

1 Richard M. Heimann (State Bar No. 63607)
 Kelly M. Dermody (State Bar No. 171716)
 2 Eric B. Fastiff (State Bar No. 182260)
 Brendan P. Glackin (State Bar No. 199643)
 3 Dean M. Harvey (State Bar No. 250298)
 Anne B. Shaver (State Bar No. 255928)
 4 Lisa J. Cisneros (State Bar No. 251473)
 LIEFF CABRASER HEIMANN & BERNSTEIN, LLP
 5 275 Battery Street, 29th Floor
 San Francisco, California 94111-3339
 6 Telephone: (415) 956-1000
 Facsimile: (415) 956-1008
 7

8 Joseph R. Saveri (State Bar No. 130064)
 Lisa J. Leebove (State Bar No. 186705)
 James G. Dallal (State Bar No. 277826)
 9 JOSEPH SAVERI LAW FIRM
 505 Montgomery Street, Suite 625
 10 San Francisco, California 94111
 Telephone: (415) 500-6800
 11 Facsimile: (415) 395-9940

12 *Co-Lead Class Counsel*

13 [Additional counsel listed on signature page]

14 UNITED STATES DISTRICT COURT
 15 NORTHERN DISTRICT OF CALIFORNIA
 16 SAN JOSE DIVISION
 17

18 IN RE: HIGH-TECH EMPLOYEE
 19 ANTITRUST LITIGATION
 20 THIS DOCUMENT RELATES TO:
 21 ALL ACTIONS
 22
 23
 24

Master Docket No. 11-CV-2509-LHK

**PLAINTIFFS' REPLY IN SUPPORT OF
 SUPPLEMENTAL CLASS
 CERTIFICATION MOTION**

Date: August 8, 2013
 Time: 1:30 pm
 Courtroom: 8, 4th Floor
 Judge: Honorable Lucy H. Koh

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

TABLE OF CONTENTS

	Page
INTRODUCTION	1
ARGUMENT	4
I. Dr. Leamer Has Provided The Confirmation Requested By The Court	4
A. Defendants’ Attack on Averaging Misreads Relevant Caselaw	5
B. It is Irrelevant that Defendants Do Not Pay Employees in “Lockstep”	7
C. Dr. Leamer’s Regressions Do Not Suffer from Any “Fallacies”	9
II. Defendants Concede Dr. Hallock’s Empirical Study and Dr. Shaw Ignores the Evidence and the Data That Disprove Her Unsupported Assumptions	11
III. The Damages Regression Continues to be a Plausible Method of Proving Damages	14
CONCLUSION	15

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

TABLE OF AUTHORITIES

Page

Cases

City of Tuscaloosa v. Harcros Chems.,
158 F.3d 548 (11th Cir. 1998)..... 15

Comcast Corp. v. Behrend,
133 S.Ct. 1426 (2013) 14, 15

In re Cardizem CD Antitrust Litig.,
200 F.R.D. 297 (E.D. Mich. 2001) 14

In re Flat Glass Antitrust Litig.,
191 F.R.D. 472 (W.D. Pa. 1999)..... 15

In re Graphics Processing Units Antitrust Litig.,
253 F.R.D. 478 (N.D. Cal. 2008)..... 6

In re TFT-LCD Antitrust Litig.,
267 F.R.D. 291 (N.D. Cal. 2010)..... 6

In re Urethane Antitrust Litig.,
No. 04-1616, 2013 U.S. Dist. LEXIS 69784
(D. Kan. May 15, 2013) 15

J. Truett Payne Co. v. Chrysler Motors Corp.,
451 U.S. 557 (1981)..... 15

Johnson Elec. N. Am. Inc. v. Mabuchi Motor Am. Corp.,
103 F. Supp. 2d 268 (S.D.N.Y. 2000)..... 15

Kohen v. Pac. Inv. Mgmt. Co.,
571 F.3d 672 (7th Cir. 2009)..... 2, 7

Messner v. Northshore Univ. Health Systems,
669 F.3d 802 (7th Cir. 2012)..... 7

Reed v. Advocate Health Care,
268 F.R.D. 573 (N.D. Ill. 2009)..... 7

Treatises

NEWBERG ON CLASS ACTION (3rd Ed. 1992),
§ 10.05..... 15

Other Authorities

Schaffner, “Specious Learning About Reward and Punishment”,
J. of Personality & Social Psych. (1985)..... 10

Table of Abbreviations¹

1

2 Order Granting in Part, Denying in Part Motion for Class Certification [Dkt.382] Order ___

3 Plaintiffs’ Motion for Class Certification [Dkt. 187]..... Mot. ___

4 Plaintiffs’ Reply In Support of Class Certification [Dkt. 247] Reply Mot. ___

5 Plaintiffs’ Supplemental Motion and Brief in Support of Class Certification [Dkt. 418]
 6 Supp. Mot. ___

7 Defendants’ Opposition to Plaintiffs’ Supplemental Motion for Class Certification [Dkt. 439]
 8 Opp. ___

9 Expert Report of Edward E. Leamer, Ph.D. [Dkt. 190]..... Leamer I ¶ ___

10 Reply Expert Report of Edward E. Leamer, Ph.D. [Dkt. 246] Leamer II ¶ ___

11 Supplemental Expert Report of Edward E. Leamer, Ph.D. [Dkt.418-4] Leamer III ¶ ___

12 Supplemental Reply Expert Report of Edward E. Leamer, Ph.D.
 13 (filed herewith)..... Leamer IV ¶ ___

14 Expert Report of Professor Kevin M. Murphy [Dkt. 212]..... Murphy I ¶ ___

15 Supplemental Expert Report of Professor Kevin M. Murphy
 16 [Dkt. 440] Murphy II ¶ ___

17 Expert Witness Report of Kevin F. Hallock [Dkt. 418-3] Hallock ¶ ___

18 Expert Report of Professor Kathryn Shaw [Dkt. 442] Shaw ¶ ___

19 Deposition of William Campbell (February 5, 2013) Campbell ___

20 Deposition of Ed Catmull (January 24, 2013) Catmull ___

21 Deposition of Tony Fadell (March 20, 2013) Fadell ___

22 Deposition of Arnon Geshuri (August 17, 2012)..... Geshuri ___

23 Deposition of Lori McAdams (August 2, 2012) McAdams ___

24 Deposition of Danny McKell, (March 20, 2013)..... McKell ___

25 Deposition of Donna Morris (August 21, 2012) Morris ___

26 Deposition of Rosemary Arriada-Keiper (March 28, 2013) Arriada-Keiper ___

27 Deposition of Mason Stubblefield (March 29, 2013) Stubblefield ___

27 ¹ The deposition of witnesses who provided a report and a deposition are abbreviated as “[Last
 28 Name] Dep.”; the deposition of witnesses who provided a deposition but not a report are
 abbreviated as “[Last Name].”

1 Deposition of Frank Wagner (March 7, 2013).....Wagner ___

2 Deposition of Kevin Hallock (June 7, 2013) Hallock Dep. ___

3 Deposition of Edward Leamer (June 11, 2013) Leamer Dep. ___

4 Deposition of Kevin Murphy (Vol. I., pp. 1-385, December 3, 2012 and
5 Vol. II, pp. 386-568, July 5, 2013).....Murphy Dep. ___

6 Deposition of Kathryn Shaw (July 3rd, 2013)Shaw Dep. ___

7 Declaration of Michele Maupin
(Exhibit 22 to the Declaration of Christina Brown [Dkt. 215]) Morris Decl. ___

8 Declaration of Donna Morris
(Exhibit 14 to the Declaration of Christina Brown [Dkt. 215]) Morris Decl. ___

9 Declaration of Frank Wagner
10 (Exhibit 21 to the Declaration of Christina Brown [Dkt. 215]) Wagner Decl. ___

11 Declaration of Danny McKell
(Exhibit 17 to the Declaration of Christina Brown [Dkt. 215])McKell Decl. ___

12 Declaration of Lori McAdams
13 (Exhibit 23 to the Declaration of Christina Brown [Dkt. 215]) McAdams Decl. ___

14 Declaration of Sheryl Sandberg (filed herewith)Sandberg Decl. ___

15 Declaration of Dean M. Harvey In Support of Plaintiffs’ Reply In Support
16 of Class Certification [Dkt. No. 248] Harvey Decl. ___

17 Declaration of Lisa J. Cisneros In Support of Plaintiffs’ Supplemental
Motion for Class Certification [Dkt. No. 418-2].....Cisneros Decl. ___

18 Declaration of Anne B. Shaver In Support of Plaintiffs’ Reply In Support
19 of Supplemental Motion for Class Certification (filed herewith)Shaver Decl. ___

20

21

22

23

24

25

26

27

28

INTRODUCTION

1
2 This case is not about one missed cold-call, one missed raise, or whether a single pay raise
3 to a single employee would require the pay of thousands of other employees to be increased by
4 exactly the same amount. Rather, this case is about anti-solicitation agreements to suppress entire
5 channels of competition that Defendants themselves viewed as most threatening to their
6 workforces and pay structures. The record is replete with express admissions by Defendants’
7 senior executives that the agreements were intended to and did have the effect of suppressing pay
8 of the Technical Class. Unable to address this testimony head-on, Defendants curiously dismiss it
9 as “mostly old and off point.” Opp. 19. They also now change course and admit as
10 “unremarkable” Dr. Hallock’s expert analysis that each Defendant [REDACTED]
11 [REDACTED], Opp. 3, a
12 premise they vehemently challenged before the completion of scores of company witness
13 depositions and production of tens of thousands of company documents over the last six months.

14 This time around, Defendants resuscitate a number of their “no impact” arguments.² They
15 assert they do not pay their employees identical amounts; and that [REDACTED]
16 [REDACTED] Opp.
17 3. They ignore that the Court has already accepted as common evidence of generalized harm Dr.
18 Leamer’s economic proof; the documents and testimony of Defendants’ managers; and Dr.
19 Leamer’s statistical analyses and damages regression. Rather than meaningfully address or
20 dispute it, Defendants try to distract the Court from the only real question at issue: whether
21 Plaintiffs have put forward a plausible method, based on common evidence, of proving that
22 Defendants’ illegal agreements harmed all or nearly all members of the proposed Technical Class.
23 Order 10, 15-17. The answer is manifestly yes.

24 Part One below addresses Defendants’ unfounded attacks on Dr. Leamer’s analyses.

25 _____
26 ² This reply only seeks certification of a litigation class against Defendants Adobe, Apple,
27 Google, Intel, and Intuit. Plaintiffs have reached a settlement with Lucasfilm and Pixar to settle
28 all individual and class claims alleged in the Consolidated Amended Complaint on behalf of the
proposed Technical Class identified in Plaintiffs’ Supp. Mot., Dkt. 418, and Appendix B to
Leamer I. Plaintiffs anticipate presenting the proposed settlement for the Court’s consideration in
the near future.

1 Plaintiffs have shown Defendants' misconduct did in fact harm all or nearly all Class members.
2 Dr. Leamer has bolstered his conclusion that, as a result of internal equity and information
3 sharing, suppression of compensation to some employees affected all or nearly all others,
4 particularly the Technical Class. In addition to his prior conduct regressions and his common
5 factor analysis, Dr. Leamer has performed a correlation analysis analyzing compensation levels
6 and a correlation of compensation changes. With respect to the correlation analysis, [REDACTED]

7 [REDACTED]
8 [REDACTED] Dr. Leamer also has performed an additional multiple
9 regression analysis controlling for external common influences which shows that gains in
10 compensation are shared among members of the Technical Class at each firm. The gains are
11 shared both contemporaneously and over time. In other words, were there cold calls or other
12 events raising individual employees' compensation, such compensation gains were shared by all
13 or nearly all Class members.

14 Defendants argue that variation in their employees' pay precludes class-wide proof of
15 impact and is "flatly inconsistent" with any impact at all. Opp. 9. Their own expert [REDACTED]

16 [REDACTED] Murphy Dep. 438:13-18. Dr. Murphy also admitted that
17 [REDACTED]

18 Dr. Leamer. *Id.* 553:18-20 [REDACTED]

19 [REDACTED] The argument that Dr. Leamer's
20 analysis suffers from an "endogeneity" problem is a hypothetical attack untethered from the
21 record evidence. Dr. Murphy's construction of alternative regressions to model the weather or
22 nationwide employment data is both flawed and pointless. Dr. Leamer provides reliable statistical
23 confirmation that Defendants maintained formal compensation structures across all titles in the
24 Technical Class, and demonstrates that the Class does not "swee[p] within it persons who could
25 not have been injured." Order 45 (quoting *Kohen v. Pac. Inv. Mgmt. Co.*, 571 F.3d 672, 677 (7th
26 Cir. 2009)).

27 Part Two rebuts Defendants' attack on the "unremarkable" conclusions of Dr. Hallock.
28 Dr. Hallock presents a reliable study demonstrating that Defendants maintained formal

1 compensation structures and enforced internal equity across their employees, creating avenues of
2 propagation through which pay suppression impacted all or nearly all Class members. Dr.

3 Murphy [REDACTED]
4 [REDACTED]. Murphy Dep. 442:24-443:9, 443:11-15.

5 Like Dr. Murphy, Dr. Shaw [REDACTED]
6 [REDACTED]
7 [REDACTED]
8 [REDACTED]

9 [REDACTED] Dr. Leamer also looks at the data to investigate two of Dr. Shaw's
10 unsupported assertions: [REDACTED]

11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED] Leamer
16 IV ¶¶ 31, 67.

17 Part Three puts to rest Defendants' passing attempt to revive their attack, via *Comcast*, on
18 Dr. Leamer's damages regression. Defendants grossly mis-state its holding.

19 Defendants' experts make some truly remarkable assertions in their attempt to defeat class
20 certification. Dr. Shaw says [REDACTED]

21 [REDACTED]. Dr. Murphy says [REDACTED]
22 [REDACTED]. Murphy

23 Dep. 508:11-15 [REDACTED]
24 [REDACTED]

25 [REDACTED]). This simply underscores that the Court should accept the unremarkable
26 conclusions of Drs. Leamer and Hallock that Defendants created and enforced formal and
27 structured pay systems that were suppressed by Defendants' misconduct, impacting all or nearly
28 all Class members. The Court should certify the Technical Class.

ARGUMENT

I. Dr. Leamer Has Provided The Confirmation Requested By The Court

Dr. Leamer’s prior testimony provides economic evidence demonstrating how the anti-solicitation agreements impacted the class, Order 17:6-21:3; copious documentary evidence that the Defendants sought to maintain internal pay equity, such that the impact of cold-calling would have spread beyond the recipients of the calls, *id.* 21:5-29:10; and a conduct regression showing widespread and generalized harm to the class, *id.* 33:12-34:18. The Court found that this evidence could be used to prove class-wide antitrust impact. *Id.* 20:20-22, 27:18-20, 33:6-10, 35:1-6.

However, the Court expressed concern that the class might be overbroad, because Dr. Leamer’s empirical analysis did not sufficiently show that the effect would have been shared by every or nearly every member of the all-salaried class. Dr. Leamer’s common factors analysis showed each employee’s compensation to be primarily driven by her job title—a fact beyond dispute at this point. Murphy Dep. 457:4-6 [REDACTED] [REDACTED]). The Court however expressed concern that it did not show movement of wages together over time. Order 36:3-7. Dr. Leamer’s co-movement charts *did* show movement of job title compensation over time, but did not do so comprehensively for each firm. *Id.* 37:1-21. The Court also expressed concern that the co-movement of average pay by job title could be driven by outside influences rather than by an internal pay structure. *Id.* 37:22-38:3.

Dr. Leamer answered these concerns in his supplemental report. Dr. Leamer performed a correlation analysis—the quantitative equivalent of the co-movement charts—that included all members of the Technical Class at every Defendant. He performed a title-by-title correlation analysis [REDACTED] of Class Period employee years. Leamer III ¶ 4. He performed a “decile” correlation analysis applying to [REDACTED] of Class Period employee-years. *Id.* ¶ 44. He analyzed both correlation of compensation levels and correlation of compensation changes. *Id.* ¶ 23. In every case, [REDACTED] [REDACTED]. Each of these approaches leads to the same conclusion. Dr. Leamer also addressed the possibility that this co-movement might be merely consistent with external common influences, rather than showing the existence of an

1 internal pay structure. Specifically, he used multiple regression analysis to assess whether gains
2 for a firm’s Technical Class workers tend to be shared with individual job titles and also in a
3 subsequent year. He included competing variables to reflect external common factors such as the
4 firm’s overall success or strength of the tech job market. Dr. Leamer’s regressions demonstrate

5 [REDACTED]

6 [REDACTED]. Leamer III ¶¶ 8, 24-28, 34-42; Supp. Mot. 22-25.

7 **A. Defendants’ Attack on Averaging Misreads Relevant Caselaw**

8 Defendants assert that Dr. Leamer may not draw conclusions by analyzing averages of
9 aggregate data, even if those averages are computed separately for each job title, for each year, at
10 each Defendant. This is incorrect. The Ninth Circuit has held “it is a generally accepted principle
11 that aggregated statistical data may be used where it is more probative than subdivided data.”

12 *Paige v. California*, 291 F.3d 1141, 1148 (9th Cir. 2002) (citations omitted). Such techniques are
13 standard statistical tools. To answer the question of whether a relationship exists among job titles
14 the data must, by definition, be aggregated to that level. Leamer III ¶ 20; Leamer IV ¶¶ 4, 30. Dr.

15 Murphy [REDACTED]

16 [REDACTED] Murphy Dep. 553:18-20 [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 [REDACTED]

24 [REDACTED]

25 [REDACTED]

26 [REDACTED]

27 Defendants rely principally on *In re Graphics Processing Units Antitrust Litig.*, 253
28 F.R.D. 478 (N.D. Cal. 2008) (“*GPUs*”) for their argument that Dr. Leamer engaged in prohibited

1 averaging. Opp. 1, 2, 6, 7, 13. But *GPUs* begins its analysis with an admonition:

2 This order agrees that such methods, where plausibly reliable,
3 should be allowed as a means of common proof. To rule otherwise
4 would allow antitrust violators a free pass in many industries.

5 253 F.R.D. at 491. In *GPUs*, unlike here, the proposed class included a variety of purchasers who
6 transacted in entirely different distribution channels: the same proposed class included consumers
7 who purchased finished products online; Original Equipment Manufacturers, such as Dell, who
8 bought parts wholesale; retailers, such as Best Buy; and other types of manufacturers, who bought
9 chips and manufactured their own finished products. *Id.* 480. The Court’s primary concern was
10 whether the plaintiffs, all of whom only purchased finished products online from one of the
11 defendants, should be permitted to represent a class of large institutional purchasers with average
12 purchases of \$19.2 million each. *Id.* Purchasers who resembled the plaintiffs—individual
13 consumers—totaled only **0.3%** of the total commerce swept into the proposed class. *Id.* 480-81.
14 Hence the Court found that plaintiffs were inadequate and atypical of the class they sought to
15 represent, issues that are uncontested here. *Id.* 489-490. Plaintiffs’ expert in *GPUs*, Dr. Teece,
16 averaged across entire categories of products, and entire categories of purchasers, without
17 addressing the substantial differences between consumer purchasers and massive institutional
18 purchasers who were included in the proposed class. *Id.* 494-496. Most significantly, Dr. Teece’s
19 regression excluded the consumer purchasers altogether. This “failure to include individual
20 consumers in the same model as the wholesale purchasers indicate[d] that proof [was] not
21 common to the class” *Id.* 496. Nonetheless, despite these deficiencies, the court **certified** a
22 class of 31,667 consumer purchasers who were typical of the named plaintiffs. *Id.* 497-498;
23 *compare* Opp. 6 (“In *GPU*, Judge Alsup denied certification . . .”). *See also In re TFT-LCD*
Antitrust Litig., 267 F.R.D. 291, 313 (N.D. Cal. 2010) (distinguishing *GPUs*).

24 Defendants also rely on *Reed v. Advocate Health Care*, 268 F.R.D. 573 (N.D. Ill. 2009),
25 but continue to ignore the two cases from the Circuit Court of Appeals that oversees the Northern
26 District of Illinois: *Messner v. Northshore Univ. Health Systems*, 669 F.3d 802, 818 (7th Cir.
27 2012) and *Kohen*, 571 F.3d at 677. First, *Reed* expressly rejects Defendants’ view that
28 compensation must be analyzed at the individual level. *Id.* 590 (“we reject defendants’ argument

1 that each nurse defines her own individual market—as plaintiffs point out, the implication of this
 2 argument is that no group of employers could ever suppress these nurses’ wages, which defies
 3 common sense.”). Second, as Plaintiffs explained earlier, *Reed* is inapposite because the expert
 4 there could only explain “between 48% and 63%” of the variance in wages across class members.
 5 268 F.R.D. at 592. Further, for registry nurses (one fifth of the proposed class), the expert could
 6 only account for 5-30% of the variation, and with respect to that subgroup admitted that a
 7 “different approach must be used” for them because their pay took “little or no account of age,
 8 tenure or unit of care assignment,” but then failed to provide such an approach. *Id.* 593. Instead,
 9 he calculated a single average suppression for all nurses in the class. *Id.* 590. In contrast, in Dr.
 10 Leamer’s analysis “the majority of the R-squared statistics are [REDACTED]
 11 [REDACTED]
 12 [REDACTED] Leamer I ¶ 129 (emphasis added). Drs. Leamer
 13 and Hallock have also conducted numerous additional analyses confirming pay structures and
 14 common impact, based not on any single average for the entire Technical Class, but on wages
 15 computed separately for each job title, for each year, at each Defendant.

16 **B. It is Irrelevant that Defendants Do Not Pay Employees in “Lockstep”**

17 Defendants next claim they “substantially differentiate individual employee compensation
 18 within and across job titles, and compensation was not locked into such a tight grid that any
 19 movement in one part necessarily affected the rest.” Opp. 10. Pointing to variations from year to
 20 year in the pay of individual employees, they say that because “managers had the flexibility to
 21 differentiate” the impact would have been limited to those employees targeted by cold calls:
 22 “[t]here would be no ripple effect.” Opp. 11.

23 This is the same “no impact” argument Defendants and Dr. Murphy unsuccessfully made
 24 before, down to virtually the same charts. *Compare* Murphy I ¶ 44 [REDACTED]
 25 [REDACTED] with Murphy II ¶ 24 [REDACTED]
 26 [REDACTED]
 27 [REDACTED]; *compare* Murphy I, Ex. 18A/B with Murphy II, Exs. 7 and 8.

28 This failed argument holds even less merit now because Dr. Murphy no longer relies on the only

1 evidence he ever had, Defendants’ self-serving employee declarations, which have since been
2 disproved by contrary testimony.³ Unable to cite to any evidence in the record, Dr. Murphy falls
3 back on [REDACTED]
4 [REDACTED]
5 [REDACTED] Murphy Dep. 444:17-22. However, Defendants’ own documents,
6 and basic compensation textbooks, show firms would have to do exactly that in order to maintain
7 internal equity. Order 32-33 (“The Court is more persuaded by the internal, contemporaneous
8 documents created by Defendants before and during the anti-solicitation agreements...”).

9 There is nothing illogical, unreasonable, or “flatly inconsistent,” Opp. 9:10, with Dr.
10 Leamer’s finding that the Defendants simultaneously differentiated pay and maintained
11 compensation structures that commonly restrained that differentiation. Dr. Murphy [REDACTED]
12 [REDACTED]

13 [REDACTED] Murphy Dep. 175:11-15; *see also id.* 259:20-260:1. In 2013:
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]

17 Murphy Dep. 438:13-18. Plaintiffs never argued that the impact of the agreements would have
18 been “lockstep”—that a \$5 raise to one employee would have required a simultaneous \$5 raise
19 across the firm. Rather, as the record proves, by shielding their employees from waves of
20 recruiting,⁴ Defendants not only avoided individual raises, they also avoided having to make
21 across-the-board preemptive increases to compensation, such as Google did in response to
22 recruiting by Facebook. Mot. 10; Hallock ¶¶ 205, 213-214; Leamer IV ¶¶ 18-25; Sandberg Decl.

23 ³ [REDACTED]
24 [REDACTED]
25 [REDACTED]

26 ⁴ [REDACTED]
27 [REDACTED]
28 [REDACTED]

1 For example, in 2005, [REDACTED]

2 [REDACTED]

3 Reply 19 (citing Harvey Decl., Ex. 17).

4 In fact, as Dr. Leamer explains, individual compensation levels is the wrong place to look
 5 for evidence of a structure and common impact, because the “inherent noise in the individual
 6 level data tends to drown out the signal of the internal pay structure we are trying to detect.”
 7 Leamer IV ¶ 32. Indeed, if one followed Dr. Murphy’s approach and only studied individuals,
 8 one would not even see Google’s “big bang”—the signal is completely lost in the noise of
 9 individual pay variations. Leamer IV at ¶¶ 32-35, Fig. 1. This shows the true purpose of the
 10 “individual”-level approach: to mask the structure, not to find it.

11 **C. Dr. Leamer’s Regressions Do Not Suffer from Any “Fallacies”**

12 Neither Defendants nor Dr. Murphy make any criticisms of Dr. Leamer’s methodology or
 13 implementation. They raise no serious *Daubert* challenge. *See* Opp. 15. They do not identify a
 14 single omitted variable; they do not offer a competing regression showing a lack of sharing.⁵
 15 Instead, Defendants and Dr. Murphy resort to a series of baseless attacks. First, they claim the
 16 regressions suffer from an “endogeneity” problem because they omit substantial “unmeasured
 17 common factors.” Murphy II at 17; *see* Opp. 13. But Dr. Murphy does not identify a single
 18 omitted variable, or show how adding one would change the results. His “Technical Appendix” is
 19 only a [REDACTED]
 20 [REDACTED] Murphy Dep. 480:14-16. Dr. Murphy only
 21 identified two possible relevant factors, “firm level success” and “changes in the general
 22 economy”, but admitted at deposition that [REDACTED]

23 [REDACTED]

24 [REDACTED]

25 [REDACTED]

26

27 ⁵ The absence of these standard tactics is telling. *See* Conan Doyle, Sir Arthur I., “Silver Blaze,”
 28 *Memoirs of Sherlock Holmes* (1894) (“The dog did nothing in the night-time.’ ‘That was the
 curious incident,’ remarked Sherlock Holmes.”).

1 [REDACTED]. Compare Murphy II at 29, “Technical
 2 Appendix” (“Compensation in each job is determined by two types of factors: (1) common
 3 factors (firm-level success, changes in the general economy, etc.) ...”). See Leamer IV ¶¶ 61-62.

4 Dr. Murphy’s “reflection” and “reversion to the mean” critiques—relegated to a footnote
 5 in Defendants’ brief—are no more sound. Leamer IV ¶¶ 36-49. Dr. Murphy’s own authority,
 6 Professor Manski, explains that a “reflection” problem can be solved by studying lagged or
 7 sequenced effects, just as Dr. Leamer has done here. See Leamer IV ¶ 42. Dr. Murphy [REDACTED]

8 [REDACTED]
 9 [REDACTED]
 10 Dr. Murphy’s “reversion to the mean” critique depends on the assumption that employee pay is
 11 substantially *random*—a bridge beyond even Defendants’ contention that it is a matter of
 12 manager discretion.⁶ Dr. Leamer correctly characterizes this assumption of random compensation
 13 as “implausible”: “Defendants do not set annual title compensation the way that Mother Nature
 14 chooses Chicago weather, day-by-day. Compensation levels in the Technical Class are all
 15 determined thoughtfully by management, not by random devices.” Leamer IV ¶¶ 44-48.

16 Last, Dr. Murphy creates his own regressions, but uses different data that is irrelevant
 17 here. Rather than identifying a deficiency in Dr. Leamer’s model, he purports to get similar
 18 outcomes using weather data and generic nationwide survey data—supposedly proving his
 19 “reflection” and “reversion” problems. Opp. 15, n. 5. Dr. Murphy’s “weather” regression
 20 compares Chicago and Milwaukee—but one need not be a meteorologist to expect to find a
 21 relationship between the weather in two cities located fewer than 100 miles apart. Leamer IV
 22 ¶ 49. Dr. Murphy’s “ACS” regression uses the results of a monthly survey that asks respondents
 23 to report, as a lump figure, their income (and other household members’) over the prior twelve
 24 months. Self-reported survey data is subject to measurement error, unlike Defendants’ payroll

25 _____
 26 ⁶ See, e.g., Schaffner, “Specious Learning About Reward and Punishment”, *J. of Personality & Social Psych.* (1985) (“Statistical regression ... occurs whenever a measurement process includes
 27 random measurement error or accurately measures some partly random process. The magnitude
 28 of regression depends on the extremity of the original score and the *degree of randomness...*”) (emphasis added).

1 records. Leamer IV ¶¶ 53-54. More fundamentally, the ACS methodology leads to obvious
 2 problems when a survey response in March 2006 includes both 2006 and 2005 income, to which
 3 Dr. Murphy applies other annual variables for the calendar year 2006. Leamer IV ¶¶ 55-56, Fig.
 4 2. Dr. Murphy did nothing to address either of these problems, and several others, which renders
 5 this work meaningless. Leamer IV ¶ 60. Furthermore, although Dr. Murphy claims his ACS
 6 results are the same as Dr. Leamer's sharing regressions, in fact they show a much different
 7 pattern and magnitude. Leamer IV ¶¶ 57-59, Figs. 3 and 4.⁷

8 **II. Defendants Concede Dr. Hallock's Empirical Study and Dr. Shaw Ignores the**
 9 **Evidence and the Data That Disprove Her Unsupported Assumptions**

10 Defendants do not challenge Dr. Hallock's methodology, the admissibility of his opinions,
 11 or his evaluation of the composition of the Technical Class.⁸ Defendants now concede both
 12 formal compensation structure and internal equity. [REDACTED]

13 [REDACTED]
 14 Murphy Dep. 443:11-15. Dr. Murphy also admitted [REDACTED]
 15 [REDACTED]
 16 [REDACTED]
 17 [REDACTED]

18 ⁷ Defendants misrepresent Dr. Leamer's testimony many, many times. Given page limitations,
 19 two examples will have to suffice. First, according to Defendants, Dr. Leamer "admits" impact
 20 can only be demonstrated on an individual, case-by-case basis. Opp. 3:5-8 (citing Leamer Dep.
 21 624:25-625:15). Of course, Dr. Leamer said no such thing, and explained in the same testimony
 22 Defendants cite: "nothing I've done is dependent on individual linkages that you are making
 23 reference to -- or all this particular sequences that you're forcing me to comment on." Leamer
 24 Dep. 624:25-625:15. Second, Defendants assert that Dr. Leamer "concedes" he is merely telling a
 25 "story," and not doing science. Opp.14:14-15:5. As Defendants well know, Dr. Leamer—one of
 the world's leading authorities on statistical inferences from non-experimental data—is simply
 making the same point Dr. Shaw makes in her academic writings: a "good story" based on
 "descriptive evidence" "can go a long way in reassuring the reader that the estimated model is a
 good way of interpreting the reality of the firm." Shaver Decl., Ex. 2847 at 614. *See also* Shaw
 Dep. 43:13-44:12 [REDACTED] As for Dr. Murphy, who intentionally ignored
 all available "descriptive evidence": [REDACTED]

26 ⁸ Defendants also consistently misrepresent Dr. Hallock's opinion as expressing merely a
 27 possibility that common impact "could" occur. *See* Opp'n 3, 17, 19. Dr. Hallock's conclusion is a
 28 prediction that Defendants' anti-solicitation agreements suppressed the compensation of all or
 nearly all members of the Technical Class, as stated clearly in paragraph 256 of his report and
 explained repeatedly at his deposition. *See, e.g.*, Hallock Dep. 155:2-157:18.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

[REDACTED]

[REDACTED]

[REDACTED]

The Court should reject Dr. Shaw’s analysis because her view that [REDACTED]

[REDACTED]

[REDACTED].⁹ See Mot. 20-22; Reply 16-24; Supp. Mot. 13-22;

Hallock ¶¶ 10-181. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

⁹ Dr. Shaw relies in substantial part on the same canned declaration testimony the Court rejected, Order 32-33, and that Dr. Murphy [REDACTED]. Murphy Dep. 443:23-25. Dr. Shaw relies on these declarations over thirty-five times. Shaw 20-21 n.25 and n.26, 21 n.30 and n.32, and 23 n.35; Shaw App. C ¶¶ 1, 2, 3, 4, 7, 8, 10, 11, 18, 24; Shaw App. D ¶¶ 1, 9.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

[REDACTED]

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

[REDACTED]

18 **III. The Damages Regression Continues to be a Plausible Method of Proving Damages**

19 Defendants claim that *Comcast Corp. v. Behrend*, 133 S.Ct. 1426 (2013), requires a
20 “method for calculating damages for individual class members.” Opp. 23. Defendants
21 conspicuously fail to cite any language from the opinion that says this. *Comcast* turned on
22 concessions by the plaintiffs, 133 S.Ct. at 1430, and on their articulation of four distinct theories
23 of harm, only one of which could be proved on a class-wide basis using common evidence, *id.* at
24 1430-1431. *Comcast* did not overturn decades of cases holding that a class may prove aggregate

25
26 ¹⁰ See Shaver Decl., Ex. 2847 at 614 (“Add descriptive evidence from insiders”), 615 (“Gather
27 data and test the hypothesis”). In fact, Dr. Shaw’s studies of the impact of company-wide human
28 resource practices mirror the methodologies Drs. Hallock and Leamer employ. Shaw Dep. 33:7-
34:21; 36:18-44:12; 120:22-129:16; Ex. 2847; Shaver Decl., Ex. 2854 (regressions with 9 years
of data regarding 83,497 technical workers in 10 states controlling for similar common factors).

1 damages in an antitrust case. *See, e.g., In re Cardizem CD Antitrust Litig.*, 200 F.R.D. 297, 324
 2 (E.D. Mich. 2001) (“As observed by a leading commentator on class actions: ‘aggregate
 3 computation of class monetary relief is lawful and proper.’”) (citing 2 NEWBERG ON CLASS
 4 ACTION, § 10.05 (3rd Ed. 1992)).¹¹ If it had, it would have said so. 133 S.Ct. at 1433 (“This case
 5 thus turns on the straightforward application of class-certification principles”); *see In re Urethane*
 6 *Antitrust Litig.*, No. 04-1616, 2013 U.S. Dist. LEXIS 69784 (D. Kan. May 15, 2013) (denying
 7 motion to decertify class post-Comcast) (the Supreme Court “has also noted that a wrongdoer
 8 should not be able to insist upon a stricter standard of proof of the injury that it has itself
 9 inflicted.”) (citing *J. Truett Payne Co. v. Chrysler Motors Corp.*, 451 U.S. 557, 566-67 (1981)).

10 Defendants also continue to quibble with the substance of Dr. Leamer’s damages analysis.
 11 They provide no support or explanation for their contention that compensation needs to be
 12 correlated *among firms* in order to use a single conduct variable for the conspiracy. Opp. 24. Dr.
 13 Leamer explains that Dr. Murphy’s alternative regression is inferior because it fails to take into
 14 account employee age differences, allows less employer differentiation, and ignores business
 15 cycle effects. Leamer IV ¶¶ 64-65. It is simply a restricted version of Dr. Leamer’s own model.
 16 *Id.* With respect to the Court’s invitation to Dr. Leamer to consider whether any additional
 17 variables would be appropriate, he has considered the question and has not identified any. His
 18 model is supported by the economic literature (including Dr. Shaw’s), is statistically robust (i.e.,
 19 insensitive to alternative control variables), and is buttressed by Dr. Leamer’s subsequent
 20 analysis. He stands by it. Leamer IV ¶ 66.¹²

21 CONCLUSION

22 For the foregoing reasons the motion should be granted.

23
 24 ¹¹ *E.g., In re Flat Glass Antitrust Litig.*, 191 F.R.D. 472, 486 (W.D. Pa. 1999) (“There is no
 25 dispute that when used properly multiple regression analysis is one of the mainstream tools in
 26 economic study and it is an accepted method of determining damages in antitrust litigation.”);
 27 *City of Tuscaloosa v. Harcros Chems.*, 158 F.3d 548, 566 (11th Cir. 1998) (upholding expert
 28 testimony on antitrust damages based on a “multiple regression analysis, a methodology that is
 well-established as reliable”); *Johnson Elec. N. Am. Inc. v. Mabuchi Motor Am. Corp.*, 103 F.
 Supp. 2d 268, 283 (S.D.N.Y. 2000) (“Numerous courts have held that regression analysis is a
 reliable method for determining damages ...”) (citation omitted).

¹² Defendants concede adequacy. Class proceedings will be superior because common issues,
 including the question of impact, predominate over individual ones. Order 46.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

Dated: July 12, 2013

LIEFF CABRASER HEIMANN & BERNSTEIN, LLP

By: /s/ Kelly M. Dermody

Richard M. Heimann (State Bar No. 63607)

Kelly M. Dermody (State Bar No. 171716)

Eric B. Fastiff (State Bar No. 182260)

Brendan P. Glackin (State Bar No. 199643)

Dean M. Harvey (State Bar No. 250298)

Anne B. Shaver (State Bar No. 255928)

Lisa J. Cisneros (State Bar No. 251473)

LIEFF CABRASER HEIMANN & BERNSTEIN, LLP

275 Battery Street, 29th Floor

San Francisco, California 94111-3339

Telephone: (415) 956-1000

Facsimile: (415) 956-1008

JOSEPH SAVERI LAW FIRM

By: /s/ Joseph R. Saveri

Joseph R. Saveri (State Bar No. 130064)

Lisa J. Leebove (State Bar No. 186705)

James G. Dallal (State Bar No. 277826)

JOSEPH SAVERI LAW FIRM

505 Montgomery Street, Suite 625

San Francisco, California 94111

Telephone: (415) 500-6800

Facsimile: (415) 395-9940

Co-Lead Class Counsel

Eric L. Cramer

BERGER & MONTAGUE, P.C.

1622 Locust Street

Philadelphia, PA 19103

Telephone: (800) 424-6690

Facsimile: (215) 875-4604

Linda P. Nussbaum

Peter A. Barile III

GRANT & EISENHOFER P.A.

485 Lexington Avenue, 29th Floor

New York, NY 10017

Telephone: (646) 722-8500

Facsimile: (646) 722-8501

Class Counsel