Kaufman, Ph.D.

Conducted on March 7, 2019

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1 Q Okay. We'll get to that a little later.
2 But -- so let me ask you this. You haven't done an
3 actual damages study and calculation -- well, let me
4 step back.

5 You haven't done an actual damages
6 calculation, right? You've just described how one would
7 be done, correct? In this report.

8 A In this report.

9 Q All right. Let's -- let's put mediation aside
10 for a moment. But for this report, for this expert
11 report in support of class certification, you have not
12 done an actual damages calculation, correct?

13 A Correct.

14 Q Okay. Other than the legal basis that we've
15 been talking about, this basis for damages, other than
16 that, you're not aware of any information or documents
17 you feel you need that you don't have, correct?

18 A Other than that and --

19 Q If the basis for damages is different --

20 A Right.

21 Q -- you'd need different documents, correct?

22 A Correct, with respect to just the methodology
23 that's laid out. In terms of the actual calculations,
24 then we'd also would need -- potentially, additional
25 data for the actual calculations.

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Transcript of Lance Kaufman, Ph.D.

Conducted on March 7, 2019

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1 get into the substance of the conversations.

2 A How big was the damages report.

3 MS. PREOVOLOS: Well, I don't think these are
4 privileged conversations. They're conversations with
5 testifying expert.

6 MS. KRAS: Well, if it's -- I -- I think there
7 are some work product protection for some of those
8 conversations. So...

9 MS. PREOVOLOS: Well, let's see if there's
10 anything to fight about.

11 Q Was that conversation about the substance and
12 conclusions of your damages report?

13 A It was prior to developing conclusions.

14 Q Did you base your opinion, in this case, on
15 anything you were told by -- well, let me stop.

16 Did you talk to any counsel, any lawyers,
17 other than the people we've just talked about in
18 connection with this case, this --

19 A No.

20 Q -- assignment? Okay.

21 Do -- did you base your opinion on anything
22 they told you?

23 A Yes.

24 Q Okay. What?

25 A So they -- they informed me about -- that's --

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Transcript of Lance Kaufman, Ph.D.

Conducted on March 7, 2019

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1 "contract rescission" is the right term. I was not
2 familiar with that concept prior to the discussions with
3 attorneys. And we discussed whether contract rescission
4 was appropriate to include as a form of damages.

5 Q So that's -- since that's one of the
6 conclusions in your report, I think I'm entitled to know
7 about it. So -- so they raised -- who -- who raised the
8 issue of rescission with you? Which lawyer?

9 A I can't remember.

10 Q Okay. Was it a woman or a man?

11 A It was -- Michella probably raised it,
12 initially. But I'm not totally sure on that.

13 Q And who else did you talk to about it?

14 A Michella and Robert -- Rob Carey. Michella
15 Kras and Rob Carey.

16 Q And what did they tell you about rescission?

17 A They explained that rescission was one remedy
18 that's been used by the courts for breach of contract
19 and that it involved, basically, unwinding both sides of
20 the contract to where the parties were prior to agreeing
21 to the contract.

22 Q Anything else?

23 A I think that was it.

24 Q Did you do any research yourself regarding
25 rescission?

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Transcript of Lance Kaufman, Ph.D.

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1 A Yes.

2 Q What did you do?

3 A I reviewed the definition of rescission.

4 Q Where?

5 A This is -- mostly in Internet research --
6 well, all Internet research.

7 Q Did you save that research?

8 A No.

9 Q You didn't save any of that research?

10 A It was -- it didn't seem like -- it didn't
11 seem like any -- no, I didn't save any of the research.

12 Q What were you about to say? It didn't seem...

13 A It didn't occur to me to save the research.
14 It didn't...

15 Q You rely on it in your report, don't you?

16 A Rely on the research?

17 Q Uh-huh.

18 A It was really just high level, what is
19 contract rescission? What's the definition? How does
20 it work?

21 Q And you recommend rescission in your report as
22 a damages measure, right?

23 A That's correct.

24 Q So you didn't save your research on one of the
25 remedies you recommend in your report, right?

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Transcript of Lance Kaufman, Ph.D.

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1 A That's correct.

2 Q Okay. You said that whichever lawyer you
3 talked to about rescission explained that it involved
4 unwinding both sides of the contract. What do you
5 understand that to mean?

6 A I understand it to mean that Apple would not
7 have an ongoing obligation to provide the services
8 described in the contract and that the customers would
9 receive a refund of the monies that they had paid.

10 Q Would they receive a full refund under your
11 theory?

12 A Under my theory, they would receive a full
13 refund.

14 Q Would they be required to return the service
15 units they had received as part of unwinding the
16 transition?

17 A I had not thought about that.

18 Q Wouldn't that be part of the consideration
19 they received under the agreement?

20 A Seems likely that that would be required to
21 unwind the contract.

22 Q Okay. Did you consider that in your damages
23 analysis in any way?

24 A The return of the phone?

25 Q Uh-huh. Or iPad.

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Transcript of Lance Kaufman, Ph.D.

Conducted on March 7, 2019

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1 A Right, or iPad. I did not -- as I mentioned
2 earlier, I had not thought of the need to return the
3 device.

4 Q Okay.

5 A So, no, I didn't consider it when I drafted
6 the report.

7 Q Okay. Are you aware of the bases for
8 rescission; that is, what the plaintiffs would have to
9 show -- not -- I'm -- I'm from what -- just in the
10 abstract. Not the plaintiffs in this case --

11 A Uh-huh.

12 Q -- but what a plaintiff would have to show to
13 get rescission?

14 MS. KRAS: I'm going to object just because I
15 think this is outside the scope of his testimony.

16 But obviously you can answer the question.

17 MS. PREOVOLOS: Well, let me just be clear,
18 it's not outside the scope of his testimony because he
19 is recommending the remedy.

20 MS. KRAS: Well, he --

21 MS. PREOVOLOS: He's saying it's appropriate.

22 MS. KRAS: He's saying that we instructed him
23 to prepare damages for that remedy, so --

24 MS. PREOVOLOS: No. No. Actually, in his
25 opinion, he opines that that is one of two appropriate

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1 remedies. He goes beyond simply talking about how it
2 would work. He says it would be appropriate. I think
3 I'm entitled to find out why he thinks it's appropriate.

4 But in any event, you're going to let him
5 answer. So anyway...

6 A Can you repeat the question?

7 Q Yeah. What's -- what factor -- do you have an
8 understanding as to what factors would justify the
9 remedy of rescission?

10 MS. KRAS: Same objection.

11 A Beyond the existence of a breach of contract,
12 I'm not familiar with what factors would be required to
13 apply the remedy of a rescission.

14 Q So you don't have an understanding or an
15 opinion as to whether rescission would be legally
16 appropriate here? You simply measured it; is that
17 right?

18 A I don't have an understanding of whether it
19 would be legally appropriate, but my opinion is not
20 limited to simply measuring it.

21 Q Okay.

22 A What I state in the report is that providing
23 customers the option of -- of the two approaches would
24 allow customers to self-select into the remedy that --
25 that is most appropriate for their situation or that

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Transcript of Lance Kaufman, Ph.D.

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1 ahead and ask your question again.

2 Q No, I think you are. You're -- you're trying
3 to say that the class includes people who have not yet
4 received a replacement, and your damages estimate
5 includes people who have not yet received a replacement
6 unit but who may in the future receive a replacement
7 unit containing not new parts; is that right?

8 A Right. So my -- right.

9 Q Okay. But on the day you do a damages
10 analysis, how do you know who those people are? How do
11 you identify those class members? You don't know who
12 they are.

13 A Right. So it's a -- it's a probabilistic
14 analysis. So the analysis would give you an expected
15 value of your future damages, and so it would be --
16 and -- and it would be based on the length -- it would
17 be specific to the length of the remaining time in your
18 contract. So individuals who would have a longer period
19 remaining in their contract would have a higher expected
20 value than individuals who had a, you know, just one day
21 left on the their contract would have very lower
22 expected value, the probability of receiving a
23 replacement times the value of replacement. And so --

24 Q Wait -- wait a minute. Those -- those people
25 aren't class members right now, though -- correct? --

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Transcript of Lance Kaufman, Ph.D.

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1 who should be awarded damages and who shouldn't, then
2 it's -- it would be very easy to apply the remedy to the
3 individuals that are appropriately remedied.

4 My report is not intended to make a statement
5 about, you know, who's legally entitled to a remedy.

6 Q But you've -- let me understand. You've
7 proposed a remedy in your report for people who at this
8 moment you cannot identify, correct?

9 A No. So my report -- so just to be clear, my
10 report may not -- may or may not be consistent with the
11 class. I don't know. That's not my area of expertise.

12 My report -- I can identify all of the -- I
13 can tell you everyone who was intended to be covered by
14 my report, and that is everyone who either received a
15 replacement -- I mean who received a remanufactured
16 replacement in the past and/or have an ongoing period
17 remaining in their AppleCare policy.

18 Q Okay. But to the extent that the class is
19 limited to people who received a replacement device with
20 not new parts, you do not and cannot know whether the
21 people in your second group will ever fall within that
22 class, correct?

23 Let me rephrase that.

24 You don't -- you cannot -- so you say there's
25 a group of people who have a plan now and in the future

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Transcript of Lance Kaufman, Ph.D.

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1 have received remanufactured devices so far, right?

2 A So I would rely on -- I would anticipate
3 that a -- or I do anticipate that Dr. Bardwell or
4 another expert would -- would determine the appropriate
5 data and factors to include in developing the
6 probabilities.

7 Q Okay. So you haven't developed those
8 probabilities yet?

9 A For the context of this report, I have not
10 developed any probabilities.

11 Q Okay. Would those probabilities be based on
12 the mix of remanufactured and new parts given out for
13 existing models of iPhones and iPads, or you don't even
14 know that?

15 A The historic patterns of replacements will
16 very likely inform the future patterns of replacements,
17 and it -- it's very likely that they would be
18 incorporated into a model of future replacements.

19 Q But that --

20 A But I don't know -- I -- I think it's
21 premature at this point to -- to -- to limit or
22 formulate a specific model until we know all the data
23 that are available.

24 Q So you're telling me that you don't have a
25 model and you haven't done a calculation for this

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Transcript of Lance Kaufman, Ph.D.

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1 supposed future award to not-yet-identified class
2 members, right?

3 You don't have that model yet, correct?

4 A So I note in the report that -- that the --
5 the methodology could be applied, given the data that
6 are available right now. And the reason why I say that
7 is because I did some preliminary work along those lines
8 as part of the mediation.

9 I am not proposing that any of that work is
10 appropriate or is -- is work that should be used for a
11 further analysis in this case because I don't know what
12 additional data might come up.

13 Q Okay.

14 A So if -- if I was -- if I was asked, can you
15 do this right now, I could say, well, yes, I have -- I
16 have done something very similar in the past for a
17 different -- in a different context for the mediation,
18 and that same process could be applied. But I don't
19 know the specific model that in the end will ultimately
20 be the most appropriate model because we haven't had a
21 chance to review all the potential data that could be
22 applied to it.

23 Q So at this point you don't have a model that
24 you are proposing to the court for calculating future
25 damages for unknown class members, correct?

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Transcript of Lance Kaufman, Ph.D.

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1 literature -- right? -- it's based on a literature
2 study?

3 A That's correct.

4 Q Okay. And it's only based on a literature
5 study, right?

6 A Yeah, mostly right. I mean, there -- it's --
7 it's hard to -- to -- I mean, differentiate my -- you
8 know, my general ex- -- general knowledge as a consumer
9 of, you know, observing markets.

10 Q Well, we'll talk about markets in -- well, we
11 can talk about that, but I just want to stick with
12 what's in the report.

13 A This section of the report only references
14 literature.

15 Q Okay.

16 A The -- my personal opinion that consumers
17 value remanufactured devices less than new devices also
18 incorporates, you know, experience observing markets and
19 other things. But it does not -- I mean...

20 Q It's not cited?

21 A That's not cited.

22 Q Okay. You didn't -- at no point have you done
23 a consumer survey on this issue, right?

24 A I haven't done any independent research on the
25 issue.

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Transcript of Lance Kaufman, Ph.D.

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1 Q You haven't done any independent research,
2 right?

3 A Right.

4 Q Okay. You haven't done --

5 A Well, I haven't done any independent research
6 on this issue.

7 Q Correct.

8 A I've done independent research.

9 Q All right. We're getting a little quick. Let
10 me do that over.

11 You have not done any independent research on
12 the question of -- on the proposition that consumers
13 value remanufactured devices less than new devices,
14 right?

15 A Correct. Yes.

16 Q Okay. And in preparing this report, you did
17 not commission or do a consumer survey, right?

18 A Correct.

19 Q And such surveys are often done in consumer
20 class action damages studies, right?

21 A I'm not familiar with that.

22 Q Okay. Did you consider doing a survey?

23 A No.

24 Q Okay. So you said you base this conclusion
25 number 2 on your general experience of markets, right?

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Transcript of Lance Kaufman, Ph.D.

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1 product like an iPhone, correct?

2 A Correct.

3 Q Okay.

4 A But the statement here is -- you know, not --
5 a general -- general statement.

6 Q I know, but I -- I think my point is that
7 there are some questions that we've really been talking
8 about about whether there are some distinctions to be
9 made here, right?

10 A Well, so there's -- there's two parts in my
11 report that address the difference in valuation.

12 Q I understand. I understand.

13 A This part is just the general concept of a
14 valuation.

15 I wasn't specifically looking for, I mean, a
16 body of literature on iPhones. I was just looking in
17 general on remanufactured.

18 Q Understood. I'm -- I'm just -- I'm just
19 saying there are some issues about the analogy.

20 Let me stay with conclusion 2 for a minute,
21 though. So conclusion 2 is comparing -- it's talking
22 about how consumers value remanufactured devices versus
23 new devices, right?

24 A Yes.

25 Q The AppleCare Plus term said, "Replacement

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Transcript of Lance Kaufman, Ph.D.

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1 devices would be new or equivalent to new in performance
2 and reliability," correct?

3 A I'm sorry. I'd have to go back and look at
4 that. It's probably in the complaint, right?

5 Q Uh-huh.

6 A Probably this one.

7 MS. KRAS: Yeah. C.

8 A Correct.

9 Q Okay. So if something is equivalent to new in
10 performance and reliability, it's not new, right?

11 MS. KRAS: Objection; calls for speculation.

12 Q It --

13 A It implies that it's different from new if
14 it's equivalent to new.

15 MS. PREVOLOS: Yeah, it doesn't call for
16 speculation. I'm asking him how he reads the term,
17 Counsel.

18 A Yes, something other than new.

19 Q Not new, right?

20 So when you were comparing -- when you were
21 talking about how consumers compare new and
22 remanufactured devices, Apple didn't promise consumers
23 brand-new devices, did it?

24 A No.

25 Q Okay. Let's look at conclusion -- I think

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1 we're ready to move to conclusion 3, which is on page --

2 A Can I -- is it -- is it appropriate to add
3 something on that or --

4 Q I think we're okay.

5 A So --

6 Q No, I think we're done.

7 A Sorry.

8 Q Your counsel can redirect at the end, if she
9 wishes.

10 A Sure.

11 Q So on the next page, page 6, you talk about
12 the retail price of remanufactured devices is lower than
13 the retail price of new devices, right?

14 That's at the top of page 6. And, again,
15 we're talking about your report.

16 A Top of page 6. What's the question?

17 Q I was just saying it -- it draws the
18 conclusion that the retail price of remanufactured
19 devices is lower than the retail price of new devices,
20 right?

21 A Yes.

22 Q Okay. That's based solely on your review of
23 Apple's current online website, correct?

24 A Correct.

25 Q Okay. And what iPhone models did you look at?

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1 So you reach the conclusion that the
2 difference is 15 to 33 percent of retail price. And,
3 again, that's based on comparing certified refurbished
4 and new devices on Apple's online site, right?

5 A Right.

6 Q What models did you look at? What iPhone
7 models?

8 (Ms. Vyas is not present.)

9 A So the process that I went through because
10 this data was not -- not in, like, a structured manner.
11 It was just, you know, scrolling through the website.
12 And it didn't seem like an efficient use of time to --
13 to create a spreadsheet, put everything in, and so
14 forth.

15 What I did was I -- I just did a visual scroll
16 through of the -- pretty much all of the devices, and
17 just visually I could tell -- you know, there's -- there
18 was, like, on the -- on the -- on the site, there would
19 be, like, the new price -- the -- the remanufactured
20 price, and then below it, it would list the new price.

21 Q Uh-huh.

22 A And so I just kind of did a, you know, just
23 guesstimation on this visual scroll through to kind of
24 say, okay, where's the highs and lows?

25 And then for the ones that looked high and the

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1 ones that looked low, then I manually calculated, on my
2 calculator, the price difference.

3 I mean, I pretty much looked at almost all the
4 models that were on there because I clicked through
5 almost all the pages.

6 Q I'm asking you a different question, though,
7 but thank you.

8 You cite to a particular -- you have a link in
9 your footnote 8, right?

10 A Yes, right.

11 Q And so if you look at "Refurbished iPhones" --
12 I -- I popped that link in, I think, yesterday, and I --
13 I will mark this as an exhibit. So let's mark this as
14 whatever is next in order.

15 (Deposition Exhibit 69 was marked for
16 identification.)

17 Q So Exhibit 69, I'll represent, is a printout
18 of that page for iPhone.

19 A Uh-huh.

20 Q And, in fact, it only has two models, right, 7
21 and 7 Plus, for iPhone, right?

22 A Yeah.

23 Q And there were only two models for sale or on
24 sale, refurbished models, that day, that particular day,
25 right?

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1 A Looks like it.

2 Q Okay. So at any -- so at least as -- and you
3 say in your report that the way you'd calculate damages
4 is you would look at the date someone got a replacement
5 unit, right?

6 A Right.

7 Q And you would look at the price of a
8 refurbished -- of a comparable refurbished phone on the
9 Apple website that day, and you'd compare it to the
10 price of a new phone that day, correct?

11 A Correct.

12 Q Okay. So on this day, unless you had an
13 iPhone 7 or an iPhone 7 Plus, you couldn't do that
14 calculation, could you?

15 A Right. So what I would do in that scenario is
16 I would, you know, look for days close to, like, within,
17 you know, whatever the nearest day was. And I might
18 look at a range of days to see if there's variation in
19 time.

20 Q What if the nearest day was a year ago?

21 A If the newest day...

22 Q If the nearest day was a year ago?

23 A Well, if the nearest day was a year ago, there
24 might be value in -- that's -- that seems distant enough
25 that there might be value in looking at a trend in the

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1 price difference. However, it's also possible that,
2 even if a phone is not listed as available, it's
3 possible that Apple maintains prices in the event that
4 one -- right? -- in the event that a phone is ready to
5 be sold, there's -- I mean, it seems reasonable that
6 Apple would have, you know, a reconstructed price list.

7 So there's two scenarios. If -- if -- if the
8 data was a year ago, I would look to see are there any
9 other sources that Apple has that would give us the
10 price for what they would sell it for if they had an
11 item, or I would look at a longer history and see if --
12 if there would be -- need to be some adjustment from the
13 price for a year ago.

14 Q Apple didn't always sell certified refurbished
15 iPhones, did it?

16 A I don't know.

17 Q If Apple didn't sell certified refurbished
18 versions of some models -- and I'll represent to you
19 that Apple started selling certified refurbished
20 iPhones, at least according to what is in the public
21 literature, in November or so of 2016.

22 But in any event, if Apple didn't sell
23 certified refurbished models --

24 A Uh-huh.

25 Q -- for some class devices, how would your

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1 model work?

2 A Well, first I would see if they sold
3 refurbished devices that weren't certified.

4 Q Wait.

5 A If there was --

6 Q Wait. Wait.

7 If Apple sold certified -- sold refurbished
8 devices that weren't certified?

9 A Right.

10 Q Okay. But assume for a moment that Apple
11 didn't sell a refurbished phone --

12 A Okay.

13 Q -- of a -- of a particular model.

14 A Right. So in that scenario, we would have to
15 develop a pricing model that looks at -- that looks at
16 the relationship between the attributes of the phones,
17 the -- you know, the -- the time from initial release,
18 the -- the number of megabytes, color, and develop a
19 model that explains the price discounts for the
20 refurbished compared to the new. And then we would
21 apply that -- that model to the earlier devices.

22 Q That's quite a bit more complicated, isn't it?
23 And you haven't -- well, that's quite a bit more
24 complicated, right?

25 A It's more complicated.

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1 Q And you haven't tested -- you don't present
2 that model in your report or discuss how you do it,
3 right?

4 A That's correct.

5 Q But you do agree that -- I think -- I think we
6 just -- we just did agree that iPhone models vary by --
7 and the price varies by not only the model, but, at a
8 minimum, a capacity -- the memory capacity, and people
9 have preferences for color, right?

10 A Right, yeah.

11 Q So you'd have to deal with all those
12 differences for every variation of every model, and then
13 you'd have to compare refurbished and new pricing,
14 correct?

15 A I mean, there's -- there's a range of factors
16 that could be incorporated into the model.

17 I think at this point it's a little bit early
18 to speculate about which factors would be most
19 appropriate to include.

20 If a certain factor, like color, wasn't
21 available, you know, then I would explore whether -- you
22 know, whether an average across all -- you know, whether
23 an average across all colors would be appropriate and so
24 forth.

25 Q Okay. But you'd have to look at memory

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1 capacity, right, because that makes a hundred dollar
2 difference or so in price, right?

3 A Like I said, I -- I -- I haven't -- I
4 mentioned earlier that there were factors that we
5 would -- that I would consider. Memory would be a
6 factor I'd consider. Color would be a factor that I'd
7 consider.

8 It's premature to say. I'd have to look at
9 memory. I'd have to look at color.

10 I -- I think at this point, those are factors
11 that would be appropriate to consider.

12 If they're not available, then I would explore
13 other options, and I would explore whether -- you know,
14 whether it's appropriate to not include those factors.

15 Q Okay. But you haven't -- what you're saying
16 is you haven't built that model yet, right?

17 A That's correct.

18 Q Okay. Conclusion 4, which is -- you don't
19 number them. But you say, "Lower liability in
20 retail" -- let me strike. Let me strike. Let me go
21 back. I apologize.

22 In terms of the pricing of the new phone
23 price --

24 A Uh-huh.

25 Q -- that varies over time too, right?

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1 willing to pay a higher lock -- unlocked price, do you?

2 A Correct.

3 Q Okay.

4 A You don't know if the consumer that -- for a
5 specific consumer, if that consumer is willing to pay.

6 Q Okay. I don't -- I don't want to -- to
7 belabor this. Let's move on.

8 So you understand that the plaintiffs are
9 suing over the service contracts they
10 purchased -- right? -- not the iPhones or iPads they
11 purchased, right?

12 A Yes.

13 Q And, again, I think we established that the
14 AppleCare Plus terms say the replacements will be new
15 or, quote, equivalent to new in performance and
16 reliability, right?

17 A Yes.

18 Q And that means that some replacements aren't
19 new, right?

20 A Yes.

21 Q Okay. What do you think consumers -- let me
22 try it this way.

23 Don't you think that at least some consumers
24 would understand "equivalent to new" to mean not
25 brand-new?

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1 A I'm not trying to value --

2 MS. KRAS: Objection. This goes beyond the
3 scope --

4 A I'm not --

5 MS. KRAS: -- of his testimony. Yeah.

6 MS. PREOVOLOS: Well, all right. No, it
7 actually doesn't, because he's proposing --

8 MS. KRAS: He's not proposing a value on the
9 plan. He's proposing valuing the harm to the consumer,
10 the difference of what they were promised versus what
11 they received. So...

12 Q The consumer purchased the plan, right?

13 A Consumer purchased a plan, yes.

14 Q And the plan has multiple kinds of value,
15 right? It has multiple elements?

16 A Right.

17 MS. KRAS: Objection; goes beyond the scope.

18 MS. PREOVOLOS: As an -- it's absolutely bang
19 on the scope. You can take that one to the court.

20 Q The plan has various components, right?

21 A Right.

22 Q And those components have value, right?

23 A Right.

24 Q And as an economist, you could value those
25 components, right?

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1 right --

2 Q Supposing you have a brand-new replacement,
3 and it fails 23 months into the plan, do I get
4 rescission now too? I've got exactly the same damage.

5 A Say that one more time.

6 Q Supposing I have -- my replacement unit is
7 brand-new. It's a new replacement unit --

8 A Uh-huh.

9 Q -- but it fails after 22 months.

10 A Right.

11 Q Am I entitled to a rescission?

12 A That's not what's proposed in my report.

13 Q What's the difference? I've had exactly the
14 same experience.

15 I guess my problem is, you know, when you talk
16 about rescission, you're really talking about a failure
17 of consideration, right? And I just have great
18 difficulty seeing how somebody who got two years of
19 phone service and the other benefits of a plan has
20 experienced a failure of consideration.

21 I'm just -- I'm not -- I'm not seeing your
22 theory here because it seems to be -- just as a matter
23 of economics, that person received value, right? Just
24 to put it in economic terms, they received value from
25 Apple. And you're proposing that -- that nonetheless

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Transcript of Lance Kaufman, Ph.D.

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1 that they get to rescind the contract.

2 And I -- that doesn't -- I don't understand
3 the economics of that.

4 I'm not trying to argue law with you.

5 A Uh-huh.

6 Q Just strict valuation.

7 A So I believe I mentioned -- okay. So -- so I
8 believe I mentioned that the -- the -- the rescission
9 proposal is -- is included because my understanding is
10 that that is one remedy that the courts accept in these
11 scenarios.

12 Q Are you aware of a consumer electronics case
13 where a rescission remedy was provided --

14 A No.

15 Q -- by a court?

16 So you don't have an economic theory why this
17 is appropriate for rescission, right?

18 A I do have an economic theory. It -- it is
19 contingent on my understanding that rescission is a
20 remedy that the -- that the courts find acceptable.

21 Q Okay.

22 A So if -- if we take as a -- if we take as a --
23 as a given that rescission is an appropriate remedy,
24 then the question becomes what's more appropriate,
25 rescission or the first damage theory of the price

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1 differential?

2 And the economic theory that I'm applying is
3 that -- that, given that rescission is a reasonable
4 remedy, based on legal precedent, which, like I said,
5 I'm not familiar with the legal precedent, but my
6 understanding was --

7 Q Your lawyers told you this is a possible
8 remedy? Is that what happened?

9 A My lawyers told me that rescission is a
10 possible -- is accepted -- is acceptable remedy. And
11 then my report is -- is looking at whether rescission is
12 appropriate.

13 Q Okay. But I'm trying to understand as an
14 economic matter.

15 A Okay.

16 Q Just as a pure matter of economics, if
17 somebody purchases a two-year contract which provides
18 various things, but among those things it provides a
19 replacement unit if your original brand-new iPhone
20 fails.

21 A Uh-huh.

22 Q You get a replacement unit, and it's worked
23 fine, as -- you're now in month 23 or 20 or 22. Your
24 phone has worked fine.

25 It seems to me that a rescission measure which

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1 says the consumer gets all their money back ignores the
2 economic value that the consumer received. And I don't
3 hear you telling me that they didn't receive economic
4 value, right?

5 A The question is what's the economic value of
6 the remaining period.

7 Q A hundred percent?

8 A Unknown. It could be --

9 Q Really. I've -- I've got a two-year contract.
10 And --

11 A If we take it to the extreme, there's one day
12 left.

13 Q Or six months left.

14 And -- and if the phone fails at that point,
15 by the way, we both agree they get another phone, right?

16 I just -- I mean, in all seriousness --

17 A Right.

18 Q -- as an economic --

19 A As a -- as I mentioned -- sorry for
20 interrupting.

21 Q Go ahead. Go ahead.

22 A As I mentioned before, there's a practicality
23 issue, right? Where does the value come from? When
24 does it come from?

25 And it seems -- I mean, if -- if on -- if on

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1 the last day, your phone fails, you got all your value
2 on the last day, right?

3 Q Not as a matter of economics that I've ever
4 heard of. Really?

5 If I have a -- if I have a two-year lease on a
6 car and I drive the car for 23 months, are you
7 suggesting, if the car breaks down in month 24, I get
8 all my lease payments back? Seriously? Really?

9 A Well, it's a little bit of a different
10 situation. You're thinking more of like a rental.

11 Q I'm thinking of a contract with a duration
12 where performance is -- well, where performance occurs
13 for the entire duration one way or another but where
14 there isn't even a failure until late in the contract.

15 And I just -- your economics says there's no
16 value -- right. -- that Apple has conferred no value on
17 that consumer. And I just don't -- I don't see --

18 A Well, there's two -- I mean, there's --
19 there's a -- the question -- the question is not what's
20 the value that's -- that's been received.

21 The question is what's the value that remains.

22 Q Uh-huh.

23 A Right?

24 And -- and the value remaining could be a
25 hundred percent if your phone happens to fail in the

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1 time that's remaining. You know, if you ask the
2 person -- so it's -- there's a practical issue, as you
3 mentioned before, in unwinding a contract that's partway
4 through.

5 Q Uh-huh.

6 A And my proposal is the --

7 Q Is the consumer gets everything, and Apple
8 gets nothing. And I'm still waiting to hear the
9 economic model that justifies that or the economic
10 theory or the economic article or the economic principle
11 or any piece of economics that says --

12 A Right. So the -- the -- the economic
13 principle relies on an assumption that rescission of the
14 contract is appropriate.

15 Q So you're basically saying --

16 A And --

17 Q Let me just understand.

18 You're basically saying that you're not
19 looking for an economic justification. You're saying
20 there's a legal justification. The law says you get
21 rescission --

22 A Right.

23 Q -- and you're going to measure the economics?
24 That's really what you're saying, right?

25 A There's a legal -- it's -- there's -- it's

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1 assuming that there's a legal justification. And -- and
2 the -- the economic principles are laid out in my report
3 where I describe that -- that offering -- under the
4 assumption that, you know -- under the assumption that
5 there is a basis for damages. We've already established
6 that.

7 We're assuming the court has decided there's a
8 difference, there's a basis for damages. And under the
9 assumption that there's a legal justification for
10 rescission, what -- the economic principle that I'm
11 presenting is that you should give the customers the
12 choice rather than dictating which one.

13 So that's the economic principle that I'm
14 applying is that customers should be given the choice.

15 And the reason for that is because the
16 customer is the -- is the individual that is most
17 like -- I mean is in the best position to determine
18 which remedy is most suiting to them.

19 Q Well, I'm -- I'm sure the customer would love
20 to get a full refund, but --

21 A I don't know. They might not. They might
22 prefer the other one, right? It's -- it's -- it's --

23 Q Well -- but I'm not asking about consumer
24 choice.

25 I'm asking about the economics that tells me

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1 that somebody who paid \$199 for a two-year contract --

2 A Uh-huh.

3 Q -- and -- and got a phone for the entire two
4 years --

5 A Right.

6 Q -- and didn't have to replace their
7 remanufactured unit for, you know, a year and ten
8 months, that that person obtained no value under the
9 plan and is entitled to all their money back. And I
10 don't think you can -- you can articulate an economic
11 principle that -- that supports that valuation.

12 And I don't think you're trying to. I think
13 you're saying --

14 A Right. I'm not trying to.

15 I'm just saying, there's --

16 Q There's law? There may be law?

17 A There's law. There might be. And the other
18 thing that I've been trying to say is the practicality
19 issue. Like, okay, now if you're going to try and
20 apportion the value, you know, how are you going to
21 apportion it?

22 So there's practicality issues and, you know,
23 the legal arguments that I'm not familiar with.

24 Q Okay. Let me ask a different question. You
25 say that class members who purchased new models reveal

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1 consumers once they're aware of the remanufactured
2 device's, quote, defect rates.

3 Do you remember that statement?

4 A Yes.

5 Q Okay. Did you try to measure the diminished
6 value of a plan?

7 A No.

8 Q Okay. So you didn't do -- so, for example,
9 sometimes in consumer cases, plaintiffs measure the
10 diminished value of a good by doing a consumer survey,
11 right? They try to see what consumers would have paid
12 knowing or not knowing about a fact, right?

13 A I'm not familiar with those cases.

14 Q Okay. But you didn't try to measure
15 diminished value, right?

16 A Right.

17 Q Okay. One way to look at the diminished value
18 would have been to look -- or the allegedly diminished
19 value -- would be to look at other -- other service
20 plans where the carrier or other manufacturer disclosed
21 that used parts would be included in replacement
22 devices, right? Wouldn't that be one way to look at the
23 difference?

24 A That would be one way that you could look at
25 the difference. As you mentioned, you could also look

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1 at -- I mean, it -- you'd have to -- you'd have to also
2 control for the other characteristics --

3 Q Of course.

4 A -- of the plan.

5 Q Did you try to do that, though?

6 A No.

7 Q Did you look at competing plans at all?

8 A No.

9 Q Okay. Did you look at whether competing plans
10 offer remanufactured phones? I take it the answer is
11 no?

12 A Well, I'm -- I'm pausing, because I'm -- I
13 reviewed the -- some discussion or some -- I'm familiar
14 with the Apple -- the general one-year warranty having
15 some discussion of refurbished device. But that's not
16 something that's got a separate price. So...

17 Q No. I wasn't -- I wasn't suggesting that. I
18 was suggesting equivalent service plans from Samsung or
19 AT&T or Verizon, or whatever.

20 A No, I didn't look at that.

21 Q Okay. Economists look at the value of things
22 in -- as they actually happened in the but-for world,
23 right? Sometimes?

24 A Could you -- could you clarify or --

25 Q Sure. In this case, I think, an economist

No. 232237

Re: Deposition of **Lance Kaufman, Ph.D.**
Date: 3/7/2019
Case: Maldonado, et al. -v- Apple, Inc., et al.
Return to: transcripts@planetdepos.com

ACKNOWLEDGMENT OF DEPONENT

I, Lance Kaufman, Ph.D., do hereby
acknowledge that I have read and examined the
foregoing testimony, and the same is a true, correct
and complete transcription of the testimony given by
me and any corrections appear on the attached Errata
sheet signed by me.

April 5, 2019



(Date)

(Signature)

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CERTIFICATE OF SHORTHAND REPORTER

I, Charlotte Lacey, the officer before whom the foregoing deposition was taken, do hereby certify that the foregoing transcript is a true and correct record of the testimony given; that said testimony was taken by me stenographically and thereafter reduced to typewriting under my direction; that reading and signing was requested; and that I am neither counsel for, related to, nor employed by any of the parties to this case and have no interest, financial or otherwise, in its outcome.

IN WITNESS WHEREOF, I have hereunto subscribed my hand this 13th of March, 2019.



Charlotte Lacey, RPR, CSR #14224

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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

- - - - - x
VICKY MALDONADO AND JUSTIN :
CARTER, individually and on :
behalf of themselves and all :
others similarly situated, :
Plaintiffs, : Case No.
v. : 3:16-cv-04067-WHO
APPLE INC., APPLECARE SERVICE :
COMPANY, INC.; and APPLE CSC :
INC., :
Defendants. :

- - - - - X

HIGHLY CONFIDENTIAL AND RESTRICTED ACCESS
PURSUANT TO THE PROTECTIVE ORDER
Deposition of MICHAEL GERARD PECHT, Ph.D.
Washington, DC
Thursday, March 14 2019
10:33 a.m.

Job No.: 232238
Pages 1 - 140
Reported by: Debra A. Whitehead

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Transcript of Michael Gerard Pecht, Ph. D.

Conducted on March 14, 2019

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P R O C E E D I N G S

MICHAEL GERARD PECHT, Ph.D.,

having been duly sworn, testified as follows:

EXAMINATION BY COUNSEL FOR DEFENDANTS

BY MS. PATEL:

Q Good morning, Dr. Pecht.

A Good morning.

Q Could you please state and spell your name, for the record.

A Michael Gerard Pecht. M-I-C-H-A-E-L, G-E-R-A-R-D, P-E-C-H-T.

MS. PATEL: And then, Rob, just our standard stipulation for these depositions? They'll be marked highly confidential and restricted access until we can make page and line designations under the protective order?

MR. CAREY: That's fine.

BY MS. PATEL:

Q Dr. Pecht, I know you've had your deposition taken before, because I had the pleasure a few years ago.

When was the last time you were deposed?

A I think about a couple of weeks ago.

Q A couple of weeks ago. And what case was that in?

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1 Q And what's your understanding of what
2 that product is?

3 What's a remanufactured iPhone or iPad?

4 A So it's -- I talk about that a bit on
5 Page 8, as well.

6 So the way it's explained in some of the
7 depositions, I think Lanigan for sure, I believe
8 in probably both his depositions, and in perhaps
9 also Fu, they say that some phones are returned --
10 when they're returned because there was a problem
11 with them, those phones can be sent back to the --
12 to the contract manufacturer and parts salvaged
13 from those phones. And then kit it to form -- kit
14 it as parts that can be used in the making of
15 another phone which would be sold. And that phone
16 would be called a remanufactured phone.

17 Q And when you say that that phone would be
18 sold, is it your understanding --

19 A If I said sold, I'm sorry. It would be
20 whatever, put back into -- given to a customer.

21 Q Did you test any remanufactured iPhones
22 in connection with your work on this case?

23 A No.

24 Q What about iPads, remanufactured iPads?

25 A No.

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1 Q All right. If we can go to Page 4, we
2 have a description of your qualifications on most
3 of this Page 4, but I would really just like to
4 focus, it's the first full paragraph on the page,
5 and really the second sentence there that starts,
6 "I have conducted or had conducted at my direction
7 many hundreds of tests and failure analysis of
8 electronics."

9 Do you see that?

10 A Yes.

11 Q Can you just elaborate for me a little
12 bit on what you mean by "failure analysis"?

13 A Yes. So when a device doesn't perform as
14 intended, or -- yes, it doesn't perform as
15 intended, companies ask us can we determine what's
16 the root cause of the problem, and oftentimes how
17 can we fix it.

18 So we have to look at all the tools that
19 are available to help run through an analysis to
20 try to uncover the root causes.

21 Q And how do you undertake that effort?
22 And I realize it probably varies from electronic
23 device to device. So maybe if you could go high
24 level, and then we can go into detail as needed.

25 A Right. One of the best ways would be

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1 to -- well, there's a series of things you do to
2 start. And that could be everywhere from
3 interviews of the people who had the product or,
4 you know, interviews of the pilot for the Boeing
5 airplane. You would look at what are the various
6 subsystems involved.

7 And there would typically be what we
8 would call failure modes and mechanisms and
9 effects and criticality analysis, so FMMECA or an
10 FMEA, failure modes and effects analysis. Some
11 form of an understanding for all of the individual
12 parts that make up the product, what are all their
13 potential failure modes and mechanisms. In other
14 words, how these things could have performance
15 degradation or fail.

16 Once we have that, we like to use that to
17 see, for the given failure mode, in other words,
18 for example, the button, you have to hit the
19 button two or three times before you get the
20 effect that you want.

21 Then we would look at that failure mode
22 and see, okay -- trace it down. Sometimes one
23 would use what's called a fault-tree analysis to
24 trace it down to what are the components or
25 subassemblies, things of that nature, that would

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1 precipitate that failure mode.

2 And then we would start to look at, based
3 on all the potential root causes, what kind of
4 methods would one want to go into to uncover
5 those.

6 And of course first you would like to use
7 nondestructive methods. And then, based on the
8 findings, you would go deeper, and then there
9 might be destructive analysis.

10 So it would be pretty much like we're a
11 doctor, where, you know, first you might ask about
12 the history of the person, and do you smoke and do
13 you drink. And then you might, you know, take the
14 person's temperature and pressure. And then you
15 might do some blood tests. And depending on what
16 the problem is, you go into more depth. And it
17 could be at some stage biopsies and other things,
18 to really try to uncover what's the -- what's the
19 problem.

20 Q And does your work follow this -- I guess
21 that spectrum, where the analysis gets
22 increasingly invasive?

23 A Absolutely.

24 Q Okay. Are you able to assess the root
25 cause through -- how often are you able to assess

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1 the root cause through nondestructive testing?

2 A It really -- it really depends on the --
3 on the root causes.

4 So I think when there's a simple problem,
5 let's say that there was a wire that was broken,
6 well, you might find that x-ray can see that.

7 It's again like a doctor. An x-ray can
8 determine if you have a fracture in your leg. But
9 there could be other things where, again, it
10 depends on, let's say, a human's blood or
11 something like that, where you really need to be
12 more invasive.

13 Q Right. So it's possible that the x-ray
14 might be able to diagnose a broken wire or, in the
15 case of a human, a broken bone; but it may not
16 tell you that it is caused by -- what it was
17 caused by?

18 A That may also be the case, right.

19 Q Earlier when you were talking about, you
20 know, getting an understanding of the subsystems
21 involved and the failure modes, how do you get
22 that understanding? Is that through the
23 interviews with people knowledgeable on how the
24 products are built, or is that through analysis
25 and testing that you're doing on the products

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1 themselves?

2 A I think that the interviews, those kind
3 of things, and getting a sense of kind of the
4 history of failure sometimes provides some
5 insights.

6 But usually you have to understand the
7 components themselves and the mechanisms of
8 failure of the components themselves.

9 Q In order to determine the root cause or
10 to do a true failure analysis, you need to know
11 more than the fact that a product was returned,
12 for example?

13 A I don't understand the question.

14 Q Let me ask it a little differently.
15 Could you assume, if a product is
16 returned, that it failed?

17 A Well, I've actually written on this
18 subject. And my writings on this subject said
19 that it should be a company's responsibility that
20 every product that's returned because the customer
21 said that they found the problem should be treated
22 as a failure.

23 Q And then what's the consequence of
24 treating it as a failure? Is that remedying the
25 customer's issue, or are you suggesting some

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1 Q Did you see anything when you were
2 looking at the components that would, you know,
3 elucidate whether they were counterfeit?

4 A Oh, yeah, you could see differences.

5 Q You haven't examined any iPhones for this
6 case, though. Right?

7 A No.

8 Q And in terms of the iPhones and the iPads
9 we've talked about that you've done prior work on,
10 they all relate to new products that would have
11 been sold at retail, other than the counterfeit
12 one?

13 A I don't -- I can't recall where the
14 people, the group in Korea, where they got their
15 phones, if they were used or not used.

16 Q Okay. But they are not remanufactured
17 phones as we are working on in this case. Right?

18 A I have no idea.

19 Q Okay. And you haven't examined any of
20 Justin Carter's iPhones. Right?

21 A No.

22 Q Or Vickie Maldonado's iPads?

23 A No.

24 Q Do you intend to offer any opinion about
25 either plaintiff's replacement devices in this

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1 case?

2 A I haven't been asked to do that.

3 Q Do you know if the plaintiffs have had
4 their iPhones or iPads examined?

5 A No.

6 Q Would the results of that inspection or
7 examination, if it happened, have any impact on
8 your opinion?

9 A Not on the opinions in my report.

10 Q Why not?

11 A Because my opinions in the report are
12 quite broad-based and fundamental reliability
13 engineering statements. They generally hold true
14 regardless of the product.

15 Q Is there any analysis or inspection or
16 data that you think could impact your conclusions?

17 A Well, I -- I think there could be some
18 tests that could confirm my conclusions.

19 I mean, again, my conclusions are really,
20 you know, fundamental engineering. I mean,
21 it's -- I can't imagine that anybody who is a
22 reliability engineer would dispute any of my
23 statements.

24 So, but I think that one could perhaps
25 run some tests or something like that to -- to

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1 But generally it was that they would run
2 some kind of functional test, for the most part,
3 to see if things are operating properly when it
4 came off the manufacturing line.

5 That they did not, in my view, really
6 run -- and I think they admitted it -- [REDACTED]

7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]
17 [REDACTED]
18 [REDACTED]

19 Q Any other understanding of either the
20 performance or the reliability testing protocols?

21 A Well, again, it's kind of what's -- I'm
22 not sure I understand the question.

23 Q I'm just trying to make sure that I
24 have -- that you've had a chance to explain how
25 you understand Apple does performance reliability

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1 testing. And I wanted to give you an additional
2 opportunity to add anything to what you already
3 said. That's all.

4 A Well, I think it's, again, generically I
5 based it on the depositions and the responses from
6 the depositions.

7 Q Do you recall reviewing anything that was
8 called a [REDACTED]

9 A No, I don't recall that.

10 And I think I -- I think I may have
11 actually asked if there was a reliability -- both
12 a reliability -- the complete reliability test
13 specification document and a complete liability
14 requirements document.

15 I believe I asked them -- I asked for
16 that. And I think those went into, you know, when
17 they -- when the plaintiffs asks Apple, Can you
18 provide these, I think that request went there.

19 You know, I can't -- I would have to
20 really -- I don't recall everything perfectly
21 here. But I think that there was not a response
22 to that. Those documents weren't provided.

23 Q They weren't provided to plaintiffs or
24 plaintiffs didn't provide them to you?

25 A I think they weren't provided to

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1 plaintiffs.

2 Q So you don't remember seeing something
3 called a [REDACTED]

4 A I would have to see it to tell you if
5 I -- if I did see it.

6 Q What about something called an [REDACTED]
7 [REDACTED] document? A slightly more unique name.

8 A I'm not sure if I saw that.

9 If it was part of an exhibit of Lanigan
10 or Fu, then I may have seen it. Or I probably did
11 see it, yeah. But I don't recall right now.

12 Q You don't have a specific recollection or
13 ability to testify to having seen it, though?

14 A I just don't recall.

15 Q All right. Later down on Page 6, I'm in
16 the second full paragraph, sentence that starts
17 second half of Line 3. It says, "I also have
18 experience and written papers in the area of
19 refurbishment," and then in parens it says,
20 "remanufacturing."

21 Do you see that? It's right after the
22 list Samsung, LG, Nokia.

23 A Okay.

24 Q And so are you using "refurbishment" and
25 "remanufacturing" interchangeably there?

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Conducted on March 14, 2019

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1 customer?

2 A For qualification testing?

3 Q For reliability testing.

4 A Reliability testing, there's many kinds
5 of reliability testing. So it would depend.

6 Q So the type that you just described,
7 where you basically test to failure, you test
8 these load conditions for failure, that wouldn't
9 go to a customer. Correct?

10 A Correct.

11 Q No company in their right mind would test
12 something to failure and then send it out to a
13 customer?

14 A That is absolutely correct.

15 Q I would like to maybe go to Page 10,
16 where you have your summary of opinions.

17 A Okay.

18 Q And I have one high-level question, and
19 then we'll go through a few of these in a little
20 more detail.

21 But it seems as if many of the opinions
22 listed in the summary would apply equally to new
23 or remanufactured iPhones and iPads.

24 In other words, these are principles that
25 would apply regardless of whether it's a new

HIGHLY CONFIDENTIAL

Transcript of Michael Gerard Pecht, Ph. D.

Conducted on March 14, 2019

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1 there's electrons moving and things like that.
2 Things are heating up. There's different
3 expansions in materials. And there's buttons
4 pushed and things like that.

5 Environmental could include those, but
6 also the outside environment that it's subjected
7 to. And, you know, whether you put the phone
8 under your pillow or something like that, all
9 those kinds of things could be part of this.

10 Q And --

11 A And they could be changing with time.

12 Q Yes. I understood that from your earlier
13 testimony.

14 A Thank you.

15 Q Do different parts also degrade at
16 different rates?

17 So assume you apply the same loading
18 conditions to [REDACTED] Those parts,
19 would you say, degrade at the same rate, different
20 rate?

21 A Different rates.

22 Q And do you have any knowledge of what
23 parts in an iPhone may degrade at a more rapid
24 rate, controlling for the load conditions?

25 A No. Because it depends on the load

HIGHLY CONFIDENTIAL

Transcript of Michael Gerard Pecht, Ph. D.

Conducted on March 14, 2019

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1 BY MS. PATEL:

2 Q So I think we were turning to Summary
3 Opinion Number 10, where really you're talking, it
4 sounds like, about the impact of a load condition
5 ultimately impacting the lifespan of a
6 remanufactured device versus a new device.

7 Is that an accurate takeaway?

8 A Yes.

9 Q And do you have an understanding of the
10 lifespan of a new iPhone or a new iPad?

11 A No.

12 Q Is it your opinion that an iPhone with a
13 non-new part will always have a shorter lifespan
14 than an iPhone with all new parts?

15 A No. It -- no, it won't. Because one
16 could, again, drop a new phone, as one example.
17 And of course then that phone failed immediately.

18 Q And given the impact of load conditions,
19 isn't it possible that a new iPhone could be
20 subject to load conditions that cause it to
21 degrade faster than a remanufactured iPhone?

22 A I think if you look at an individual
23 case, that might be true. But if you look at, you
24 know, a large enough population, I think you would
25 see that there's differences.

HIGHLY CONFIDENTIAL

Transcript of Michael Gerard Pecht, Ph. D.

Conducted on March 14, 2019

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1 Q And same answers as it would apply to
2 iPads. Right?

3 A Yes.

4 Q And I'm also trying to understand, the
5 load conditions are both the environmental factors
6 and the usage factors.

7 A Correct.

8 Q To simplify it. And if that's the case,
9 then it would really vary from customer to
10 customer, geography to geography, product to
11 product. Right?

12 A Correct.

13 Q I'd like to turn to Summary Opinion
14 Number 11, which starts on the bottom of Page 11
15 and carries on to 12.

16 And so here you're talking about
17 degradation in performance due to load conditions.

18 Do you see that?

19 A Yes.

20 Q And you say there could be some
21 degradation. I think "could be" and "some" are
22 your exact words. That means there also could not
23 be. Correct?

24 I mean, you could have a situation where
25 there is no degradation on performance?

HIGHLY CONFIDENTIAL

Transcript of Michael Gerard Pecht, Ph. D.

Conducted on March 14, 2019

1 A That's correct.

2 Q We touched on this a little earlier. But
3 in terms of the performance tests that Apple runs
4 on remanufactured devices, do you know how they
5 compare to what Apple does on new devices?

6 A For some things, I think Lanigan and Fu
7 discuss them.

8 Q But no specific recollection as you sit
9 here now?

10 A Oh, I have some specific.

11 Q Could you be specific, then, please?

12 A Some examples, you mean?

13 Q That would be great.

14 A Yeah. [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 [REDACTED]

24 [REDACTED]

25 [REDACTED]

No. 232238

Re: Deposition of **Michael Gerard Pecht, Ph. D.**

Date: 3/14/2019

Case: Maldonado, et al. -v- Apple, Inc., et al.

Return to: transcripts@planetdepos.com

ACKNOWLEDGMENT OF DEPONENT

I, Michael Gerard Pecht, Ph. D., do hereby acknowledge that I have read and examined the foregoing testimony, and the same is a true, correct and complete transcription of the testimony given by me and any corrections appear on the attached Errata sheet signed by me.



April 4, 2019

(Date)

(Signature)

HIGHLY CONFIDENTIAL

Transcript of Michael Gerard Pecht, Ph. D.

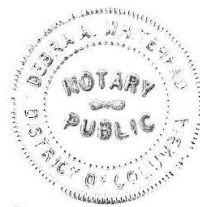
Conducted on March 14, 2019

1 CERTIFICATE OF SHORTHAND REPORTER - NOTARY PUBLIC

2 I, Debra Ann Whitehead, the officer before whom
3 the foregoing deposition was taken, do hereby
4 certify that the foregoing transcript is a true and
5 correct record of the testimony given; that said
6 testimony was taken by me stenographically and
7 thereafter reduced to typewriting under my
8 direction; that reading and signing was requested;
9 and that I am neither counsel for, related to, nor
10 employed by any of the parties to this case and have
11 no interest, financial or otherwise, in its outcome.

12 IN WITNESS WHEREOF, I have hereunto set my hand and
13 affixed my notarial seal this 17th day of March,
14 2019.

15
16 My commission expires:
17 September 14, 2023



18
19
20
21 Debra Ann Whitehead

22 NOTARY PUBLIC IN AND FOR THE
23 DISTRICT OF COLUMBIA

24
25

Exhibit I

1 Shana E. Scarlett (SBN 217895)
HAGENS BERMAN SOBOL SHAPIRO LLP
2 715 Hearst Avenue
Berkeley, California 94710
3 Telephone: (510) 725-3000
Facsimile: (510) 725-3001
4 Email: shanas@hbsslaw.com

5 Steve W. Berman (*Pro Hac Vice*)
HAGENS BERMAN SOBOL SHAPIRO LLP
6 1918 Eighth Avenue, Suite 3300
Seattle, WA 98101
7 Telephone: (206) 623-7292
Facsimile: (206) 623-0594
8 Email: steve@hbsslaw.com

9 Robert B. Carey (*Pro Hac Vice*)
Michella A. Kras (*Pro Hac Vice*)
10 HAGENS BERMAN SOBOL SHAPIRO LLP
11 11 West Jefferson, Suite 1000
Phoenix, Arizona 85003
12 Telephone: (602) 840-5900
Facsimile: (602) 840-3012
13 Email: rob@hbsslaw.com
michellak@hbsslaw.com

14 *Attorneys for Plaintiffs*
15 *[Additional Counsel on Signature Page]*

16 UNITED STATES DISTRICT COURT
17 NORTHERN DISTRICT OF CALIFORNIA
18 SAN FRANCISCO DIVISION

19 VICKY MALDONADO AND JUSTIN CARTER,
20 individually and on behalf of themselves and all
others similarly situated,

21 Plaintiffs,

22 v.

23 APPLE INC., APPECARE SERVICE
24 COMPANY, INC., AND APPLE CSC INC.

25 Defendants.

No. 3:16-cv-04067-WHO

Related Case:
English v. Apple Inc. et al.
Case No. 3:14-cv-01619-WHO

**PLAINTIFF VICKY MALDONADO'S
RESPONSES TO DEFENDANTS'
SECOND SET OF INTERROGATORIES**

1 Subject to, and without waiving Plaintiff's objections, Plaintiff only downloaded mobile
2 applications from the Apple "App Store."

3
4 **INTERROGATORY NO. 11:**

5 DESCRIBE the manner in which you charge or charged each of YOUR DEVICES,
6 including the length of time and how frequently YOU typically charge or charged each DEVICE.

7 **ANSWER:**

8 Plaintiff objects to the Interrogatory because it is overly broad, unduly burdensome, and
9 seeks information that is neither relevant nor reasonably calculated to lead to the discovery of
10 admissible evidence. Plaintiff further objects because it seeks information already in the possession
11 of Defendants.

12 Subject to, and without waiving Plaintiff's objections, Plaintiff's practice was to charge her
13 iPad overnight using the cord provided by Apple.

14
15 **INTERROGATORY NO. 12:**

16 Other than those identified in YOUR response to Defendants' Interrogatory No. 7, dated
17 July 18, 2017, IDENTIFY all SERVICE PLANS YOU have purchased, obtained, or used.

18 **ANSWER:**

19 Plaintiff objects to the Interrogatory because it is overly broad, unduly burdensome, and
20 seeks information that is neither relevant nor reasonably calculated to lead to the discovery of
21 admissible evidence.

22 Subject to, and without waiving Plaintiff's objections, Plaintiff identified all service plans
23 she purchased in her Response to Interrogatory No. 7 and in her October 9, 2017 deposition.

24
25 **INTERROGATORY NO. 13:**

26 STATE the dates on which YOU left for, and returned from, the mission trip during which
27 YOUR second replacement fourth generation iPad (provided to YOU in or about May 2015 under
28

1 YOUR AppleCare+ plan) was stolen, as reflected in YOUR testimony on pages 76-81 of YOUR
2 deposition transcript.

3 **ANSWER:**


4 Plaintiff objects to the Interrogatory because it is overly broad, unduly burdensome, and
5 seeks information that is neither relevant nor reasonably calculated to lead to the discovery of
6 admissible evidence.

7 Subject to, and without waiving Plaintiff's objections, upon information and belief,
8 Plaintiff's mission trip was on or about July 13, 2015, through July 29, 2015.

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1 DATED: April 1, 2019

HAGENS BERMAN SOBOL SHAPIRO LLP

2 By: 
3 Shana E. Scarlett (SBN 217895)
4 715 Hearst Avenue
5 Berkeley, California 94710
6 Telephone: (510) 725-3000
7 Facsimile: (510) 725-3001
8 Email: shanas@hbsslaw.com

9 Steve W. Berman (*Pro Hac Vice*)
10 HAGENS BERMAN SOBOL SHAPIRO LLP
11 1918 Eighth Avenue, Suite 3300
12 Seattle, WA 98101
13 Telephone: (206) 623-7292
14 Facsimile: (206) 623-0594
15 Email: steve@hbsslaw.com

16 Robert B. Carey (*Pro Hac Vice*)
17 Michella A. Kras (*Pro Hac Vice*)
18 HAGENS BERMAN SOBOL SHAPIRO LLP
19 11 West Jefferson, Suite 1000
20 Phoenix, Arizona 85003
21 Telephone: (602) 840-5900
22 Facsimile: (602) 840-3012
23 Email: rob@hbsslaw.com
24 michellak@hbsslaw.com

25 Renee F. Kennedy (*Pro Hac Vice*)
26 P.O. Box 2222
27 Friendswood, Texas 77549
28 Telephone: (832) 428-1552
Email: kennedyrk22@gmail.com

Attorneys for Plaintiffs

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VERIFICATION

I, Vicky Maldonado, declare under penalty of perjury that all of the information provided in my Answers and Responses to Defendant Apple Inc., AppleCare Service Company, Inc. and Apple CSC Inc.'s Second Set of Interrogatories are true and correct to the best of my knowledge.

Executed this 1st day of 7, 2019.

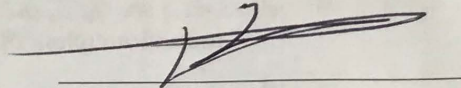

Vicky Maldonado

Exhibit J



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iPad

iPhone

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TV

Music

Support



🔍 AppleCare

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AppleCare+ for iPhone XS, iPhone XS Max, or iPhone X

\$9.99/mo. for up to 24 mo.

AppleCare+ with Theft and Loss for iPhone XR,
iPhone 8 Plus, or iPhone 7 Plus

\$249.00

AppleCare+ with Theft and Loss for iPhone 8 or
iPhone 7

\$9.99/mo. for up to 24 mo.



AppleCare+

AppleCare+ with Theft and Loss for iPhone XS, iPhone XS Max, or iPhone X
\$14.99/mo. for up to 24 mo.



AppleCare+

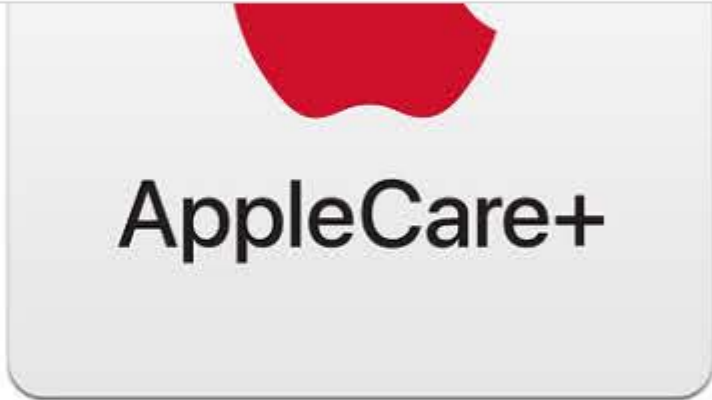
AppleCare+ with Theft and Loss for iPhone XS, iPhone XS Max, or iPhone X
\$299.00



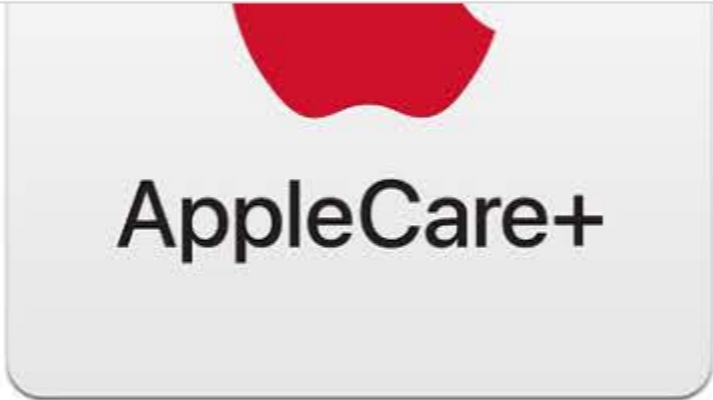
AppleCare+

AppleCare+ with Theft and Loss for iPhone XR, iPhone 8 Plus, or iPhone 7 Plus
\$12.99/mo. for up to 24 mo.





AppleCare+ with Theft and Loss for iPhone 8 or iPhone 7
\$199.00



AppleCare+ for iPad Pro
\$5.99/mo. for up to 24 mo.



AppleCare+ for iPhone 8 or iPhone 7
\$5.99/mo. for up to 24 mo.



AppleCare+ for iPhone XR, iPhone 8 Plus, or iPhone 7 Plus

\$7.99/mo. for up to 24 mo.

AppleCare+ for iPad, iPad Air, or iPad mini

\$3.49/mo. for up to 24 mo.

AppleCare+ for Apple Watch Series 4

\$3.99/mo. for up to 24 mo.



AppleCare+



AppleCare+



AppleCare+

AppleCare+ for Apple Watch Series 3

\$2.49/mo. for up to 24 mo.

AppleCare+ for Apple Watch Hermès

\$3.99/mo. for up to 36 mo.

AppleCare+ for iPhone SE

\$99.00



AppleCare+ for iPhone 8 or iPhone 7
\$129.00



AppleCare+ for iPhone XS, iPhone XS Max, or iPhone X
\$199.00



AppleCare+ for iPad, iPad Air, or iPad mini
\$69.00





AppleCare+

AppleCare+ for iPhone XR, iPhone 8 Plus, or iPhone 7 Plus

\$149.00



AppleCare+

AppleCare+ for iPad Pro

\$129.00



AppleCare+

AppleCare+ for Apple Watch Series 4

\$79.00



AppleCare

OS Support



AppleCare

Help Desk Support



AppleCare

OS Support

AppleCare OS Support - Preferred
\$19,995.00

AppleCare Help Desk Support
\$2,799.00

AppleCare OS Support - Alliance
\$49,995.00



AppleCare
Technician Training



AppleCare
Protection Plan



AppleCare
OS Support

AppleCare Technician Training
\$299.00

AppleCare Protection Plan for Apple TV
\$29.00

AppleCare OS Support - Select
\$5,995.00



AppleCare+ for iPod touch
\$59.00



AppleCare+ for Apple Watch Hermès
\$99.00



AppleCare+ for Mac mini
\$99.00

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^{††} We approximate your location from your Internet IP address by matching it to a geographic region or from the location entered during your previous visit to Apple.

AppleCare+ for iPod touch

\$59.00

AppleCare+ for Apple Watch Hermès

\$99.00

AppleCare+ for Mac mini

\$99.00

< 1 of 2 >

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🔍 Applecare

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AppleCare+

AppleCare+ for iMac

\$169.00



AppleCare+

AppleCare+ for Mac Pro

\$249.00



AppleCare+

AppleCare+ for 15-inch MacBook Pro

\$379.00



AppleCare+

AppleCare+ for MacBook/MacBook Air

\$249.00



AppleCare+

AppleCare+ for Apple Watch Series 3

\$49.00



AppleCare+

AppleCare+ for 13-inch MacBook Pro

\$269.00



AppleCare+ for HomePod

\$39.00



2 of 2



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AppleCare+ for HomePod


\$39.00

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Exhibit K

From: [Patel, Purvi G.](#)
To: "Robert Carey"
Cc: "Steve Berman"
Subject: RE: Maldonado v. Apple
Date: Thursday, October 27, 2016 10:59:18 PM
Attachments: [image002.png](#)
[image003.png](#)

Hi, Rob,

Sorry for the delay; I'm back on the road. Why don't you send me the numbers and I can raise your request with Apple? In the meantime, please maintain and preserve the devices in their original condition.

Purvi

Purvi G. Patel
Morrison & Foerster LLP
707 Wilshire Boulevard | Los Angeles, CA 90017-3543
P: 213.892.5296 | F: 213.892.5454
PPatel@mofo.com | www.mofo.com

From: Robert Carey [<mailto:rob@hbsslw.com>]
Sent: Wednesday, October 26, 2016 8:51 AM
To: Patel, Purvi G.
Cc: Steve Berman
Subject: Maldonado v. Apple

Hi, Purvi. As we work through technical issues, it is becoming clear that a lot of unnecessary evaluation and testing we are contemplating can be avoided if Apple would confirm whether refurbished parts or remanufactured phones were used in/as the replacement devices. Apple concedes that remanufactured/refurbished devices are a primary source of replacement phones, so it makes more sense for us to provide our clients' devices' IMEIs and SNs for you to check (which Apple previously confirmed they can do). Please advise if Apple will do so. If not, we will have to seek declaratory or injunctive relief just to confirm whether their phone had such parts, which is a waste of judicial resources (and yours and ours) given your client's knowledge. Let me know. rob

Robert Carey | Partner
Hagens Berman Sobol Shapiro LLP
11 West Jefferson Suite 1000 - Phoenix, AZ 85003
Direct: (602) 224-2626
rob@hbsslw.com | www.hbsslw.com | [HBSS Blog](#)



Named to [2015 Plaintiff's Hot List](#) by *The National Law Journal*

1 ARTURO J. GONZALEZ (SBN 121490)
AGonzalez@mofocom
2 PENELOPE A. PREVOLOS (SBN 87607)
PPrevolos@mofocom
3 MARGARET E. MAYO (SBN 259685)
MMayo@mofocom
4 MORRISON & FOERSTER LLP
425 Market Street
5 San Francisco, California 94105-2482
Telephone: 415.268.7000
6 Facsimile: 415.268.7522

7 PURVI G. PATEL (SBN 270702)
PPatel@mofocom
8 MORRISON & FOERSTER LLP
707 Wilshire Boulevard
9 Los Angeles, California 90017-3543
Telephone: 213.892.5200
10 Facsimile: 213.892.5454

11 Attorneys for Defendants
APPLE INC., APPLE CARE SERVICE
12 COMPANY, INC., and APPLE CSC INC.

13 UNITED STATES DISTRICT COURT
14 NORTHERN DISTRICT OF CALIFORNIA
15 SAN FRANCISCO DIVISION

17 VICKY MALDONADO AND JUSTIN
18 CARTER, individually and on behalf of
themselves and all others similarly situated,

19 Plaintiffs,

20 v.

21 APPLE INC., APPLE CARE SERVICE
22 COMPANY, INC., and APPLE CSC INC.,

23 Defendants.

Case No. 3:16-cv-04067-WHO

Related Case:
English v. Apple Inc., et al.
Case No. 3:14-cv-01619-WHO

DECLARATION OF AVIJIT SEN

Judge: William H. Orrick
Courtroom: 2, 17th Floor

Complaint Filed: July 20, 2016
Trial Date: April 20, 2020

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1 I, Avijit Sen, declare:

2 1. I am employed as the Director of AppleCare Business Intelligence at Apple Inc. in
3 Cupertino, California. In the course of my work, I am familiar with and have access to the
4 databases containing customer service information, including information regarding repairs and
5 replacements.

6 2. The statements in this declaration are based on my personal knowledge or my
7 review of corporate records maintained by Apple in the ordinary course of business. If called to
8 testify as a witness, I could and would competently do so under oath.

9 3. I assisted in pulling service (including repairs and returns) data for the following
10 categories of iPhones and iPads: (i) finished goods sold with an AppleCare+ (“AC+”) plan from
11 July 20, 2012 through September 27, 2018; and (ii) new, remanufactured, reclaimed, and
12 unknown replacements provided to customers where the serial numbers were associated with an
13 AC+ plan that was purchased on or after July 20, 2012. [REDACTED]

- 14 [REDACTED]
- 15 a. [REDACTED]
 - 16 b. [REDACTED]
 - 17 [REDACTED]
 - 18 [REDACTED]
 - 19 c. [REDACTED]
 - 20 d. [REDACTED]

21 4. “DPPM” stands for “defective parts per million” or “dispatched parts per million”
22 and is an industry-standard term for the total number of units experiencing a particular event per
23 one million units that could potentially experience the event. The DPPM rates provided to
24 Plaintiffs measure, [REDACTED]
25 [REDACTED]
26 [REDACTED]
27 [REDACTED]
28 [REDACTED]

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[REDACTED]

5. During a customer service event, Apple attempts to record the customer's concern using a symptom code. These codes, known as CompTIA, [REDACTED]

[REDACTED]

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 5th day of April, 2019, at Sunnyvale, California.



Avijit Sen

1 ARTURO J. GONZÁLEZ (SBN 121490)
 AGonzalez@mofo.com
 2 PENELOPE A. PREOVOLOS (SBN 87607)
 PPreovolos@mofo.com
 3 MARGARET E. MAYO (SBN 259685)
 MMayo@mofo.com
 4 MORRISON & FOERSTER LLP
 425 Market Street
 5 San Francisco, California 94105-2482
 Telephone: 415.268.7000
 6 Facsimile: 415.268.7522

7 PURVI G. PATEL (SBN 270702)
 PPatel@mofo.com
 8 MORRISON & FOERSTER LLP
 707 Wilshire Boulevard
 9 Los Angeles, California 90017-3543
 Telephone: 213.892.5200
 10 Facsimile: 213.892.5454

11 Attorneys for Defendants
 APPLE INC., APPECARE SERVICE
 12 COMPANY, INC., and APPLE CSC INC.

13 UNITED STATES DISTRICT COURT
 14 NORTHERN DISTRICT OF CALIFORNIA
 15 SAN FRANCISCO DIVISION

17 VICKY MALDONADO AND JUSTIN
 18 CARTER, individually and on behalf of
 themselves and all others similarly situated,
 19 Plaintiffs,

20 v.

21 APPLE INC., APPECARE SERVICE
 22 COMPANY, INC., and APPLE CSC INC.,
 23 Defendants.

Case No. 3:16-cv-04067-WHO

Related Case:
English v. Apple Inc., et al.
 Case No. 3:14-cv-01619-WHO

DECLARATION OF JASON FU

Judge: William H. Orrick
 Courtroom: 2, 17th Floor

Complaint Filed: July 20, 2016
 Trial Date: April 20, 2020

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1 I, Jason Fu, declare:

2 1. I am employed as a Senior Manager of iPhone Quality at Apple Inc. in Cupertino,
3 California. In my position as Senior Manager of iPhone Quality, I manage different teams that
4 are responsible for, among other things, remanufactured iPhone product quality (iPhone 7 and
5 later), and failure analysis and reliability for both finished goods and remanufactured iPhones. In
6 the course of my work, I have knowledge of and am familiar with iPhone 7 and later
7 remanufactured iPhones that are provided under AppleCare+ (“AC+”), and the testing and
8 manufacturing procedures for those iPhones.

9 2. The statements in this declaration are based on my personal knowledge. If called
10 to testify as a witness, I could and would competently do so under oath.

11 3. [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]

17 4. [REDACTED]
18 [REDACTED]
19 [REDACTED]
20 [REDACTED]
21 [REDACTED]
22 [REDACTED]

23 5. Apple compares the results of reliability testing for remanufactured iPhones
24 against the results of reliability testing for new iPhones to confirm that the remanufactured
25 iPhones meet the same testing standards as new iPhones. These results are summarized in a
26 document (referred to as [REDACTED]) for review and discussion before Apple approves
27 remanufactured iPhones to be provided to customers.

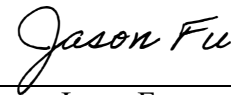
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6. Apple does not provide iPhones that have been subjected to reliability testing to customers. The nature and purpose of reliability testing is to test the product in extreme conditions, the result of which is often destructive.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 5th day of April, 2019, at Palo Alto, California.



Jason Fu

1 ARTURO J. GONZÁLEZ (SBN 121490)
AGonzalez@mofocom
2 PENELOPE A. PREOVOLOS (SBN 87607)
PPreovolos@mofocom
3 MARGARET E. MAYO (SBN 259685)
MMayo@mofocom
4 MORRISON & FOERSTER LLP
425 Market Street
5 San Francisco, California 94105-2482
Telephone: 415.268.7000
6 Facsimile: 415.268.7522

7 PURVI G. PATEL (SBN 270702)
PPatel@mofocom
8 MORRISON & FOERSTER LLP
707 Wilshire Boulevard
9 Los Angeles, California 90017-3543
Telephone: 213.892.5200
10 Facsimile: 213.892.5454

11 Attorneys for Defendants
APPLE INC., APPLE CARE SERVICE
12 COMPANY, INC., and APPLE CSC INC.

13 UNITED STATES DISTRICT COURT
14 NORTHERN DISTRICT OF CALIFORNIA
15 SAN FRANCISCO DIVISION

17 VICKY MALDONADO AND JUSTIN
18 CARTER, individually and on behalf of
themselves and all others similarly situated,

19 Plaintiffs,

20 v.

21 APPLE INC., APPLE CARE SERVICE
22 COMPANY, INC., and APPLE CSC INC.,

23 Defendants.

Case No. 3:16-cv-04067-WHO

Related Case:
English v. Apple Inc., et al.
Case No. 3:14-cv-01619-WHO

**DECLARATION OF
MICHAEL LANIGAN**

Judge: William H. Orrick
Courtroom: 2, 17th Floor

Complaint Filed: July 20, 2016
Trial Date: April 20, 2020

1 I, Michael Lanigan, declare:

2 1. I am employed as the Senior Director of Worldwide Quality for the MAC division
3 at Apple Inc. in Cupertino, California. Until February 19th, 2019, I was the Senior Director of
4 AppleCare Quality and Technology. In my role as Senior Director of AppleCare Quality and
5 Technology, I managed different teams that were responsible for, among other things,
6 remanufactured iPhone and iPad product quality. I have knowledge of and am familiar with the
7 replacement iPhones and iPads that are provided under AppleCare+ (“AC+”), and the testing and
8 manufacturing procedures for those iPhones and iPads. [REDACTED]

9 [REDACTED]
10 [REDACTED]
11 2. The statements in this declaration are based on my personal knowledge or my
12 review of corporate records maintained by Apple in the ordinary course of business. If called to
13 testify as a witness, I could and would competently do so under oath.

14 3. New replacements are devices made of entirely new parts and assembled using the
15 same contract manufacturers, production lines, and manufacturing processes as the iPhones and
16 iPads Apple sells as new in Apple-branded boxes at retail. Apple refers to new devices sold at
17 retail as “finished goods” and new replacements provided under AC+ as “new buy.” Parts for
18 new buy replacements come from the same sources as the new parts used in finished goods.

19 4. Remanufactured replacements are built from the ground up using new parts and a
20 limited number of recovered parts that have been extensively tested. [REDACTED]

21 [REDACTED]
22 Remanufactured iPhones and iPads are manufactured using the same manufacturing process by
23 the same contract manufacturers that manufacture finished goods iPhones and iPads. The
24 production lines on which remanufactured devices are manufactured are identical to those for
25 finished goods.

26 5. One of the reasons Apple recovers certain non-new parts for use in remanufactured
27 iPhones and iPads (instead of scrapping them) is for environmental reasons.

1 6. Only certain parts in remanufactured devices are not new. [REDACTED]
2 [REDACTED]
3 [REDACTED]
4 [REDACTED]
5 [REDACTED]
6 [REDACTED]
7 [REDACTED]

8 7. The mix of non-new parts in any given remanufactured iPhone or iPad, as well as
9 the percentage of non-new parts, vary from device-to-device and depend on what is available in
10 inventory at a given time. For example, while one remanufactured iPhone may have a non-new
11 [REDACTED], another may have a non-new [REDACTED], another may have both a non-new [REDACTED] and a
12 non-new [REDACTED], and yet another may not have either a non-new [REDACTED] or a non-new [REDACTED].
13 The number and mix of non-new parts in any given remanufactured device depends entirely on
14 the inventory available on the remanufacturing line at any given time. Both new and non-new
15 parts are sourced from a common supply, and they are “kitted” together for use on the lines.

16 8. Each recovered part undergoes stringent failure analysis and other testing before it
17 is used in a remanufacturing line. With any part (new or non-new), there can on occasion be an
18 issue with the part that could cause a replacement device to fall out of the line (i.e., not pass
19 Apple’s tests) and not go to a consumer. After assembly, each and every remanufactured device
20 is inspected and extensively tested to ensure that it meets the same engineering specifications and
21 quality standards as a finished goods device before it is approved for use as a replacement device.
22 Regardless of replacement type, each device must meet the same quality standards as finished
23 goods and must pass the same tests on the same sophisticated machinery in order to go to a
24 customer. These tests are highly effective at eliminating products that do not meet Apple’s high
25 standards, including where there are materials issues.

26 9. In addition to the testing that occurs on each and every iPhone and iPad before it
27 leaves the factory, [REDACTED]
28 [REDACTED]

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10.

[REDACTED]

11. Apple compares the results of reliability testing for remanufactured iPhones and iPads against the results of reliability testing for new iPhones and iPads to confirm that the remanufactured devices meet the same testing standards as new devices. These results are summarized in documents (referred to over the course of my involvement as, for example, [REDACTED]) for review and discussion before Apple approves remanufactured iPhones or iPads to be provided to customers.

12. Apple does not provide iPhones or iPads that have been subjected to reliability testing to customers. The nature and purpose of reliability testing is to test the product in extreme conditions, the result of which is often destructive.

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[REDACTED]

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14. [REDACTED]

15. [REDACTED] Apple employees may refer to field returns (i.e., “return rate” data) as “failure rates,” [REDACTED]

16. “Restarting” issues with devices, particularly when present in successive devices, are sometimes software-related, meaning that they are caused by the operating system or an app installed on the device by a user, not the hardware itself. Battery issues can also be caused by a number of non-hardware related issues, including software (e.g., an app that drains the battery more quickly), usage (e.g., charging and other phone habits), or geography (e.g., distance from cellular towers).

17. The terms “reliability” and “performance” are accepted engineering terms.

18. Based on my research and analysis of Apple’s records, the iPhone 6 Plus with serial number [REDACTED] was remanufactured. The only parts that were not new in this device were the [REDACTED].

19. Based on my research and analysis of Apple’s records, the iPhone 6 Plus with serial number F9CSC0TNG5QL was remanufactured. The only part that was not new in this device was the [REDACTED].

20. Based on my research and analysis of Apple’s records, the iPhone 6 Plus with serial number DTRSG0D5G5QL was new (also referred to as “new buy”).

21. Based on my research and analysis of Apple’s records, the iPad (4th generation) with serial number [REDACTED] was remanufactured. The only part that was not new in this

1 device was the [REDACTED].

2 22. Based on my research and analysis of Apple's records, the iPad (4th generation)
3 with serial number [REDACTED] was remanufactured. The only part that was not new in this
4 device was the [REDACTED].

5
6 I declare under penalty of perjury under the laws of the United States of America that the
7 foregoing is true and correct.

8 Executed this 8th day of April, 2019, at Shanghai, China.

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Michael Lanigan

1 ARTURO J. GONZALEZ (SBN 121490)
AGonzalez@mofocom
2 PENELOPE A. PREOVOLOS (SBN 87607)
PPreovolos@mofocom
3 MARGARET E. MAYO (SBN 259685)
MMayo@mofocom
4 MORRISON & FOERSTER LLP
425 Market Street
5 San Francisco, California 94105-2482
Telephone: 415.268.7000
6 Facsimile: 415.268.7522

7 PURVI G. PATEL (SBN 270702)
PPatel@mofocom
8 MORRISON & FOERSTER LLP
707 Wilshire Boulevard
9 Los Angeles, California 90017-3543
Telephone: 213.892.5200
10 Facsimile: 213.892.5454

11 Attorneys for Defendants
APPLE INC., APPECARE SERVICE
12 COMPANY, INC., and APPLE CSC INC.

13 UNITED STATES DISTRICT COURT
14 NORTHERN DISTRICT OF CALIFORNIA
15 SAN FRANCISCO DIVISION

17 VICKY MALDONADO AND JUSTIN
18 CARTER, individually and on behalf of
themselves and all others similarly situated,

19 Plaintiffs,

20 v.

21 APPLE INC., APPECARE SERVICE
22 COMPANY, INC., and APPLE CSC INC.,

23 Defendants.

Case No. 3:16-cv-04067-WHO

Related Case:
English v. Apple Inc., et al.
Case No. 3:14-cv-01619-WHO

**DECLARATION OF
CHARLOTTE GOULD**

Judge: William H. Orrick
Courtroom: 2, 17th Floor

Complaint Filed: July 20, 2016
Trial Date: April 20, 2020

26 **REDACTED VERSION OF DOCUMENT SOUGHT TO BE SEALED**
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1 I, Charlotte Gould, declare:

2 1. I am employed as a Commercial Litigation Specialist Manager at Apple Inc. in
3 Cupertino, California. In the course of my work, I am familiar with and have access to the
4 databases containing customer information, including information regarding service events.

5 2. The statements in this declaration are based on my personal knowledge or my
6 review of corporate records maintained by Apple in the ordinary course of business. If called to
7 testify as a witness, I could and would competently do so under oath.

8 3. Based on my research and analysis of Apple's records, Justin Carter called Apple
9 on May 26, 2016, and reported cosmetic damage to his iPhone. "Battery life is limited" was
10 listed as a secondary issue. During that call, Carter set up a drop-off repair under the accidental
11 damage provision of his AppleCare+ plan.

12 4. Based on my research and analysis of Apple's records, on July 10, 2016, Carter
13 called Apple and canceled the drop-off repair, reported battery issues, and requested that Apple
14 ship a replacement iPhone 6 Plus instead. On July 11, 2016, Apple shipped a replacement iPhone
15 6 Plus to Carter, which was activated on July 13, 2016. The serial number of that replacement
16 was [REDACTED].

17 5. Based on my research and analysis of Apple's records, on October 25, 2016,
18 Carter called Apple regarding his first replacement (serial number [REDACTED]). On
19 October 26, 2016, Apple shipped a second replacement iPhone 6 Plus to Carter. The serial
20 number of that replacement was F9CSC0TNG5QL.

21 6. Based on my research and analysis of Apple's records, on November 2, 2016,
22 Carter called Apple regarding his second replacement. On November 3, 2016, Apple shipped a
23 second replacement iPhone 6 Plus to Carter. The serial number of that replacement was
24 DTRSG0D5G5QL.

25 7. Based on my research and analysis of Apple's records, Maldonado received a
26 replacement iPad (4th generation) on May 8, 2015, with serial number [REDACTED].

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8. Based on my research and analysis of Apple's records, Maldonado received a replacement the iPad (4th generation) on May 22, 2015, with serial number [REDACTED].

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 8th day of April, 2019, at Sunnyvale, California.



Charlotte Gould

1 ARTURO J. GONZÁLEZ (SBN 121490)
 AGonzalez@mofocom
 2 PENELOPE A. PREOVOLOS (SBN 87607)
 PPreovolos@mofocom
 3 MARGARET E. MAYO (SBN 259685)
 MMayo@mofocom
 4 MORRISON & FOERSTER LLP
 425 Market Street
 5 San Francisco, California 94105-2482
 Telephone: 415.268.7000
 6 Facsimile: 415.268.7522

7 PURVI G. PATEL (SBN 270702)
 PPatel@mofocom
 8 MORRISON & FOERSTER LLP
 707 Wilshire Boulevard
 9 Los Angeles, California 90017-3543
 Telephone: 213.892.5200
 10 Facsimile: 213.892.5454

11 Attorneys for Defendants
 APPLE INC., APPLECARE SERVICE
 12 COMPANY, INC., and APPLE CSC INC.

13 UNITED STATES DISTRICT COURT
 14 NORTHERN DISTRICT OF CALIFORNIA
 15 SAN FRANCISCO DIVISION

17 VICKY MALDONADO AND JUSTIN
 18 CARTER, individually and on behalf of
 themselves and all others similarly situated,

19 Plaintiffs,

20 v.

21 APPLE INC., APPLECARE SERVICE
 22 COMPANY, INC., and APPLE CSC INC.,

23 Defendants.

Case No. 3:16-cv-04067-WHO

Related Case:
English v. Apple Inc., et al.
 Case No. 3:14-cv-01619-WHO

**DECLARATION OF
 ALEXANDER GLEW, PH.D.**

Judge: William H. Orrick
 Courtroom: 2, 17th Floor

Complaint Filed: July 20, 2016
 Trial Date: April 20, 2020

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1 I, Alexander Glew, hereby declare as follows:

2 1. I have been retained as an expert for Defendants Apple Inc., AppleCare Service
3 Company, Inc., and Apple CSC Inc. in this action. I make this declaration on my own personal
4 knowledge, and if called as a witness to testify, I could and would testify competently to the
5 following facts.

6 2. Attached as **Exhibit A** is a true and correct copy of my expert report in support of
7 Defendants' Opposition to Plaintiffs' Motion for Class Certification, dated April 8, 2019.

8

9 I declare under penalty of perjury under the laws of the United States of America that the
10 foregoing is true and correct.

11 Executed this 8th day of April, 2019, at Mountain View, California.

12

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Alexander Glew

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Exhibit A

**REDACTED VERSION OF DOCUMENT
SOUGHT TO BE SEALED**

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION**

VICKY MALDONADO AND JUSTIN
CARTER
Individually and on behalf of themselves and all
others similarly situated,

Plaintiffs,

v.

APPLE INC., APPECARE SERVICE
COMPANY, INC., AND APPLE CSC INC.

Defendants.

Case No. 3:16-cv-04067-WHO

**REPORT OF DR. ALEXANDER GLEW
IN SUPPORT OF DEFENDANTS' OPPOSITION TO
PLAINTIFFS' MOTION FOR CLASS CERTIFICATION**

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I. INTRODUCTION

1. I have been retained by Apple Inc., AppleCare Service Company, Inc., and Apple CSC Inc. (collectively, “Apple”), to review and evaluate the opinions of Dr. Michael Pecht in his February 25, 2019 expert report and his related testimony as well as the inspections of Plaintiff Justin Carter’s iPhones. Specifically, I understand that Dr. Pecht’s opinions are intended to support Plaintiffs’ assertion that the remanufactured iPhones and iPads Apple provides under AppleCare+ (and previously, under AppleCare Protection Plan) are not “equivalent to new in performance and reliability.” In this report, I refer to AppleCare Protection Plan and AppleCare+ as “AppleCare+”; I understand the only difference between the two is that AppleCare+ provides coverage for accidental damage.

2. I am being compensated for my time at a rate of \$615 per hour, plus actual expenses. My compensation is not dependent in any way upon the outcome of this proceeding.

3. I have personal knowledge of the facts and opinions set forth in this declaration, and, if called upon to do so, I would testify competently thereto.

II. BACKGROUND AND QUALIFICATIONS

4. I received a Bachelor of Science degree in Mechanical Engineering from University of California, Berkeley in 1985; a Master of Science degree in Mechanical Engineering from University of California, Berkeley in 1987; a Master of Science in Materials Science and Engineering from Stanford University in 1995; and Doctor of Philosophy degree in Materials Science and Engineering from Stanford University in 2003. A copy of my Curriculum Vitae (“CV”) is attached as Appendix A.

5. The subject matter of my doctoral dissertation at Stanford University related to chemical vapor deposition (“CVD”) of dielectric films. CVD generally consists of mixing two or

more gases in a process reactor or chamber, and having the gases meet on the surface of a substrate to deposit a thin film. For my doctoral dissertation, I constructed a CVD reactor. Then, I developed CVD processes for certain low k dielectric films such as diamond like carbon and fluorinated amorphous carbon. Also, I characterized those thin films for their engineering properties, electrical, optical, and mechanical. Further, I analyzed the chemical composition of the thin films. Various analytical methods I utilized included ESCA, RBS, HFS, AES, FTIR, Raman Spectroscopy, AFM, wafer curvature, multi-spectral ellipsometry and others.

6. From 1987-1997, I was employed by Applied Materials, Inc. (“Applied Materials”), one of the world’s largest and most advanced manufacturers of, among other things, CVD-related equipment. I was hired by the CVD division. The first process tool that I worked on was the Precision 5000 CVD tool. It was the first cluster tool, a tool with multiple CVD processing chambers. Because this tool demonstrated the major advance in tool architecture, multiple chambers attached to a central vacuum load lock chamber, resulting in the ability to process one workpiece at a time instead of in batch, it was eventually placed in the Smithsonian Institute, Natural History Museum.

7. From approximately 1987-1989, I was a Systems Engineer and Mechanical Engineer for Applied Materials. In this position, I designed semiconductor processing equipment, and worked with all aspects of the process tool. After a period of time, along with the product marketing manager, I signed off on every tool or machine that we shipped. My signature was required to insure that the manufactured process tool and the chemical processes it produced matched what was required by the purchase order, and that it was built accordingly and safely.

8. Subsequent to serving as a Systems Engineer, from approximately 1989-1991, I worked as an Engineering Manager at Applied Materials responsible for customer engineering

specials (“CES”). This included customization of equipment to meet customer requests and specifications. The CES requests were diverse and covered nearly all aspects of the equipment, ranging from modifying process chambers, gas panels, wafer handlers/robotics, wafer storage elevators, sensors, vacuum systems, framing, cabling, PCB, controllers, and other. We worked on very tight schedules and exercised disciplined project management. If our engineering work was not completed on time, and the materials not procured, then it would hold up the shipment of a multimillion-dollar semiconductor process tool. Because we exercised disciplined project management, such delays rarely happened. We also had to accurately estimate the cost of our work, materials and labor, because the CES projects were billed to the customer.

9. Next, I was the manager of the engineering design and support group for the CVD division of Applied Materials. In this capacity, I was in charge of all of the designers and drafters, generating all of the engineering drawings, and reviewing all of the engineering design work. I am intimately familiar with computer aided design (“CAD”) and engineering documentation.

10. In the early 1990s, I was awarded the position of Core Technologist (one of only 15 in Applied Materials). My area of expertise was gas and chemical systems and components. The gas and chemical systems largely delivered ultra-high purity fluids to the process chambers and reactors. Components used in the systems included the following: valves, mass flow controllers, pressure regulators, filters, purifiers, pressure transducers and related devices, and systems as a whole. As a core technologist, I was responsible for consulting with different divisions during the design of new products. Also, I reviewed invention disclosures, and reviewing papers written by Applied Materials personnel, holding meetings across the divisions for workers in the field, setting technology goals with suppliers, and reviewing technology trends

with customers. Our different divisions included product lines such as at least CVD, ETCH, CMP, ion implant, TFT, and more. I also represented the company at industry consortium meetings. The core technology group met monthly with the president or other senior executives of the company.

11. From 1994-1996, I proposed and managed a project funded by SEMATECH¹ in the factory working group. These efforts resulted in the publication of two SEMATECH technology transfer standards. The goal of this project was to develop industry standard methods to determine the effects of trace chemicals and contamination on semiconductor processing and on semiconductor equipment reliability. As part of this project, I designed, built, and tested gas delivery systems, including the components contained therein, such as filter cartridges or assemblies, flow controllers, valves, and pressure regulators, and tested them to failure. Approximately 90% of wafer yield loss is from particles, so the industry was very interested in the particle effect of the chemical delivery system. I also tested the effect of micro-contamination, such as hydrocarbons, in the process gas stream on tungsten CVD deposition and on metal etching. In some of the tests, we introduced controlled amounts of fluid into corrosive gas streams, and then measured the effect on system reliability, including particle generation. We challenged the components for millions of cycles to generate data in order to model the effects of contamination on equipment reliability. We used Weibull zero failure models for this work.

12. As part of the SEMATECH project, we studied the effects of trace chemical contamination on tungsten CVD processing and on metal etching. We introduced trace chemicals into a standard process, measured the amounts of chemical in the process chamber by residual

¹ SEMATECH stands for “Semiconductor Manufacturing Technology,” a non-profit consortium that performs research into semiconductor manufacturing.

gas analyzer (RGA), and then measured the resulting film quality and properties by multiple techniques, and incorporation of the trace chemicals into the deposited layers.

13. From 1994-1997, I was a CVD Supplier Quality Engineering Manager at Applied Materials. During this time, I was the engineering manager responsible for the suppliers of the components of the fluid delivery systems, such as valves, flow controllers, pressure regulators, filters, purifiers, pressure transducers and related devices, and systems as a whole. I tested and evaluated fluid delivery components. I both supervised my department in conducting this testing and personally conducted this testing. We bench tested fluid delivery components in-house and supervised testing at our suppliers. The components in this commodity included complex electro-mechanical components and instruments, subject to high cycling, often chemical corrosion, and a number of tough applications challenges. To this end, we designed test fixtures and rigs, software, data acquisition and related items to qualify and bench test them. We also qualified and monitored our supplier's manufacturing processes, statistical process control (SPC) and quality programs. We reported on supplier quality and field failures on a regular basis. Since the other divisions did not staff this commodity, by default we performed this function for most of the corporation.

14. Since leaving Applied Materials in 1997 and until the present, I have served as president of Glew Engineering Consulting, Inc. ("Glew Engineering") of Mountain View, California. Glew Engineering provides consulting and engineering services relating to various technology or engineering areas, including CVD technology. My responsibilities at Glew Engineering include acting as a consultant and as a principal managing the company.

15. At Glew Engineering, I have worked on projects that include the following: project turnaround for failed projects, testing / metrology, gas panel design, integrated circuits

failures, semiconductor equipment failures, KrF and ArF Excimer laser sources for photolithography, thermal analysis of process chambers and heat exchangers, structural analysis, process equipment redesign, display technology, solar manufacturing, medical devices, and others.

16. Glew Engineering's practice also includes multi-physics finite element analysis (FEA), computational fluid dynamics (CFD) and computer aided design (CAD) modeling. This is typically used for three dimensional modeling of equipment and processes, and analysis of the heat transfer, radiation, fluid flow, resultant stresses and strains from running such equipment and processes.

17. I am or have been a member of a number of professional organizations including: American Society of Mechanical Engineers, Materials Research Society, IEEE (Institute of Electrical and Electronics Engineers) and International Microelectronics and Packaging Society (IMAPS). In addition to being a member of these professional organizations, I have served on standards committees at SEMATECH.

18. I have authored or co-authored dozens of papers, reports, and presentations relating to semiconductor processing, and semiconductor equipment, fluid delivery components in semiconductor processing, and equipment reliability.

19. I am an inventor of four issued U.S. Patents, Nos. 6,679,476, related to a high-purity control valve; 6,204,174, related to semiconductor processing; and 7,118,090, related to a high-purity fluid control valve, 9,224,626 regarding design of CVD equipment components. I have one currently pending application 18150201.4 -1204.

20. I have reverse engineering phones, tablets, TVs, OLED displays and other devices. Typically, we start by disassembling the devices. After we have opened the device, we

retrieve the component of interest. Next, we inspect the components with optical microscopy, IR spectroscopy, scanning electron microscope, or other scientific instruments to determine the aspect of interest.

21. I have performed stress analysis, by the finite element method, for headsets used with mobile phones. My modeling accurately predicted the lifetime of the connectors and headset as confirmed by cycle testing on a bench.

22. For more aspects of my qualifications and publications, see my CV (Appendix A).

III. MATERIALS CONSIDERED

23. My analyses are based on my years of education, research, and work experience, as well as my investigation and study of relevant materials. In my analyses, I have considered the documents in Appendix B, as well as any to which I cite directly in this text.

24. I may rely on these and additional materials to respond to arguments raised by Plaintiffs. I may also consider additional documents and information in further analyses—including documents that may not yet have been provided to me. My review and assessment of the materials provided in this proceeding is ongoing, and I will continue to consider any new material as it is provided. I reserve the right to review, supplement, and amend my analyses, opinions, and report based on new information and on my continuing review of the materials already provided.

IV. SUMMARY OF OPINIONS AND CONCLUSIONS

25. Apple has a well-developed and thorough process for manufacturing and testing its remanufactured iPhones and iPads. Apple uses the same manufacturers, and the same testing and manufacturing process for both the new and remanufactured devices. There is no evidence supporting Dr. Pecht's theory that the use of non-new parts adversely affects the performance or reliability of remanufactured iPhones or iPads.

26. Apple uses only a limited number of long-life recovered parts in iPhones: [REDACTED]

[REDACTED] The same is true for iPad, where the recovered parts are as follows: [REDACTED]

[REDACTED] There is no evidence that the use of any of these particular recovered parts adversely affects the performance or reliability of remanufactured iPhones or iPads.

27. Dr. Pecht is incorrect in that he tacitly assumes that the parts cannot have a lifetime that exceeds the useful life of the iPhone or iPad. To the extent that a part has a longer life than the useful life of the iPhone or iPad, then using such a reclaimed component may make no difference in the overall life of the iPhone or iPad.

28. If Dr. Pecht's theory that all non-new parts were subject to "load conditions" that caused wear out were universally true, then one would expect both new and remanufactured devices would return at exponentially higher rates as time goes on. There is no evidence to support that theory or the conclusion that remanufactured iPhones or iPads are returned more often than devices made from all new parts. [REDACTED]

[REDACTED]
(See APL-MLDND0_00005559-5566.)

V. BACKGROUND OF THE CASE

29. Apple designs, manufactures, and sells iPhones (smart phones) and iPads (tablets) to customers directly and through partners. Apple also sells AppleCare+, an extended service plan for the iPhone and iPad. AppleCare+ provides that in the event of a hardware failure or accidental damage (up to two incidents during the plan term), Apple will repair or replace the customer's device. I understand that customers can receive as a replacement a device that is "remanufactured." Remanufactured iPhones and iPads are made by Apple with a mix of new

parts and certain, limited non-new parts. Apple manufactures and tests remanufactured iPhones and iPads, and the parts that comprise them, to the same standards that it manufactures and tests the brand new iPhones and iPads Apple sells.

A. Design for New and Remanufactured Devices

30. The overall design for new and remanufactured iPhones and iPads is the same, including for the parts that go into the devices. Dr. Pecht has not asserted otherwise. Thus, there is no reason to think that there is any difference in performance or reliability based on the design of new versus remanufactured devices or new versus recovered parts.

B. Component Suppliers and Testing for New and Remanufactured Devices

31. The new parts that go into remanufactured devices come from the same sources as the new parts for new devices. (See Apple Inc.'s Response to Interrogatory No. 15.) Dr. Pecht has not asserted otherwise or that he has reviewed any documentation to the contrary.

32. There are stringent standards for parts that are provided by suppliers. Apple tests all parts that it recovers from iPhones and iPads to the same standards as new parts shipped directly from suppliers. (See Apple Inc.'s Response to Interrogatory No. 7.)

33. The engineering specifications for a particular product and model are not a "minimum" standard, as Dr. Pecht appears to suggest. Rather, manufacturers commonly have engineering specifications for a product to ensure quality and uniformity among products. Thus, when a product satisfies the relevant engineering specifications, it is not merely meeting some "minimum" standard. Moreover, Apple's former Senior Director of AppleCare Quality and Technology, Michael Lanigan, testified that Apple's standards are at the "upper end of any performance spec of any product." (Lanigan Depo. at 126:17-127:10.)

C. Final Assembly and Test Process for New and Remanufactured Devices

34. [REDACTED]

[REDACTED]
[REDACTED] In other words, remanufactured iPhones or iPads are built through the same process as new iPhones and iPads, with the potential for one or more non-new (recovered) parts. (See Lanigan Depo. Tr. at 23:2-24:10.) The assembly line for remanufactured devices is identical to the lines for new devices, with only insubstantial differences. For example, [REDACTED]

[REDACTED] (See Lanigan Depo. Tr. at 39:22-41:20.)

35. [REDACTED]

[REDACTED] If a specific device does not meet the engineering specifications for iPhone or iPad, it will “fall out” of the line, meaning it failed testing and therefore does not reach customers.

D. Reliability Testing for New and Remanufactured Devices

36. As stated above, the parts that are used in new and remanufactured devices are made in the same factories and subject to the same tests and requirements. [REDACTED]

² See, e.g., APL-MLDND0_00009949, APL-MLDND0_00009980, APL-MLDND0_00032502, APL-MLDND0_00032535, APL-MLDND0_00074968, APL-MLDND0_00075972, APL-MLDND0_00101296, APL-MLDND0_00101334, APL-MLDND0_00190441, APL-MLDND0_00190463, APL-MLDND0_00190492, APL-MLDND0_00190530, APL-MLDND0_00190561, APL-MLDND0_00190600, APL-MLDND0_00191473, APL-MLDND0_00191556, APL-MLDND0_00191862.

[REDACTED]

[REDACTED] (See Michael Lanigan Declaration dated April 8, 2019; see also Jason Fu Declaration dated April 5, 2019.) [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

37. Jason Fu, the Senior Manager of iPhone Quality at Apple, provided examples of reliability tests Apple performs and confirmed that Apple also performed these tests on certain parts: [REDACTED]. (See Fu Depo. Tr. at 24:18- 26:1.)

38. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] (See APL-MLDNDO_00009949.) [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] (See APL-MLDNDO_00009953.) [REDACTED]

[REDACTED] (See APL-MLDNDO_00075972.) [REDACTED]

[REDACTED]

[REDACTED]

39. When Apple is qualifying the remanufacturing lines for a particular iPhone or iPad model, Apple compares the reliability test results from the finished goods lines (i.e., new devices sold at retail). (See Jason Fu Declaration dated April 5, 2019; Michael Lanigan Declaration dated April 8, 2019.) Apple summarizes these findings and analysis in a document referred to as [REDACTED] (or “[REDACTED] or similar names).³ By performing this comparison, Apple is ensuring that remanufactured devices are equivalent to new in performance and reliability. (See e.g. APL-MLDND0_00005236, APL-MLDND0_00004879 – 9000, at 4880, 4892, 4893, and 4900). In reaching his opinions, Dr. Pecht did not analyze the [REDACTED] or [REDACTED] documents in detail, and does not appear to take into account the fact that Apple compares the results of its reliability testing of remanufactured devices against that of finished goods.

40. [REDACTED]

³ APL-MLDND0_00004879.pdf, APL-MLDND0_00004901.pdf, APL-MLDND0_00004933.pdf, APL-MLDND0_00004963.pdf, APL-MLDND0_00004991.pdf, APL-MLDND0_00005018.pdf, APL-MLDND0_00005044.pdf, APL-MLDND0_00005074.pdf, APL-MLDND0_00005099.pdf, APL-MLDND0_00005126.pdf, APL-MLDND0_00005150.pdf, APL-MLDND0_00005179.pdf, APL-MLDND0_00005205.pdf, APL-MLDND0_00005237.pdf, APL-MLDND0_00005244.pdf, APL-MLDND0_00005247.pdf, APL-MLDND0_00005322.pdf, APL-MLDND0_00005376.pdf, APL-MLDND0_00005380.pdf, APL-MLDND0_00005390.pdf, APL-MLDND0_00005401.pdf, APL-MLDND0_00005438.pdf, APL-MLDND0_00005446.pdf

[REDACTED]

[REDACTED] (See for example APL-MLDND0_00005110-5118.)

E. Recovered Parts for Remanufactured Devices

41. Apple only uses certain recovered parts in remanufactured iPhones and iPads. The only parts reclaimed for iPhone are: [REDACTED] [REDACTED] (See Apple response to Interrogatory No. 6; Lanigan Depo. Tr. at 70:19-71:22.) The only parts reclaimed for iPad are: [REDACTED] [REDACTED]. (See Apple response to Interrogatory No. 6; Lanigan Depo. Tr. at 71:10-17.)

42. [REDACTED]

[REDACTED]

[REDACTED] For example, I understand that Plaintiffs in this case are proposing a class that would include customers of the iPhone Upgrade Program, under which customers can upgrade their iPhone every year.

43. [REDACTED]. (See Lanigan Depo. Tr. at 71:23-73:16.) [REDACTED]

[REDACTED]

[REDACTED] (See Lanigan Depo. Tr. at 68:5-69:4.)

44.

[REDACTED]

45. Dr. Pecht opines that recovered parts have shorter lives than new parts. But Dr. Pecht does not take into account the specific non-new parts that Apple uses in its remanufactured devices. For example, Apple only uses new batteries in remanufactured replacement devices. (See Lanigan Depo. Tr. at 131:20-132:2.) Thus, there is simply no basis for an opinion that the battery in an Apple remanufactured device is inferior to that in a new (finished goods) device.

46. In addition, Dr. Pecht’s sweeping “engineering” generalizations fail to take into consideration any of the particulars of Apple’s manufacturing or testing as they relate to new and remanufactured devices. When asked if examining the Plaintiffs’ devices would affect his

opinion, he responded in the negative. “Because my opinions in the report are quite broad-based and fundamental reliability engineering statements. They generally hold true regardless of the product.” (See Pecht Depo. Tr. at 57:3-57:14.) Dr. Pecht admits, however, that different parts degrade at different rates, and that the rates at which parts degrade depend on the conditions they may be subjected to (“load conditions” using Dr. Pecht’s terminology). (See Pecht Depo. Tr. at 57:13-14, 88:15-21.) He also admits that a remanufactured device could last longer than a new device, and that the life of the device depends on the customer, geography, environment, and use. (See Pecht Depo. Tr. at 106:9-106:25).

47. All parts, recovered or not, are subject to the same testing. Dr. Pecht argues that the recovered parts are only tested to a “minimum” specification. *“Apple alleges that every new and remanufactured device is subject to the same performance tests and meet a minimum standard established by Apple.”* (See Pecht Report p.9.) However, it is the same performance specification to which Apple tests all parts, reclaimed or new. Furthermore, nearly all manufacturers test to a specification that sets a performance standard. That is generally how specifications are written. To criticize testing to a specification that sets a “minimum” performance standard is to criticize nearly all manufacturing in every industry. This argument condemns practice that is indistinguishable from routine everyday practice by numerous companies. Further, Mr. Lanigan testified that Apple’s standards are at the “upper end of any performance spec of any product.” (Lanigan Depo. at 126:17-127:10.)

F. The Bathtub Curve

48. There are different ways to graphically describe the rate of failure of manufactured products. One is the bathtub curve, so-called because it looks like a bathtub and has three different failure rates.

49. The first portion or mode is very steep downwards, like the left side of a bathtub, labeled “Early fails” in Fig. 1 (16.2).⁴ This first portion shows a very high initial rate of failure. These failures show flaws or latent defects that make it out to customers. These early failures are also referred to as “infant mortalities.”

50. The middle portion the bathtub curve is often called the useful life. Its shape is flat and low, like the bottom of the bathtub, labeled “Overuse fails” in Fig. 1 (16.2). This portion usually occupies the majority of the product’s life. This flat portion is due to overstress use. As the name suggests, “overstress” failures are caused by excess stress on the product. The failure rate is low, relatively random, and usually much lower than early life or wear-out failures.

51. The next and last portion or mode is a steep uphill slope, like the right side of the bathtub, labeled “Wearout” in Fig. 1 (16.2). This last mode shows wear-out of the device, wherein the failure rate increases. Again, as the name suggests, “wear-out” failures are caused by wear out of one or more parts of the product. The failure rate of an individual part in the device can increase with time. Also, different parts can start to fail. Together, these can lead to a rapid increase in the overall failure rate of the device during the wear-out period at end of life.

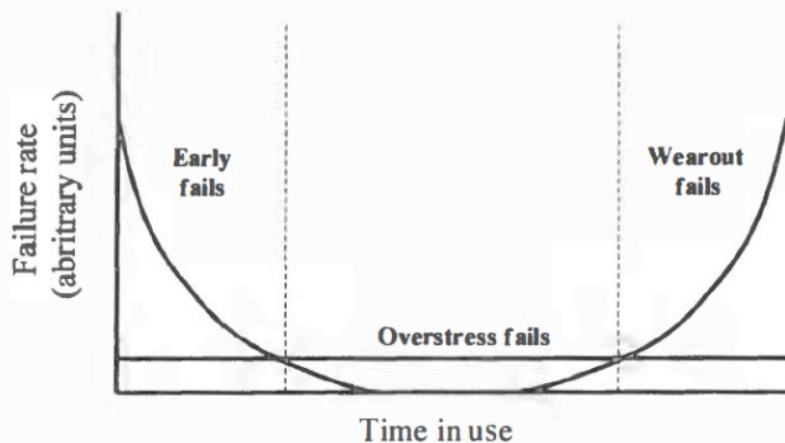


Figure 16.2 Bathtub curve decomposed into its three contributions.

⁴ See Ulrich and Brown, *Advanced Electronic Packaging* 2nd Ed., 2006, IEEE Press, at p. 653-654.

Figure 1: A Bathtub Curve

52. Once early failures are screened out, the failures that occur during the useful life of the product are for the most part overstress failures, not wear-out failures. Dr. Pecht's theory is largely based on wear-out failures, namely that the non-new parts will wear out faster than the new parts. But there is no evidence to suggest that the limited, long-life non-new parts that Apple recovers are wearing out during the useful life of the replacement iPhones or iPads.

G. Component and Product Reliability Over Time

53. Dr. Pecht argues that “[d]evices containing salvaged (used) parts can never be as reliable as devices containing new components.” However, this is not a universal truth, but a generalization. In the basic bathtub curve for component failure (see Figure 1 above), there is initially a high rate of failure, then a flattening out of the failure rate, then an eventual wear out wherein failure begin to increase again. If one screens out the early failures from a population of parts, then one is left with a more reliable pool of parts.

54. Dr. Pecht has presented no evidence to support his assertion that remanufactured replacement iPhones and iPads with a limited number of recovered parts are less reliable or do not function as well as units built with exclusively with new parts. Nor has he conducted any analysis of or testing of Apple's remanufactured iPhones or iPads. (See Pecht Depo. Tr. at 39:21-25.)

55. Instead, he presents a general theoretical argument that is not universally true. He also points to no evidence that this theoretical argument is true for any of Apple's remanufactured iPhones and iPads, much less all of them. (See V.H. below.) Essentially he argues that non-new parts cannot be more reliable than brand new parts, which is incorrect. He conflates all parts that have seen use with parts that are worn. Whereas worn out parts may not

be more reliable than new parts, recovered parts and parts that are worn out are not the same. In fact, Dr. Pecht admits that it is possible for there to be “no degradation on performance” of the remanufactured iPhones and iPads due to any “load conditions” on the non-new parts. (Pecht Depo. Tr. at 106:12-108:1.)

H. The Sum of the Parts

56. The reliability of an iPad or iPhone is a complex statistical sum of the reliability of each component.⁵ However, each component must on average last longer than the iPhone or iPad. Some parts last longer than others. Essentially, the reliability or life can be determined by the parts with the shortest life or that are most likely to fail.

57. Dr. Pecht is incorrect in that he tacitly assumes that the parts cannot have a lifetime that exceeds the useful life of the iPhone or iPad. To the extent that a component has a much longer life than the useful life of the iPhone or iPad, then using a non-new component may make no difference in the overall life of a remanufactured iPhone or iPad. As a result, any failure during the useful life of an iPhone or iPad is more likely to be caused by overstress (e.g., customer behavior and unanticipated usage) than by wear out of any of the parts (whether those parts are new or recovered). In fact, Dr. Pecht admits that it is possible that a remanufactured iPhone or iPad would have a longer life than a new iPhone or iPad, and that it would depend on different variables like customer, geography, environment, and use habits. (Pecht Depo. Tr. at 106:12-108:1.)

58. Since Apple only recovers parts that have a very long life, using them in remanufactured iPhones and iPads does not appreciably affect the performance or reliability of the devices. Recall that Apple only reclaims the following long life parts:⁶

⁵ See Ulrich and Brown, *Advanced Electronic Packaging* 2nd Ed., 2006, IEEE Press, pp. 681-683.

⁶ See Apple response to Interrogatory No. 6.

- For iPhone: [REDACTED]
[REDACTED]
- For iPad: [REDACTED]
[REDACTED]

59. Moreover, there is no evidence to support that remanufactured iPhone or iPad devices are returned more often than devices made from all new parts. [REDACTED]

[REDACTED] If Dr. Pecht’s theory that all non-new parts were subject to “load conditions” that caused wear out was universally true, [REDACTED]. But the data does not support that. (See APL-MLDND0_00005559-5566.)

I. Examination of Plaintiff Justin Carter’s iPhones

60. I understand that Plaintiff Justin Carter arranged to have a third party disassemble his replacement iPhones in a parking lot, and it occurred in the back of an SUV with the liftgate open. (See Carter Depo. Tr. at 139:8-140:8; Carter Response to Interrogatory No. 1.) There are a number of reasons why this could be problematic, including the examples that follow.

61. First, without adequate electrostatic discharge protection, one can damage the electronics in a system. It is important for both the work area and personnel handling devices to create a static-safe environment. There is no indication that any anti-static materials were used in the inspections undertaken of Carter’s iPhones.

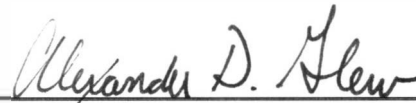
62. Second, the back of an SUV is not a clean environment, and contaminants could enter the device when it is open.

63. Third, creating a leak-tight seal after removing the screen from a device is not a simple matter. Opening an iPhone or iPad often involves first removing a few screws, then using a pair of reverse/opening pliers with suction cups to pull the screen and case apart, meanwhile running what looks like a plastic guitar pick around the edge between the glass and the case. Further, heat may be required. If the person examining Carter's iPhones did not create a leak-tight seal between the screen and the case, moisture, contamination, salt, or other matter can enter the device and degrade its performance or reliability.

64. Because Carter's iPhone was disassembled before he ever used it, it is possible that disassembling the iPhone could have caused battery or other performance issues due to the issues outlined above (e.g., electrostatic discharge or contaminants being introduced into the interior of the iPhone).

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

Dated: April 8, 2019



Dr. Alexander D. Glew, P.E.

1 ARTURO J. GONZÁLEZ (SBN 121490)
AGonzalez@mofocom
2 PENELOPE A. PREOVOLOS (SBN 87607)
PPreovolos@mofocom
3 MARGARET E. MAYO (SBN 259685)
MMayo@mofocom
4 MORRISON & FOERSTER LLP
425 Market Street
5 San Francisco, California 94105-2482
Telephone: 415.268.7000
6 Facsimile: 415.268.7522

7 PURVI G. PATEL (SBN 270702)
PPatel@mofocom
8 MORRISON & FOERSTER LLP
707 Wilshire Boulevard
9 Los Angeles, California 90017-3543
Telephone: 213.892.5200
10 Facsimile: 213.892.5454

11 Attorneys for Defendants
APPLE INC., APPLECARE SERVICE
12 COMPANY, INC., and APPLE CSC INC.

13 UNITED STATES DISTRICT COURT
14 NORTHERN DISTRICT OF CALIFORNIA
15 SAN FRANCISCO DIVISION

17 VICKY MALDONADO AND JUSTIN
18 CARTER, individually and on behalf of
themselves and all others similarly situated,

19 Plaintiffs,

20 v.

21 APPLE INC., APPLECARE SERVICE
22 COMPANY, INC., and APPLE CSC INC.,

23 Defendants.

Case No. 3:16-cv-04067-WHO

Related Case:
English v. Apple Inc., et al.
Case No. 3:14-cv-01619-WHO

**DECLARATION OF
ANTHONY HAYTER, PH.D.**

Judge: William H. Orrick
Courtroom: 2, 17th Floor

Complaint Filed: July 20, 2016
Trial Date: April 20, 2020

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1 I, Anthony Hayter, hereby declare as follows:

2 1. I have been retained as an expert for Defendants Apple Inc., AppleCare Service
3 Company, Inc., and Apple CSC Inc. in this action. I make this declaration on my own personal
4 knowledge, and if called as a witness to testify, I could and would testify competently to the
5 following facts.

6 2. Attached as **Exhibit A** is a true and correct copy of my expert report in support of
7 Defendants' Opposition to Plaintiffs' Motion for Class Certification, dated April __, 2019.

8
9 I declare under penalty of perjury under the laws of the United States of America that the
10 foregoing is true and correct.

11 Executed this __th day of April, 2019, at _____, Colorado.

12
13 _____
Anthony Hayter
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Exhibit A

**REDACTED VERSION OF DOCUMENT
SOUGHT TO BE SEALED**

Maldonado, et al.
versus
Apple Inc., et al.

April 8th
2019

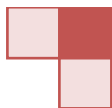
United States District Court
Northern District of California
San Francisco Division
Case No. 3:16-cv-04067-WHO

Expert Report of Dr. Anthony Hayter in support of
Defendants' Opposition to Class Certification

HayterStatistics.com

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[REDACTED]
[REDACTED] Page 67



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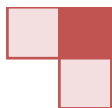


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Section I: Statement of my Opinions.

□ Overview.

I have been retained by the law firm Morrison & Foerster LLP, on behalf of Apple Inc., et al., in the case *Maldonado, et al. v. Apple Inc., et al.*, in the United States District Court, Northern District of California, San Francisco Division, Case No. 3:16-cv-04067-WHO.

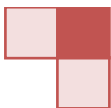
I have been asked to provide expert consultation in connection with the above-described case from a mathematical and statistical basis. This work encompasses the discussion and examination of relevant information, the preparation of this report, with the possible preparation of additional future reports.

In particular, I have been asked to evaluate and respond to the opinions of Dr. Robert A. Bardwell, as set forth in his report dated February 25th, 2019 and his related deposition testimony. This report contains my opinions as of this date, together with the basis and reasons for my opinions.

The opinions set forth in this report are based on an assessment of information currently available to its author. If, when, and to the extent that additional data and information are made available and can be properly



evaluated, it is possible that the opinions set forth in this report will need to be supplemented and/or modified. The author reserves the right to do so if data and information later made available suggest any such supplementation and/or modification is appropriate.



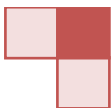
□ Summary.

- The opinions that Dr. Bardwell has expressed concerning failure rates of new and remanufactured iPhones and iPads are not substantiated because he has analyzed data sets of return rates of devices, and he has not analyzed data sets of failure rates of devices. The return rate data he has analyzed relates to customer service events (repairs and replacements), not failures or failure analyses.
- Dr. Bardwell has attempted to calculate odds ratios for the different models of iPhones and iPads at issue using return rates. If Dr. Bardwell's odds ratios were calculated correctly, then an odds ratio greater than one implies that the return rate for new replacement devices is lower than the return rate for remanufactured replacement devices, while an odds ratio smaller than one implies the opposite. Dr. Bardwell's attempted odds ratio calculations give values that vary across models. Dr. Bardwell focuses only on the models for which the odds ratio is greater than one. However, this variability shows that Dr. Bardwell has not accounted for any possible confounding variables unrelated to device quality that could account for his odds ratios being greater than one.
- The data sets of return rates analyzed by Dr. Bardwell include models for which the information is incomplete due to ongoing customer service activity at the time the data sets were compiled. For these models the



data sets do not allow a meaningful comparison between the return rates of new and remanufactured devices. Likewise, the combined odds ratios for iPhone and iPad obtained by Dr. Bardwell using the Mantel-Haenszel method do not provide any meaningful comparison.

- For models for which the data sets do allow a meaningful comparison:
 - The data sets do not provide any evidence of any systematic difference between the return rates of new and remanufactured devices.
 - There is no censoring in the data set of the kinds that Dr. Bardwell has discussed, there are no reasons to believe that the remanufactured devices have higher return rates than the data sets indicate, and there are no reasons to focus solely on the [REDACTED] period.
 - The proportion of remanufactured replacement devices that were not returned within the longest time period considered [REDACTED]



□ My Opinions.

1. The opinions that Dr. Bardwell has expressed in his report concerning failures rates are not substantiated because he has analyzed data sets of return rates of devices, and he has not analyzed data sets of failure rates of devices.

In the first sentence of the Introduction of his report on page 3 Dr. Bardwell states:

“This report presents an analysis of device failures for new and used replacement devices provided as part of AppleCare and AppleCare+ service plans.”

However, this statement is incorrect because the data sets analyzed by Dr. Bardwell are data sets of return rates of devices, which include both returns and same-unit repairs of the devices. They are not data sets of failure rates of devices. Consequently, any opinions that Dr. Bardwell has expressed in his report concerning failure rates are not substantiated.

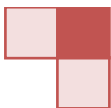


2. Dr. Bardwell bases his opinions on his calculation of odds ratios for each model (which is a statistic that assesses the strength of the association between two variables) in order to compare the return rates of new replacements with remanufactured replacements.¹ When Dr. Bardwell has calculated an odds ratio greater than one for a model, it cannot be inferred that the ratio shows any difference in the quality of new versus remanufactured replacement devices. This is because Dr. Bardwell's analyses have not addressed any possible confounding variables unrelated to device quality that could account for his odds ratio being greater than one.

Dr. Bardwell's analyses consider only whether a device was returned or not, and whether the device is a new or remanufactured device. However, there are possible additional confounding variables that could also be related to the two variables Dr. Bardwell considered. Consequently, it cannot be inferred that Dr. Bardwell's odds ratios are indicative of any differences in the quality of the new and remanufactured devices.

The importance of these possible additional confounding variables can be seen from the deposition of Dr. Michael Pecht and his testimony on the

¹ If Dr. Bardwell's odds ratios were calculated correctly, then an odds ratio greater than one implies that the return rate for new replacement devices is lower than the return rate for remanufactured replacement devices, while an odds ratio smaller than one implies the opposite.



manner in which “load conditions” placed on a device can vary according to different factors. Pages 87-88 of Dr. Pecht’s deposition contain the discussion:

“Q: And just so I use the right words, is loading conditions a combination of time, usage, and environment, or is loading conditions environment?”

A: Yeah, so loading conditions is the combination of the usage, like operational, but it could be an environmental condition. So when I put environmental conditions separate than operational, I mean when it's operating you also have electrical. I mean, there's electrons moving and things like that. Things are heating up. There's different expansions in materials. And there's buttons pushed and things like that. Environmental could include those, but also the outside environment that it's subjected to. And, you know, whether you put the phone under your pillow or something like that, all those kinds of things could be part of this.

Q: And -

A: And they could be changing with time.”

In addition, page 107 of Dr. Pecht’s deposition contains the discussion:

“Q: And I'm also trying to understand, the load conditions are both the environmental factors and the usage factors.



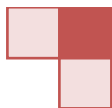
A: *Correct.*

Q: *To simplify it. And if that's the case, then [load conditions] would really vary from customer to customer, geography to geography, product to product. Right?*

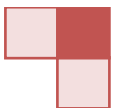
A: *Correct.”*

These discussions indicate that any purported “load conditions” placed on a device, and therefore the potential need for service on a device, can vary according to such factors as operational usage, environmental conditions, customer behavior, geographical location, and time. This type of activity may account for the odds ratios that Dr. Bardwell has calculated being larger than one, even though the fact that these customers came back to Apple with an “issue” with their replacements does not necessarily mean that there was any quality issue with the devices or their parts.

It should also be noted that Dr. Bardwell’s analyses found several models for which the return rate of new devices is higher and statistically significant compared with the return rate of remanufactured devices (that is, where his calculated odds ratios were less than one). The analyses presented later in this report show that there are many such models. Nevertheless, Dr. Bardwell did not conclude for those models that because his odds ratio is smaller than one, the remanufactured devices must be of higher quality than the new devices. In addition to highlighting the inconsistencies in Dr. Bardwell’s analyses, this shows that Dr. Bardwell’s analyses have not addressed confounding variables



unrelated to device quality that could account for his odds ratios being greater than one for some models.



3. The data sets of return rates analyzed by Dr. Bardwell include models for which the information is incomplete due to ongoing customer service activity (since there were customers still seeking service for these iPhone or iPad models when the data sets were compiled). The completeness of the information available in the data sets for a particular model determines whether or not the data sets can be used to perform a meaningful analysis of that model. My calculations regarding the completeness of the information for the models are referred to as “Information Ratio” values for the models.

Table 1 provides a list of the iPhone models contained in the data sets of return rates analyzed by Dr. Bardwell, together with the [REDACTED]
[REDACTED]
[REDACTED] These counts are shown for both new and remanufactured replacement devices.

In addition, Table 1 shows “Information Ratio” values for both new and remanufactured devices, which are calculated as the ratio of the [REDACTED]
[REDACTED]
[REDACTED]

There is great variability in the “Information Ratio” values among the different iPhone models, ranging from [REDACTED]
[REDACTED] This is important because the

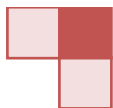


“Information Ratio” values measure the completeness of the information about a particular iPhone model that is provided by the data sets, which in turn determines whether or not the data sets can be used to perform a meaningful analysis for that iPhone model.

As an example, consider the iPhone 7. There are [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]



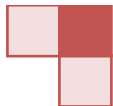
[REDACTED]

On the other hand, consider the iPhone 4S. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

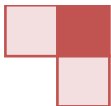


[REDACTED]

The same is true for remanufactured iPhone 4S replacements. There are

[REDACTED]

[REDACTED]



Analogous to Table 1 for iPhone models, Table 2 shows the “Information Ratio” values for iPad models, which are calculated in a similar manner. [REDACTED]

[REDACTED]

In Tables 1 and 2, the models that have “Information Ratio” values of at least [REDACTED] for both the new and remanufactured replacement devices are shaded yellow. These are the models for which the data sets can be used to perform the most meaningful analyses. In fact, for the nine iPhone models that are shaded yellow, the “Information Ratio” values are all [REDACTED]

[REDACTED]



Table 1: “Information Ratio” values for iPhone models.

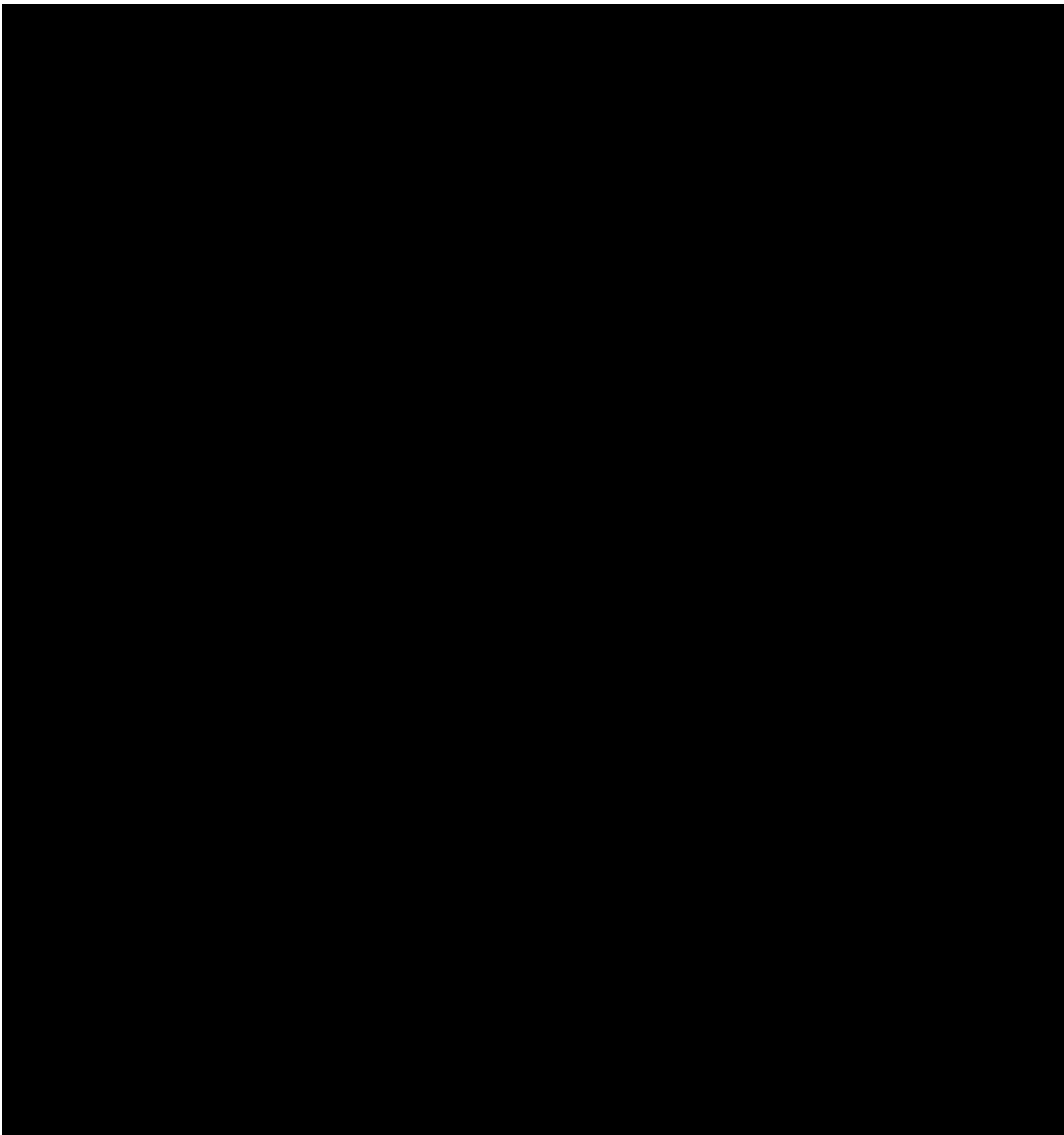


Table 1: “Information Ratio” values for iPhone models.
Continued.

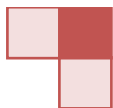
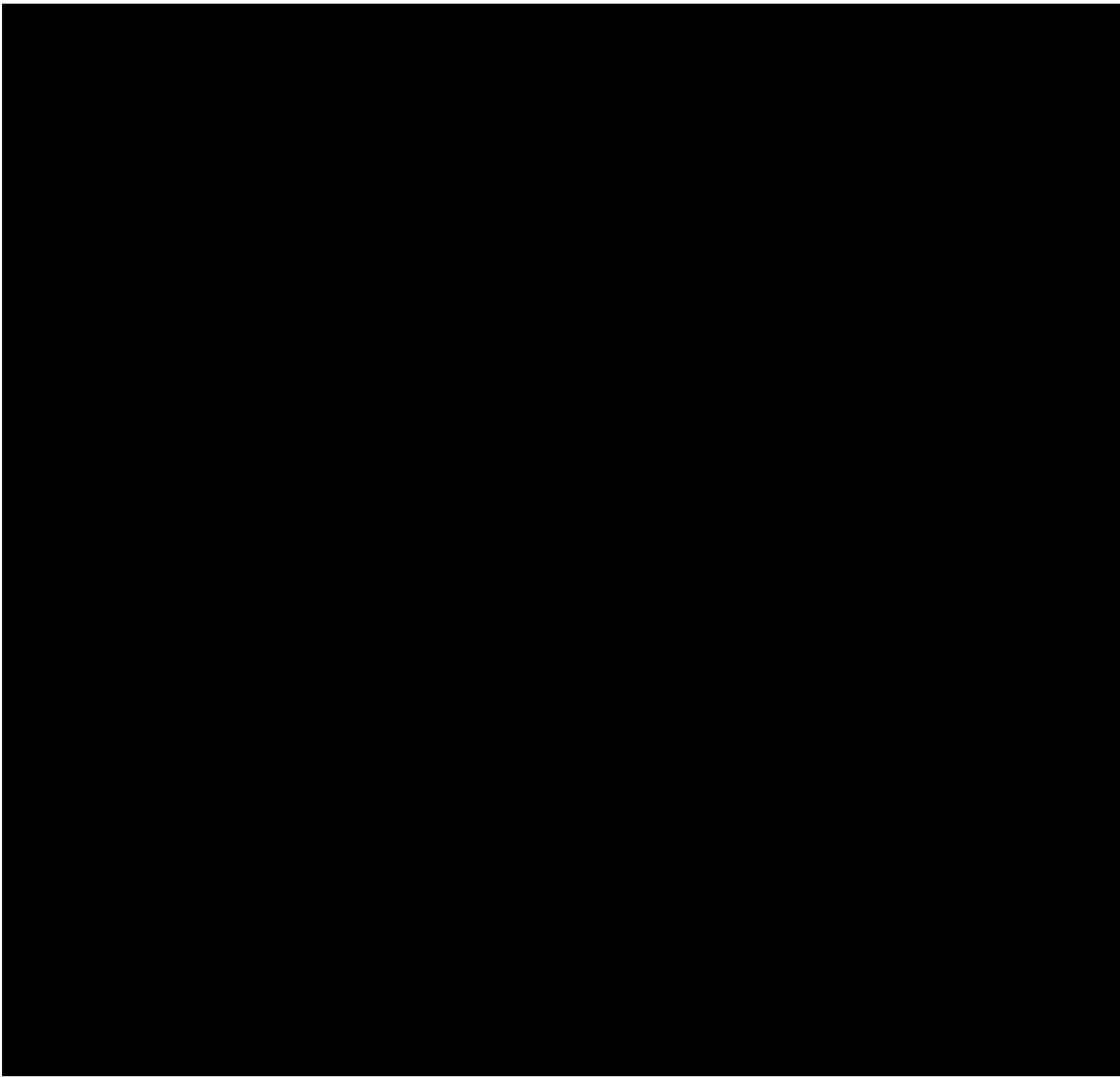


Table 2: “Information Ratio” values for iPad models.

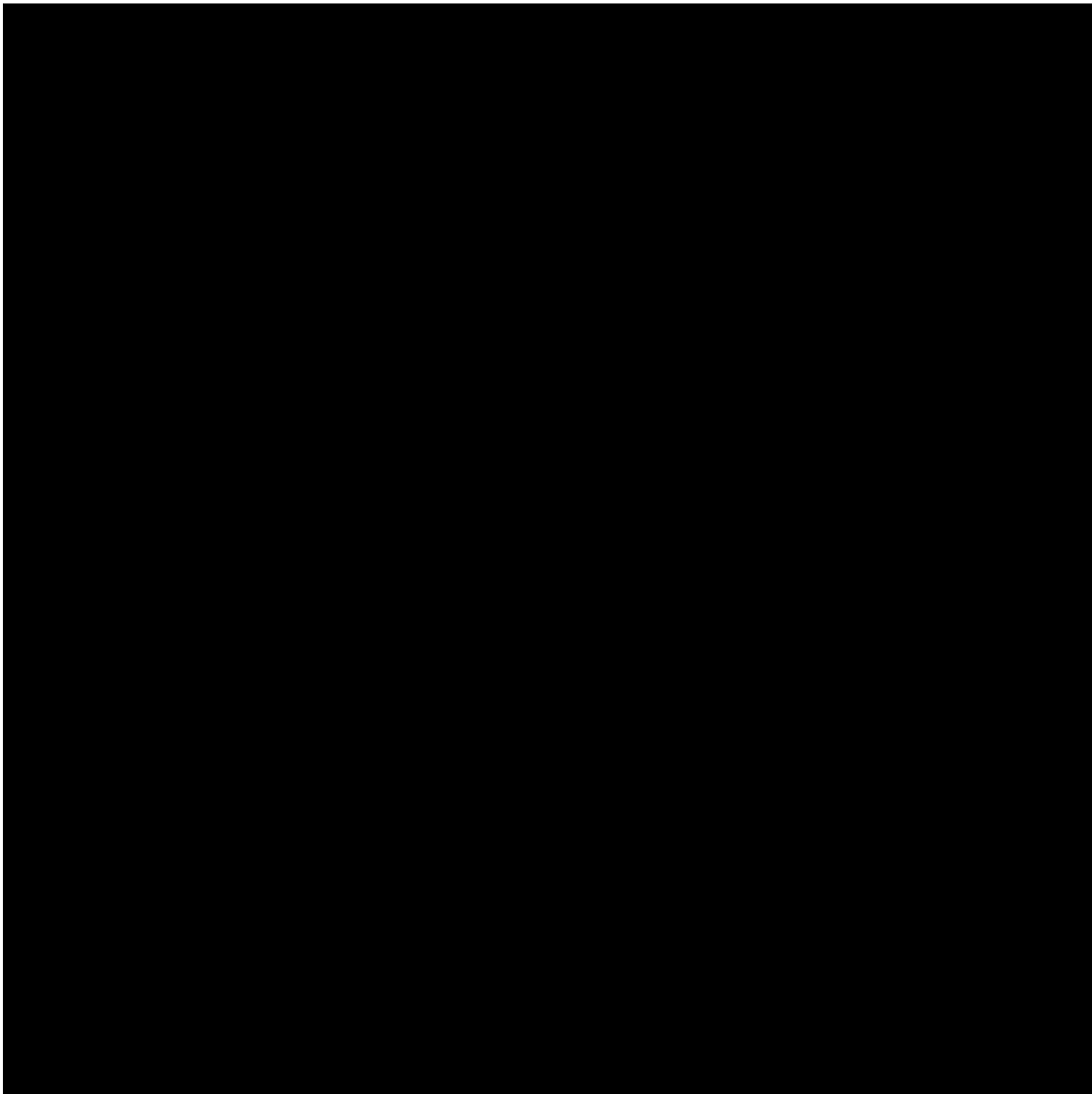


Table 2: “Information Ratio” values for iPad models.
Continued.

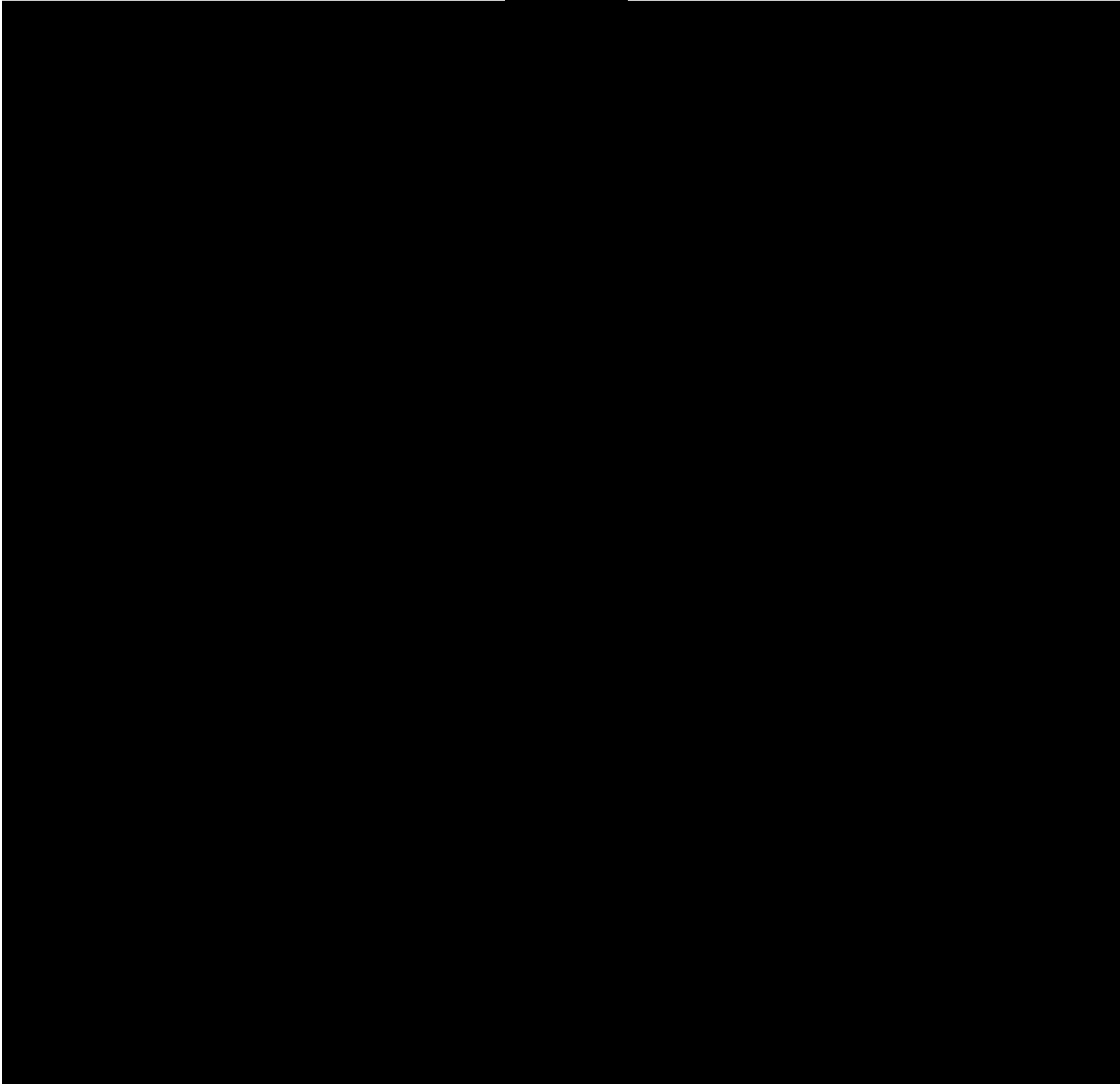


Table 2: “Information Ratio” values for iPad models.
Continued.

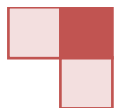
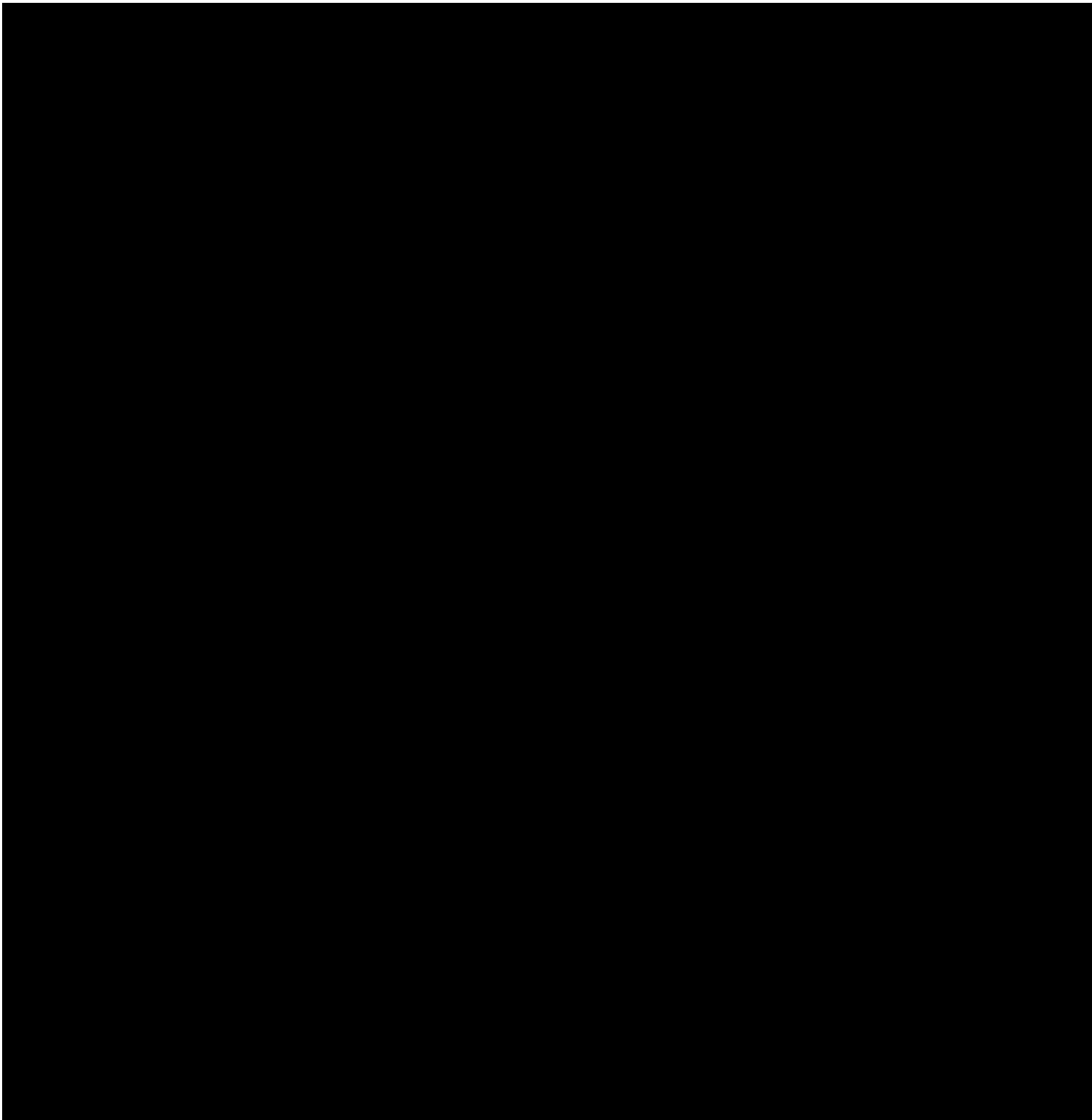
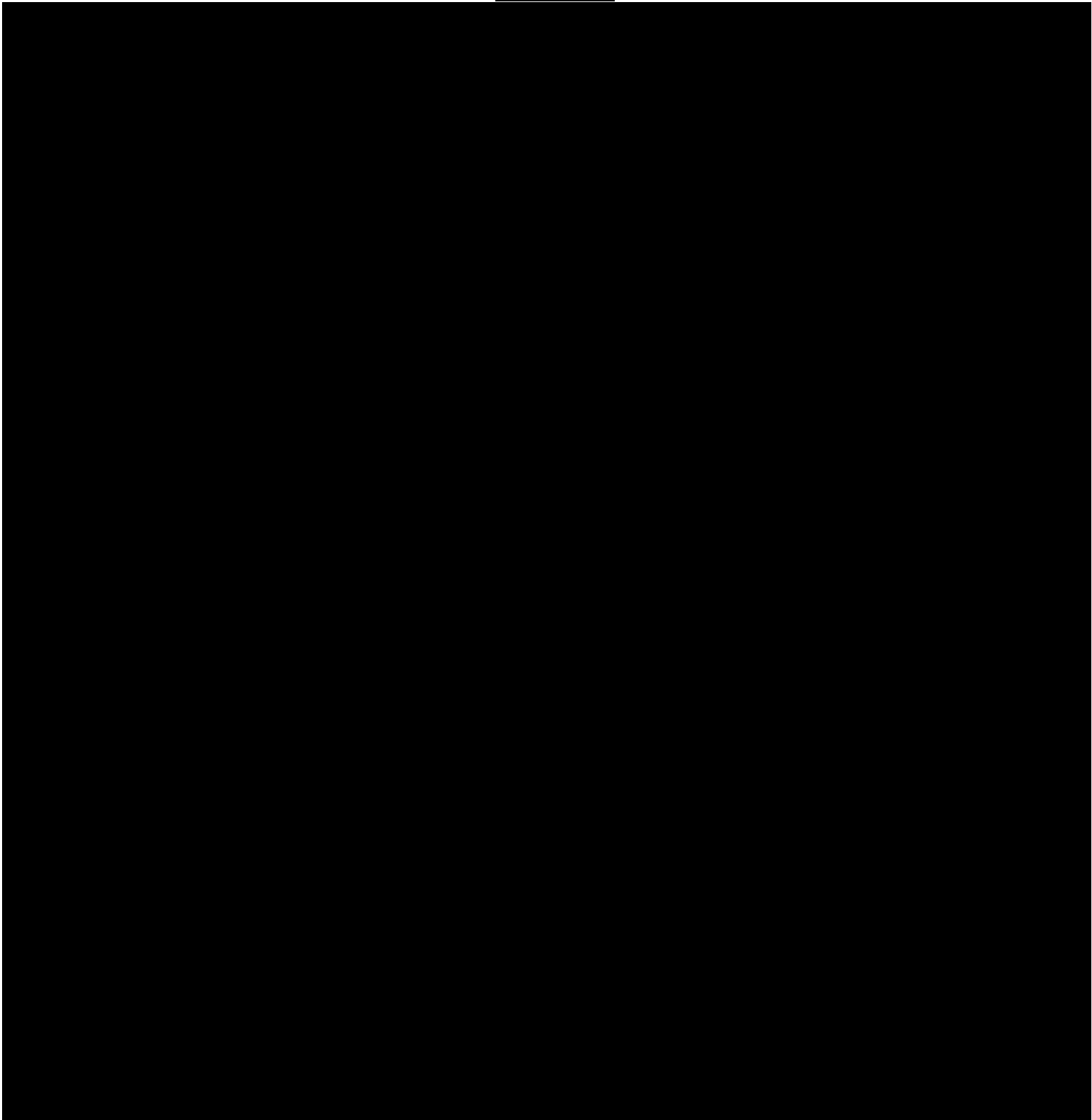


Table 2: “Information Ratio” values for iPad models.
Continued.



4. The models with the earliest release dates have the largest “Information Ratio” values.

Table 3 shows the release dates for the iPhone models and the iPad models (obtained from Apple press releases and other publicly available information), and Figures 1 and 2 show how the “Information Ratio” values (calculated as the average of the “Information Ratio” values for new devices and remanufactured replacement devices) relate to the release dates.

It can be seen from Figures 1 and 2 that the models with the earliest release dates have the [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

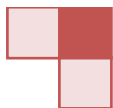


Table 3: Release Dates for iPhone and iPad models.

Model	Release Date	Model	Release Date
iPhone 3GS	June 19 th , 2009	iPad 2	March 11 th , 2011
iPhone 4 (8GB)	June 21 st , 2010	iPad 2 3G	March 11 th , 2011
iPhone 4 CDMA (8GB)	June 21 st , 2010	iPad 2 3G (Verizon)	March 11 th , 2011
iPhone 4S	October 14 th , 2011	iPad (3 rd Gen) Wi-Fi	March 16 th , 2012
iPhone 4S N94A	October 14 th , 2011	iPad (3 rd Gen) Wi-Fi Cellular	March 16 th , 2012
iPhone 5 N41	September 21 st , 2012	iPad (3 rd Gen) Wi-Fi Cellular (VZ)	March 16 th , 2012
iPhone 5 N42	September 21 st , 2012	iPad Mini Wi-Fi	November 2 nd , 2012
iPhone 5C N48	September 20 th , 2013	iPad Mini Wi-Fi Cellular	November 2 nd , 2012
iPhone 5S N51	September 20 th , 2013	iPad Mini Wi-Fi Cellular (MM)	November 2 nd , 2012
iPhone 6	September 19 th , 2014	iPad (4 th Gen) Wi-Fi	November 12 th , 2012
iPhone 6 Plus	September 19 th , 2014	iPad (4 th Gen) Wi-Fi Cellular	November 12 th , 2012
iPhone 6S	September 25 th , 2015	iPad (4 th Gen) Wi-Fi Cellular (MM)	November 12 th , 2012
iPhone 6S Plus	September 25 th , 2015	iPad Air Wi-Fi	November 1 st , 2013
iPhone SE	March 31 st , 2016	iPad Air Wi-Fi Cellular	November 1 st , 2013
iPhone 7	September 16 th , 2016	iPad Mini 2 Wi-Fi	November 12 th , 2013



Table 3: Release Dates for iPhone and iPad models.
Continued.

Model	Release Date	Model	Release Date
iPhone 7 Plus	September 16 th , 2016	iPad Mini 2 Wi-Fi, Cellular	November 12 th , 2013
iPhone 8	September 22 nd , 2017	iPad Air 2 Wi-Fi	October 22 nd , 2014
iPhone 8 Plus	September 22 nd , 2017	iPad Air 2 Wi-Fi Cellular	October 22 nd , 2014
iPhone X	November 3 rd , 2017	iPad Mini 3 Wi-Fi	October 22 nd , 2014
		iPad Mini 3 Wi-Fi Cellular	October 22 nd , 2014
		iPad Mini 4 Wi-Fi	September 9 th , 2015
		iPad Mini 4 Wi-Fi Cellular	September 9 th , 2015
		iPad Pro 12.9-Inch Wi-Fi	November 11 th , 2015
		iPad Pro 12.9-Inch Wi-Fi Cellular	November 11 th , 2015
		iPad Pro 9.7-Inch Wi-Fi	March 31 st , 2016
		iPad Pro 9.7-Inch Wi-Fi Cellular	March 31 st , 2016
		iPad (5 th Gen) Wi-Fi	March 24 th , 2017
		iPad Pro 12.9-Inch 2 nd Gen Wi-Fi	June 13 th , 2017
		iPad Pro 12.9-Inch 2 nd Gen Wi-Fi Cell	June 13 th , 2017
		iPad Pro 10.5-Inch Wi-Fi	June 13 th , 2017
		iPad Pro 10.5-Inch Wi-Fi Cellular	June 13 th , 2017



Figure 1: “Information Ratio” values and Release Dates for iPhone models.

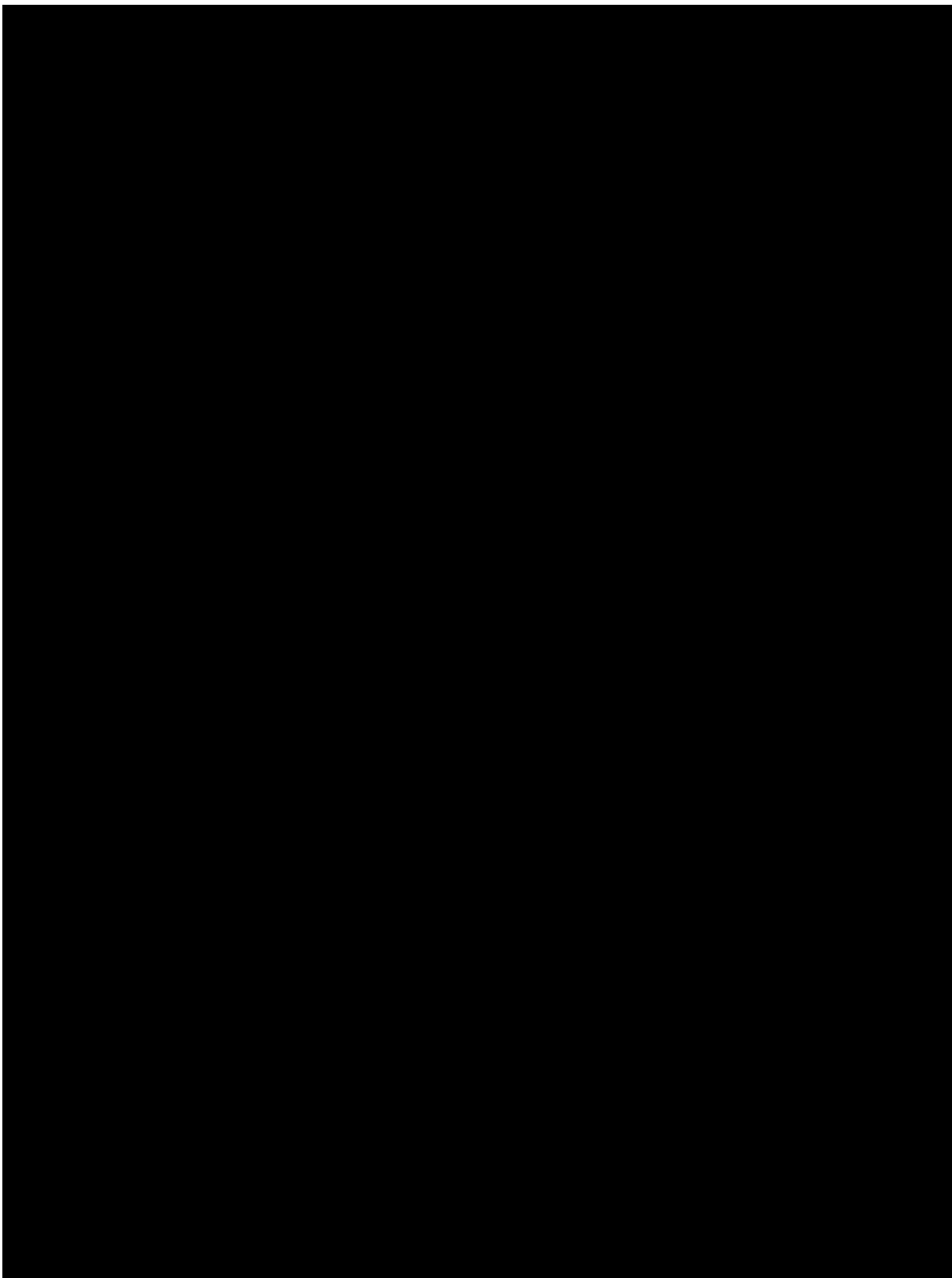
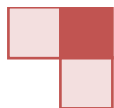
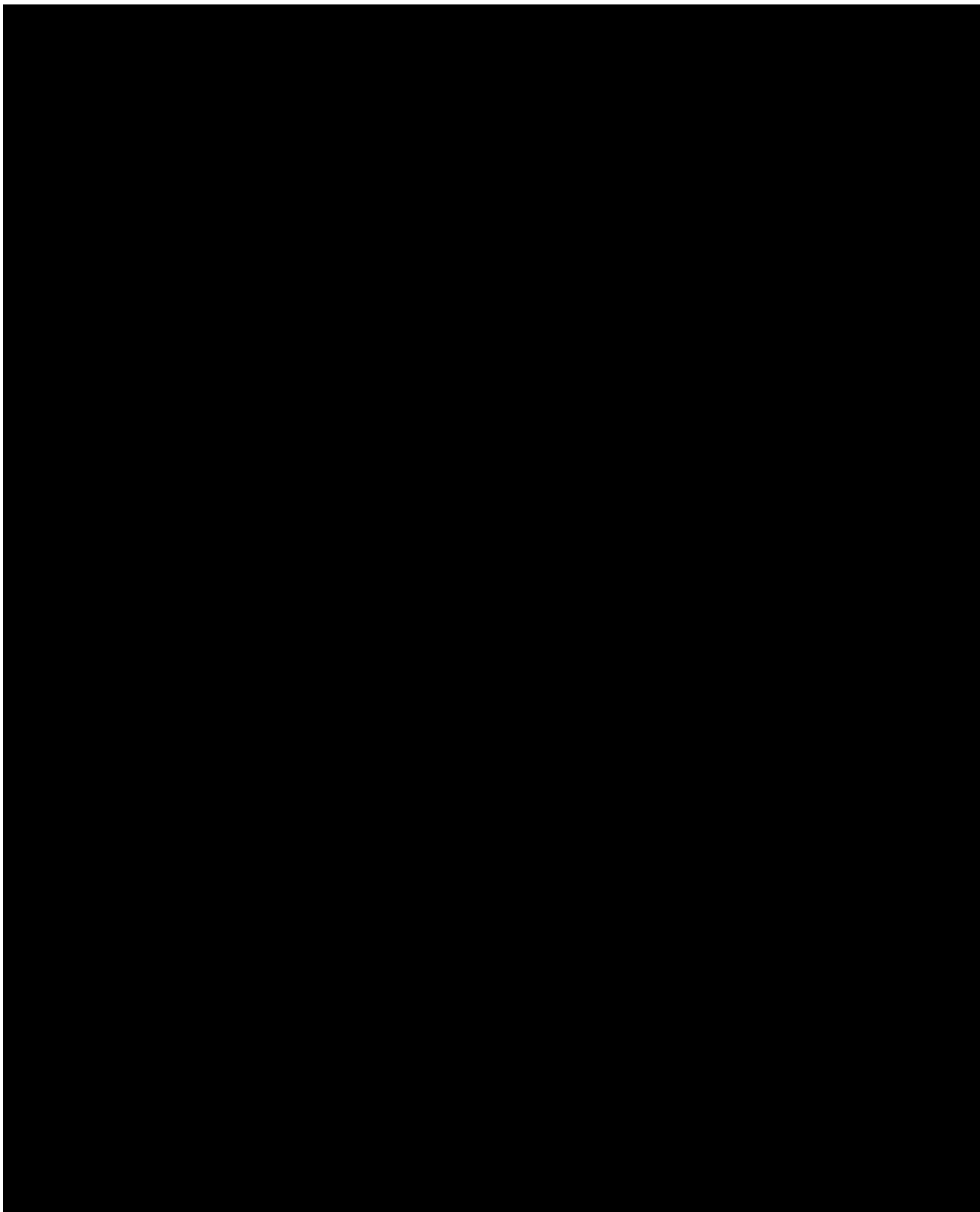


Figure 2: “Information Ratio” values and Release Dates for iPad models.



5. The values calculated by Dr. Bardwell as a [REDACTED] odds ratio for models with a low “Information Ratio” value are not odds ratios, and they have no meaningful interpretation.

When a model has a low “Information Ratio” value this implies that the data sets do not allow the calculation of a [REDACTED] odds ratio of the kind that Dr. Bardwell has calculated. An odds ratio is a ratio of one set of odds to another set of odds. For a proportion p , the odds are calculated as $p \div (1-p)$. Thus, it is a proportion p that is the basis for a set of odds, and consequently it is proportions that are the basis for an odds ratio.

For iPhone 8 new replacements, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

For iPhone 8 remanufactured replacements, [REDACTED]

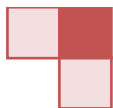
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

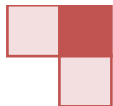
Dr. Bardwell then calculates an odds ratio for iPhone 8 as the ratio of the odds calculated for remanufactured replacement devices to the odds calculated



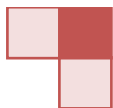
for new replacement devices, [REDACTED]
[REDACTED]
[REDACTED]

A proportion is properly calculated by considering a group of a certain size, together with a subset of that group of a certain size, and by calculating the ratio of the two sizes. However, in Dr. Bardwell's calculation, the [REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]



[REDACTED]



6. Neither of the “combined odds ratios” for iPhone and iPad obtained by Dr. Bardwell using the Mantel-Haenszel method has any meaningful interpretation.

Dr. Bardwell uses the Mantel-Haenszel method to calculate a “combined odds ratio” for iPhone and a “combined odds ratio” for iPad. However, the Mantel-Haenszel method is based upon the individual odds ratios for each of the iPhone models and for each of the iPad models.

Since the individual odds ratios for iPhone and iPad models with low “Information Ratio” values are not true odds ratios and have no meaningful interpretation, it follows that the “combined odds ratios” for iPhone and iPad obtained from the Mantel-Haenszel method also have no meaningful interpretation.

Moreover, reference 4 on page 20 of Dr. Bardwell’s report is:

“Fleiss, Joseph L. (1981). Statistical Methods for Rates and Proportions. N.Y.: John Wiley & Sons. (Mantel-Haenszel computations are contained in Section 10.4, pages 173 through 175.)”

In this book, the first sentence of section 10.4 on page 173 states that:

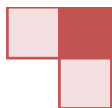
“A procedure due to Mantel and Haenszel (1959), and extended by Mantel (1963), permits one to estimate the



assumed common odds ratio and to test whether the overall degree of association is significant.”

Thus, the Mantel-Haenszel method is employed in situations where it is assumed that there is a “**common odds ratio**” for the different groups, or in other words, where the odds ratios in each group are assumed to be all equal.

Even if the “odds ratios” calculated by Dr. Bardwell were truly odds ratios, it is clear that they are not all equal. For example, some of Dr. Bardwell’s odds ratios are greater than one and statistically significant, while others are less than one and statistically significant. Consequently, the implementation of the Mantel-Haenszel method in this case is not appropriate, and it does not have any meaningful interpretation.



7. The data sets can be used to investigate the return rates at the various [REDACTED] values contained in the data sets only for models with high “Information Ratio” values.

As has been previously discussed, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

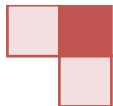
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



[REDACTED]

[REDACTED]

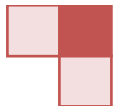



Table 4: Interpretation of “Information Ratio” values.



8. For models with high “Information Ratio” values there is no censoring in the data sets of the kinds that Dr. Bardwell has discussed. Consequently, for models with high “Information Ratio” values there are no reasons to believe that the remanufactured devices have higher return rates than the data sets indicate, and there are no reasons to focus solely on the [REDACTED] period.

Dr. Bardwell claims that “remanufactured devices perform worse” than the data sets would indicate because of censoring in the data. He further claims that focusing solely on the [REDACTED] period can minimize the impact of the censoring. However, for models with high “Information Ratio” values there is no censoring in the data sets of the two kinds that Dr. Bardwell has discussed.

The first kind of censoring is related to the time at which the data sets were compiled. On page 14 of Dr. Bardwell’s report he states:

“These data record events through September 27, 2018. If a replacement device turns out to be defective after September 27, the end of data collection, I would not have a record of that failure in the data.”

In reviewing Dr. Bardwell’s opinions, I am interpreting his use of the terms “defective” and “failure” to be referring to the return of a device (since that is what the data sets actually involve). Moreover, this kind of censoring would either be non-existent or negligible for models that have a high “Information



Ratio” value. For these models the data sets contain essentially complete information for the variables presented in the data sets, and there is no or negligible ongoing customer service activity with the model at the time that the data sets were compiled.

The second kind of censoring Dr. Bardwell discusses is related to the length of the service plan. On page 13 of Dr. Bardwell’s report he states:

“Device failures are only recorded in the data if the failure occurred during the term of the service plan.”

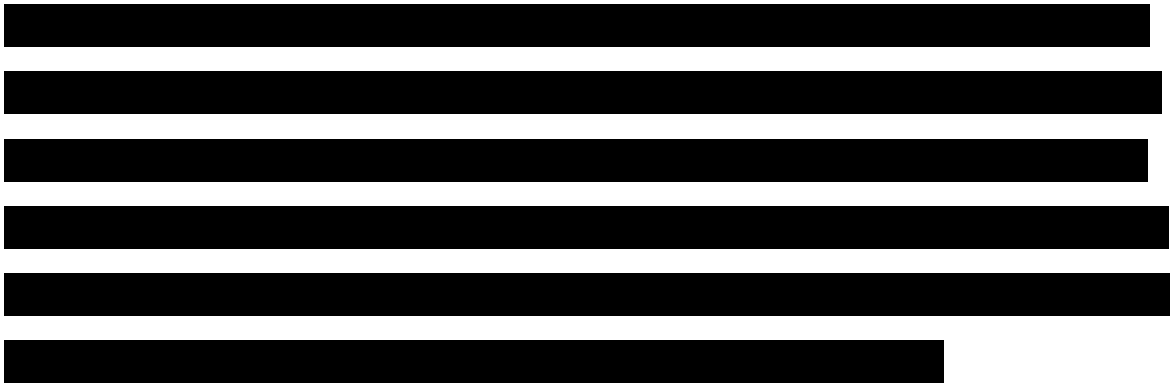
Again, it should be noted that instead of “*failure*,” Dr. Bardwell should have used the word “return.” In addition, this statement is incorrect because the counts in the data sets of the returned devices include returns that occurred both before and after the expiration of the service plan.

Consequently, for models with high “Information Ratio” values there are no reasons to believe that remanufactured devices have higher return rates than the data sets indicate, and there are no reasons to focus solely on the [REDACTED] period. Moreover, the most complete information about a model’s return rates is obtained by considering each of the [REDACTED] periods.



9. For models with high “Information Ratio” values the data sets do not provide any evidence of any systematic difference between the return rates of new replacement devices and the return rates of remanufactured replacement devices.

Figures 3-11 provide analyses of the data for the nine iPhone models that have “Information Ratio” values that are [REDACTED]



The analyses include: (1) calculations of the return rates; (2) the differences between the return rates (a positive difference implies that the return rate for the new replacement device is higher than the return rate for the remanufactured replacement device, while a negative difference implies the opposite); and (3) the odds ratios of the return rates of the remanufactured replacements to the new replacements (an odds ratio less than one implies that the return rate for the new replacement device is larger than the return rate for the remanufactured replacement, while an odds ratio larger than one implies the opposite).



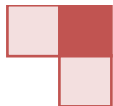
Any statistical significance of the differences between the return rates of the new and remanufactured replacement devices is shown at the commonly used levels of 10%, 5%, and 1%. Of these, 1% is the strongest level of statistical significance, while 10% is the weakest level of statistical significance.

Table 5 provides a summary of the data analyses showing the differences between the return rates for the new and remanufactured replacement devices. It can be seen from Figures 3-23 and Table 5 that there is a reasonably balanced mix between situations where the new replacement device has a higher return rate than the remanufactured replacement device, and situations where the opposite is true.

[REDACTED]

[REDACTED]

- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
- [REDACTED]
[REDACTED]



[REDACTED]

Overall, for these models with high “Information Ratio” values the data sets do not provide any evidence of any systematic difference between the return rates of new and remanufactured replacement devices.

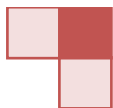


Figure 3: Data Analysis for iPhone 3GS.

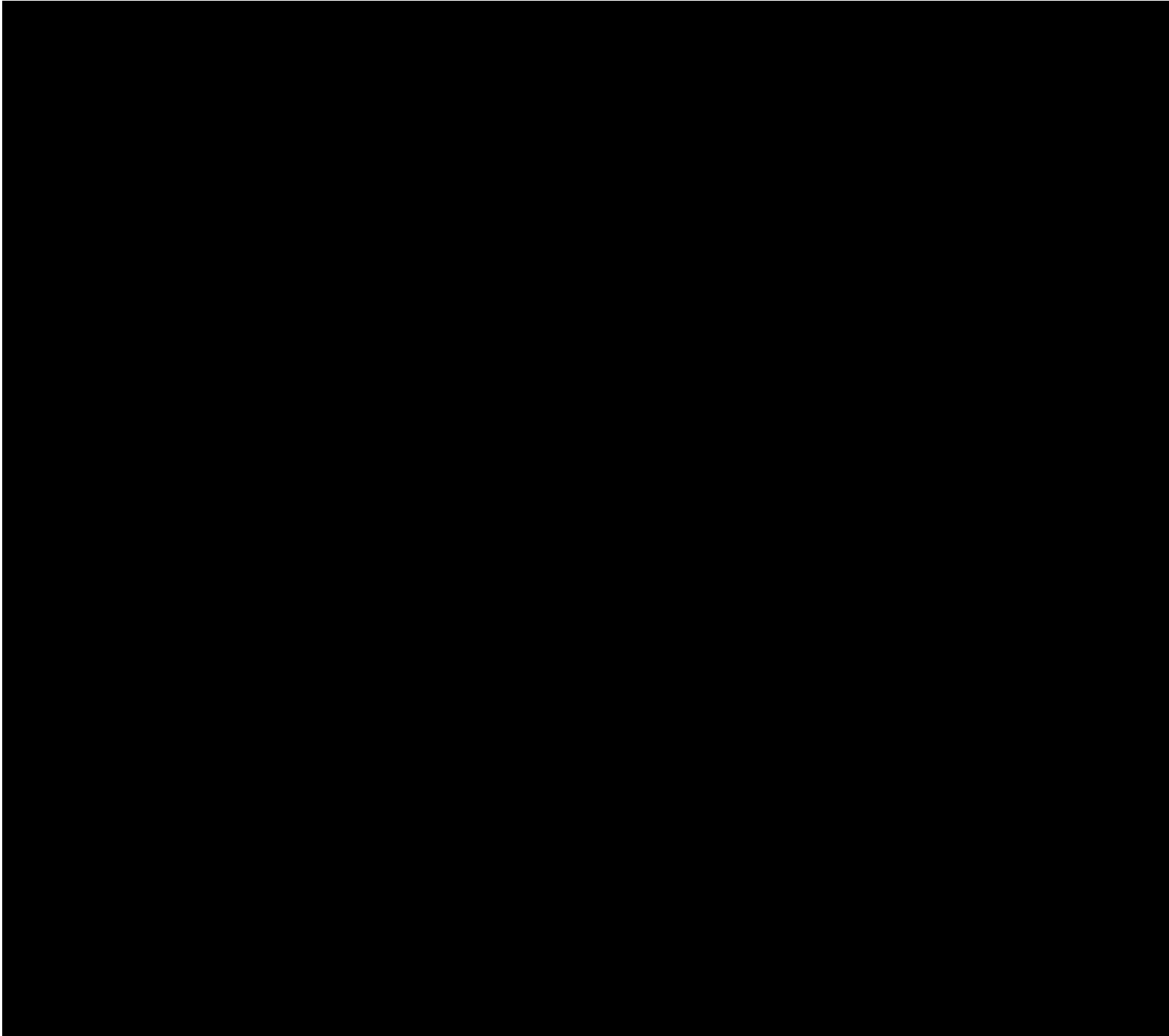


Figure 4: Data Analysis for iPhone 4 (8GB).

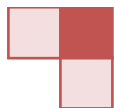


Figure 5: Data Analysis for iPhone 4 CDMA (8GB).

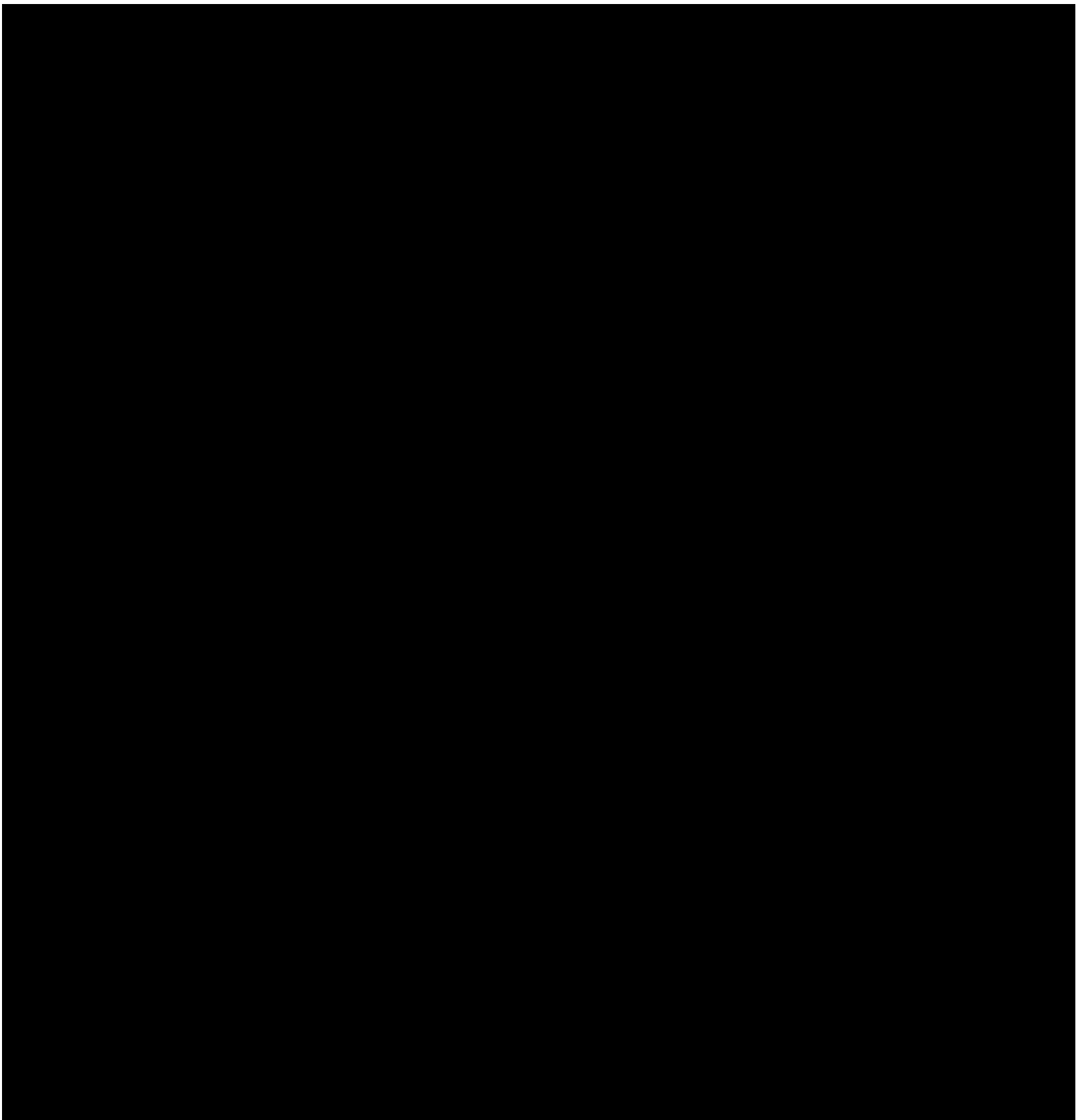


Figure 6: Data Analysis for iPhone 4S.

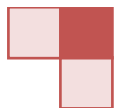


Figure 7: Data Analysis for iPhone 4S N94A.

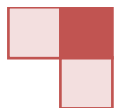
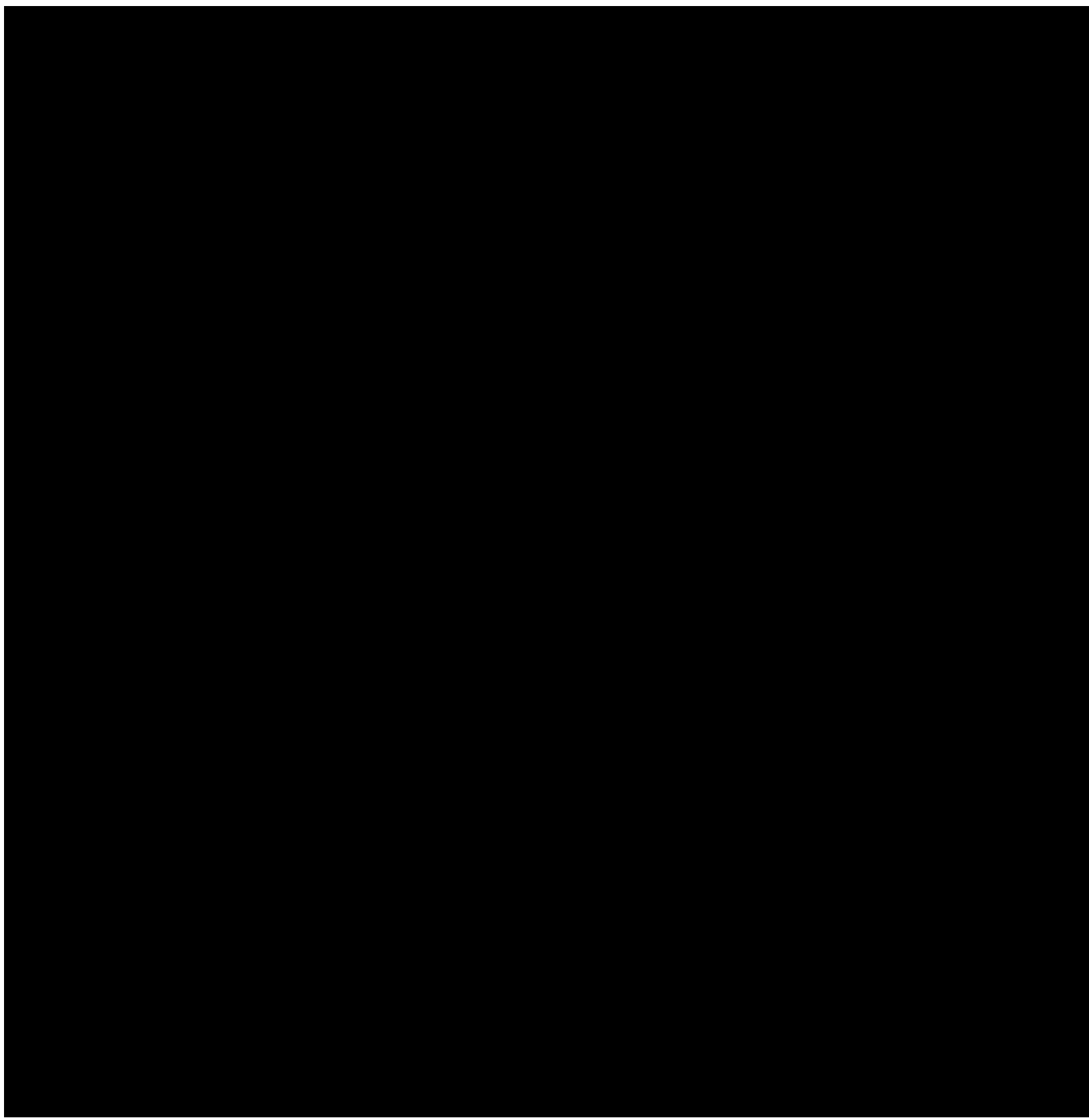


Figure 8: Data Analysis for iPhone 5 N41.

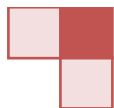
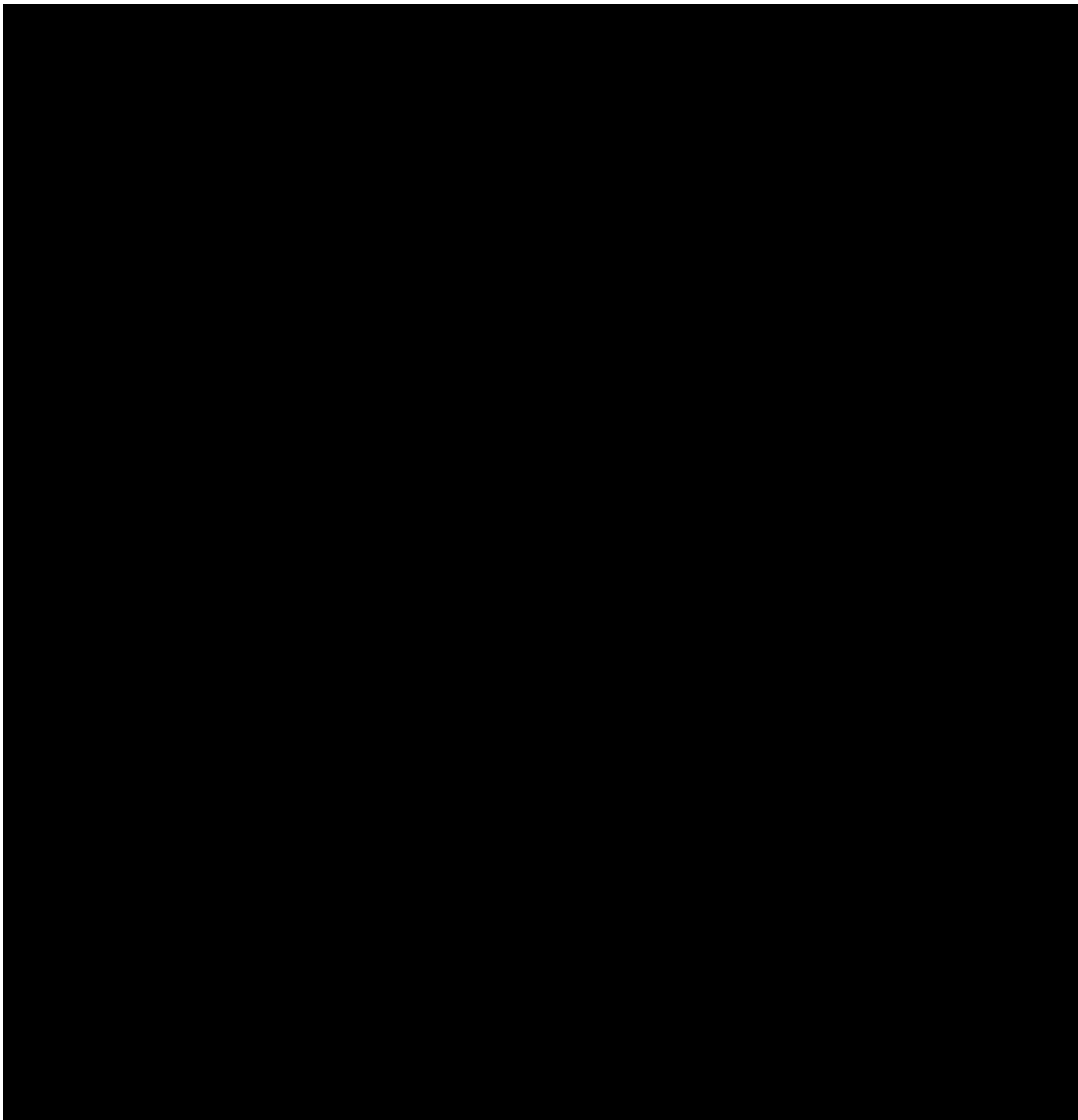


Figure 9: Data Analysis for iPhone 5 N42.

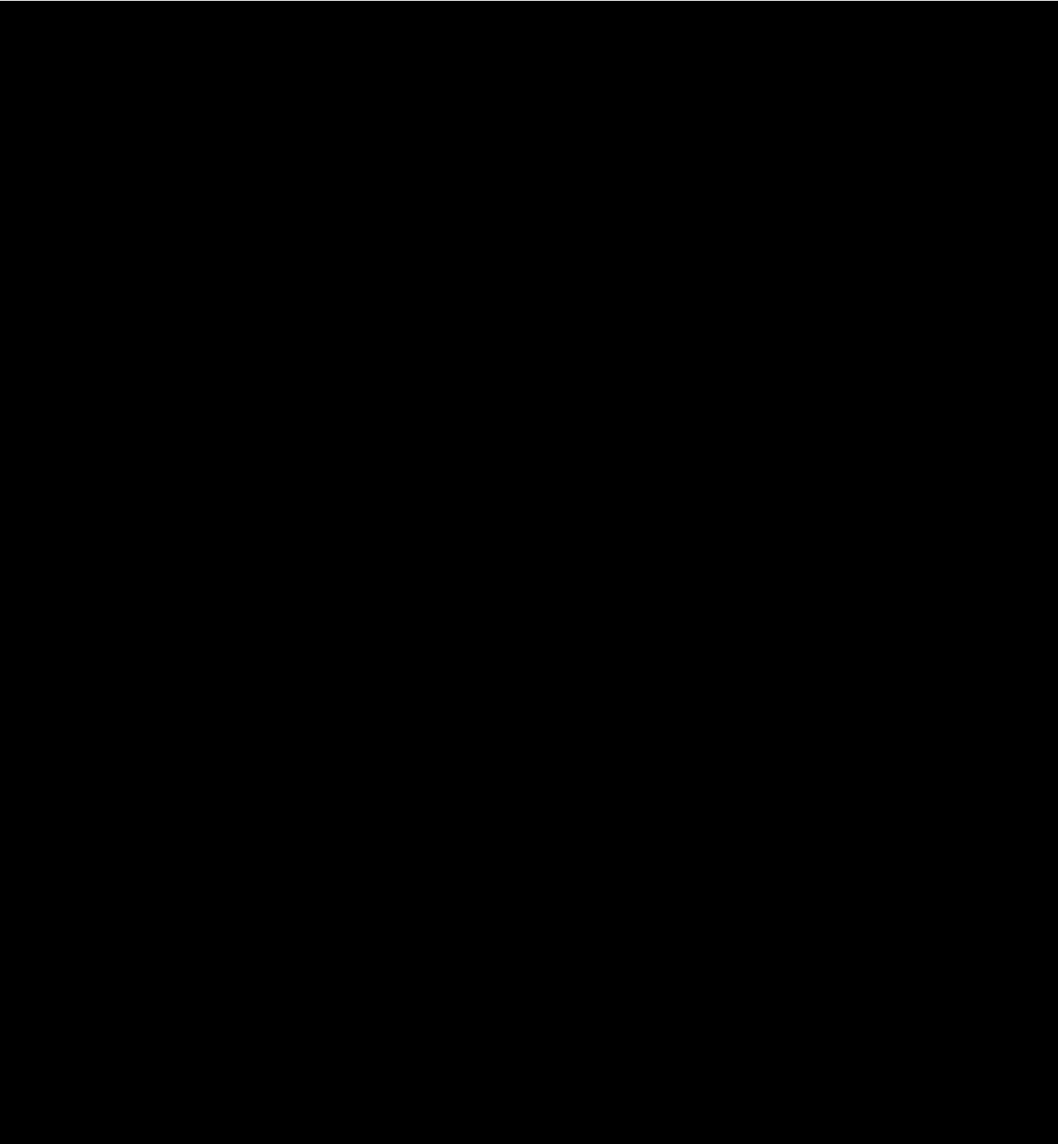


Figure 10: Data Analysis for iPhone 5C N48.

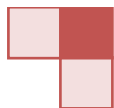
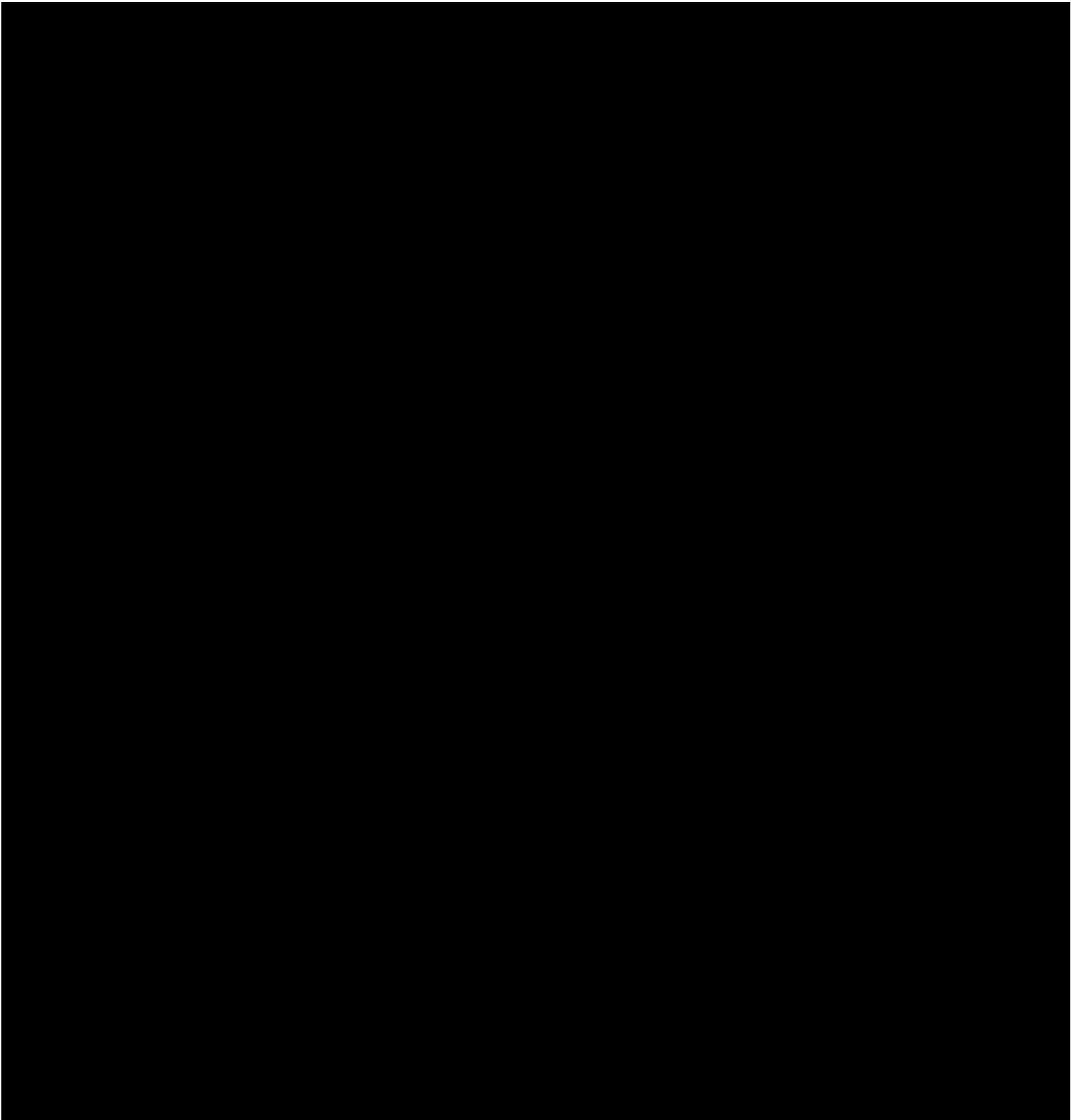


Figure 11: Data Analysis for iPhone 5S N51.

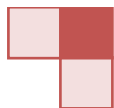
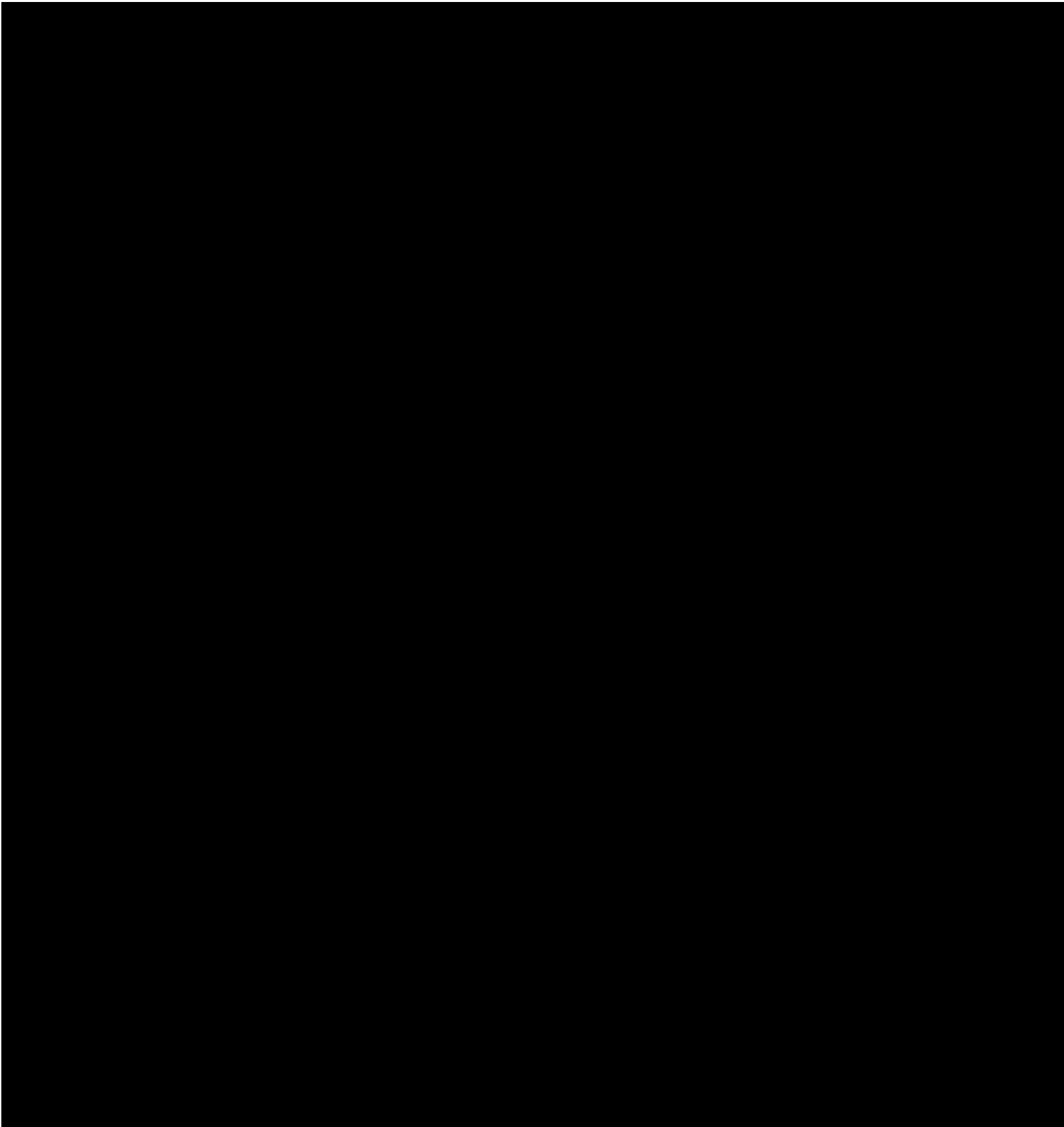


Figure 12: Data Analysis for iPad 2.

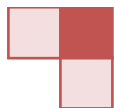


Figure 13: Data Analysis for iPad 2 3G.

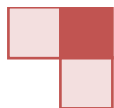
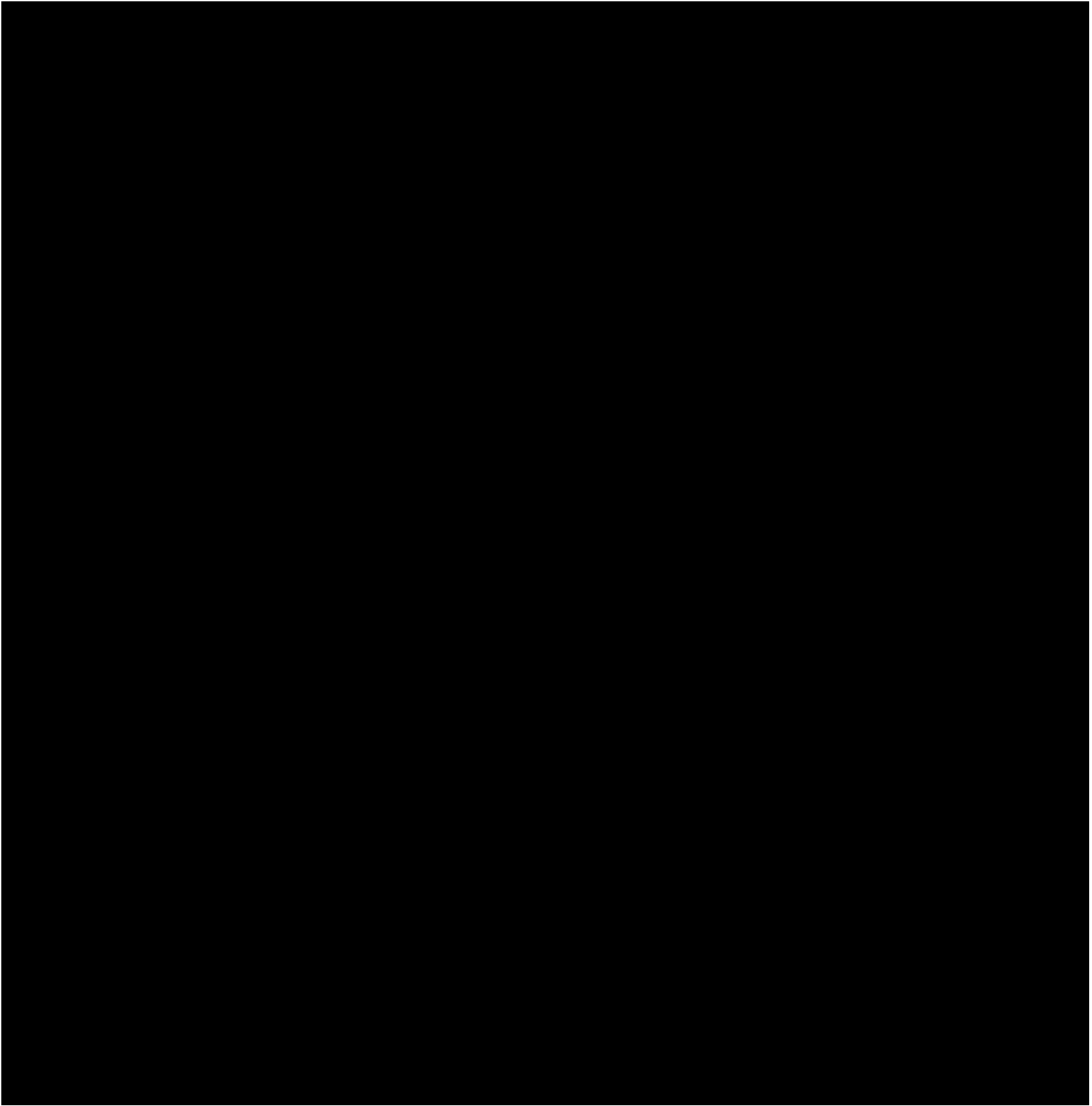


Figure 14: Data Analysis for iPad 2 3G (Verizon).

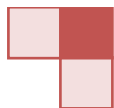
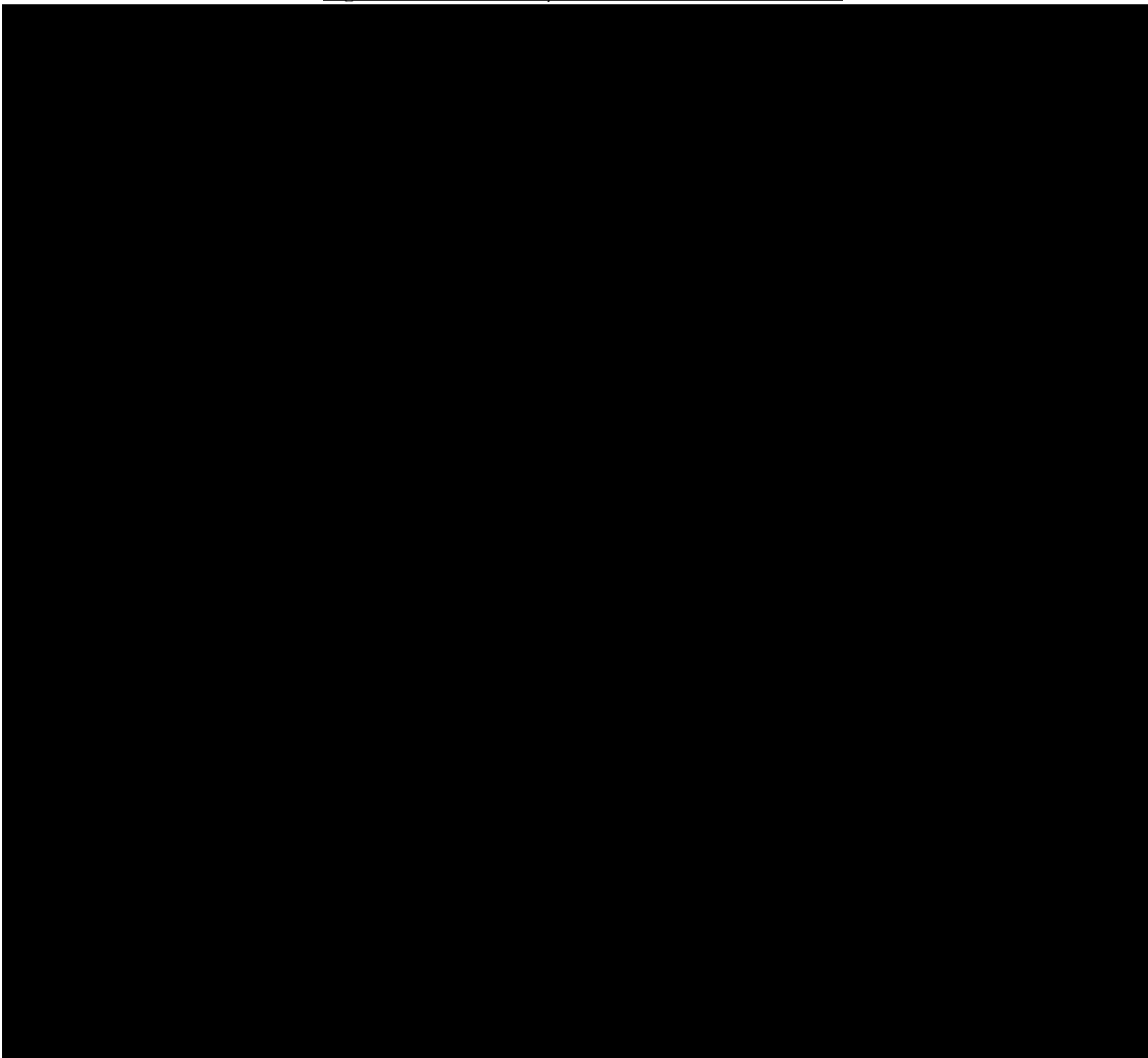


Figure 15: Data Analysis for iPad (3rd Gen) Wi-Fi.

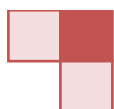
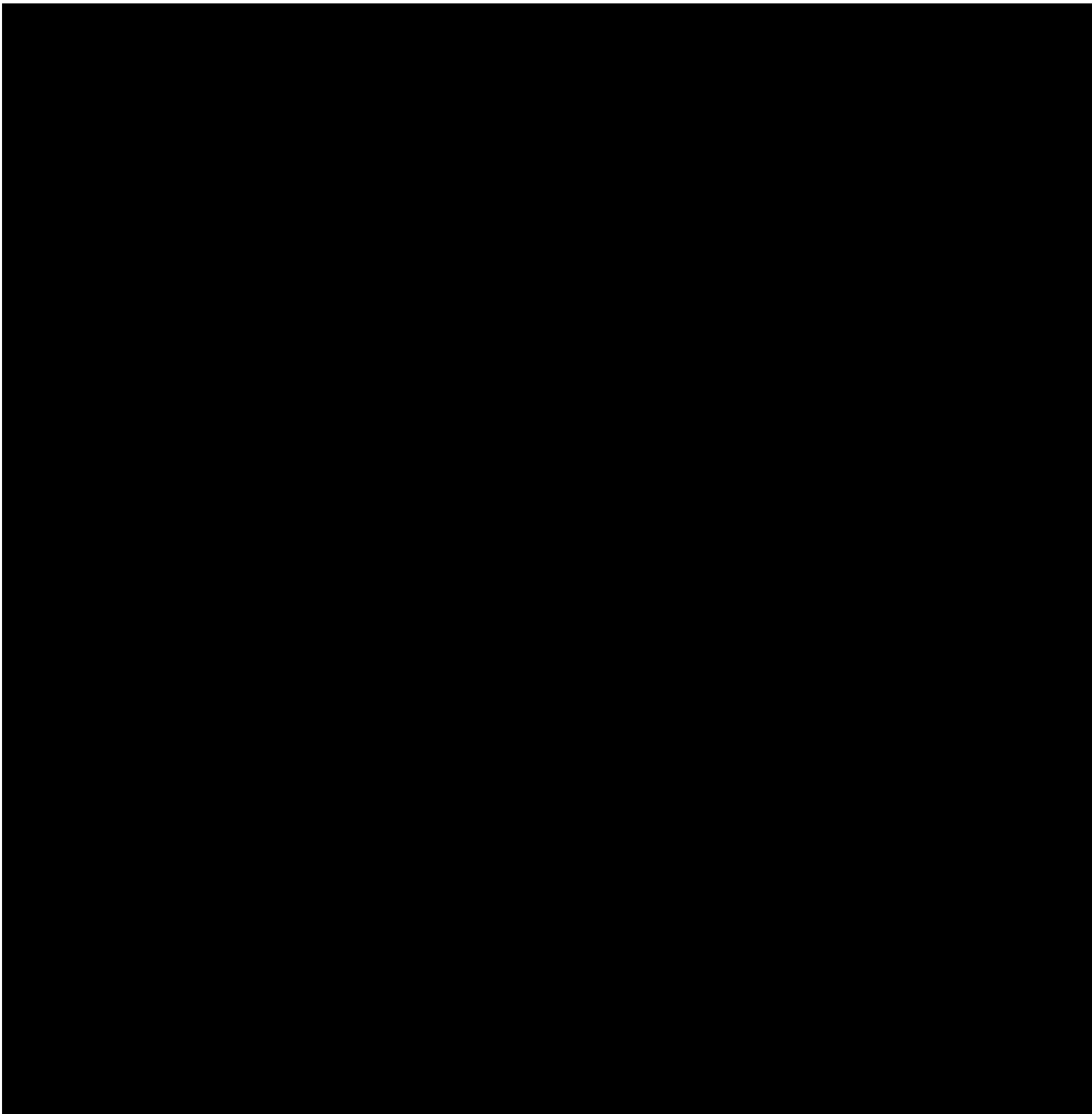


Figure 16: Data Analysis for iPad (3rd Gen) Wi-Fi Cellular.

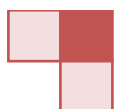
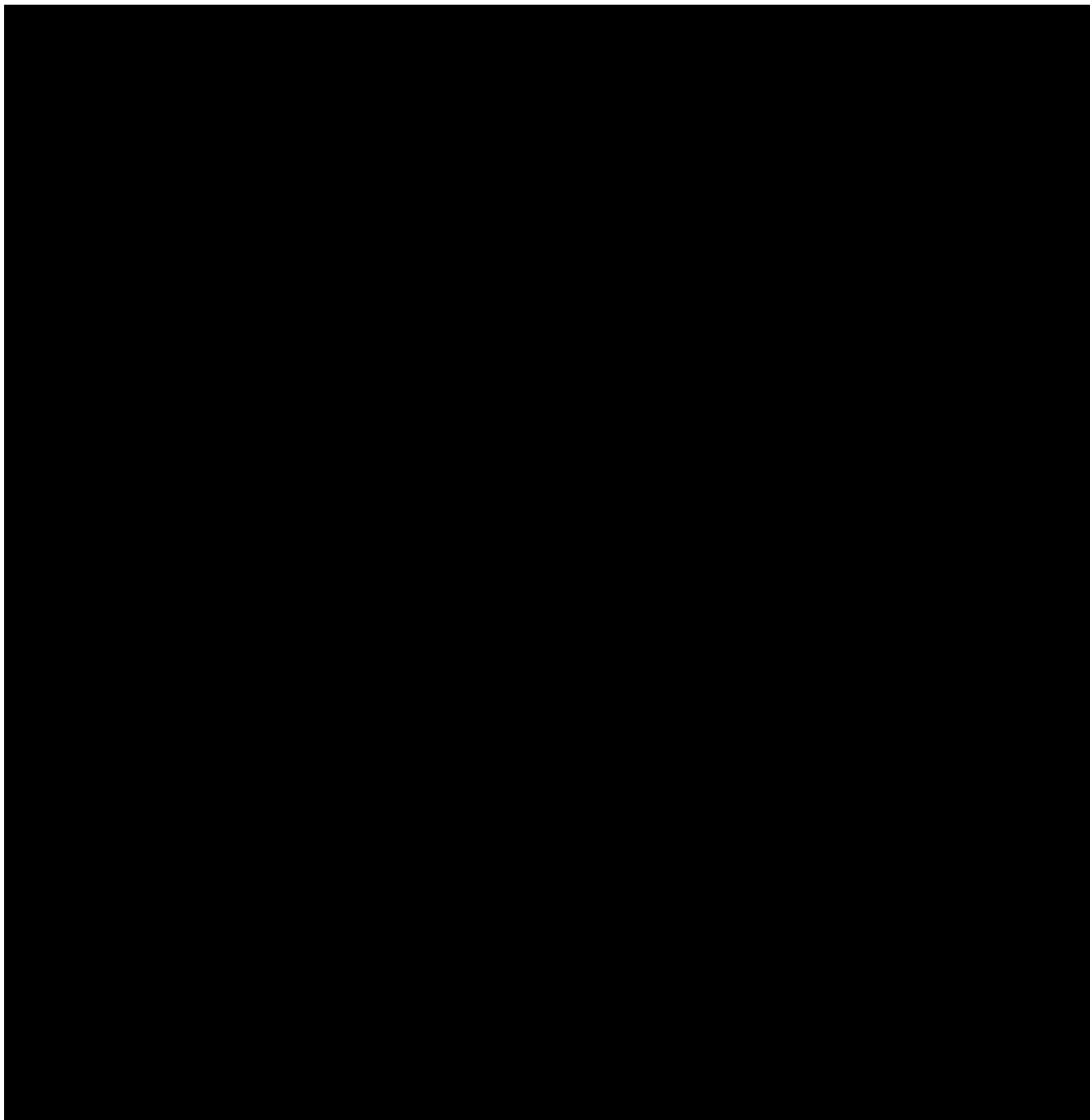


Figure 17: Data Analysis for iPad (3rd Gen) Wi-Fi Cellular (VZ).

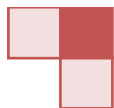
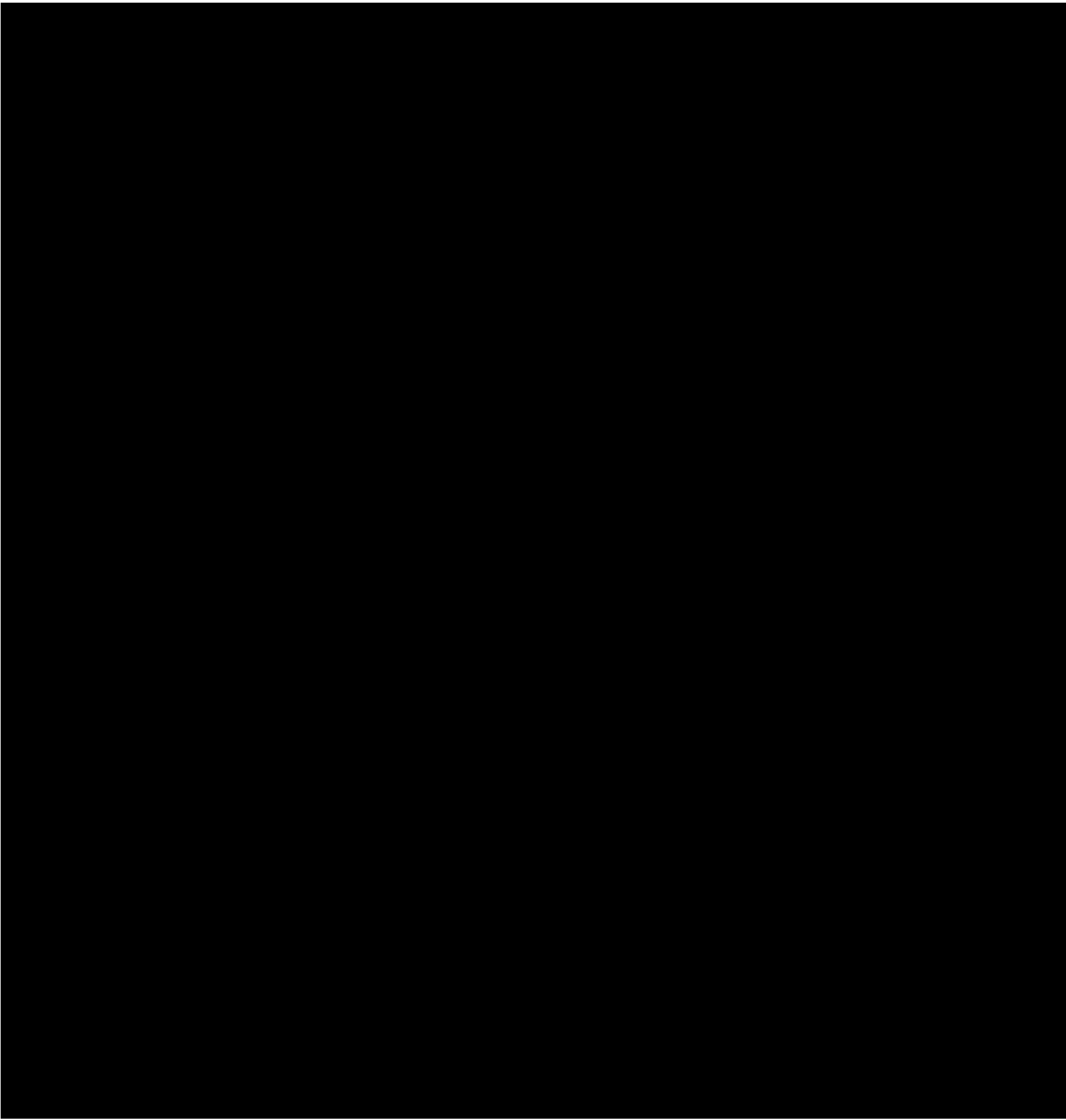


Figure 18: Data Analysis for iPad Mini Wi-Fi.

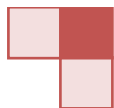
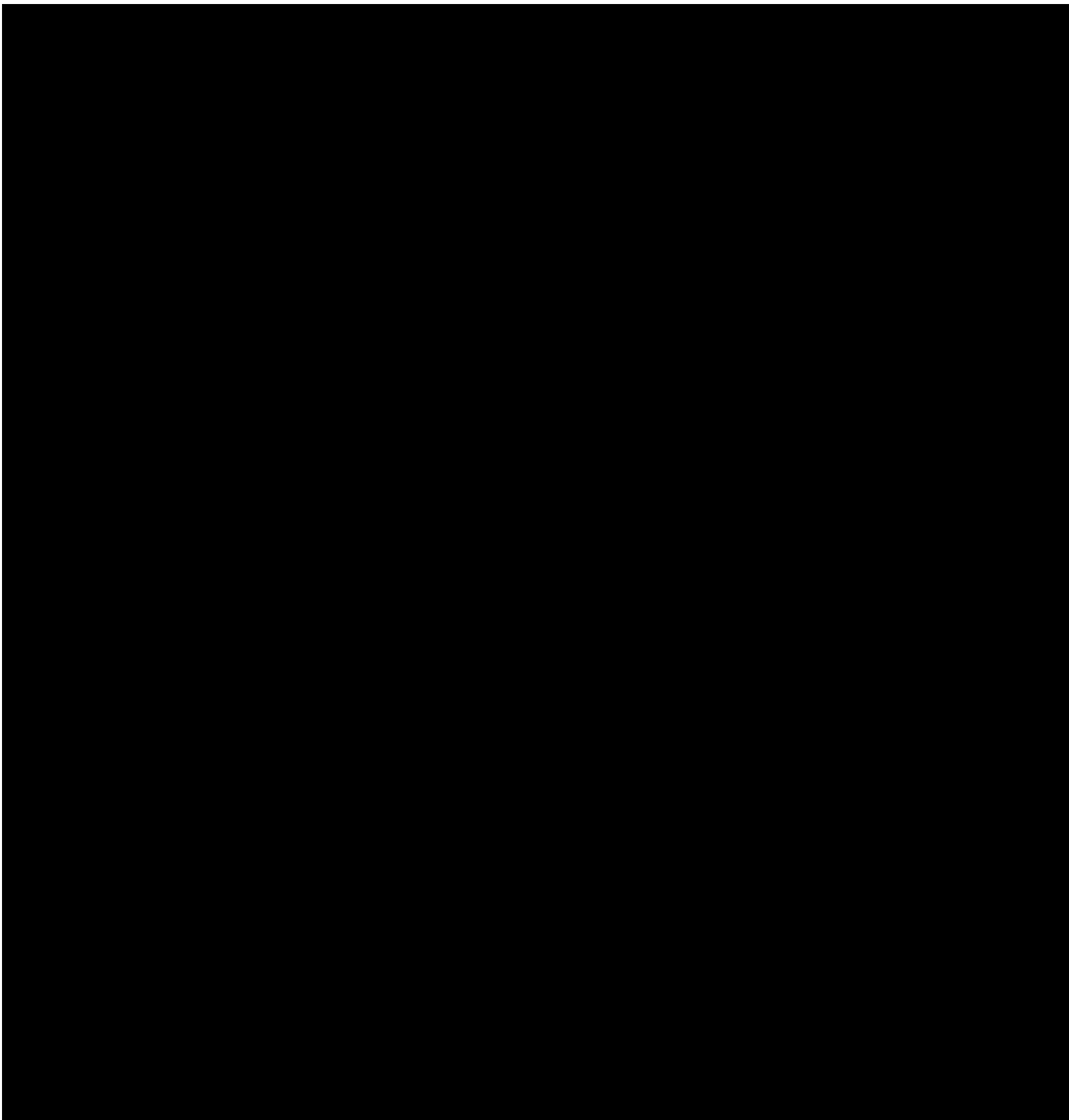


Figure 19: Data Analysis for iPad Mini Wi-Fi Cellular.

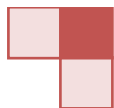
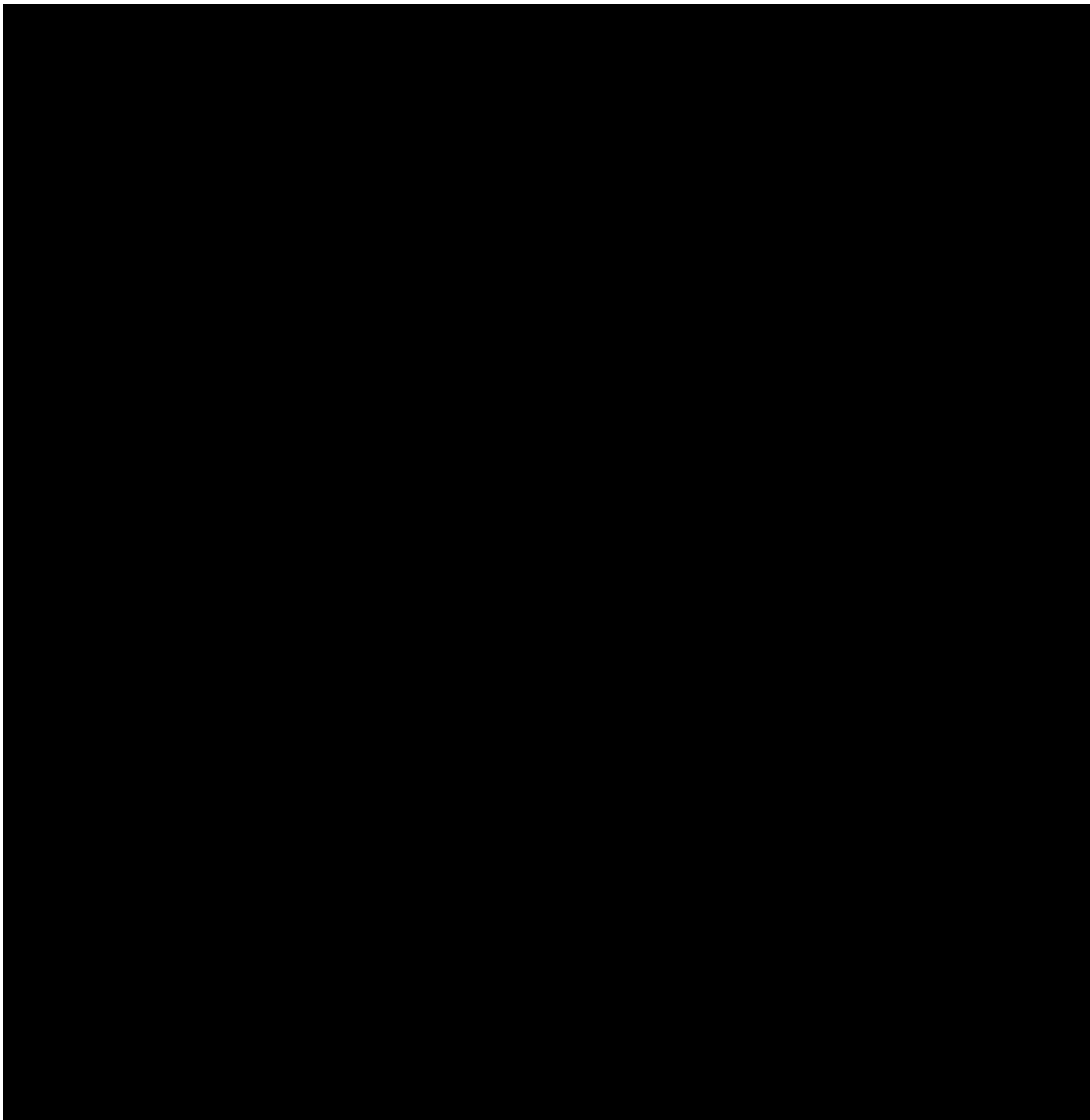


Figure 20: Data Analysis for iPad Mini Wi-Fi Cellular (MM).

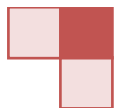
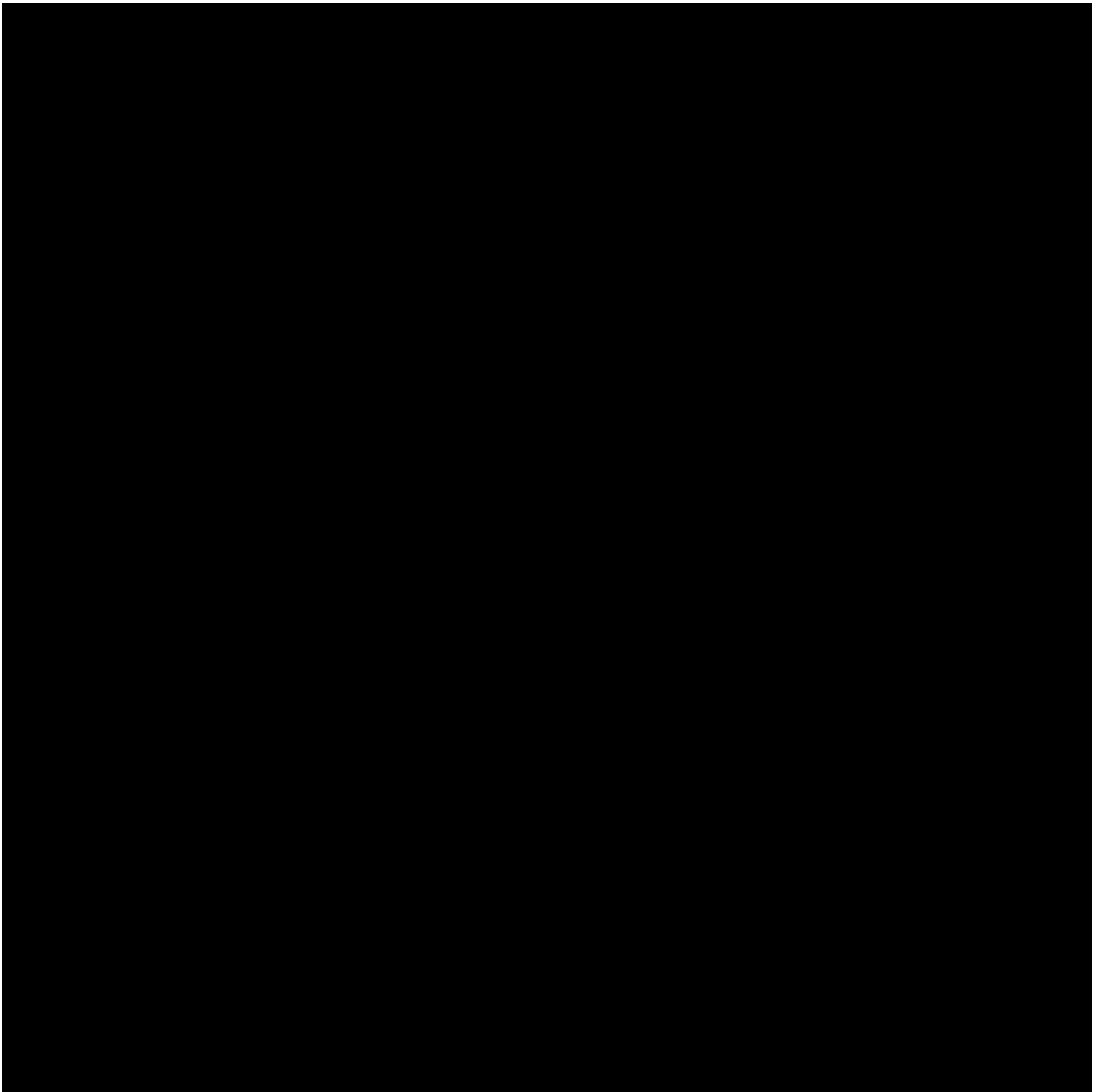


Figure 21: Data Analysis for iPad (4th Gen) Wi-Fi.

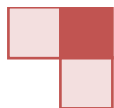
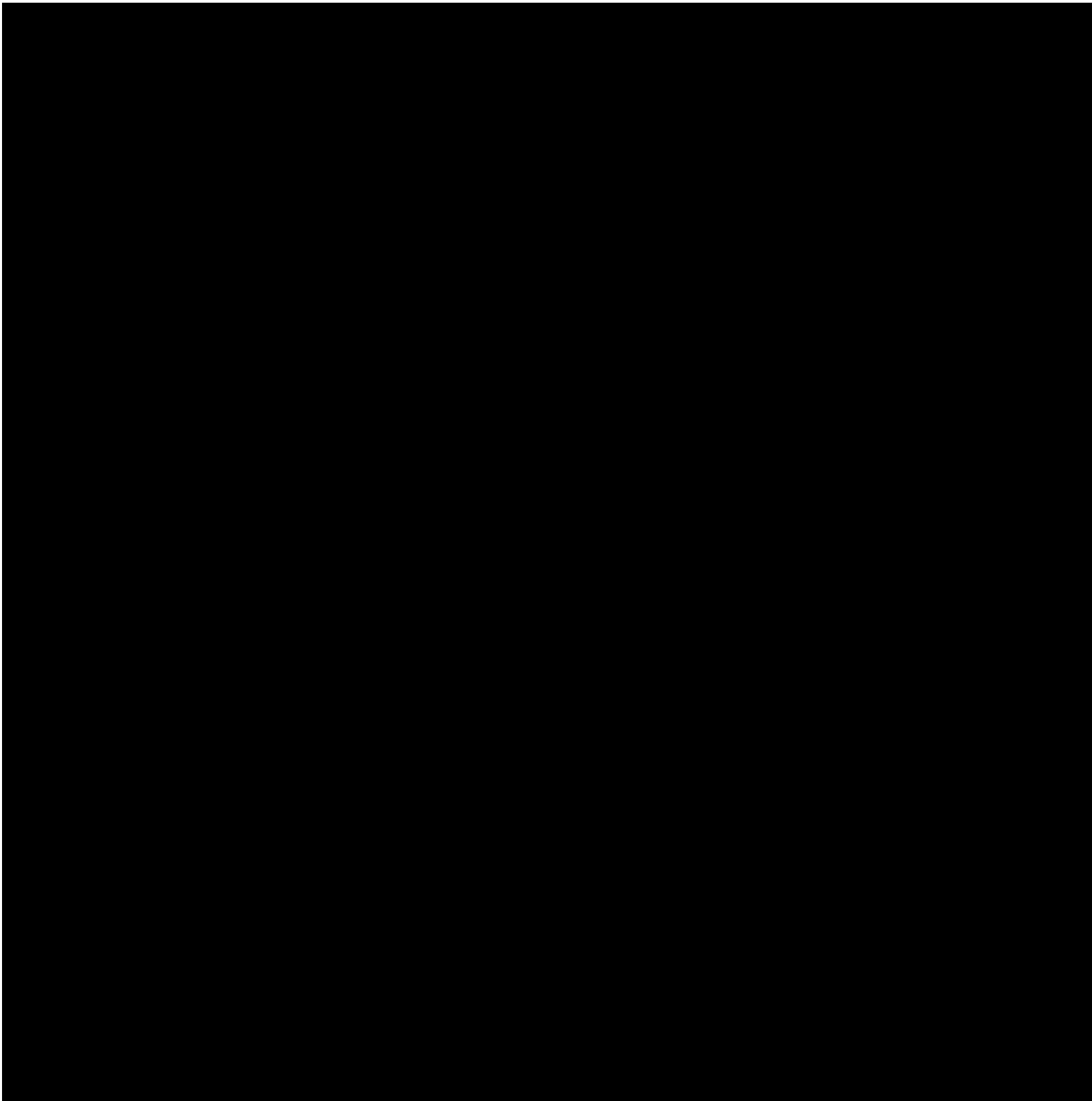


Figure 22: Data Analysis for iPad (4th Gen) Wi-Fi Cellular.

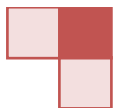
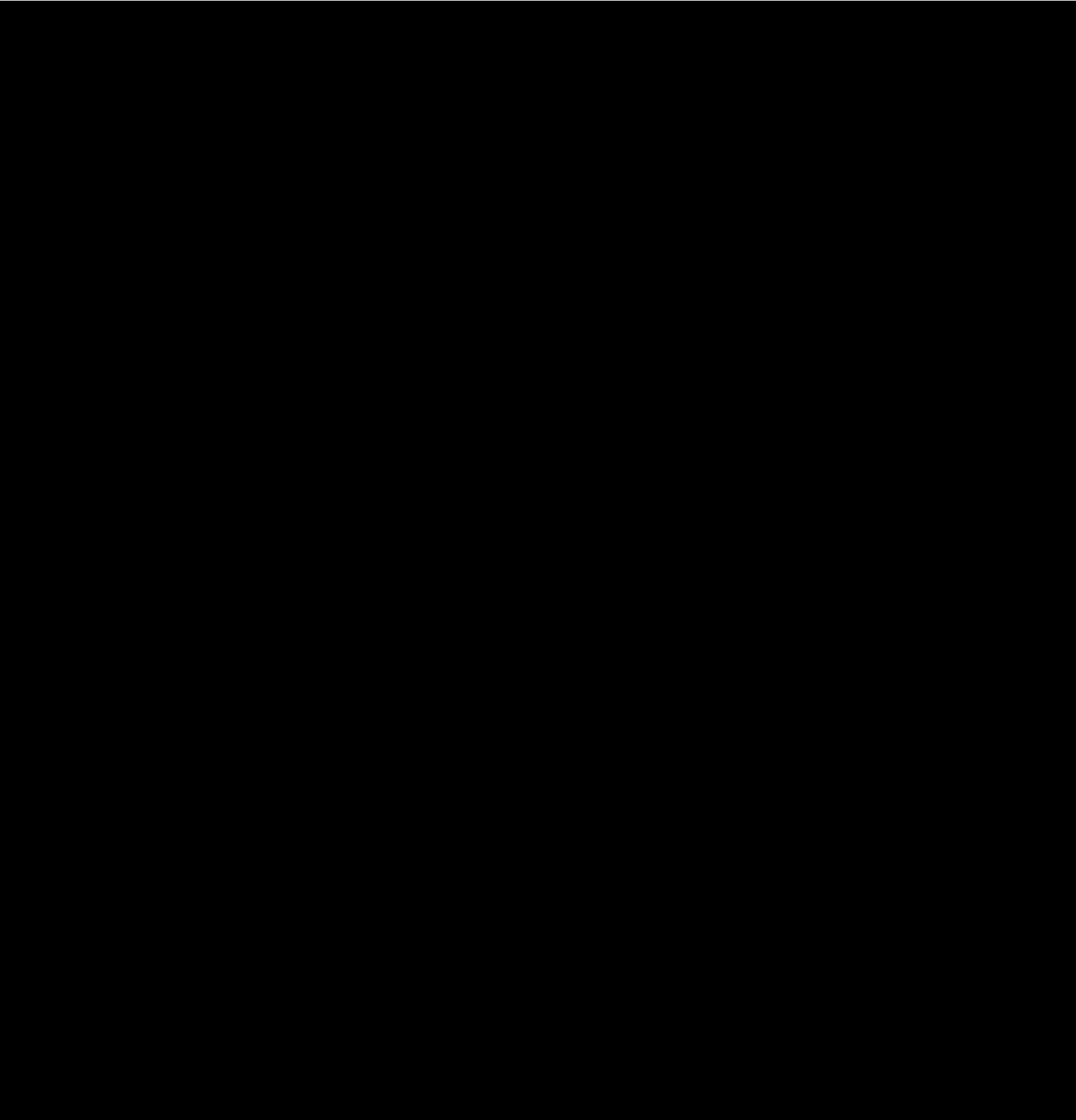


Figure 23: Data Analysis for iPad (4th Gen) Wi-Fi Cellular (MM).

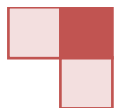
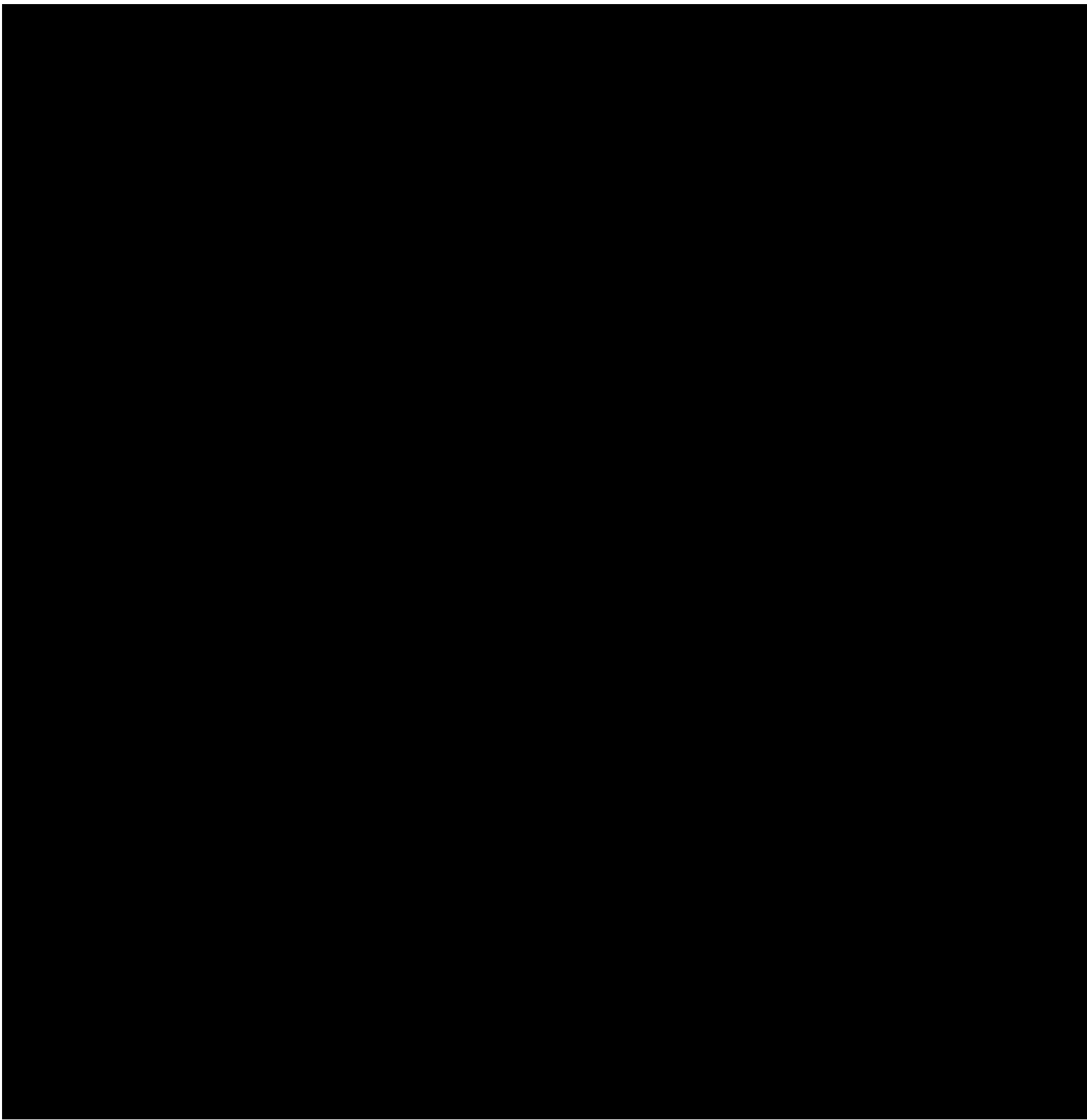
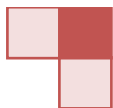
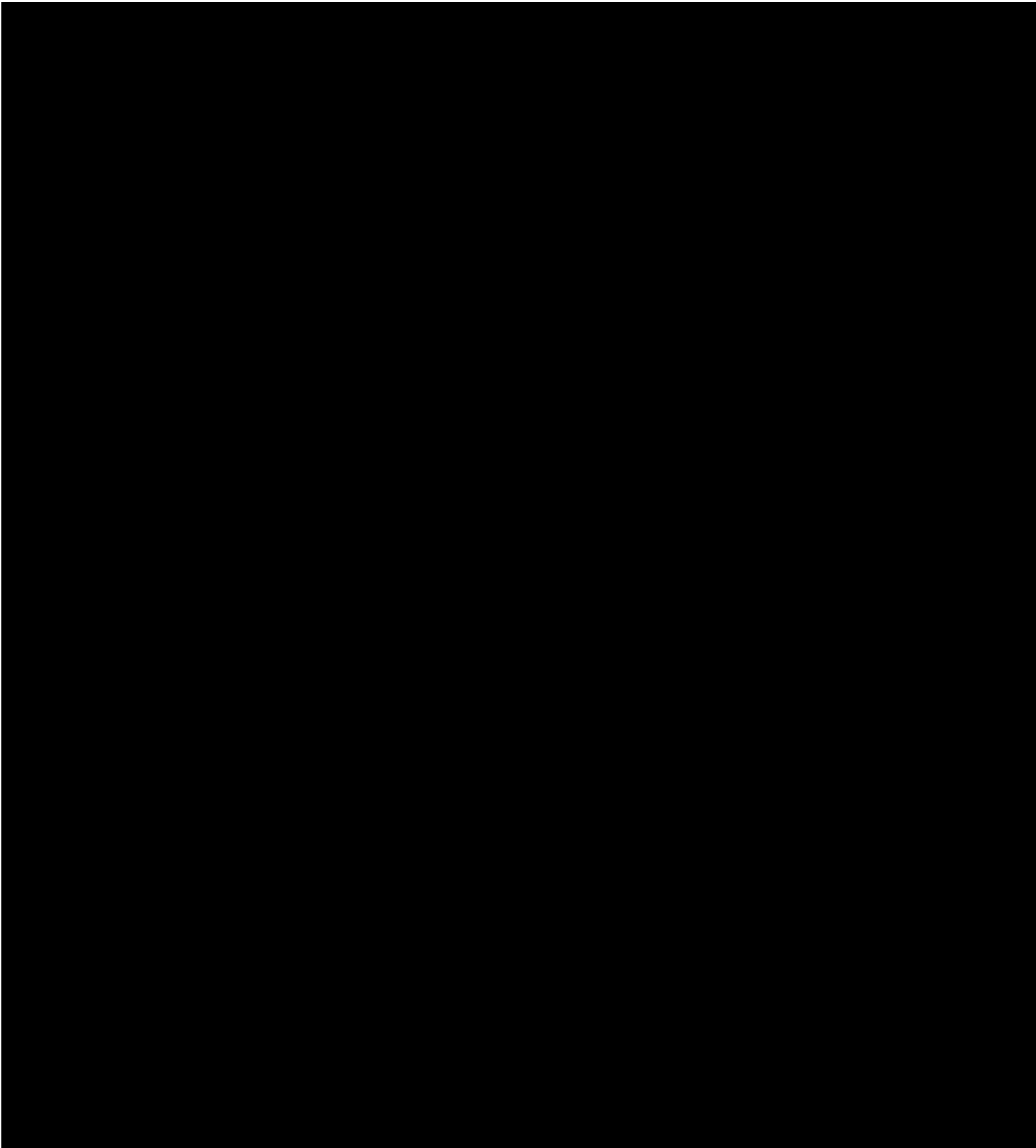


Table 5: Summary of Data Analyses for iPhone and iPad models.



10. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

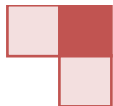
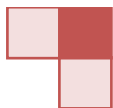
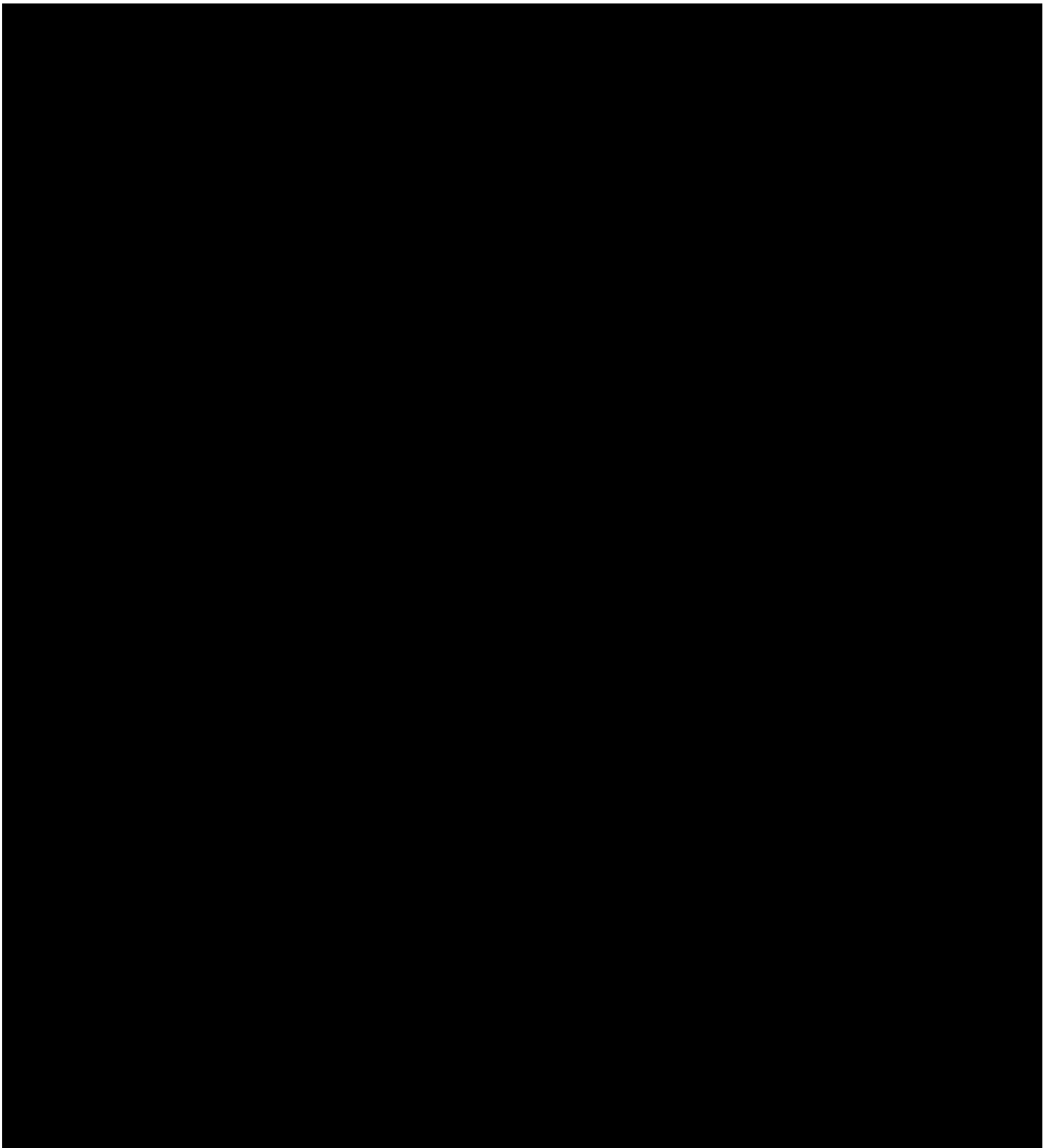


Table 6: Remanufactured Replacement Devices that were Not Returned.





Section II: Materials Relied Upon.

The following data and information have been relied upon for the preparation of this report.

- (1) Pdf file “2016-11-14 [045] First Amended Complaint”.
- (2) Pdf file “2018-01-30 Apple Inc.'s Highly Confidential Supplemental Responses to Interrogatory Nos. 16-18”.
- (3) Pdf file “2018-01-30 Apple Inc.'s Restricted Access and Highly Confidential Supp. Resp. to Rogg. Nos. 19-20”.
- (4) Pdf file “2018-02-02 Apple's Highly Confidential Supp Rog Responses to Nos 4, 6, 9-11, 15”.
- (5) Pdf file “2018-02-02 Apple's Restricted Access and Highly Confidential Supp Rog Resp to No 7”.
- (6) Pdf file “2019-02-28 Bardwell Report”.
- (7) Pdf file “APL-MLDND0_00013487”.



- (8) Pdf file "APL-MLDNDO_00013532".
- (9) Pdf file "Fu, Jason 010819 Condensed".
- (10) Pdf file "Lanigan, Michael 011119 Condensed".
- (11) Pdf file "2018-09-27 P. Patel Ltr to Plaintiffs Transmitting Mediation Discovery".
- (12) Pdf and Excel files "APL-MLDNDO-MED_00001".
- (13) Pdf and Excel files "APL-MLDNDO-MED_00004".
- (14) Pdf and Excel files "APL-MLDNDO-MED_00079".
- (15) Pdf and Excel files "APL-MLDNDO-MED_00083".
- (16) Pdf and Excel files "APL-MLDNDO-MED_00127".
- (17) Pdf and Excel files "APL-MLDNDO-MED_00131".
- (18) Pdf and Excel files "APL-MLDNDO-MED_00202".
- (19) Pdf and Excel files "APL-MLDNDO-MED_00208".



- (20) Excel files “APL-MLDNDO_00005559 - APL-MLDNDO_00005566”.
- (21) Deposition of Dr. Robert Bardwell, March 6th, 2019, with exhibits and native files.
- (22) Deposition of Avijit Sen, October 9th, 2018, with exhibits.
- (23) Deposition of Dr. Lance Kaufman, March 7th, 2019, with exhibits.
- (24) Apple press releases.
- (25) Deposition of Dr. Michael Gerard Pecht, March 14th, 2019, with exhibits.
- (26) Declaration of Avijit Sen, April 5th, 2019.





Section III: The Qualifications of Dr. Anthony Hayter.

I am currently a Full Professor in the Department of Business Information and Analytics at the University of Denver. Between 2006 and 2010, I was the Chair of the Department of Statistics and Operations Technology at the University of Denver, holding the rank of Full Professor.

I have an M.A. in mathematics from Cambridge University, England, scoring a first class in each of my three years there. I obtained my Ph.D. in Statistics from Cornell University at the age of 23. I have spent almost my entire career in an academic environment, and for about thirty years I have held university positions with responsibilities for teaching and researching statistics, probability, and data analysis.

I have established a collaborative research program which has so far resulted in 96 refereed journal publications, and I have delivered many conference presentations. I have taught a wide range of courses related to statistics, probability, and data analysis at both undergraduate and graduate levels, and I have delivered several keynote addresses at meetings and conferences.



I am the author of the textbook “*Probability and Statistics for Engineers and Scientists*,” the 4th edition of which was published in 2012, and which has been adopted at over sixty universities around the world. I have personally advised eight doctoral students. In addition, I have served as an associate editor of three research journals, and I have presented 93 invited research seminars worldwide.

I have global interests and I have spent considerable time in Japan where I have taught statistics, probability, and data analysis in some Japanese MBA programs. I have received various grants to visit Japanese research institutions and I have also been funded as a visiting researcher in England, Thailand, Singapore, and Hong Kong.

I was awarded a Fulbright Foreign Scholarship Award in 2011-2012 and a Fulbright Specialist Grant in 2014 to assist the government, universities, and businesses in Thailand with surveys, data analysis, curriculum development and research projects. My full resume is provided in the following pages, and provides information on my publications. Further information is available at my website HayterStatistics.com.



Anthony Hayter, Ph.D.

Full Professor
Department of Business Information and Analytics
Daniels College of Business
University of Denver
Anthony.Hayter@du.edu
HayterStatistics.com

Degrees

Ph.D., 1985, Cornell University, Statistics.
M.Sc., 1984, Cornell University, Statistics.
M.A., 1986, Cambridge University, Mathematics.
B.A., 1982, Cambridge University, Mathematics (triple first class).

Employment

Full Professor, Department of Business Information and Analytics,
Daniels College of Business, University of Denver, 2010-present.
Department Chair and Full Professor, Department of Statistics and Operations Technology,
Daniels College of Business, University of Denver, 2006-2010.
Associate Professor, School of Industrial and Systems Engineering,
Georgia Institute of Technology, 1991-2006.
Visiting Assistant Professor, Department of Statistics,
Ohio State University, 1991.
Lecturer, Department of Mathematical Sciences,
University of Bath, United Kingdom, 1987-1990.

Visiting Professor and Visiting Researcher positions at:

- Center for the Study of Finance and Insurance, Osaka University, Japan.
- Chulalongkorn University, Thailand.
- Graduate School of Business Sciences, University of Tsukuba, Japan.
- Nagoya University of Commerce and Business, Japan.
- Department of Statistics, Chinese University of Hong Kong.
- Department of Economics, Singapore Management University.
- Institute of Statistical Mathematics, Tokyo, Japan.
- University of Southampton and London School of Economics, United Kingdom.
- National Institute for Agro-Environmental Sciences, Tsukuba, Japan.



Keynote Speaker

Keynote Speaker at the Annual Meeting of the Thailand Operations Research Society, Thailand, 2010. “Business Analytics in the Global Arena.”

Keynote Speaker at the Osaka Meeting of the Japanese Society for Quality Control on Quality Management and Global Competition, Japan, 2009. “The Importance of Quality Management and Quantitative Skills in Global Business.”

Keynote Speaker at the International Conference on Recent Advances in Statistics, Institute of Mathematical Statistics, Tokyo, Japan, 2000. “A Probability Analysis of the Playoff System in Sumo Tournaments.”

Keynote Speaker at the German Biometric Society Meeting, 1998. “Advances in Simultaneous Inference Techniques.”

Panelist

Panelist at Symposium on Business Information and Business Analytics for Logistics Professionals, Council of Supply Chain Management Professionals, Bangkok, Thailand, 2011.

Panelist on “How to Attain Quality Excellence by Statistical and Related Methodologies,” 7th Asian Network for Quality Congress, Tokyo, Japan, 2009.

Panelist at Corporate Counsel Conference on Employment Litigation Issues, Las Vegas, 2007.

International Activities

Visiting Professor, Center for the Study of Finance and Insurance, Osaka University, Japan, 2015-2017. Delivered courses on Data Science and Case Studies.

Fulbright Specialist Grant, 2014. To assist Chulalongkorn University in Thailand with curriculum development, student mentoring, and research projects.

Visiting Professor, Chulalongkorn University, Thailand, 2012-2015.



Session Chair and Organizer, International Symposium on Business and Industrial Statistics, Thailand, 2012.

Fulbright Foreign Scholarship Award, 2011-2012. To assist government and businesses with surveys and data analysis in Thailand. Hosted by the School of Business, Chulalongkorn University.

Visiting Professor, Graduate School of Business Sciences, University of Tsukuba, Japan, 2008-2016. Delivered courses on Business Analytics in the Global Arena to International MBA students.

External Examiner for the MBA program, Universiti Tunku Abdul Rahman, Malaysia, 2011-present.

Visiting Professor, Nagoya University of Commerce and Business, Japan, 2010-2012. Delivered MBA course on Quality Control.

Visiting Researcher, Chinese University of Hong Kong, Department of Statistics, 2011-2014.

Visiting Researcher, Singapore Management University, Department of Economics, 2011.

International Planning Committee Member, Kent State International Symposium on Green and Sustainable Supply Chains, 2011.

Visiting Researcher, Institute of Statistical Mathematics, Tokyo, Japan, 1996, 1999-2000, 2008 and 2010. Supported by grants from the Japanese Ministry of Education.

Goodwill Ambassador, City of Okayama, Japan, 2009-present.

Accompanied EMBA students on a study trip to Dubai, 2009.

Program Committee Member of the First Indian Institute of Management Ahmedabad International Conference on Advanced Data Analysis, Business Analytics, and Intelligence, India, 2009.

Organizing Committee Chair for the First International Symposium of Case Studies Involving Statistics and Operation Research for Decision Making: Solving Human Problems in Business, Society and Scientific Areas, Tokyo, Japan, 2009.

Invited Session Organizer, 4th World Conference of the International Association for Statistical Computing, Yokohama, 2008.



Organizing Committee Member for the 5th International Multiple Comparisons Conference, Vienna, Austria, 2007.

Visiting Researcher, University of Southampton and London School of Economics, UK, 2004. Supported by a grant from the British Engineering and Physical Sciences Research Council.

Visiting Researcher, National Institute for Agro-Environmental Sciences, Tsukuba, Japan, 1998. Supported by a grant from the Japanese Ministry of Education.

Research and Teaching Interests

Quantitative skills, business intelligence and analytics, statistics, probability, data analysis, survey sampling, quality control, experimental design, management science, operations management.

Courses Taught – Undergraduate Level

- Business Statistics
- Statistics and Applications
- Probability Theory and Applications
- Introduction to Statistical Methods
- Design of Experiments
- Quality Control
- Stochastic Processes
- Mathematical Theory of Statistics

Courses Taught – Graduate Level (Masters, MBA, PMBA, EMBA, Ph.D. level)

- Quantitative Analytical Skills
- Business Statistics
- Ethics and Leadership
- Statistical Multiplicity and High-Dimensional Computation
- Statistical Modeling and the Design of Experiments
- Probability and Statistics
- Nonparametric Data Analysis
- Linear Regression Analysis
- Categorical Data Analysis
- Topics in Nonlinear Regression



- Advanced Experimental Design
- Mathematical Theory of Statistics
- Advanced Linear Models
- Survival Analysis and Reliability Theory

Other Teaching Activities

Workshop on “Design of Experiments: Examples and Research Topics”, Department of Statistics, Chulalongkorn University, Thailand, 2017.

Presentation on “Statistical Process Control” to the Kroger Company, 2007.

Invited contributor to the Video Library, Institute of Statistical Mathematics, Tokyo, “Multiple Comparisons and Nonlinear Dose Response Analysis,” 2000.

Invited contributor to the Video Library, Radiation Effects Research Foundation, Hiroshima, Japan, “An Overview of Simultaneous Inference Procedures,” 1999.

Invited contributor to the Video Library, Institute of Statistical Mathematics, Tokyo, “Topics in Directional Inference,” 1998.

Published Textbook

“*Probability and Statistics for Engineers and Scientists*”

1st edition, PWS, 1996,

2nd edition, Duxbury, 2002,

3rd edition, Brooks-Cole, 2006.

4th edition, Brooks-Cole, 2012.

4th edition, Korean version, Brooks-Cole, 2014.

Refereed Publications

(96) Peng, J., Liu, W., Bretz, F., and Hayter, A. J., “Counting by weighing: construction of two-sided confidence intervals,” *Journal of Applied Statistics*, 46, 2, 262-271, 2019.



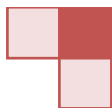
- (95) Chantarangsi, W., Liu, W., Bretz, F., Kiatsupaibul, S., and Hayter, A. J., “Normal probability plots with confidence for the residuals in linear regression,” *Communications in Statistics, Simulation and Computation*, 47:2, 367-379, 2018.
- (94) Kiatsupaibul, S., Hayter, A. J. and Wei, L., “Rank constrained distribution and moment computations,” *Computational Statistics and Data Analysis*, 105, 229-242, 2017.
- (93) Kiatsupaibul, S., Hayter, A. J., and Somsong, S. “Confidence sets and confidence bands for a beta distribution with applications to credit risk management,” *Insurance: Mathematics and Economics*, 75, 98-104, 2017.
- (92) Hayter, A. J., Yang, P., and Kiatsupaibul, S., “Win-probabilities for comparing two Weibull distributions,” *Quality Technology and Quantitative Management*, 14:1, 1-18, 2017.
- (91) Wiwatwattana, N., Hayter, A. J., and Kiatsupaibul, S., “Win-probabilities for comparing two binary outcomes,” *Communications in Statistics, Simulation and Computation*, 46 (1), 204-214, 2017.
- (90) Liu, W., Han, Y., Wan, F., Bretz, F. and Hayter, A. J., “Simultaneous confidence tubes in multivariate linear regression,” *Scandinavian Journal of Statistics*, 43, 879-885, 2016.
- (89) Chantarangsi, W., Liu, W., Bretz, F., Kiatsupaibul, S., and Hayter, A. J., “Q-Q plots with confidence for testing Weibull and exponential distributions,” *Hacettepe Journal of Mathematics and Statistics*, 45 (3), 887-904, 2016.
- (88) Kwong, K. S., Cheung, S. H., and Hayter, A. J., “Step-up procedures for non-inferiority tests with multiple experimental treatments,” *Statistical Methods in Medical Research*, 25 (4), 1290-1302, 2016.
- (87) Hayter, A. J., “Win probabilities for comparing two Poisson variables,” *Communications in Statistics, Theory and Methods*, 45 (20), 5966-5976, 2016.
- (86) Hayter, A. J., Kiatsupaibul, S., Napalai, P. and Liu, W., “Simultaneous inferences on the cumulative distribution function of a normal distribution,” *Communications in Statistics, Theory and Methods*, 44, 24, 5136-5145, 2015.
- (85) Hayter, A. J., “Confidence bounds on the coefficient of variation of a normal distribution with applications to win-probabilities,” *Journal of Statistical Computation and Simulation*, 85, 18, 3778-3791, 2015
- (84) Balakrishnan, N., Hayter, A. J., Liu, W. and Kiatsupaibul, S., “Confidence intervals for quantiles of a two-parameter exponential distribution under progressive type-II censoring,” *Communications in Statistics, Theory and Methods*, 44, 14, 3001-3010, 2015



- (83) Lin, Y., Hayter, A. J., and Liu, W., “Establishing practical equivalence between three treatments,” *Journal of Statistical Theory and Practice*, 9, 3, 600-607, 2015.
- (82) Srimaneekarn, N., Kiatsupaibul, S., Hayter, A. J. and Liu, W., “Estimating drug shelf-life with unknown lot-to-lot variability,” *Communications in Statistics, Simulation and Computation*, 44, 8, 2195-2207, 2015.
- (81) Kiatsupaibul, S. and Hayter, A. J., “Recursive confidence band construction for an unknown distribution function,” *Biometrical Journal*, 57, 1, 39-51, 2015.
- (80) Chantarangsi, W., Liu, W., Bretz, F., Kiatsupaibul, S., Hayter, A. J. and Wan, F., “Normal probability plots with confidence,” *Biometrical Journal*, 57, 1, 52-63, 2015.
- (79) Liu, W., Hsu, J.C., Bretz, F., Hayter, A. J. and Han, Y., “Shelf-life and its estimation in drug stability studies,” *Journal of Applied Statistics*, 41, 9, 1989-2000, 2014.
- (78) Hayter, A. J., “Recursive formulas for multinomial probabilities with applications,” *Computational Statistics*, 29, 5, 1207-1219, 2014.
- (77) Hayter, A. J. and Kim, J., “Small-sample tests for the equality of two normal cumulative probabilities, coefficients of variations and Sharpe ratios,” *Journal of Statistical Theory and Practice*, 9, 23-36, 2015.
- (76) Hayter, A. J. and Kiatsupaibul, S., “Exact inferences for a gamma distribution,” *Journal of Quality Technology*, 46, 2, 140-149, 2014.
- (75) Hayter, A. J., “Inferences on linear combinations of normal means with unknown and unequal variances,” *Sankhya A*, 76, 2, 257-279, 2014.
- (74) Hayter, A. J., “Simultaneous confidence intervals for several quantiles of an unknown distribution,” *The American Statistician*, 68:1, 56-62, 2014.
- (73) Hayter, A. J., “Identifying common normal distributions,” *Test*, 23, 1, 135-152, 2014.
- (72) Hayter, A. J., “A new procedure for the Behrens-Fisher problem that guarantees confidence levels,” *Journal of Statistical Theory and Practice*, 7, 3, 515-536, 2013.
- (71) Liu, W., Bretz, F., Hayter, A. J. & Glimm, E. “Simultaneous inference for several quantiles of a normal population with applications,” *Biometrical Journal*, 55, 360-369, 2013.
- (70) Hayter, A. J. and Lin, Y., “The evaluation of trivariate normal probabilities defined by linear inequalities,” *Journal of Statistical Computation and Simulation*, 83, 4, 666-674, 2013.



- (69) Hayter, A. J. and Kiatsupaibul, S., “Exact inferences for a Weibull model,” *Quality Engineering*, 25, 2, 175-180, 2013.
- (68) Hayter, A. J., “Inferences on the difference between future observations for comparing two treatments,” *Journal of Applied Statistics*, 40, 4, 887–900, 2013.
- (67) Liu, W., Ah-Kine, P., Bretz, F. and Hayter, A. J., “Exact simultaneous confidence intervals for a finite set of contrasts of three, four or five generally correlated normal means,” *Computational Statistics and Data Analysis*, 57, 141–148, 2013.
- (66) Kuriki, S., Miwa, T. and Hayter, A. J., “Abstract tubes associated with perturbed polyhedrons with applications to multidimensional normal probability computations,” *Harmony of Grobner Bases and the Modern Industrial Society*, World Scientific Publishing Company, 169–183, 2012.
- (65) Kwong, K. S., Cheung, S. H., Hayter, A. J. and Wen, M., “Extension of three-arm non-inferiority studies to trials with multiple new treatments,” *Statistics in Medicine*, 31, 2833–2843, 2012.
- (64) Hayter, A. J., “Win-probabilities for regression models,” *Statistical Methodology*, 9, 5, 520–527, 2012.
- (63) Kiatsupaibul, S. and Hayter, A. J., “Dimensional reduction for latent scores modeling using recursive integration,” *Journal of Statistical Theory and Practice*, 6, 501–509, 2012.
- (62) Hayter, A. J., “Confidence bands for the reliability function of a two parameter exponential model,” *Journal of Quality Technology*, 44, 2, 155–160, 2012.
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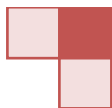
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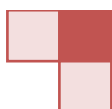
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- (21) Miwa, T. and Hayter, A. J., “The general procedure for combining one-sided and two-sided confidence intervals of the means of correlated normal random variables,” Proceedings of the Institute of Statistical Mathematics Symposium, Tokyo, 2000.
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- (36) Chantarangsi, W., Liu, W., Bretz, F., Kiatsupaibul, S., and Hayter, A. J., “Normal Probability Plots with Confidence for the Residuals in Linear Regression,” The International Conference on Applied Statistics, Phuket, Thailand, 2016.
- (35) Hayter, A. J. “Simultaneous confidence intervals for several quantiles of an unknown distribution,” 4th Institute of Mathematical Statistics Asia Pacific Rim Meeting, Chinese University of Hong Kong, Hong Kong, 2016.
- (34) Hayter, A. J., “Recursive integration methodologies with applications to multiple comparisons,” 9th International Chinese Statistical Association International Conference: Challenges of Statistical Methods for Interdisciplinary Research and Big Data, Hong Kong, 2013.
- (33) Liu, W., Chantarangsi, W., Bretz, F., Kiatsupaibul, S. and Hayter, A. J., “Normal probability plots with confidence,” 8th International Conference on Multiple Comparison Procedures, University of Southampton, UK, 2013.
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- (31) Kiatsupaibul, S. and Hayter, A. J., “Dimensional Reduction for Latent Scores Modeling using Recursive Integration and Applications to Credit Risk Rating Models,” International Symposium on Business and Industrial Statistics, Thailand, 2012.



- (30) Hayter, A. J., “Credit Risk Rating Evaluations in Thailand,” Conference on Building Partnerships in South East Asia: Opportunities and Challenges for the U.S., Vietnam, 2012.
- (29) Liu, W., Bretz, F., Hayter, A. J., and Glimm, E., “Simultaneous inference for several quantiles of a normal population with applications,” Multiple Comparisons Procedures Conference, Washington D.C., 2011.
- (28) Hayter, A.J., “Using data to make good management decisions,” XVII International Symposium on Mathematical Methods Applied to the Sciences, San Jose, Costa Rica, 2010.
- (27) Hayter, A. J., “Choosing the right statistical methodology,” Makerere University Business School 14th Annual International Management Conference, Kampala, Uganda, 2009.
- (26) Hayter, A. J., “Using data to make good management decisions,” International Conference on Advanced Data Analysis, Business Analytics, and Intelligence, Ahmedabad, India, 2009.
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- (22) Hayter, A. J. and Lin, C., “Recent advances in identifying inferior treatments in clinical trials,” East Asia Regional Biometric Conference, Tokyo, 2007.
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- (14) Hayter, A. J., Miwa, T. and Liu, W., “Combining the advantages of one-sided and two-sided procedures for comparing treatments with a control,” Statistical Conference, Ohio State University, 1999.
- (13) Hayter, A. J., “Recent advances in combining directional inferences,” German Biometric Society Annual Meeting, 1998.
- (12) Hayter, A. J., “On the pairwise comparisons of treatment effects,” Keynote Lecture, German Biometric Society Annual Meeting, 1998.
- (11) Hayter, A. J., “Power functions of permutation invariant test procedures,” International Conference on Combinatorics and Statistical Sciences, Tokyo, 1998.
- (10) Hayter, A. J., “On the pairwise comparisons of means,” Conference on Statistical Inference, Tokyo, 1997.
- (9) Hayter, A. J., “Recent advances in multivariate quality control,” International Conference on Multivariate Data, Hiroshima, 1997.
- (8) Hayter, A. J. and Dowling, M., “Experimental designs and emission rate modeling for chamber experiments,” 6th International Environmetrics Conference, Kuala Lumpur, 1995.
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- (6) Hayter, A. J., “On the selection probabilities of two-stage decision procedures,” Conference on Multiple Decision Theory and Related Topics, Purdue University, 1995.



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- (4) Hayter, A. J. and Tsui, K., “Identification and quantification in multivariate quality control problems,” 11th Annual Quality and Productivity Research Conference, Rochester, 1994.
- (3) Hayter, A. J., “Identification and quantification in quality control,” American Statistical Association Winter Meeting, Atlanta, 1994.
- (2) Hayter, A. J., “The construction of upper confidence bounds on the range of several location parameters,” American Statistical Association Annual Meeting, San Francisco, 1993.
- (1) Hayter, A. J., “The conservative nature of the studentized range multiple comparisons procedure,” Aarhus University, Denmark, 1989.

Professional and Corporate Relations

Site Review Team Member at the National Institutes of Health. Review of scientific procedures and management of the Division of Epidemiology, Statistics and Prevention Research at the National Institute of Child Health and Human Development, 2008.

Workshop for business leaders on “The Importance of Statistical and Quantitative Analytical Skills in Business and Management Today - how they can help you if you have them, or hurt you if you don't have them.”

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Editorial and Review Work for Journals

Associate Editor of the “Annals of the Institute of Statistical Mathematics,” 2002-2015.

Associate Editor of the “Journal of the Japanese Statistical Society,” 2001-2008.



Associate Editor of the “Journal of Statistical Computation and Simulation,” 1997-2001.

Referee work for the following journals:

Annals of Statistics, Biometrical Journal, Biometrics, Biometrika, British Journal of Mathematical and Statistical Psychology, Canadian Journal of Statistics, Communications in Statistics - Simulation and Computation, Communications in Statistics – Theory and Methods, Complexity, Discrete Dynamics in Nature and Society, IIE Transactions, Computational Statistics and Data Analysis, Entropy, International Journal of Production Research, Iranian Journal of Science and Technology, Journal of Applied Mathematics and Decision Sciences, Journal of Applied Statistics, Journal of Business & Economic Statistics, Journal of Computational and Graphical Statistics, Journal of Nonparametric Statistics, Journal of Quality Technology, Journal of Risk and Financial Management, Journal of Statistical Computation and Simulation, Journal of Statistical Planning and Inference, Journal of Statistical Theory and Practice, Journal of the American Statistical Association, Journal of the Royal Statistical Society, Mathematical Population Studies, Mathematical Problems in Engineering, Metrika, Metron, Multidiscipline Modeling in Materials and Structures, Psychometrics, Risks, Scandinavian Journal of Statistics, Statistical Methodology, Statistical Papers, Statistics, Statistics and Decisions, Statistics and Probability Letters, Statistics in Medicine, Technometrics, TEST, The American Statistician, Transactions on Neural Systems & Rehabilitation Engineering.

Invited Seminars and Presentations

(93) University of Manchester, England, “Recent Advances in Statistical Inference and Computational Methodologies,” 2018.

(92) King Monkut Institute of Technology, Thailand, “Case Studies in Statistical Analysis,” 2018.

(91) National University of Singapore, “Recent Advances in Statistical Inference and Computational Methodologies,” 2018.

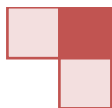
(90) Titu Maiorescu University, Romania, “The Importance of Data Skills in the Business World Today,” 2018.

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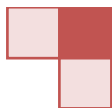
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- (87) Mahidol University International College, Thailand, “Conducting and Publishing Quantitative Research,” 2015.
- (86) Chulalongkorn University, Thailand, “Data Analysis Strategies for Business Success,” 2015.
- (85) Chulalongkorn University Business School 75th Year Anniversary Special Lecture, Thailand, “Business Analytics,” 2014.
- (84) Yonsei University, Korea, “Recent Advances in Statistical Inference and Computational Methodologies,” 2014.
- (83) Kyung Hee University, Korea, “The Importance of Statistical and Quantitative Analytical Skills in Business and Management Today,” 2014.
- (82) Khon Kaen University, Thailand, “Regression Analysis and Financial Modeling,” 2013.
- (81) Kyushu University, Japan, “Recent Advances in Statistical Inference and Computational Methodologies,” 2013.
- (80) Acadia University, Canada, “Win-Probabilities for Regression Models, Modeling Financial Credit Ratings, and Efficient Computational Methodologies,” 2012.
- (79) Dalhousie University, Canada, “Recent Advances in Statistical Inference and Computational Methodologies,” 2012.
- (78) National Institute of Development Administration, Thailand, “The Importance of Business Analytics for Management Today,” 2012.
- (77) Khon Kaen University, Thailand, “Selecting Statistical Methodologies for Business Research,” 2012.
- (76) Sasin Graduate Institute of Business Administration, Thailand, “Modelling Financial Credit Scores,” 2012.
- (75) Mahidol University International College, Thailand, “Data Analytics and Business Information in the Global Arena,” 2012.
- (74) Yuan Ze University, Taiwan, “The Importance of Statistical and Quantitative Analytical Skills in Business and Management Today,” 2011.
- (73) Universiti Tunku Abdul Rahman, Malaysia, “Examples of Quantitative Analyses in Business Decision Making,” 2011.



- (72) Singapore Management University, “Topics in Statistical Inference: Confidence bands for regression models and recursive integration methodologies,” 2011.
- (71) Institute of Statistical Mathematics, Tokyo, “The Application of Data Oriented Approaches for Business,” Workshop on Data-centric Human and Social Informatics, Tokyo, Japan, 2011.
- (70) Chulalongkorn University, Thailand, “Recent Advances in Confidence Band Construction for Regression Lines,” 2010.
- (69) Ritsumeikan Asia Pacific University, Oita, Japan, “The Importance of Quantitative Skills in Business Decision Making,” 2010.
- (68) Chulalongkorn University, Thailand, “The Importance of Quantitative Skills in Business Decision Making,” 2009.
- (67) Thammasat University, Thailand, “How to use Data from CMMI to make Better Decisions,” 2009.
- (66) Sophia University, Japan, “The Importance of Quantitative Skills in Business Decision Making,” 2009.
- (65) India Institute of Technology, Mumbai, “Topics in Inferential Statistics,” 2009.
- (64) Santa Clara University, “The Challenges Facing Business Schools,” 2009.
- (63) Adelphi University, “The Challenges Facing Business Schools,” 2008.
- (62) Osaka Institute of Technology, “Using Data for Better Decision Making,” 2008.
- (61) Moffitt Cancer Center & Research Institute, University of South Florida, “Recent Advances in Inferior Treatments in Clinical Trials,” 2008.
- (60) National Statistics Center of Japan, “Comparisons of Statistical Use Around the World,” 2007.
- (59) Tsukuba University Business School, Japan, “The Importance of Statistical and Quantitative Analytical Skills in Business and Management Today,” 2007.
- (58) Sophia University, Japan, “Statistical analysis of rolling mills in the steel industry, recursive integration methodologies, and detecting inferior drugs,” 2007.
- (57) United States Air Force Academy, “The Importance of Statistical and Quantitative Analytical Skills in Business and Management Today,” 2007.



(56) Colorado State University, “Statistical Analysis of Rolling Mills in the Steel Industry, Recursive Integration Methodologies, Inferences on the Non-Centrality Parameter of a Non-Central t-Distribution, and Detecting Inferior Drugs,” 2007.

(55) University of New Mexico, “Applications and Misapplications of Probability and Statistics,” 2007.

(54) Los Alamos National Laboratory, “Applications and Misapplications of Probability and Statistics,” 2007.

(53) University of Denver, “Applications and Misapplications of Probability and Statistics,” 2005.

(52) Macalester University, “Applications and Misapplications of Probability and Statistics,” 2005.

(51) Bentley College, “Applications and Misapplications of Probability and Statistics,” 2005.

(50) Kennesaw State University, Sigma Xi Chapter, “Applications and Misapplications of Probability and Statistics,” 2005.

(49) Washington State University, “The Evaluation of Multivariate Normal Orthant Probabilities,” 2002.

(48) Institute of Statistical Mathematics, Japan, “Introduction to Multiple Comparisons and Simultaneous Inference,” 2000.

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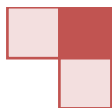
(45) Institute of Statistical Mathematics, Japan, “Non-linear Dose Response Analysis,” 2000.

(44) Radiation Effects Research Foundation, Japan, “An Overview of Simultaneous Inference Procedures,” 1999.

(43) Institute of Statistical Mathematics, Japan, “Decision Theoretic Approaches to Binary Response Data in Reliability Studies,” 1998.



- (42) Institute of Statistical Mathematics, Japan, “Combining One-sided and Two-sided Inference Procedures,” 1998.
- (41) Seoul National Polytechnic University, “Current Trends in Industrial Engineering,” 1998.
- (40) Seoul National University, “Recent Advances in Multivariate Quality Control,” 1998.
- (39) Institute of Statistical Mathematics, Japan, “On the Pairwise Comparisons of Means,” 1997.
- (38) Tsukuba University, Japan, “Combining the Advantages of One-sided and Two-sided Inference Methods,” 1997.
- (37) Hiroshima University, Japan, “Recent Advances in Multivariate Quality Control,” 1997.
- (36) Tsukuba University, Japan, “On the Selection Probabilities of Two-Stage Procedures,” 1997.
- (35) National Institute of Environmental Agriculture, Japan, “Multiple Comparison Procedures,” 1997.
- (34) University of Tokyo, “On the Selection Probabilities of Two-stage Decision Procedures,” 1997.
- (33) United States Military Academy, West Point, N.Y., “Applications of Probability and Statistics,” 1997.
- (32) Institute of Statistical Mathematics, Japan, “On the Selection Probabilities of Two-Stage Decision Procedures,” 1997.
- (31) Institute of Statistical Mathematics, Japan, “Customized Confidence Set Construction,” 1996.
- (30) University of South Alabama, “Customized Confidence Set Construction,” 1996.
- (29) Clemson University, “Customized Confidence Set Construction,” 1996.
- (28) University of Alabama-Huntsville, “Recent Advances in Multivariate Quality Control,” 1996.
- (27) University of North Carolina-Charlotte, “Recent Advances in Multivariate Quality Control,” 1996.



- (26) University of Central Florida, “Customized Confidence Set Construction,” 1996.
- (25) University of Singapore, “Confidence Set Construction for Stepwise Decision Procedures,” 1995.
- (24) University of Georgia, “Confidence Set Construction for Stepwise Decision Procedures,” 1992.
- (23) University of South Carolina, “Confidence Set Construction for Stepwise Decision Procedures,” 1992.
- (22) Northwestern University, “A One-Sided Studentized Range Test for Comparing Several Ordered Location Parameters,” 1991.
- (21) Georgia Institute of Technology, “A One-Sided Studentized Range Test for Comparing Several Ordered Location Parameters,” 1991.
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- (18) Ohio State University, “A One-Sided Studentized Range Test for Comparing Several Ordered Location parameters,” 1991.
- (17) Rice University, “A One-Sided Studentized Range Test for Comparing Several Ordered Location Parameters,” 1990.
- (16) Trier University, Germany, “A One-Sided Studentized Range Test for Comparing Several Ordered Location Parameters,” 1990.
- (15) City University, England, “A One-Sided Studentized Range Test for Comparing Several Ordered Location Parameters,” 1990.
- (14) Cambridge University, England, “The Conservative Nature of the Studentized Range Multiple Comparisons Procedure,” 1989.
- (13) National Central University, Taiwan, “Minimax Test Procedures for Comparing Several Location Parameters,” 1988.
- (12) Tsing-hua University, Taiwan, “Power Assessment of Tests Comparing Several Treatments with a Control,” 1988.



- (11) Hiroshima University, Japan, “Minimax Test Procedures for Comparing Several Location Parameters,” 1988.
- (10) Keio University, Japan, “Power Assessment of Tests Comparing Several Treatments with a Control,” 1988.
- (9) Osaka University, Japan, “Minimax Test Procedures for Comparing Several Location Parameters,” 1988.
- (8) Tokyo University, Japan, “Power Assessment of Tests Comparing Several Treatments with a Control,” 1988.
- (7) Tokyo University, Japan, “The Conservative Nature of the Studentized Range Multiple Comparisons Procedure,” 1988.
- (6) Bath University, England, “The Conservative Nature of the Studentized Range Multiple Comparisons Procedure,” 1987.
- (5) National Central University, Taiwan, “The Conservative Nature of the Studentized Range Multiple Comparisons Procedure,” 1986.
- (4) Cheng-Kung University, Taiwan, “The Conservative Nature of the Studentized Range Multiple Comparisons Procedure,” 1986.
- (3) Tsing-hua University, Taiwan, “The Conservative Nature of the Studentized Range Multiple Comparisons Procedure,” 1986.
- (2) Imperial College, England, “The Conservative Nature of the Studentized Range Multiple Comparisons Procedure,” 1984.
- (1) Cornell University, “The Conservative Nature of the Studentized Range Multiple Comparisons Procedure,” 1983.

External Examiner

Examiner for the Thailand-United States Educational Foundation (Fulbright) Open Competition Scholarship Program, 2014.

External Examiner for the MBA program, *Universiti Tunku Abdul Rahman*, Malaysia, 2011-present.



Examiner for the doctoral dissertation of Zamir Hussain, "Flood Frequency Analysis of River Systems of Pakistan, Using L-Moments," *Bahauddin Zakariya University*, Pakistan, 2012.

Examiner for the doctoral dissertation of Alia Sajjad, "Optimality in Sparse Block Designs," *Quaid-I-Azam University*, Pakistan, 2010.

External faculty evaluator, *Bahauddin Zakariya University*, Pakistan, 2010.

Panel of expert member for the purpose of evaluation of candidates for faculty positions, *Quaid-i-Azam University*, Pakistan, 2010.

Examiner for the doctoral dissertation of Muhammad Zakaria, "Stochastic Models for the Population of Pakistan," *Allama Iqbal Open University*, Pakistan, 2010.

Examiner for the doctoral dissertation of Saima Altaf, "Statistical Analysis of Paired Comparison Models Through Bayesian Approach," *Quaid-i-Azam University*, Pakistan, 2009.

Examiner for the doctoral dissertation of Muhammed Saleem, "Bayesian Analysis of Mixture Distributions," *Quaid-i-Azam University*, Pakistan, 2009.

Examiner for the doctoral dissertation of N. Koyama, "Experimental Designs for Clinical Trials," *Institute of Statistical Mathematics*, Tokyo, Japan, 2000.

Examiner for the doctoral dissertation of Chandra Kumar Biswas, "Design of Multivariate Statistical Process Control Charts with Statistical and Economic Approaches," *Indian Institute of Technology*, India, 1998.

Selected Recent College Activities

Scholarship of Research Award, Daniels College of Business, 2012 and 2015.

Development and teaching of new MBA, PMBA and EMBA quantitative courses.

Teaching and organization of pre-course workshops for the MBA quantitative course.

Developed and marketed a new Masters Degree in Business Intelligence in collaboration with the Information Technology and Marketing departments.

Committee member for High Quality Scholarship. Finding ways to develop and encourage the College's research activities.



Presentation on “Teaching Effectiveness” at the New Faculty Orientation.

Ph.D. Students Supervised

Chen-ju Lin, 2007, “New methods for eliminating inferior treatments in clinical trials.”

Jongphil Kim, 2007, “Efficient confidence interval methodologies for the non-centrality parameters of non-central t-distributions.”

Generazio Hoa, 2000, “Disaggregation from Constructive to Virtual Combat Simulations.”

Tom Kastner, 1997, “Multinomial Selection with Elimination.”

Philip DeCamp, 1997, “Efficiency of Nonparametric Confidence Intervals.”

Helen Bush, 1996, “Nonparametric Multivariate Quality Control.”

Jennifer Robinson, 1996, “The Construction of Joint Confidence Sets for the Comparison of Two Exponential Distributions.”

Wei Liu, 1990, “Power Analysis of Multiple Comparisons Procedures.”

Master Thesis Students Supervised

Andy Napoli, 1996, “An Assessment of Current Statistical Analysis in Published Engineering Research.”

Merilee Hurn, 1989, “A Study of the Power Functions of some Optimal Simultaneous Inference Procedures by Exact Evaluation and Simulation Techniques.”

Ph.D. Student Committee Member

Faryal Younis, 2018, “Use of Adaptive Cluster Sampling under Different Sampling Designs.” Department of Statistics, Quaid-i-Azam University, Islamabad, Pakistan.



Sudhashini A/P Senggaravellu, 2018, "Push and Pull Factors and the Relationship between Lecturer's Job Satisfaction and Turnover Intention." Institute of Postgraduate Studies & Research, Universiti Tunku Abdul Rahman, Malaysia.

Low Mei Peng, 2016, "Linking Entrepreneurial Orientation and Internal Corporate Social Responsibility to Turnover Intention in Small Medium Sized Enterprises." Institute of Postgraduate Studies & Research, Universiti Tunku Abdul Rahman, Malaysia.

Cham Tat Huei, 2016, "An Integrated Framework for Brand Image, Healthcare Service Quality, Patient Trust, Perceived Value, Patient Satisfaction and Behavioral Intention: Evidence from Medical Tourism of Malaysia." Institute of Postgraduate Studies & Research, Universiti Tunku Abdul Rahman, Malaysia.

Zachary Loftus, 2012, "Additive Manufacturing Process for Titanium Components in Space Applications," *School of Mechanical Engineering*.

Seung Oh Lee, 2006, "Modeling of Local Scour Around Bridge Piers," *Environmental Fluid Mechanics and Water Resource Group, School of Civil and Environmental Engineering*.

Ilya Lavrik, 2005, "Novel Wavelet-based Statistical Methods with Applications in Classification, Shrinkage, and Nano-scale Image Analysis."

Seungmook Chae, 2004, "Effect of Follower Forces on Aeroelastic Stability of Flexible Structures." *School of Aerospace Engineering*.

Gwen Malone, 2004, "Bernoulli and Multinomial Ranking and Selection Procedures."

Hyoungtae Kim, 2004, "Load Sharing and Decisions under Uncertainties in Logistics Operations."

Jennifer Muncy, 2003, "Predictive Failure Model of Flip Chip On Board Component Level Assemblies." *School of Mechanical Engineering*.

Glenn Miller, 2003, "Predictive Inference Methods."

Debora Daberkow, 2002, "A Formulation of Metamodel Implementation Processes for Complex Systems Design." *School of Aerospace Engineering*.

Evelyn Wu, 2000, "Analysis of Traffic Crash Data." *School of Civil and Environmental Engineering*.

Chien-ho Hung, 1999, "Development of Leading Models of Metallic Contaminants Solidified by Cement Using Time Series Analysis." *School of Civil and Environmental Engineering*.



Chris Fowler, 1997, "Heuristic Solution Performance for the Uncapacitated Facility Location Problem with Uncertain Data."

Carolina Barcenas, 1996, "Geometric Tolerance Verification - a Quality Oriented Approach."

Karen Emmanuel, 1996, "Multivariate Control Charts for Autocorrelated data."

Saliu Ur Rehman, 1995, "Semiparametric Modeling of Cross-semivariograms."

M.S. Students Committee Member

Chutimon Sindhuprama, 2017, "Statistical Inference based on Imperfect Ranking from Concomitant Variables and its Application in Portfolio Selection." Department of Statistics, Chulalongkorn University, Thailand.

Sawanya Poongoen, 2015, "A Comparison of Variable Screening Methods for Hierarchical Testing of High-Dimensional Regression Coefficients." Department of Statistics, Chulalongkorn University, Thailand.

Chaianun Tharasuke, 2012, "A Computational Method for Ordinal Probit Regression based on Polar Metropolis". Department of Statistics, Chulalongkorn University, Thailand.

Natchalee Srimaneekarn, 2012, "A Development of Drug Expiration Prediction Model". Department of Statistics, Chulalongkorn University, Thailand.

Rebekah Kovarik, 2010, "An Experimental Study of Optical Adhesive Bonds Subjected to Thermal Cycling Environments." *School of Mechanical Engineering*.

Tadashi Watanabe, 2009, "Japan's Preventive Strategy: The National Defense Program Guidelines in and after FY 2010." *School of International Studies*.

Jim Gigrich, 1997, "Comparison of Silver-Meal and Wagner-Whiten Procedures for Material Requirements Planning Under Varying Demand."

Dennis Day, 1997, "Minimization of Cost and Target Escapes in Combat Models Using the Multivariate Poly Distribution."

Chris Combs, 1996, "Non-Newtonian Conversion of Type II Emulsion Liquid Membranes." *School of Chemical Engineering*.



Bernd F. Schliemann, 1996, “Analysis and Modeling of the Initiative Tenet of Current Army Operations Doctrine.”

Tasha Williams, 1995, “A Comparison of Selection Procedures for the Best Mean from a Set of Normal Populations.”

Eric Wiedemann, 1995, “Reducing Variance between two Systems by Inducing Correlation.”

John Picciuto, 1994, “Using Lp-norm Standardized Time Series Variance Estimators for Output Analysis of Simulations.”

Tim Petit, 1994, “A Robustness Study of Gupta's Subset Selection Procedure.”

Susan Robertson, 1993, “Usability and Viability of the Dynamic Help Toolkit.”

Post-Doctoral Student Supervision

Supervisor of post-doctoral student Youngshin Park, support by a grant from the Korea Science and Engineering Foundation, 200





Section IV: Compensation.

My hourly rate for this work is \$450. My hourly rate for deposition and trial testimony is \$550. No part of my compensation is contingent upon the outcome of this matter.





Section V: Previous Expert Witness Testimonies
within the Past 4 Years.

(1) Catherine Lee versus City of Beverly Hills, et. al.

Superior Court of the State of California, County of Los Angeles, West District.

Case No. BC553839.

Deposition, August 30th, 2018.

(2) Evangelical Retirement Homes of Greater Chicago versus Bovis Lend Lease, Inc.

American Arbitration Association.

No. 01-15-0002-5934.

Deposition, August 28th, 2018.

(3) Kim et al. versus Crocs, Inc et al.

United States District Court for the District of Hawaii.

Civil No. 1:16-cv-00460 JMS-KJM

Deposition, May 25th, 2018.

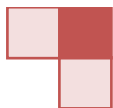


(4) City of Pomona versus SQM North America Corporation.
United States District Court for the Central District of California.
Case No. 2:11-cv-00167-RGK-JEM.
Deposition, April 20th, 2018.
Trial testimony, May 15th, 2018.

(5) Arbor Real Homeowners Association versus Western Pacific Housing.
Judicial Arbitration and Mediation Services, San Francisco/Northern California.
Case No. 1100085234.
Deposition, April 13th, 2018.
Arbitration testimony, May 11th, 2018.

(6) Mary "Molly" Digman versus Dr. Patti M. Nemeth and St. Luke's Hospital.
Circuit Court of St. Louis County, State Of Missouri.
Case No. 15SL-CC02801.
Deposition, March 12th, 2018.
Trial testimony, March 26th, 2018.

(7) Jose Cruz Ramos versus El Paso-Los Angeles Limo Express Inc., et al.
Superior Court of the State of California for the County of Los Angeles.
Case No. BC549973.
Deposition, March 6th, 2018.

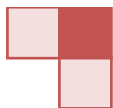


(8) Banc of California, Inc. versus Farmers & Merchants Bank of Long Beach.
United States District Court for the Central District of California.
Case No. 16-cv-01601-CJC-AFM.
Deposition, August 22nd, 2017.

(9) Ruth Sherman versus Secretary of Health and Human Services.
United States District Court, District of Connecticut.
Case No. 3:15-cv-01468 (JAM).
Deposition, June 30th, 2017.

(10) Thorpe Design, Inc. and Fire Sprinkler Systems, Inc. versus The Viking Corporation, et al.
United States District Court, Northern District of California.
Case No. 3:15-cv-03324-EDL.
Deposition, June 22nd, 2017.

(11) Hee Suk Shin versus Auto Club Insurance Association, State of Michigan.
Oakland County Circuit Court.
Case No. 2016-154516-NF.
Deposition, May 19th, 2017.

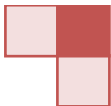


(12) Kendall Brasch et al. versus K. Hovnanian Enterprises, Inc., et al.
Superior Court of California, County of Orange – Civil Complex Center.
Case No. 30-2013-00649417-CU-CD-CXC.
Deposition, April 21st, 2017.

(13) Allen/Cascio/Johnson versus The City of Beverly Hills et al.
Superior Court of the State of California for the County of Los Angeles, West
District.
Case No. BC553839.
Deposition, November 18th, 2016.

(14) Instamart IP, LLC, versus Maplebear, Inc.
American Arbitration Association.
Case No. 01-16-0001-0340.
Testimony at Arbitration Hearing, August 31st, 2016.

(15) California Department of Industrial Relations, Division of Occupational
Safety and Health versus Sea World.
Before the Occupational Safety and Health Appeals Board, State of California.
Docket No. 15-R3D2-2129-2132.
Deposition, November 6th, 2015.



Signature Page

I hereby certify that the above report was written by me.

Signed:

A handwritten signature in black ink that reads "Anthony Hayter". The signature is written in a cursive style with a long horizontal stroke at the end of the word "Hayter".

Dr. Anthony Hayter

April 8th, 2019



1 ARTURO J. GONZÁLEZ (SBN 121490)
 AGonzalez@mofocom
 2 PENELOPE A. PREOVOLOS (SBN 87607)
 PPreovolos@mofocom
 3 MARGARET E. MAYO (SBN 259685)
 MMayo@mofocom
 4 MORRISON & FOERSTER LLP
 425 Market Street
 5 San Francisco, California 94105-2482
 Telephone: 415.268.7000
 6 Facsimile: 415.268.7522

7 PURVI G. PATEL (SBN 270702)
 PPatel@mofocom
 8 MORRISON & FOERSTER LLP
 707 Wilshire Boulevard
 9 Los Angeles, California 90017-3543
 Telephone: 213.892.5200
 10 Facsimile: 213.892.5454

11 Attorneys for Defendants
 APPLE INC., APPLECARE SERVICE
 12 COMPANY, INC., and APPLE CSC INC.

13 UNITED STATES DISTRICT COURT
 14 NORTHERN DISTRICT OF CALIFORNIA
 15 SAN FRANCISCO DIVISION

17 VICKY MALDONADO AND JUSTIN
 18 CARTER, individually and on behalf of
 themselves and all others similarly situated,

19 Plaintiffs,

20 v.

21 APPLE INC., APPLECARE SERVICE
 22 COMPANY, INC., and APPLE CSC INC.,

23 Defendants.

Case No. 3:16-cv-04067-WHO

Related Case:
English v. Apple Inc., et al.
 Case No. 3:14-cv-01619-WHO

**DECLARATION OF
 ALAN J. COX, PH.D.**

Judge: William H. Orrick
 Courtroom: 2, 17th Floor

Complaint Filed: July 20, 2016
 Trial Date: April 20, 2020

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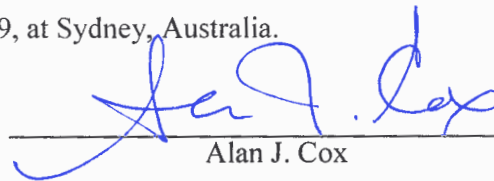
1 I, Alan J. Cox, hereby declare as follows:

2 1. I have been retained as an expert for Defendants Apple Inc., AppleCare Service
3 Company, Inc., and Apple CSC Inc. in this action. I make this declaration based on my own
4 personal knowledge, and if called as a witness to testify, I could and would testify competently to
5 the following facts.

6 2. Attached as **Exhibit A** is a true and correct copy of my expert report in support of
7 Defendants' Opposition to Plaintiffs' Motion for Class Certification, dated April 8, 2019.

8
9 I declare under penalty of perjury under the laws of the United States of America that the
10 foregoing is true and correct.

11 Executed this 8th day of April, 2019, at Sydney, Australia.

12 
13 _____
14 Alan J. Cox

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Exhibit A

**EXPERT REPORT IN SUPPORT OF DEFENDANTS'
OPPOSITION TO CLASS CERTIFICATION
OF
ALAN J. COX, PH.D.
MANAGING DIRECTOR**

In Connection with

Vicky Maldonado, et al. v. Apple Inc., et al.

Case No. 3:16-cv-04067-WHO

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION**

April 8, 2019

NATIONAL ECONOMIC RESEARCH ASSOCIATES

FOUR EMBARCADERO CENTER, SUITE 400
SAN FRANCISCO, CA 94111

TELEPHONE: 415.291.1000 FACSIMILE: 415.291.1020

**Expert Report of Alan J. Cox, Ph.D.
In Support of Defendants’ Opposition to Class Certification**

In Connection with *Vicky Maldonado, et al. v. Apple Inc., et al.*

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APPENDIX A. Resume of Alan J. Cox

APPENDIX B. Documents Reviewed and Relied Upon

I. INTRODUCTION AND QUALIFICATIONS

1. I am a Managing Director in the San Francisco office of NERA Economic Consulting (“NERA”), where I participate in the Intellectual Property, Antitrust, and Securities Practices. NERA provides expert economic and financial analysis to firms and government bodies on a variety of issues. My business address is 4 Embarcadero Center, Suite 400, San Francisco, CA 94111.

2. I received a B.Sc. degree in Environmental Science from York University in Toronto in 1976 and an M.A. in Economics from the University of British Columbia in 1978. From 1978 to 1981, I served as a Visiting Economist at the Energy Laboratory at the Massachusetts Institute of Technology in Cambridge, MA. In 1989, I received a Ph.D. in Economic Analysis and Policy from the Haas School of Business Administration at the University of California at Berkeley where I concentrated on competition issues and where I also worked as a researcher in the Department of Economics and at various University of California research institutes. From 1988 to 1994, I was a Senior Economist, Vice President, and Senior Vice President at Law and Economics Consulting Group, Inc. Since 1994, I have been a Senior Consultant, and then a Vice President, a Senior Vice President, and a Managing Director at NERA.

3. I have provided testimony and consulted on damages issues in a variety of industries including consumer electronics, semiconductors, bookselling, industrial plastics, liquor distribution, the manufacture and distribution of tobacco products, credit card services, and energy, among others. I have also testified and consulted on class action certification matters, including consumer class actions, on several occasions. These have included class actions in cases involving consumer electronics, DRAM, convenience foods, and securities. I also have testified frequently on antitrust and competition issues before federal and state courts, the California Public Utilities Commission, and the Federal Energy Regulatory Commission.

4. A considerable part of my professional experience has been in the field of telecommunications. I have undertaken research in telecommunications matters for over 30 years, including work on my Ph.D. thesis. A paper based upon my Ph.D. thesis was selected

as a Finalist in the Graduate Student Paper Contest of the 16th Annual Telecommunications Policy Research Conference in 1988. I presented the paper, “Modeling the Effects of Household Characteristics on Telephone Usage and Class of Service Choice,” at that conference. My telecommunications work since that time has included consulting with telephone companies and smartphone manufacturers on strategic issues such as pricing, assisting in regulatory matters, and testifying in litigated matters in antitrust and intellectual property. I have testified and consulted in consumer class action matters involving alleged cellular telephone product defects, consumer electronics service plans, and issues related to text messages. I have lectured frequently on the analysis of damages through the application of economic techniques. I have published several papers on a range of damages issues.

5. Appendix A of this report contains my resume, which includes a list of my publications and presentations over the previous ten years and my prior testimony in other cases over the previous four years. NERA is being compensated for my services in this matter at a rate of \$750 per hour, and for the services of consultants and researchers at their normal and customary rates. My compensation is not dependent on the outcome of this case or the substance of my opinions.

II. PURPOSE OF THIS REPORT

6. Counsel for Defendants Apple Inc., AppleCare Service Company, Inc., and Apple CSC Inc. (collectively “Apple”), has asked me to review and evaluate certain economic issues related to the allegations made by Plaintiffs concerning the sales of AppleCare Protection Plan (“APP”) and AppleCare+ (“AC+”) for iPhones and iPads in the United States (collectively “AC+”). I also have been asked to review and comment on the expert opinion of Dr. Lance Kaufman as expressed in his report of February 25, 2019 as well as his testimony regarding his opinions.¹ Specifically, I have been asked to opine on whether Dr. Kaufman has demonstrated that he can calculate damages on a class-wide basis using a

¹ Expert Report of Lance D. Kaufman, February 25, 2019 (“Kaufman Report”); Deposition of Lance Kaufman, Ph.D., March 7, 2019 (“Kaufman Deposition”).

model that is tied to Plaintiffs' theory of the case and that uses common evidence related to Plaintiffs' allegations.

III. SUMMARY OF OPINIONS

7. Below is a summary of the opinions I have formed with respect to Dr. Kaufman's opinions:

- Dr. Kaufman proposes two methods for calculating damages. Neither is tied to Plaintiffs' theory of liability or the facts in this case.
- Dr. Kaufman's first method focuses on the decision whether to purchase a brand new (i.e., "finished goods") or a refurbished iPhone or iPad, while the issue in this case is the purchase of a *service plan* for an iPhone or iPad. This model therefore measures damages that are unrelated to Plaintiffs' theory of harm.
- Dr. Kaufman's second method focuses on "rescission" of service plans. He, however, fails to conduct any analysis to determine whether this method provides an appropriate measure of damages in this case. He admits he has no economic basis for this method, and that he adopted the method after Plaintiffs' counsel suggested it to him. Dr. Kaufman's rescission method lacks any analytic basis and is untethered from the facts of the case.
- Even if Dr. Kaufman's methods for calculating damages were relevant, they suffer from multiple severe flaws:
 - He fails to show that his proposed measures of damages can be reliably calculated for each member of the proposed class using available data and a common method.
 - Dr. Kaufman has not shown that the data that are required as inputs to his models exist, let alone that it can be compiled and will provide reliable estimates with a known potential rate of error.
 - Dr. Kaufman assumes away any differences among putative class members:
 - He assumes that all putative class members faced the same decision on whether to purchase AC+. He ignores alternative service plans offered by resellers and third parties, and the impact of different putative class members having different service plan options depending on when and where they purchased the device.
 - He assumes that individual putative class members understood the relevant AC+ terms and conditions language in the same way and placed similar values on many uncertain factors. These include: (i) the likelihood of submitting a claim for a repair or replacement, and how that likelihood differs from the first to the second year, (ii) in the event of submitting a claim, the likelihood of receiving a replacement instead of having their device repaired, (iii) in the event of receiving a replacement, the likelihood

that a replacement device would be new, not remanufactured, (iv) their expectation on how long they may be able to use their device before they require a replacement or repair, and (v) the number of claims they expect to submit during the service plan period.

- Dr. Kaufman failed to model and consider an appropriate but-for world for his damages analysis.
- Dr. Kaufman continued to change the definition of his variables and methods in his deposition, further rendering his methodology unreliable.
- He assumes, contrary to the facts, that all putative class members purchased their new iPhones at the full “unlocked” price (i.e., the price without an accompanying cellular services contract) while, in reality, many iPhones were purchased at the much lower bundled price and/or included additional discounts.
- Dr. Kaufman’s damages measures do not account for the multiple benefits provided by AC+ and make other important exclusions and errors such that his damages calculations are not limited to Plaintiffs’ liability theory or the facts of the case.

IV. FACTS AND DATA CONSIDERED IN FORMING MY OPINIONS

8. In conducting my analysis, I, along with NERA staff working under my direction, have reviewed and analyzed documents provided to me in the course of this litigation, including pleadings, deposition testimony, confidential documents and data produced by the parties, as well as publicly available information. I have also reviewed papers and standard texts relevant to the issues in this matter. A list of the materials I have reviewed and relied upon in preparing my opinions is shown in Appendix B. Should I receive new or additional information relevant to my opinions expressed below, I may supplement or revise my opinions.

V. BACKGROUND

A. APPLE SERVICE PLANS

1. LIMITED WARRANTY

9. A Limited Warranty comes with the purchase of an iPhone or iPad at no extra cost. The relevant benefit provided under the Limited Warranty is a one-year warranty

covering hardware “defects in materials and workmanship.”² If a customer submits a claim for hardware defects within the one-year Limited Warranty period, Apple will: (1) repair the iPhone or iPad; (2) replace the iPhone or iPad; or (3) provide a refund in exchange for the iPhone or iPad.³

10. In addition, although not part of the Limited Warranty, purchasers of an iPhone or iPad receive 90 days of complimentary technical support.⁴ This includes both hardware support such as “telephone support for basic setup, installation, assembly, and connectivity” and software support such as “telephone support for installation, launch, or reinstallation.”⁵

2. **APPLECARE PROTECTION PLAN (“APP”) AND APPLECARE+ (“AC+”)**

11. I understand that Apple’s position is that the class period in this case starts on July 20, 2012. I further understand that this case involves two service plans offered by Apple, AC+ and its predecessor APP. Because most of the plans sold during that period were AC+, unless otherwise specified, I refer to both plans as “AC+.”

12. Both APP and AC+ cover hardware “defect[s] in materials and workmanship” at no extra cost for an additional year after the Limited Warranty ends, with the option for Apple to either repair or replace the device.⁶ Apple introduced AC+ in October of 2011, and, after 2012, AC+ became the only extended service plan for iPhones and iPads.⁷ The key change in AC+ relative to APP is that AC+ added coverage for accidental damage.⁸ When

² “Apple One (1) Year Limited Warranty,” version July 13, 2018 – Present, Apple.com, <https://www.apple.com/legal/warranty/products/ios-warranty-document-us.html>, accessed March 21, 2019.

³ “Apple One (1) Year Limited Warranty,” version July 13, 2018 – Present, Apple.com, <https://www.apple.com/legal/warranty/products/ios-warranty-document-us.html>, accessed March 21, 2019.

⁴ “Complimentary Support,” Apple.com, <https://support.apple.com/complimentary>, accessed April 5, 2019.

⁵ “Complimentary Support,” Apple.com, <https://support.apple.com/complimentary>, accessed March 21, 2019.

⁶ “AppleCare Protection Plan for iPhone,” Apple.com, 2007, https://www.apple.com/support/applecare/pdfs/north_america/iphone/034-4295.pdf, accessed April 5, 2019; “AppleCare+ for iPhone,” Apple.com, <https://www.apple.com/legal/sales-support/applecare/applecareplus/docs/applecareplusnaen.html>, accessed March 21, 2019.

⁷ Defendant Apple Inc.’s Answer to Plaintiffs’ First Amended Complaint, April 5, 2017, ¶¶ 34 and 47.

⁸ APP was subject to a one-time enrollment fee of \$69. See “iPhone – AppleCare Protection Plan,” Apple Store via WayBack Machine, September 3, 2011, <https://web.archive.org/web/20110903214643/http://store.apple.com/us/product/MC253#overview>, accessed April 5, 2019; “AppleCare Protection Plan for iPhone,” Apple.com, 2007, https://www.apple.com/support/applecare/pdfs/north_america/iphone/034-4295.pdf, accessed April 5, 2019; “AppleCare+

launched in 2011, AC+ cost \$99 for the iPhone.⁹ Apple introduced AC+ for the iPad in March of 2012.¹⁰ AC+ covered up to two incidents of accidental damage, each subject to a per-incident service fee.¹¹ Upon submission of a valid claim related to accidental damage, Apple would either repair or replace the device.¹²

13. APP and AC+ also provide the following additional benefits:

- Two years of telephone and web-based technical support, which “may include assistance with installation, launch, configuration, troubleshooting, and recovery.”¹³ Some of the technical support components were direct access to Apple experts, mail-in or carry-in repairs, and access to an express replacement service.¹⁴
- Software support from Apple experts, with issues such as using iOS and iCloud, Apple branded applications, interconnectivity between Apple devices, and connecting to wireless networks.¹⁵

for iPhone,” Apple.com, <https://www.apple.com/legal/sales-support/applecare/applecareplus/docs/applecareplusnaen.html>, accessed March 21, 2019.

⁹ “iPhone – AppleCare+,” Apple Store via Wayback Machine, December 3, 2011, <https://web.archive.org/web/20111203053027/http://store.apple.com/us/product/S4575>, accessed April 5, 2019.

¹⁰ “AppleCare+ for iPad,” Apple.com via Wayback Machine, March 8, 2012, <https://web.archive.org/web/20120308031927/http://www.apple.com/support/products/ipad.html>, accessed April 4, 2019. The cost of AC+ for iPad was also \$99. See “AppleCare+ for iPad,” Apple Store via WayBack Machine, March 8, 2012, <https://web.archive.org/web/20120308104103/http://store.apple.com/us/product/S4689>, accessed April 6, 2019.

¹¹ “AppleCare+ for iPhone,” Apple.com via Wayback Machine, December 7, 2011, <https://web.archive.org/web/20111207022338/https://www.apple.com/support/products/iphone.html>, accessed April 5, 2019; “AppleCare+ for iPad,” Apple.com via Wayback Machine, March 8, 2012, <https://web.archive.org/web/20120308031927/http://www.apple.com/support/products/ipad.html>, accessed April 4, 2019. The service fee applied per iPhone or iPad incident was \$49 at the time of launch and is \$49 today for iPad. See “AppleCare+ for iPad,” Apple.com, <https://www.apple.com/support/products/ipad.html>, accessed April 7, 2019. The service fee applied per iPhone incident has changed over time.

¹² “AppleCare+ for iPhone,” version before September 10, 2013, Apple.com, <https://images.apple.com/legal/sales-support/applecare/docs/applecareplus.pdf>, accessed March 21, 2019.

¹³ “AppleCare+ for iPhone,” version before September 10, 2013, Apple.com, <https://images.apple.com/legal/sales-support/applecare/docs/applecareplus.pdf>, accessed March 21, 2019.

¹⁴ “AppleCare+ for iPhone,” Apple.com via Wayback Machine, October 6, 2011, <https://web.archive.org/web/20111006005402/http://www.apple.com/support/products/iphone.html>, accessed March 21, 2019.

¹⁵ “AppleCare+ for iPhone,” Apple.com via Wayback Machine, October 6, 2011, <https://web.archive.org/web/20111006005402/http://www.apple.com/support/products/iphone.html>, accessed March 21, 2019.

B. PLAINTIFFS AND PROPOSED CLASS PERIOD

14. I understand that Plaintiffs Vicky Maldonado and Justin Carter seek to certify a class defined as:

All individuals who purchased AppleCare or AppleCare+, either directly or through the iPhone Upgrade Program, on or after January 1, 2009, and received a remanufactured replacement Device.¹⁶

15. I understand however that Apple contends that the class period begins on July 20, 2012 and my report focuses on that class period.¹⁷

C. ALLEGED CONDUCT

16. Plaintiffs refer to APP and AC+ plans as “the Apple Contracts.”¹⁸ Plaintiffs claim that Apple represents in the Apple Contracts that replacement devices will be “new or equivalent to new in performance and reliability.”¹⁹

17. I understand that Plaintiffs allege that Apple has provided remanufactured replacement iPhones and iPads that are not “new or equivalent to new in performance and reliability” under the Apple Contracts because they contain non-new parts.²⁰ I understand that Apple denies Plaintiffs’ allegations.²¹

VI. CRITIQUE OF DR. KAUFMAN’S ANALYSIS

A. DR. KAUFMAN’S PROPOSED DAMAGES ESTIMATES ARE NOT TIED TO PLAINTIFFS’ ALLEGATIONS

18. I understand that Plaintiffs assert that, had they and members of the putative class known that the remanufactured replacement iPhones and iPads were allegedly not

¹⁶ Plaintiffs’ Notice of Motion and Motion for Class Certification and Memorandum of Points and Authorities, February 25, 2019, (“Motion for Class Certification”).

¹⁷ Should the proposed class period from January 2009 be accepted by the Court, my opinions would not change.

¹⁸ First Amended Complaint, November 14, 2016 (“FAC”), ¶ 26.

¹⁹ FAC, ¶ 3.

²⁰ Motion for Class Certification, p. 1.

²¹ Defendant Apple Inc.’s Answer to Plaintiffs’ First Amended Complaint, April 5, 2017.

“equivalent to new in performance and reliability” and contained non-new parts, they “would not have purchased the Apple Contracts and/or paid as much for them. Plaintiffs and the other Class members overpaid for their Apple Contracts and did not receive the benefit of their bargain.”²²

19. Economic damages measure “plaintiff’s loss of economic value from the defendant’s harmful act.”²³ In this case, the alleged harmful act is Apple’s alleged failure to disclose that the remanufactured replacements provided under AC+ allegedly were not “equivalent to new in performance and reliability” because they contained non-new parts.²⁴

20. Economic damages are calculated as “the difference between the value the plaintiff would have received if the harmful event had not occurred and the value the plaintiff has or will receive, given the harmful event.”²⁵ Put another way, damages in this case should be measured as the difference in value between the actual contract price and the contract price in the “but-for” world in which the replacement devices are described in AC+ in the way that Plaintiffs contend they should be. Even if Plaintiffs argue that the measure of damages should assume a “but-for world” in which the remanufactured devices were “new or equivalent to new in performance and reliability,” Dr. Kaufman still must measure the impact on the contract price. The issue in the case is the purchase of AC+, not the purchase of new devices.

21. Dr. Kaufman ignores entirely the claims in Plaintiffs’ complaint. He does not undertake any analysis to determine the amount by which consumers “overpaid” for AC+.²⁶ In fact, as he admitted during his deposition, Dr. Kaufman made no effort at all to measure

²² FAC, for instance, ¶¶ 99, 121, and 191.

²³ Reference Manual on Scientific Evidence, Federal Judicial Center, Third Edition, “Reference Guide on Estimation of Economic Damages,” p. 429.

²⁴ FAC, for instance, ¶ 73.

²⁵ Reference Manual on Scientific Evidence, Federal Judicial Center, Third Edition, “Reference Guide on Estimation of Economic Damages,” p. 429.

²⁶ FAC, ¶ 191.

the “diminished value” of AC+.²⁷ Instead, Dr. Kaufman proposes two completely different and irrelevant measures of economic harm.

22. The first measure is the difference between the retail price of brand new and remanufactured devices (the “Price Difference Method”).²⁸ Dr. Kaufman describes this as a “measure of the economic harm from [receiving a] remanufactured replacement.”²⁹

23. However, Plaintiffs do not allege that consumers were overcharged in their purchases of remanufactured *devices*, or that consumers believed they were purchasing new devices but received remanufactured devices. Instead, Plaintiffs allege that consumers were overcharged for *service plans* that in some cases provided remanufactured replacement devices.³⁰ Thus, any appropriate measure of damage in this case must be based on the price of the service plans. Although Dr. Kaufman describes this measure of economic harm as “conservatively low,”³¹ and “a lower bound to damages,”³² he offers no calculations and makes no effort to tie this measure of damages to the cost of AC+. As such, it could potentially equal or even exceed the entire cost of the service plan. This measure of harm is not tethered to Plaintiffs’ liability theory.

24. The second measure of economic harm proposed by Dr. Kaufman is a refund of the entire cost of the AC+ plan (the “Contract Rescission Method”).³³ Dr. Kaufman justifies this measure by stating that the “service plans have diminished value for customers once the customers understand” that remanufactured devices allegedly have higher “defect rates” than new devices.³⁴ However, Dr. Kaufman did not conduct any economic analysis to establish that this is an appropriate and reliable measure of damages in this case. Indeed, Dr. Kaufman

²⁷ Kaufman Deposition, pp. 192-193.

²⁸ Kaufman Report, p. 4.

²⁹ Kaufman Report, p. 4.

³⁰ FAC, ¶ 180.

³¹ Kaufman Report, p. 7.

³² Kaufman Deposition, p. 59.

³³ Kaufman Report, p. 4.

³⁴ Kaufman Report, p. 8.

admits that he has no economic justification for this measure of damages, and instead just adopted it because Plaintiffs' counsel suggested it.³⁵

25. Dr. Kaufman makes no effort to determine what the “diminished value” of AC+ would be. Instead, he proposes that damages should be measured as the entire price of the contract. That is, he *assumes* – without any analysis – that the decision to purchase AC+ was driven solely by the wish to receive a “new or equivalent to new” replacement iPhone or iPad. He does not analyze any other factors that might drive the purchase decision. He entirely ignores and does not attempt to value the other benefits provided by AC+, including the ability to receive a replacement device for an additional year at no extra charge if there is a hardware issue, coverage for accidental damage, and extended technical support. Thus, he assumes that consumers would be entitled to a full refund of the cost of AC+, regardless of how long they had the plan and regardless of the other benefits they received from the plan. Nor does he consider that, even if a remanufactured replacement device “failed,” consumers, like Plaintiffs, could receive another replacement device at no charge.³⁶ In his deposition, Dr. Kaufman admitted that he could not articulate any economic principle underlying these assumptions.³⁷

26. In addition to these fundamental issues, there are a number of other problems with Dr. Kaufman's analysis. As I describe below, Dr. Kaufman does not undertake any economic or empirical analysis to support his proposed measures of damages, and his proposals are not grounded in proper economic theory or an adequate consideration of the but-for world. Dr. Kaufman also fails to conduct independent research or consider alternative service plans, and ignores the severe implementation problems with his proposed methods.

³⁵ Kaufman Deposition, pp. 52 and 56.

³⁶ FAC, ¶¶ 85 – 121; “AppleCare+ for iPhone,” Apple.com, <https://www.apple.com/legal/sales-support/applecare/applecareplus/docs/applecareplusnaen.html>, accessed March 20, 2019.

³⁷ Kaufman Deposition, p. 188.

B. DR. KAUFMAN FAILED TO CONSIDER IMPORTANT FACTS IN THIS CASE

27. Beyond the type of replacement device provided, Dr. Kaufman does not account for other reasons that iPhone and iPad buyers would purchase AC+. AC+ has been advertised by Apple as a plan that “extends your coverage” to two years instead of one.³⁸ AC+ also offered additional coverage options such as accidental damage coverage, and benefits such as technical and software support, as described above.³⁹

28. There were also different types of service plans available to consumers during the proposed class period. For example, certain consumers who purchased their iPhones or iPads directly from Apple may have only considered whether to buy AC+. However, consumers who purchased their iPhones or iPads through a reseller such as a wireless carrier (e.g., AT&T, Verizon and others) or an electronics store (e.g., BestBuy) also had the option of purchasing the reseller’s own service plan instead.⁴⁰ Additionally, some consumers may have considered a third-party service plan such as the one offered by SquareTrade.⁴¹ The available options also changed over time. For example, some resellers such as BestBuy only

³⁸ “AppleCare+ for iPad,” Apple.com via Wayback Machine, March 8, 2012, <https://web.archive.org/web/20120308031927/http://www.apple.com/support/products/ipad.html>, accessed April 4, 2019; “AppleCare+ for iPad,” Apple.com, <https://www.apple.com/support/products/ipad.html>, accessed April 4, 2019; “AppleCare+ for iPhone,” Apple.com via Wayback Machine, October 6, 2011, <https://web.archive.org/web/20111006005402/http://www.apple.com/support/products/iphone.html>, accessed March 21, 2019.

³⁹ See for instance “AppleCare+ for iPhone,” Apple.com via Wayback Machine, October 6, 2011, <https://web.archive.org/web/20111006005402/http://www.apple.com/support/products/iphone.html>, accessed March 21, 2019.

⁴⁰ “AT&T Mobile Insurance program details,” AT&T, <https://protectioncenter.att.com/pdf/miterms.pdf>; “Long live your phone. With Total Mobile Protection,” Verizon, https://www.phoneclaim.com/verizon/pdf/ASVZW-710_TMP_WebReady_NextGen_18.pdf. These service plans were available as of 2012. See, for example, SquareTrade iPhone Warranty, SquareTrade via Wayback Machine, January 9, 2012, <https://web.archive.org/web/20120109023211/http://www.squaretrade.com/pages/iphone-landing24>, accessed April 8, 2019, which provides a comparison of various plans including BestBuy’s “Geek Squad”; “Total Equipment Coverage,” Verizon Wireless via Wayback Machine, April 13, 2012, https://web.archive.org/web/20120413103239/http://support.verizonwireless.com/clc/features/calling_features/equipment_protection.html, accessed April 8, 2019.

⁴¹ “Smartphone Protection Plan,” SquareTrade, <https://www.squaretrade.com/smartphone-warranty>, accessed March 22, 2019. This service plan was available as of 2012. See, for example, SquareTrade iPhone Warranty, SquareTrade via Wayback Machine, January 9, 2012, <https://web.archive.org/web/20120109023211/http://www.squaretrade.com/pages/iphone-landing24>, accessed April 8, 2019.

started offering AC+ in 2015.⁴² Prior to that, a consumer would have had to either purchase the reseller's service plan or separately purchase AC+ from Apple.

29. Consumers' willingness to pay for AC+ would be affected by other available service plan options, and the benefits provided under those plans, which differed depending on when and where putative class members purchased their devices. These considerations are entirely absent from Dr. Kaufman's analysis, in part because he analyzes the decision to purchase a device instead of analyzing the decision to purchase a service plan. Dr. Kaufman makes no effort to analyze whether these differences allow him to use a common measure of damages across all putative class members which, as I describe below, they do not.

30. Similarly, Dr. Kaufman does not take into account that a majority of Apple customers chose to upgrade their devices every one to two years during most of the relevant period. A 2016 survey conducted by Consumer Intelligence Research Partners, LLC showed that as of the June 2013 quarter, about two thirds of buyers of a new iPhone had upgraded their devices within less than two years.⁴³ As of the March 2016 quarter, over half of buyers of new iPhones had a prior iPhone that was less than two years old.⁴⁴

31. Additionally, the class definition includes customers of the iPhone Upgrade Program.⁴⁵ These are customers who make monthly payments and are eligible to receive a new iPhone every year. Significantly, the price for AC+ is included in the monthly payments, but Dr. Kaufman does not discuss or consider how he will address this additional complication in calculating class-wide damages.⁴⁶ Moreover, the nature of the replacement device may be less significant to these individuals, who know that they will receive a new

⁴² "Q3 2016 Best Buy Co. Inc Earnings Call – Final," CQ FD Disclosure, November 19, 2015, via Dow Jones Factiva, accessed April 5, 2019.

⁴³ "How Long Do iPhone Owners Own an iPhone?" Consumer Intelligence Research Partners, LLC, <http://files.ctctcdn.com/150f9af2201/9b9003c0-99c6-4ca2-b236-b53291f323dd.pdf>, accessed March 22, 2019.

⁴⁴ "How Long Do iPhone Owners Own an iPhone?" Consumer Intelligence Research Partners, LLC, <http://files.ctctcdn.com/150f9af2201/9b9003c0-99c6-4ca2-b236-b53291f323dd.pdf>, accessed March 22, 2019.

⁴⁵ Motion for Class Certification, p. 15.

⁴⁶ "iPhone Upgrade Program," Apple.com, <https://www.apple.com/shop/iphone/iphone-upgrade-program>, accessed March 22, 2019.

iPhone at the end of the year when they trade in their old device.⁴⁷ Dr. Kaufman does not even consider these situations or discuss why his damages models would apply equally to consumers who are so differently situated.

32. Dr. Kaufman justified his Price Difference Method as follows:

Class members who purchased new models and not remanufactured models have revealed the value difference between new and remanufactured devices is equal to or greater than the retail price difference.⁴⁸

33. Dr. Kaufman provides no basis for his assumption that the putative class members would compare or value new and “certified refurbished” devices at the time of purchase, much less that any such valuation is comparable to how they would value new and remanufactured iPhones and iPads provided under AC+. Further, Dr. Kaufman’s justification is premised on two erroneous factual assumptions. First, Dr. Kaufman assumes that, when the putative class members purchased their new iPhones or iPads, they were making a choice between a new iPhone and an Apple “certified refurbished” iPhone.⁴⁹ In fact, however, this assumption is unfounded and inconsistent with the evidence. For much of the relevant period, Apple did not sell certified refurbished iPhones at all. Moreover, Apple did not sell certified refurbished iPhones in its retail stores, only online.⁵⁰

34. Furthermore, many iPhones and iPads are sold by resellers such as electronics stores (e.g., BestBuy), mass merchandise stores (e.g., Target), and wireless carriers (e.g., AT&T and Verizon).⁵¹ Consumers purchasing the devices at those stores did not have the option of purchasing an Apple “certified refurbished” device. Thus, the “choice” on which Dr. Kaufman bases his justification was not, in fact, available to most of the putative class members. Moreover, Dr. Kaufman provides no basis for his assumption that the price that

⁴⁷ “iPhone Upgrade Program,” Apple.com, <https://www.apple.com/shop/iphone/iphone-upgrade-program>, accessed March 22, 2019.

⁴⁸ Kaufman Report, p. 7.

⁴⁹ Kaufman Report, p. 7.

⁵⁰ “Apple Certified Refurbished,” Apple.com via Wayback Machine, November 9, 2016, <https://web.archive.org/web/20161109155412/http://www.apple.com/shop/browse/home/specialdeals>, accessed April 8, 2019.

⁵¹ “Apple Stores See Shrinking Share of iPhone Sales,” *The Wall Street Journal*, April 8, 2016, <https://www.wsj.com/articles/apple-stores-see-shrinking-share-of-iphone-sales-1460126178>, accessed March 27, 2019.

consumers are willing to pay when they purchase a new iPhone or iPad reflects their preferences and willingness to pay in purchasing a service plan.⁵² Second, the prices that Dr. Kaufman uses in his Price Difference Method for new iPhones are not the prices that many of the putative class members actually paid. For many years, consumers generally purchased iPhones with a carrier plan at a discounted “bundled” price, not the “unlocked” or “unbundled” prices that Dr. Kaufman considers. These plans were available until approximately January of 2017, when Verizon became the last major wireless carrier to end them.⁵³ Table 1 below presents a few examples of these price differences.

Table 1: Differences between “unlocked” prices and prices with a two-year contract⁵⁴

iPhone Model	Price with Two-Year Contract	“Unlocked” Price
iPhone 5s (16 GB)	\$199	\$649
iPhone 5s (32 GB)	\$299	\$749
iPhone 5s (64 GB)	\$399	\$849
iPhone 6 (16 GB)	\$199	\$649
iPhone 6 (64 GB)	\$299	\$749
iPhone 6 (128 GB)	\$399	\$849
iPhone 6 Plus (16 GB)	\$299	\$749
iPhone 6 Plus (64 GB)	\$399	\$849
iPhone 6 Plus (128 GB)	\$499	\$949

35. Dr. Kaufman’s suggested use of “unlocked” prices is inappropriate, especially in light of his admission that some consumers may have only considered bundled prices and his

⁵² Kaufman Report, p. 7.

⁵³ “Verizon Finally Kills Subsidized Phone Deals,” *Fortune*, January 9, 2017, <http://fortune.com/2017/01/09/verizon-subsidized-phones/>, accessed April 2, 2019.

⁵⁴ “Shop iPhone,” Apple Store via Wayback Machine, September 21, 2013, <https://web.archive.org/web/20130921080845/http://store.apple.com/us/buy-iphone/iphone5s>, accessed April 8, 2019; “iPhone 6,” Apple Store via Wayback Machine, September 20, 2014, <https://web.archive.org/web/20140920141034/http://store.apple.com/us/buy-iphone/iphone6>, accessed April 8, 2019.

further admission that, in such instances, the bundled prices would be the only prices relevant to assessing those consumers' willingness to pay for the device.⁵⁵

36. The full “unlocked” prices that Dr. Kaufman proposes to use are also an incorrect basis for damages calculations because consumers often received discounts when purchasing their iPhones. Both Apple and wireless carriers offered consumers store credit for turning in their older iPhone models.⁵⁶ For instance, when the iPhone 6 was released Verizon established a program under which customers could trade in an iPhone 4, 4s, 5, or 5c (provided that it was in “good working condition”) for a \$200 store credit, and customers could trade in an iPhone 5s for a \$300 store credit.⁵⁷ Currently, when purchasing an iPhone XS directly from Apple, the trade-in value for an iPhone ranges from \$30 for an iPhone 5 to \$500 for an iPhone X. If a purchaser trades in an iPhone X, for example, the price for the iPhone XS (64 GB) is \$499, whereas the price without trading in an iPhone is \$999.⁵⁸ Other retailers also offered discounts on iPhones. For example, when the iPhone 6 was released, Walmart offered it at \$179 with a two-year contract plus a \$15 gift card for launch pre-orders of iPhones, a full \$35 lower than Apple or wireless carriers.⁵⁹

37. Dr. Kaufman also fails to consider the role of repairs in the context of AC+. He appears to make the assumption that, in the event of accidental damage or a hardware defect, Plaintiffs were certain to receive a replacement. In reality, the terms and conditions of AC+ specify that, as appropriate, Apple will either repair the customer's device or provide a replacement.⁶⁰ Dr. Kaufman fails to consider how this may affect consumers' expectations and their valuations of the service plans.

⁵⁵ Kaufman Deposition, pp. 162 – 163.

⁵⁶ “Apple GiveBack,” Apple.com, <https://www.apple.com/shop/trade-in>, accessed April 6, 2019.

⁵⁷ “Verizon Wireless to Offer iPhone 6 and iPhone 6 Plus on America's Largest 4G LTE Network Beginning September 19,” Verizon Newsroom, September 11, 2014, <http://www.verizon.com/about/news/vzw/2014/09/verizon-wireless-to-offer-iphone-6-and-iphone-6-plus-on-americas-largest-4g-lte-network-beginning-september-19>, accessed April 4, 2019.

⁵⁸ “Buy iPhone XS,” Apple.com, <https://www.apple.com/shop/buy-iphone/iphone-xs>, accessed April 6, 2019.

⁵⁹ “The iPhone 6 Hasn't Even Launched Yet, But Walmart Is Already Cutting Its Price,” Business Insider, September 11, 2014, <http://www.businessinsider.com/iphone-6-price-walmart-20-2014-9>, accessed April 4, 2019.

⁶⁰ “AppleCare+ for iPhone,” Apple.com, <https://www.apple.com/legal/sales-support/applecare/applecareplus/docs/applecareplusnaen.html>, accessed March 20, 2019.

38. Additionally, Dr. Kaufman acknowledged that he did not review any materials related to Plaintiffs Vicky Maldonado and Justin Carter.⁶¹ He did not review their depositions or the exhibits to those depositions.⁶² For this reason, as well, his damages analysis appears entirely untethered from the facts of the case.

C. DR. KAUFMAN’S METHOD ASSUMES AWAY ALL DIFFERENCES AMONG PUTATIVE CLASS MEMBERS

39. Even if one were to assume that Dr. Kaufman’s “Price Difference Method” employs a relevant measure of damages, Dr. Kaufman also failed to conduct any analysis demonstrating that his method can accommodate the numerous differences that exist among the putative class members, and whether his method is suitable to estimate damages on a class-wide basis.

40. First, Dr. Kaufman’s method ignores any potential differences among putative class members on how they understood the AC+ plans they purchased. He did not investigate which key factors – out of the various plans’ features – drive consumers’ demand for service plans. Dr. Kaufman’s method further ignores any differences in how the putative class members may interpret an alternative disclosure on the characteristics of replacement devices, and what effect (if any) that alternative disclosure would have on the consumer’s decision to purchase a service plan.

D. DR. KAUFMAN’S REPORT INCLUDES NO EMPIRICAL ANALYSIS

41. Dr. Kaufman does no empirical work to support his analysis. For example, he does not undertake a survey to study whether Plaintiffs’ preferred description for remanufactured replacement devices would have had any impact on the putative class members’ desire to purchase AC+.⁶³ Nor does he undertake a survey or any other empirical analysis to determine the difference in the value of a service plan that supplies only new replacement devices versus the value of a service plan that supplies both new and remanufactured replacement devices. He does not undertake any empirical analysis to

⁶¹ Kaufman Deposition, pp. 33 – 34.

⁶² *Ibid.*

⁶³ Kaufman Deposition, pp. 140 – 141.

compare the value of a plan that provides Apple remanufactured devices rather than remanufactured devices not made by Apple.⁶⁴

42. Dr. Kaufman acknowledged that he has not done “an actual damages calculation” and that he “did not ask counsel for any data ... because [he] was not asked to do any calculations.”⁶⁵ His report proposes two alternative measures of economic harm but he fails to show that either one of these measures is economically appropriate and is tied to the facts of the case. As I describe below, he has also failed to sufficiently show that these measures can be implemented.

E. DR. KAUFMAN’S IMPROPERLY ASSUMES “NEW” AND “EQUIVALENT TO NEW IN PERFORMANCE AND RELIABILITY” ARE THE SAME CONCEPT

43. As described above, the AC+ terms and conditions specify that the replacement device will be “new or equivalent to new in performance and reliability.”⁶⁶ Dr. Kaufman conceded during his deposition that there is a difference between the terms “new” and “equivalent to new in performance and reliability.”⁶⁷ He also acknowledged that Apple did not “promise consumers brand-new devices.”⁶⁸ He makes no such distinction between these two terms, however, in his report. Even though AC+ does not include a “promise” of a new replacement device, Dr. Kaufman purports to measure damage as the difference in price between new and remanufactured devices. He did not offer a survey or any other empirical analysis to support his assumption that consumers would understand a device that is described as “equivalent to new in performance and reliability” to be the same as a brand-new device. Dr. Kaufman merely speculates about how a reasonable consumer would have understood the language in the terms and conditions.⁶⁹ This failure alone renders all of Dr. Kaufman’s conclusions unreliable and without basis.

⁶⁴ *Ibid.*

⁶⁵ Kaufman Deposition, pp. 38 - 39.

⁶⁶ “AppleCare+ for iPhone,” Apple.com, <https://www.apple.com/legal/sales-support/applecare/applecareplus/docs/applecareplusnaen.html>, accessed March 20, 2019.

⁶⁷ Kaufman Deposition, p. 152.

⁶⁸ Kaufman Deposition, p. 152.

⁶⁹ Kaufman Deposition, p. 165.

44. Dr. Kaufman assumes “that ‘equivalent to new’ means equivalent in value.”⁷⁰ In other words, he assumes that an iPhone or iPad that has “equivalent performance characteristics” would have the same value to consumers as a new iPhone or iPad.⁷¹ He cites no basis for this assumption, other than explaining his view “as a personal consumer.”⁷² Once again, Dr. Kaufman fails to undertake any economic or empirical analysis to determine the impact of consumer perceptions on their valuation of different types of device replacements.

F. THE PEER-REVIEWED ARTICLES THAT DR. KAUFMAN RELIES UPON ARE NOT RELEVANT TO THE FACTS OF THIS CASE

45. Rather than doing any empirical analysis or independent research, Dr. Kaufman cites literature that is irrelevant to the issues in the case. The articles that Dr. Kaufman cites relate to the decision to purchase a product, not a service plan, and they do not consider replacement devices.⁷³

46. Dr. Kaufman cites articles for the broad proposition that consumers’ willingness to pay for remanufactured devices is lower than their willingness to pay for brand new devices. But as Dr. Kaufman conceded, he did not review any articles that considered iPhones or iPads remanufactured by Apple using Apple’s manufacturing process.⁷⁴ Two of the four articles rely on data collected from eBay, and are based on sales of iPhones remanufactured by third parties, not Apple. Dr. Kaufman conceded that this may have an impact on consumers’ willingness to pay.⁷⁵ Further, one of the articles cited by Dr. Kaufman indicates that consumers perceive devices remanufactured by a third-party as less valuable

⁷⁰ Kaufman Deposition, p. 167.

⁷¹ Kaufman Deposition, p. 167.

⁷² Kaufman Deposition, p. 167.

⁷³ “The articles were not with respect to replacement from the devices ... they’re not thinking in the context of replacement units.” Kaufman Deposition, pp. 115 – 116.

⁷⁴ Kaufman Deposition, p. 126.

⁷⁵ Zhou, Liangchuan, and Surendra M. Gupta. "Marketing research and life cycle pricing strategies for new and remanufactured products." *Journal of Remanufacturing* (2018): 1-22; Guide, Daniel R. and Jiayi Li, “The Potential for Cannibalization of New Products Sales by Remanufactured Products,” *Decision Sciences* 41 (2010): 547-572. See also Kaufman Deposition, pp. 116 - 117, 147 - 150.

than devices remanufactured by the manufacturer.⁷⁶ Dr. Kaufman failed to demonstrate that the conclusions in the cited articles are relevant and can be extrapolated to the facts of this case.

G. DR. KAUFMAN FAILS TO CONSIDER ALTERNATIVE SERVICE PLANS

47. It is a fundamental tenet of economics that consumer choice depends on alternatives offered to consumers at the time of the purchase decision.⁷⁷ Consumers' willingness to purchase a service plan and the resulting market price for that plan is dependent on the other plans available to consumers at the time they are considering buying a service plan. Thus, alternative service plans are a highly relevant basis of comparison to determine the economic harm, if any, resulting from Plaintiffs' allegations. Dr. Kaufman failed to consider information from other service plans (including price and plan features) to examine competing offerings as an indication of what consumers would likely expect from a service plan. Dr. Kaufman does not compare AC+ with alternative service plans. Additionally, he does not assess how alternative service plans describe the replacement phones they provide. By failing to analyze those alternatives, Dr. Kaufman's method cannot shed light on the correct measure of harm or the value of the service plan in the but-for world. Alternative service plans are an important consideration when analyzing the amount Plaintiffs and the putative class members allegedly "overpaid" for AC+. A review of those plans would indicate whether consumers would actually have paid less for AC+ in the but-for world. Similarly, by failing to consider alternative plans, Dr. Kaufman ignores highly relevant data regarding whether the putative class members would have received different or more valuable devices in the "but-for" world.

48. I have reviewed information from several alternative service plans, including service plans offered by mobile carriers such as AT&T and T-Mobile, as well as insurance companies such as SquareTrade. My review indicates that service plans that expressly

⁷⁶ Zhou, Liangchuan, and Surendra M. Gupta, "Marketing research and life cycle pricing strategies for new and remanufactured products," *Journal of Remanufacturing* (2018), p.18.

⁷⁷ Rubinstein, Ariel, *Lecture Notes in Microeconomic Theory: The Economic Agent*, (Princeton University Press: 2012), p. 24; Train, Kenneth, *Discrete Choice Methods with Simulation*, (Cambridge University Press: 2009), p. 3; McFadden, Daniel L., *Conditional Logit Analysis of Qualitative Choice Behavior*, (New York: Academic Press, 1973), pp. 105 – 142.

disclosed, for example, that replacement devices may contain used parts, or that devices would be “reconditioned” or “refurbished,” were priced comparably to AC+.

49. Service plans that are alternatives to AC+ typically do not guarantee brand-new replacements. For example, AT&T notes in its Mobile Insurance Terms and Conditions that “[r]epairs may use new or refurbished parts; may contain original or non-original manufacturer parts.”⁷⁸ Similarly, Sprint’s terms provide that the replacement equipment “may be a new or refurbished device and/or a comparable model.”⁷⁹ In fact, among the alternative service plans that I have reviewed, only Esurance guarantees that it will replace iPhones using “new, never refurbished” devices.⁸⁰ However, Esurance applies much higher service charges. For example, for an iPhone XS (the most recent model), Esurance charges \$189 for Accidental Damage for Handling (which assumes the device will be repaired, not replaced) and \$399 for replacement.⁸¹ Note that Esurance applies this high replacement service charge even when it is caused by a hardware issue. This is in contrast with AC+, where for iPhone XS, replacements due to hardware defects incur no fee, incidents related to screen damage are subject to a \$29 service fee, and any other accidental damage is subject to a \$99 service fee.⁸² Esurance also limits replacements to one per year.

50. The price of AC+ is comparable to alternative service plans that are available in the market and which also do not guarantee new replacements. For the alternative plans that I have reviewed, based on ownership of an iPhone XS (the most recent model), plan prices range from \$169 to \$456 for a full two-year coverage period. AC+ is priced at \$199, which is on the lower end of the range.⁸³ Additionally, AC+ offers lower service fees per incident than most other plans. For example, Sprint’s own comparison between the coverage it offers

⁷⁸ “Welcome to AT&T Mobile Insurance,” <https://protectioncenter.att.com/pdf/miterms.pdf>, accessed March 22, 2019.

⁷⁹ “Sprint Complete Equipment Replacement Insurance Program (ERP),” https://www.phoneclaim.com/sprint/pdf/Jan_2019_Sprint_Deductible_and_Repair_Schedule.pdf?v=20190114121837, accessed March 21, 2019.

⁸⁰ “iPhone Coverage Summary,” <https://www.esurance.com/content/Esurance.com%20iPhone%20Declarations%20Page-2018.1.pdf>, accessed March 21, 2019.

⁸¹ “iPhone Coverage Summary,” <https://www.esurance.com/content/Esurance.com%20iPhone%20Declarations%20Page-2018.1.pdf>, accessed March 21, 2019.

⁸² “AppleCare+ Plans for iPhone,” Apple.com, <https://www.apple.com/support/products/iphone.html>, accessed April 5, 2019.

⁸³ Although some of these plans also include theft and loss coverage, which the standard AC+ service plan does not, they also have higher service fees for claims, including claims related to hardware issues that AC+ would cover at no extra charge.

and AC+ shows that the latter has lower amounts for device replacements, screen repairs, and other repairs.⁸⁴

51. Further, AC+ charges no fee for hardware repairs or replacements due to hardware “defect[s] in materials and workmanship.”⁸⁵ In contrast, most of the alternative service plans either do not cover defects in materials and workmanship or count them as claims that are subject to a deductible. For instance, SquareTrade’s smartphone warranty lists “[d]efects in materials or workmanship” together with “Accidental Damage from Handling” as one of the claims that the warranty covers,⁸⁶ and charges a “\$149 deductible for all claims and all devices.”⁸⁷

52. Additionally, AC+ offers technical and software support for no additional charge.⁸⁸ In contrast, many of the alternative service plans I have reviewed do not offer technical or software support.⁸⁹

H. DR. KAUFMAN’S RESCISSION ARGUMENT LACKS ECONOMIC BASIS

53. Dr. Kaufman testified that Plaintiffs’ counsel informed him about the concept of contract rescission, and acknowledged that he “was not familiar with that concept prior to the discussions with attorneys.”⁹⁰ The only independent work that Dr. Kaufman appears to have

⁸⁴ Under Asurion (Sprint’s third-party insurance company) administration, service charges for screen repair, device repair and device replacement are \$29, \$140 and \$275 respectively. Under “AppleCare Service” administration, the corresponding service charges are \$29, \$99 and \$99. “Sprint Complete Equipment Replacement Insurance Program (ERP),” https://www.phoneclaim.com/sprint/pdf/Jan_2019_Sprint_Deductible_and_Repair_Schedule.pdf?v=20190114121837, (accessed March 21, 2019).

⁸⁵ “AppleCare+ for iPhone,” Apple.com, <https://www.apple.com/legal/sales-support/applecare/applecareplus/docs/applecareplusnaen.html>, accessed March 21, 2019.

⁸⁶ “Terms & Conditions,” SquareTrade website, <https://www.squaretrade.com/terms-standard>, accessed April 4, 2019.

⁸⁷ “Smartphone Protection Plan,” <https://www.squaretrade.com/smartphone-warranty>, accessed March 22, 2019. Additionally, see “Total Equipment Coverage, Wireless Phone Protection and Extended Warranty Overview,” Verizon Wireless, <https://www.verizonwireless.com/support/tec-wpp-ew-overview/>, accessed April 6, 2019.

⁸⁸ “AppleCare+ for iPhone”, Apple, <https://www.apple.com/legal/sales-support/applecare/applecareplus/docs/applecareplusnaen.html>, accessed March 21, 2019.

⁸⁹ For example, SquareTrade’s Terms and Conditions do not mention any technical or software support. See “Terms & Conditions,” SquareTrade website, <https://www.squaretrade.com/terms-standard>, accessed April 4, 2019. Additionally, Verizon charges an additional \$4 for technical support, i.e. Verizon Tech Coach, to its Total Equipment Coverage Plan: “Total Equipment Coverage Plan,” <https://www.verizonwireless.com/support/tec-wpp-ew-overview/>, and “Total Mobile Protection,” https://www.phoneclaim.com/verizon/pdf/ASVZW-710_TMP_WebReady_NextGen_18.pdf, accessed April 6, 2019.

⁹⁰ Kaufman Deposition, pp. 51 – 52.

done is to look up the definition of “rescission” online and do some “high level” Internet research. Dr. Kaufman did not save any of that research.⁹¹ He also states that “[b]eyond the existence of a breach of contract, I’m not familiar with what factors would be required to apply the remedy of a rescission,” and that he relied on counsel for the idea that “rescission would be an available remedy in this case.”⁹² He did not do any economic analysis or empirical research of any kind in connection with his proposed “rescission” measure of damages.

54. Dr. Kaufman provides no economic basis for rescission of the entire plan price based on the single aspect of the AC+ plan that the putative class members received remanufactured devices. Dr. Kaufman does not take into account any of the other services and benefits that AC+ provides. These include free replacement of an iPhone or iPad that requires replacement due to hardware issues, repairs, technical support, software support, and accidental damage coverage.⁹³ Notably, whether with a new or remanufactured device, replacements provide significant benefits, including eliminating the need to make an immediate decision on how to replace a broken or malfunctioning iPhone or iPad or to purchase a brand new iPhone or iPad.

55. As part of his rescission remedy, Dr. Kaufman also proposes future damages for individuals whose service plans have not yet expired.⁹⁴ This would be based on a probabilistic calculation that would include individuals who have not yet received a remanufactured replacement. He explains that he would calculate an “expected value of your future damages” based on the “length of the remaining time” in the contract.⁹⁵ The longer the remaining time in the contract, the higher the damages.⁹⁶ In other words, his measure of damages assumes that an individual is eligible for damages *now* purely based on the

⁹¹ Kaufman Deposition, pp. 53 - 54.

⁹² Kaufman Deposition, pp. 56 - 57.

⁹³ "AppleCare+ for iPhone", Apple, <https://www.apple.com/legal/sales-support/applecare/applecareplus/docs/applecareplusnaen.html>, accessed March 21, 2019.

⁹⁴ Kaufman Report, p. 7.

⁹⁵ Kaufman Deposition, p. 61.

⁹⁶ Kaufman Deposition, p. 61.

possibility that the individual may experience the alleged harm *on a future date*, even though many of these individuals will *never* experience such alleged harm.⁹⁷

56. Dr. Kaufman admitted that he has not developed any actual model for calculating future damages,⁹⁸ and noted that it's "likely that it would rely on historical data."⁹⁹ Any estimation of future damages based on the sort of calculation proposed by Dr. Kaufman would be entirely speculative. For example, the mix of remanufactured and new replacements that Apple may use as service units in the future is unknown. Dr. Kaufman acknowledges this fact.¹⁰⁰

57. Future damages, even if they could be measured with any degree of reliability, are inconsistent with the definition of the proposed class, which is limited to consumers who *received* a remanufactured device.¹⁰¹

I. DR. KAUFMAN'S MEASURES OF HARM ARE FATALLY FLAWED AND CANNOT BE IMPLEMENTED

58. Just as Dr. Kaufman's damages measures are untethered from the facts of the case, they are also untethered from the data that he would require to implement them. His damages measures offer almost no implementation detail, rely on data that do not exist, and are fraught with errors.

59. For his "Price Difference Method," Dr. Kaufman suggests that he would use prices for Apple "certified refurbished" iPhones and iPads as an estimate of the price of remanufactured iPhones and iPads provided under AC+. He would compare these prices with the prices for new iPads and iPhones as the measure of his estimate of damages.¹⁰² As discussed above, however, the putative class members bought service plans, not devices. Dr. Kaufman provides no basis for his assumption that the putative class members would

⁹⁷ Kaufman Deposition, pp. 65, 66, 70, and 71.

⁹⁸ "For the context of this report, I have not developed any probabilities." Kaufman Deposition, p. 67.

⁹⁹ Kaufman Deposition, p. 73.

¹⁰⁰ Kaufman Deposition, pp. 77-78.

¹⁰¹ Motion for Class Certification.

¹⁰² Kaufman Report, pp. 6 and 9.

compare or value new and “certified refurbished” devices at the time of purchase, much less that any such valuation is comparable to how they would value new and remanufactured iPhones provided under AC+. Even if data about the purchase of “certified refurbished” devices were relevant, Dr. Kaufman ignores the fact that the data are not available. He asserts that these prices “can be obtained from Apple’s retail website, archives of Apples retail website, and other historical records documenting Apple’s retail prices.”¹⁰³ He lacks support for these assertions. Apple did not start selling certified refurbished iPhones until November 2016.¹⁰⁴ Dr. Kaufman appears unaware of this; he testified that he did not know whether or not Apple had always sold certified refurbished phones.¹⁰⁵

60. Additionally, Apple typically does not sell certified refurbished units of the most recent models. For example, as of April 8, 2019, Apple does not offer certified refurbished units of its most recent iPhone models, the iPhone XR and the iPhone XS.¹⁰⁶ For other models, Apple may not have sold both new and certified refurbished models (or models with the relevant configuration) at the time when some putative class members received the remanufactured replacement.

61. Again, even leaving aside that the comparison is not relevant or appropriate, Dr. Kaufman does not offer a strategy to determine the price of a remanufactured device where no equivalent Apple certified refurbished model of the same configuration was available for sale at the time the putative class member received a replacement under AC+. During his deposition, Dr. Kaufman speculated that he may be able to develop a pricing model based on extrapolation, but conceded that he had not developed, presented, or discussed such a model in his report and that he did not have data or analysis to support such a model.¹⁰⁷ Dr. Kaufman has not formulated such a model, nor has he determined what

¹⁰³ Kaufman Report, p. 9.

¹⁰⁴ “Apple Certified Refurbished,” Apple.com via Wayback Machine, November 9, 2016, <https://web.archive.org/web/20161109155412/http://www.apple.com/shop/browse/home/specialdeals>, accessed April 8, 2019.

¹⁰⁵ Kaufman Deposition, p. 157.

¹⁰⁶ “Refurbished iPhone,” Apple.com, <https://www.apple.com/shop/refurbished/iphone>, accessed April 8, 2019.

¹⁰⁷ Kaufman Deposition, p. 159.

variables would be included. He has provided no basis that such extrapolation can be performed with any degree of reliability.

62. Moreover, as described above, Dr. Kaufman's "Price Difference Method" is also flawed with respect to new iPhones because he improperly uses "unlocked" prices. In fact, for a significant portion of the class period, most iPhones were bought under cellular carrier contracts at lower prices than unlocked prices. Furthermore, various other discounts applied, depending on where the device was purchased.

63. Additionally, the proposed class includes customers of the iPhone Upgrade Program. Significantly, AC+ is included in the monthly payments for this program.¹⁰⁸ Dr. Kaufman does not discuss or consider how he will determine the AC+ plan price for these putative class members or how he will address this additional complication in calculating class-wide damages.

64. Dr. Kaufman also has not considered the implementation issues in his rescission model. For example, when asked whether Plaintiffs would be "required to return the service units they had received" as part of the "Contract Rescission Method," Dr. Kaufman simply replied that he "had not thought about that," that he had not considered it when he drafted the report, and that it "[s]eems likely that that would be required to unwind the contract."¹⁰⁹ Nor had he considered how other benefits received by putative class members under AC+ would be valued or accounted for in "unwinding" the contracts.

J. DR. KAUFMAN'S SUGGESTION TO ALLOW PLAINTIFFS TO CHOOSE BETWEEN BOTH OF HIS MEASURES OF HARM IS NON-SENSICAL AND UNREALISTIC

65. Dr. Kaufman argues that both the Price Difference Method and the Contract Rescission Method should be made available to Plaintiffs so that they can "self-select the remedy that best fits their situation."¹¹⁰ This implies that two putative class members would

¹⁰⁸ "iPhone Upgrade Program," Apple.com, <https://www.apple.com/shop/iphone/iphone-upgrade-program>, accessed March 22, 2019.

¹⁰⁹ Kaufman Deposition, pp. 54 - 55.

¹¹⁰ Kaufman Report, p. 8.

have damages computed using “different” methodologies. That is contrary to the whole notion of a “class.”

66. Furthermore, Dr. Kaufman’s suggestion that different putative class members would choose a different remedy suggests there is inherent conflict within the class, where a common treatment does not apply to all putative class members.

67. A compensation plan that allows putative class members to choose between a rebate or a full rescission does not make economic sense. Damages are supposed to compensate for harm, not offer a profit-maximizing opportunity. Yet Dr. Kaufman’s proposal separates harm from damages. In particular, putative class members who are near the end of their AC+ plan are more likely to request rescission as the value of continued coverage is low when little time is left on the plan. In contrast, a putative class member who is at the beginning of the plan is more likely to request a rebate while receiving continued coverage. But the choice of damages would not be tied to the harm experienced by these differently-situated members. Indeed, for a putative class member whose service plan is about to expire without ever having been used, no harm occurred. Therefore, damages would (i) differ between putative class members in methodology, something that is contrary to the whole notion of a class, (ii) differ systematically between subsets of customers in the proposed class, creating intraclass conflict, and (iii) not reflect or be limited to actual harm experienced by the putative class members.



Alan J. Cox
April 8, 2019

Alan J. Cox
Managing Director

National Economic Research Associates, Inc.
4 Embarcadero Center
San Francisco, California 94111-4156
+1 415 291 1000 Fax +1 415 291 1020
Direct Dial: +1 415 291-1009
alan.cox@nera.com
www.nera.com

Alan J. Cox **Managing Director**

Education

University of California, Berkeley

Ph.D., Business Administration, Economic Analysis and Policy Program, 1989
Major Fields: Industrial Organization, Finance, Econometrics

University of British Columbia

M.A., Economics, 1978

York University, Toronto

B.S., Environmental Science, 1976

Professional Experience

2019-	NERA Economic Consulting Managing Director
2016-2018	Chair of NERA's Global Intellectual Property Practice
2001-2016	Managing Director/Senior Vice President
1998-2001	Vice President
1994-1998	Senior Consultant
1988-1989	Senior Analyst
	Law & Economics Consulting Group, Inc.
1989-1994	Vice President and Senior Economist
	University of California, Berkeley
1983-1989	Research Assistant.

1985-1986 **Minimax Research Corporation**
Economist

1978-1981 **Massachusetts Institute of Technology**
Visiting Economist

1978 **University of British Columbia**
Research Associate

1975 **Geological Survey of Canada**
Field Party Leader, Western Arctic

Teaching Experience

1994-1995 **St. Mary's College of California**
Visiting Lecturer, Graduate School of Management
Taught Industrial Structure and Competitive Strategy.

1989 **Northeastern University**
Adjunct Lecturer, Graduate School of Management
Taught Managerial Economics.

1984-1985 **University of California, Berkeley**
Teaching Assistant
Taught Intermediate Microeconomics.

Honors

16th Annual Telecommunications Policy Research Conference, Finalist, Graduate Student Paper Contest, 1988

Ph.D. Fellowship, Social Sciences and Humanities Research Council of Canada, 1981

Special M.A. Fellowship, Social Sciences and Humanities Research Council of Canada, 1976

Tina and Maurice Wagner Foundation Fellowship, University of British Columbia, 1976

York University In-Course Scholarship, 1975

Expert Testimony, Affidavits, and Reports

(Clients underlined)

Ivan and Melanie Kail, Barry Garfinkel, Frederick Sharp v. Wolf Appliance, United States District Court for the Eastern District of New York.

Expert Rebuttal Report dated March 7, 2019 on behalf of defendant, Wolf Appliance, Inc. Expert rebuttal of proposed damages methodology regarding Wolf ovens in the U.S.

FOX Factory, Inc., v. SRAM, LLC, and Sandleford Limited, U.S.D.C. for the District of Colorado Case Nos. 1:18-cv-00127-WJM-NYW and 1:18-cv-00130-WJM-NYW. Filed October 11, 2017. *Rebuttal Report* dated January 25, 2019 on behalf of defendants, SRAM, LLC and Sandleford Limited regarding purported reasonable royalty damages experienced by FOX, if any, from the alleged patent infringements by defendants.

Cypress Insurance Company, as subrogee of Microsoft Corporation, v. SK hynix America, Inc., USDC, for the Western District of Washington at Seattle Case No. 2:17-cv-00467-RAJ. Filed March 23, 2017.

Trial testimony on March 19, 2019, *Deposition* on October 10, 2018, *Rebuttal Expert Report* dated September 25, 2018, *Initial Expert Report* dated September 4, 2018 regarding economic issues related to a supply agreement for DRAM chips between SK hynix America and Microsoft Corporation.

TC Technology LLC v. Sprint Corporation and Sprint Spectrum, L.P., USDC for the District of Delaware Case No. 1:16-cv-00153-UNA. Filed March 10, 2016.

Deposition November 20, 2018, *Expert Rebuttal Report* dated October 22, 2018 regarding economic issues regarding purported reasonable royalty damages.

ZF Micro Devices, Inc., et al. v. TAT Capital Partners, LTD., etc., et al., Santa Clara County Superior Court Case No. 1-09-CV 134970, Filed February 17, 2009.

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