ANTITRUST CLASS CERTIFICATION: THE USE OF STATISTICAL AND REPRESENTATIVE EVIDENCE TO ESTABLISH PREDOMINANCE OF COMMON PROOF

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ABSTRACT

Antitrust class actions involve extremely high stakes and are vigorously contested by the parties. In particular, motions for class certification are invariably hard fought and increasingly turn on the question of whether plaintiffs can use multiple regression analyses and other statistical techniques to demonstrate that the impact of the alleged antitrust violation on class members and the damages they have suffered on account of the violation can be shown with proof that is common to all class members and that predominates over any individual questions.

This Essay discusses the Supreme Court’s decision in Tyson Foods, Inc. v. Bouaphakeo, a class action under the Fair Labor Standards Act (FLSA), in which the Court upheld the plaintiffs’ use of statistical evidence to satisfy the predominance requirement of Federal Rule of Civil Procedure 23(b)(3) and to prove damages to the class at trial.

This Essay demonstrates that the Supreme Court’s reasoning in Tyson Foods applies with equal force outside of the FLSA context and is particularly well suited to antitrust cases. It focuses on why properly specified regression analyses, which calculate industry-wide overcharges and detect the probability that the overcharges were widespread, are relevant and probative in antitrust actions. Regression analyses can also be used to measure aggregate damages sustained by the class. These analyses and other statistical evidence can help courts and juries reach more well-informed decisions, and the allowance of such evidence promotes the strong public policy in favor of enforcement of the antitrust laws.

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INTRODUCTION

Plaintiffs’ use of multiple regression analyses and other statistical techniques in class certification proceedings has come under attack in recent cases.1 Federal Rule of Civil Procedure 23(b)(3) contains a predominance element that requires that evidence common to the class, rather than affecting only individual members, predominate in the litigation.2 Defendants and some courts have cited to Rule 23(b)(3)’s predominance requirement to criticize the use of sampling and regression-based analyses, arguing that they inappropriately rely on “averages.”3 They contend that such averages can blur individual differences among class members—differences that could be fatal to class certification.4 Other courts, however, have reaffirmed that multiple regression analyses are well-regarded, standard statistical tools that are appropriate in both class certification and other litigation settings.5

3. See, e.g., Olean Wholesale Grocery Coop., 2021 WL 1257845, at *8 (“Defendants also argue that the representative evidence at issue here is categorically impermissible because Plaintiffs’ experts used averaging assumptions” that “papered over the very individualized differences that make classwide resolution of this case inappropriate.”)
4. Id. at 26–27; see also In re Disposable Contact Lens Antitrust, 329 F.R.D. 336, 424 (M.D. Fla. 2018) (rejecting the defendants’ argument that the plaintiffs’ expert’s multiple regression analysis “does not capture each individual consumer experience when purchasing” a contact lens).
The Supreme Court addressed this issue in the context of a class action under the Fair Labor Standards Act6 (FLSA) in Tyson Foods, Inc. v. Bouaphakeo.7 There, the Court upheld a jury verdict in favor of an employee class and rejected “a broad rule against the use in class actions of what the parties call representative evidence,” declaring that:

A categorical exclusion of that sort . . . would make little sense. A representative or statistical sample, like all evidence, is a means to establish or defend against liability. Its permissibility turns not on the form a proceeding takes—be it a class or individual action—but on the degree to which the evidence is reliable in proving or disproving the elements of the relevant cause of action.8

In recent years, big business and other critics have increasingly challenged the use of class actions as a vehicle to obtain redress for the harm that anticompetitive conduct has caused, and attacks on the reliability of representative evidence have become a frequent weapon in the anti-class action arsenal.9 Yet, as the number of government antitrust prosecutions and enforcement actions has declined over the past several years,10 the role of private antitrust enforcement is now more important than ever. Class actions allow consumers and businesses that purchase price-fixed products or are harmed by exclusionary conduct to recover damages for antitrust violations, which is usually not economically feasible on an individual basis.11 For defendants, aggregate litigation avoids the considerable burden and expense of a multitude of individual suits.12 It provides a mechanism for a single resolution that is far more efficient and economical, thereby benefiting the judicial system as well.13

As the Supreme Court recognized in Tyson Foods, representative and statistical evidence in class actions should neither be blindly accepted nor categorically condemned.14 Tyson Foods teaches that so long as such evidence is relevant and reliable, it is a permissible means to establish impact and damages in antitrust cases on a class-wide basis, both at class certification and at trial.15

Section I of this Essay sets forth the requirements for class certification under Rule 23, focusing on the predominance requirement of Rule 23(b)(3). Section II discusses the

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8. Tyson Foods, 136 S. Ct. at 1046.
12. E.g., Disposable Contact Lens, 329 F.R.D. at 425.
13. Id.
15. Id.
Supreme Court’s decision in *Tyson Foods*, which affirmed the trial court’s allowance of plaintiffs’ statistical evidence to demonstrate predominance at the class certification stage and to prove liability at trial. Section III demonstrates that courts have long accepted multiple regression analyses and other statistical techniques in antitrust class actions as reliable tools to prove class-wide impact and damages. Section IV recounts a number of court decisions rendered subsequent to *Tyson Foods* that have allowed the use of multiple regression analyses and other statistical evidence in antitrust cases to show that impact can be proven on a class-wide basis with proof that is common to all class members. Section V concludes the Essay by explaining why the strong public policy in favor of enforcement of the antitrust laws supports the allowance of statistical evidence in antitrust cases to prove class-wide impact and damages.

I. CLASS CERTIFICATION AND THE REQUIREMENT OF COMMON PROOF

Rule 23 sets forth the requirements that must be satisfied to obtain class certification. In cases where plaintiffs seek to recover money damages on behalf of a class, they carry the burden of demonstrating that the four elements of Rule 23(a) and the four requirements of Rule 23(b)(3) have been satisfied. Rule 23(b)(3) requires, among other things, a demonstration that “questions of law or fact common to class members predominate over any questions affecting only individual members.” In other words, Rule 23(b)(3) requires the proponents of class certification to demonstrate, by a

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17. Federal Rule of Civil Procedure 23(a) provides:
   (a) One or more members of a class may sue or be sued as representative parties on behalf of all members only if:
   (1) the class is so numerous that joinder of all members is impracticable;
   (2) there are questions of law or fact common to the class;
   (3) the claims or defenses of the representative parties are typical of the claims or defenses of the class; and
   (4) the representative parties will fairly and adequately protect the interests of the class.
FED. R. CIV. P. 23(a).
18. Rule 23(b)(3) provides:
   (3) the court finds that the questions of law or fact common to class members predominate over any questions affecting only individual members, and that a class action is superior to other available methods for fairly and efficiently adjudicating the controversy. The matters pertinent to these findings include:
   (A) the class members’ interests in individually controlling the prosecution or defense of separate actions;
   (B) the extent and nature of any litigation concerning the controversy already begun by or against class members;
   (C) the desirability or undesirability of concentrating the litigation of the claims in the particular forum; and
   (D) the likely difficulties in managing a class action.
FED. R. CIV. P. 23(b)(3).
19. See, e.g., Comcast Corp. v. Behrend, 569 U.S. 27, 33 (2013) (discussing the requirements for class certification under Rule 23(b)(3)).
20. FED. R. CIV. P. 23(b)(3).
preponderance of the evidence, that proof common to the class—rather than individual to its members—will predominate at trial.

The predominance inquiry is undertaken with a focus on the elements of the claim at issue. In antitrust cases, this means that plaintiffs must demonstrate they can present common evidence to establish (1) conduct in violation of the antitrust laws (e.g., a contract, combination, or conspiracy in restraint of trade); (2) some impact or injury to members of the class on account of the violation; and (3) measurable damages. Importantly, the class certification inquiry is concerned with the nature of the proof (whether it is common to the class or individual to its members); it does not turn on whether plaintiffs will ultimately prevail in establishing liability.

In antitrust cases, the predominance inquiry almost always focuses on the second element—whether common proof will predominate to establish some impact or injury to members of the class (as opposed to the amount of that injury). As a part of the demonstration of proof of common impact, antitrust plaintiffs typically offer statistical or econometric analyses to show, among other things, the effect of the conduct on the market in question, the probability that the market effect touched all or most class members, the amount by which class members have been damaged in the aggregate, and the amount by which aggregate damages should be reduced to account for uninjured class

21. See Olean Wholesale Grocery Co., Inc. v. Bumble Bee Foods LLC, No. 19-56514, 2021 WL 1257845, at *4–5 (9th Cir. Apr. 6, 2021) (citing cases); Behrend, 569 U.S. at 33 (“The party must also satisfy through evidentiary proof at least one of the provisions of Rule 23(b).”).

22. E.g., In re Hydrogen Peroxide Antitrust Litig., 552 F.3d 305, 311–12 (3d Cir. 2008) (“[T]he task for plaintiffs at class certification is to demonstrate that the element of antitrust impact is capable of proof at trial through evidence that is common to the class rather than individual to its members.”).

23. In re Suboxone (Buprenorphine Hydrochloride and Naloxone) Antitrust Litig., 967 F.3d 264, 269 (3d Cir. 2020) (“To assess predominance, a court . . . must examine each element of a legal claim through the prism of Rule 23(b)(3).” (omission in original) quoting Marcus v. BMW of N. Am., LLC, 687 F.3d 583, 600 (3d Cir. 2012)); In re Cathode Ray Tube (CRT) Antitrust Litig. (CRT I), 308 F.R.D. 606, 620 (N.D. Cal. 2015) (“The issue of whether questions of law or fact common to class members predominate begins with the elements of the underlying cause of action.” (citing Erica P. John Fund, Inc. v. Halliburton Co., 563 U.S. 804, 809 (2011))).

24. In re Processed Egg Prods. Antitrust Litig. (Processed Eggs I), 312 F.R.D. 171, 182 (E.D. Pa. 2015) (holding that “[p]laintiffs must demonstrate (i) a violation of the antitrust laws . . . , (2) individual injury resulting from that violation, and (3) measurable damages” to establish their claims under the Sherman Act (quoting Hydrogen Peroxide, 552 F.3d at 311–12)).


26. See, e.g., Hydrogen Peroxide, 552 F.3d at 311 (“In antitrust cases, impact often is critically important for the purpose of evaluating Rule 23(b)(3)’s predominance requirement because it is an element of the claim that may call for individual, as opposed to common, proof.”).

27. See, e.g., Suboxone, 967 F.3d at 271 (“Antitrust plaintiffs may satisfy the predominance requirement by using a model that estimates the damages attributable to the antitrust injury, even if more individualized determinations are needed later to allocate damages among class members.”); In re Capacitors Antitrust Litig. (No. III), No. 14-cv-03264-JD, 2018 WL 5980139, at *9 (N.D. Cal. Nov. 14, 2018) (“[I]ndividualized damage variations do not defeat predominance.”); CRT II, 308 F.R.D. at 628 (“Yet ‘[t]he presence of individualized damages cannot, by itself, defeat class certification under Rule 23(b)(3).’” (alteration in original) (quoting Leyva v. Medline Indus. Inc., 716 F.3d 510, 514 (9th Cir. 2013))).
members.28 While statistical evidence has been a staple in antitrust class actions for decades,29 opponents of class certification have recently enhanced their challenges to the use of such evidence in the class certification context. Such a challenge was directly addressed by the Supreme Court in Tyson Foods.30

II. THE SUPREME COURT ENDORSED THE USE OF STATISTICAL EVIDENCE AT THE CLASS CERTIFICATION STAGE IN TYSON FOODS

In its landmark decision in Tyson Foods, the Supreme Court set forth the standard under which statistical evidence may be utilized as common evidence in class actions to establish class-wide injury and satisfy the predominance requirement of Rule 23(b)(3). The plaintiffs in Tyson Foods sued their employer under the FLSA for unpaid overtime wages for the time spent putting on and taking off their protective gear (“donning and doffing”).31 The employer did not keep records of that time, despite a statutory obligation to do so.32 The plaintiffs thus had to “introduce a representative sample to fill an evidentiary gap created by the employer’s failure to keep adequate records.”33

The Supreme Court held that, rather than punish the plaintiffs for the employer’s poor recordkeeping, the trial court properly allowed the plaintiffs to submit statistical evidence to prove the number of hours they worked.34 The trial court had relied on that statistical evidence in finding that the predominance requirement of Rule 23(b)(3) was satisfied, and the jury relied on this evidence in rendering a verdict for the class.35 The Eighth Circuit affirmed the trial court, holding that both the class certification decision and the judgment for the class were proper.36

Before the Supreme Court, the employer and its supporting amici, including the Chamber of Commerce, argued that the trial court had improperly relied on statistical evidence that masked differences among class members and that the plaintiffs’ studies were flawed as a result.37 They urged the Supreme Court to “announce a broad rule

28. See infra notes 80–86 and accompanying text.
31. Id. at 1042.
32. Id. (citing 29 U.S.C. § 211(c) (2018)).
33. Id. at 1047.
34. Id. One of the plaintiffs’ experts “conducted 744 videotaped observations and analyzed how long various donning and doffing activities took. He then averaged the time taken in the observations to produce an estimate of 18 minutes a day for the cut and retrim departments and 21.25 minutes for the kill department.” Id. at 1043. Another expert added that time to the number of hours each employee worked to estimate the amount of each employee’s uncompensated work. Id. at 1043–44.
36. Id. at 800.
37. See Brief of Petitioner at 11–14, Tyson Foods, 136 S. Ct. 1036 (No. 14-1146); Brief of the Chamber of Commerce of the United States of America et al. as Amici Curiae in Support of Petitioner at 13–16, Tyson Foods, 136 S. Ct. 1036 (No. 14-1146) (“[A]ggregate damages models that determine the average impact to the average class members are impermissible.”); Brief of the Consumer Data Industry Ass’n as Amicus Curiae in Support of Petitioners at 3, Tyson Foods, 136 S. Ct. 1036 (No. 14-1146) (stating that the use of representative evidence in class actions allows courts to gloss over individual questions, transforming the class action “[f]rom
against the use in class actions of what the parties call representative evidence.” The
Court refused to do so, stating:
A categorical exclusion of that sort, however, would make little sense. A
representative or statistical sample, like all evidence, is a means to establish
or defend against liability. Its permissibility turns not on the form a proceeding
takes—be it a class or individual action—but on the degree to which the
evidence is reliable in proving or disproving the elements of the relevant cause
of action.
It follows that the Court would reach too far were it to establish general rules
governing the use of statistical evidence, or so-called representative evidence,
in all class-action cases.39
The Court emphasized that the admissibility of statistical evidence “to establish
class-wide liability will depend on the purpose for which the evidence is being introduced
and on ‘the elements of the underlying cause of action.’”40
The Supreme Court relied in part on the Rules Enabling Act41 (REA) in reaching
this conclusion.42 Under the REA, the Federal Rules of Civil Procedure, including the
class action provisions of Rule 23, cannot “abridge . . . any substantive right.”43
Defendants typically rely on the REA to argue against class certification, claiming it
requires plaintiffs to introduce individualized evidence to prove the claims of each class
member.44 In Tyson Foods, however, the Court applied this customary REA argument
against the employer, reasoning that “[i]n a case where representative evidence is
relevant in proving a plaintiff’s individual claim, that evidence cannot be deemed
improper merely because the claim is brought on behalf of a class.”45 The Court
explained that affording “plaintiffs and defendants different rights in a class proceeding
than they could have asserted in an individual action”46 would violate the REA’s

38. Tyson Foods, 136 S. Ct. at 1046.
39. Id. (citation omitted). Many of the amici (of which there were thirty in total) agreed that the Court
should refrain from making any broad pronouncements with respect to the overall reliability of statistical
evidence. For example, the amici brief filed by the civil procedure scholars urged “caution and restraint” because
a broad rule “could unsettle the myriad fields where class actions promote access to justice, including civil rights,
antitrust, securities, and consumer protection.” Brief of Civil Procedure Scholars as Amici Curiae in Support of
Neither Party at 26, Tyson Foods, 136 S. Ct. 1036 (No. 14-1146); see also Brief of Amicus Curiae Complex
Litigation Law Professors in Support of Respondents at 5–9, Tyson Foods, 136 S. Ct. 1036 (No. 14-1146); Brief
of Economists & Other Social Scientists as Amici Curiae in Support of Respondents at 8–12, Tyson Foods, 136
S. Ct. 1036 (No. 14-1146) [hereinafter Brief of Economists]. The Supreme Court heed these admonitions.
44. See, e.g., Defendants-Appellants’ Opening Brief at 35–47, Olean Wholesale Grocery Coop., Inc. v.
Bumble Bee Foods LLC, No. 19-36514, 2021 WL 1257845 (9th Cir. Apr. 6, 2021).
45. Tyson Foods, 136 S. Ct. at 1046.
46. Id. at 1048.
“pellucid instruction that use of the class device cannot ‘abridge . . . any substantive right.’”\textsuperscript{47}

The Court rejected the employer’s argument that use of the representative evidence amounted to “Trial By Formula,”\textsuperscript{48} which was condemned by the Court in \textit{Wal-Mart Stores, Inc. v. Dukes}.\textsuperscript{49} It distinguished that case because “[t]he plaintiffs in Wal-Mart proposed to use representative evidence as a means of overcoming this absence of a common policy” of discrimination to which each employee was subject.\textsuperscript{50} In other words, by using statistical evidence, the plaintiffs “enlarge[d] the class members’ substantive right[s] and deprived defendants of their right to litigate statutory defenses to individual claims.”\textsuperscript{51} The Court emphasized that the facts in \textit{Tyson Foods} were very different from those in \textit{Wal-Mart}:

While the experiences of the employees in \textit{Wal-Mart} bore little relationship to one another, in this case each employee worked in the same facility, did similar work, and was paid under the same policy. . . . [U]nder these circumstances the experiences of a subset of employees can be probative as to the experiences of all of them.\textsuperscript{52}

The Court further explained that “[o]nce a district court finds evidence to be admissible, its persuasiveness is, in general, a matter for the jury.”\textsuperscript{53} Thus, \textit{Tyson Foods} highlights the importance of \textit{Daubert} proceedings at the class certification stage.\textsuperscript{54} Once the proposed expert statistical evidence is deemed admissible under \textit{Daubert} (i.e., relevant and reliable), the resolution of disputes about the persuasive value of the evidence “is the near-exclusive province of the jury.”\textsuperscript{55}

In short, \textit{Tyson Foods} approves the use of representative evidence, including statistical evidence, to establish class-wide injury at the class certification stage and later at trial so long as the evidence is relevant and reliable.\textsuperscript{56} The Court expressly refused to

\begin{footnotes}
\item[47] \textit{Id.} at 1046 (omission in original) (quoting 28 U.S.C. § 2072(b)). Chief Justice Roberts’s concurring opinion, joined by Justice Alito, agreed that “when representative evidence would suffice to prove a plaintiff’s individual claim, that evidence cannot be deemed improper merely because the claim is brought as part of a class action.” \textit{Id.} at 1051 (Roberts, C.J., concurring).
\item[48] \textit{See id.} at 1048 (majority opinion).
\item[50] \textit{Tyson Foods}, 136 S. Ct. at 1048.
\item[51] \textit{Id.} (alterations in original) (internal quotation marks omitted) (quoting \textit{Wal-Mart}, 564 U.S. at 367).
\item[52] \textit{Id.}
\item[53] \textit{Id.} at 1049.
\item[54] \textit{See Daubert v. Merrell Dow Pharm., Inc.}, 509 U.S. 579 (1993). The employer in \textit{Tyson Foods} had not challenged the admissibility of the expert’s testimony under \textit{Daubert}, which requires a showing that the expert witness’s proposed testimony is based on scientifically valid reasoning and has been properly applied to the facts at issue. \textit{Id.} at 597. This testimony must meet the \textit{Daubert} standards in order to be admissible. \textit{Id.}
\item[55] \textit{Tyson Foods}, 136 S. Ct. at 1049; \textit{see also} Seaman v. Duke Univ., No. 1:15-CV-462, 2018 WL 671239, at *3, *9 (M.D.N.C. Feb. 1, 2018) (“Persuasiveness of the class-wide evidence is, in general, a matter for a jury. . . . [and] this Court does not find, that no reasonable juror could believe Dr. Seaman’s common evidence such that her proffered evidence should be disregarded.”).
\item[56] \textit{But see Olean Wholesale Grocery Coop., Inc. v. Bumble Bee Foods LLC}, No. 19-56514, 2021 WL 1257845, at *5, n.4 (9th Cir. Apr. 6, 2021) (suggesting that outside of the FLSA context at issue in \textit{Tyson Foods}, Rule 23 requires the court to examine not only the admissibility of the representative evidence but also its persuasiveness).
\end{footnotes}
adopt any broad rule about the admissibility or exclusion of statistical evidence in class actions.

III. REGRESSION ANALYSES AND OTHER STATISTICAL METHODS ARE RELIABLE TOOLS TO PROVE CLASS-WIDE INJURY AND DAMAGES IN ANTITRUST CASES

Because the employer in Tyson Foods had not challenged the plaintiffs’ expert under Daubert, the case gave the Court no opportunity to specifically address how lower courts should assess the reliability and probative value of statistical evidence at the class certification stage.\(^{57}\) Without that guidance, courts continue to confront conflicting arguments about these issues.

The fundamental complaint about regression studies and their use in class certification proceedings is that they, by definition, rely on averages or aggregate data, which, according to those who challenge them, can mask individual differences among class members—differences that may make class certification inappropriate.\(^{58}\) The argument has some surface appeal: class certification requires a demonstration that common issues will predominate at trial with respect to the key elements of liability.\(^{59}\) As detailed above, in antitrust cases, this generally requires the plaintiffs to show a common method of proving that all or almost all of the class has suffered some impact

\(^{57}\) There is currently a circuit split over whether expert testimony in a class certification proceeding must meet the admissibility requirements of Federal Rule of Evidence 702 and the related Daubert standard. Compare In re Blood Reagents Antitrust Litig., 783 F.3d 183, 187 (3d Cir. 2015) (holding that the Daubert test must be satisfied), and Am. Honda Motor Co. v. Allen, 600 F.3d 813, 815–16 (7th Cir. 2010) (holding that a Daubert analysis must be performed before certifying the class), with Cox v. Zurn Pex, Inc. (In re Zurn Pex Plumbing Prods. Liab. Litig.), 644 F.3d 604, 613–14 (8th Cir. 2011) (holding that Daubert standards do not apply because “a court’s inquiry on a motion for class certification is ‘tentative,’ ‘preliminary,’ and ‘limited.’” (quoting Coopers & Lybrand, 437 U.S. 463, 469 n.11 (1978)), and Salis v. Corona Reg’l Med. Ctr., 909 F.3d 996, 1005 (9th Cir. 2018) (rejecting the Third Circuit decision in Blood Reagents, instead agreeing with the Eighth Circuit’s decision in Zurn Pex).

\(^{58}\) CRT II, 308 F.R.D. 606, 628 (N.D. Cal. 2015) (“[A]ttesting averaged data is a standard defense tactic in antitrust cases . . . .”); In re Air Cargo Shipping Servs. Antitrust Litig., No. 06-MD-1175 (JG)(VVP), 2014 WL 7882100, at *61 (E.D.N.Y. Oct. 15, 2014) (“The defendants once again argue that these averages conceal too much potential variability within the class . . . [and] assert that [plaintiffs’ expert’s] model impermissibly underestimates alleged damages to some while overestimating the existence and amount of alleged damages to others.” (internal quotation marks omitted)), report and recommendation adopted, No. 06-MD-1775 (JG)(VVP), 2015 WL 5093503 (E.D.N.Y. July 10, 2015); In re High-Tech Emp. Antitrust Litig., 985 F. Supp. 2d 1167, 1218 (N.D. Cal. 2013) (“Defendants’ primary criticisms of plaintiffs’ experts’ supplemental report turn on his use of averaging in his correlation and multiple regression analyses.”); In re Graphics Processing Units Antitrust Litig., 253 F.R.D. 478, 493–94 (N.D. Cal. 2008) (“While averaging may be tolerable in some situations, the record here shows that it has in fact masked important differences between products and purchasers.”).

\(^{59}\) See supra notes 23–25 and accompanying text.
or injury from the conduct and that class-wide damages are measurable. If the plaintiffs offer proof at the class certification stage of an average overcharge of ten percent, for example, and perform no additional analysis, it could mean that half of the class has paid a twenty percent overcharge and the other half has paid zero. In other words, average impact is not necessarily the same as common impact.

Yet regression analyses and other statistical sampling and modeling techniques have been standard tools in litigation and are particularly common in the antitrust context, both at the class certification stage and at trial. In its publication, Proving Antitrust Damages: Legal And Economic Issues, the American Bar Association (ABA) Antitrust Section devotes an entire chapter to “Econometrics and Regression Analyses,” opening the chapter with the statement: “Regression analysis is a statistical technique that, when appropriately used, can assist an antitrust plaintiff in proving both the fact and the amount of injury.” Moreover, as stated in Econometrics, another publication by the ABA Antitrust Section, “[e]conometrics plays a central role in modern antitrust litigation and merger analysis, and economic experts are regularly the star witnesses in court and before the enforcement agencies.”

Econometric models that employ regression techniques have been used to study a wide variety of economic questions, including the price effects of mergers in the beer industry, the likely effects of the proposed merger between office supply chains Staples and Office Depot, the demand for automobiles, the competition in retail food markets,

60. Some circuits appear to require a showing that common proof will establish impact on “all (or nearly all)” class members, while others appear to require a lesser showing. Compare Olean Wholesale Grocery Coop., Inc. v. Bumble Bee Foods LLC, No. 19-56514, 2021 WL 1257845, at *10 (9th Cir. Apr. 6, 2021) (stating that plaintiffs “must establish, predominantly with generalized evidence, that all (or nearly all) members of the class suffered damage as a result of Defendants’ alleged anti-competitive conduct.” (quoting In re Packaged Seafood Prods. Antitrust Litig., 332 F.R.D. 308, 320 (S.D. Cal. 2019))), with Cohen v. Pac. Inv. Mgmt. Co., 571 F.3d 672, 677 (7th Cir. 2009) (“[A] class should not be certified if it is apparent that it contains a great many persons who have suffered no injury at the hands of the defendant.”).

61. There is overwhelming support in the case law for the proposition that the existence of individual issues relating to damages calculations for class members will not preclude class certification. See, e.g., Kleen Prods. LLC v. Int’l Paper Co., 831 F.3d 919, 929 (7th Cir. 2016) (upholding the use of an aggregate damages model and explaining that “at the class certification stage, plaintiffs are not obliged to drill down and estimate each individual class member’s damages”); Carriuolo v. Gen. Motors Co., 823 F.3d 977, 988 (11th Cir. 2016) (“[I]ndividualized damage calculations are insufficient to foreclose the possibility of class certification . . . .”).

62. See infra notes 80–86 and accompanying text for a description of additional analyses.


64. See, e.g., In re Capacitors Antitrust Litig. (No. III), No. 14-cv-03264-JD, 2018 WL 5980139, at *6 (N.D. Cal. Nov. 14, 2018) (“[M]ultiple regression . . . is a widely used econometric technique for determining whether prices were higher during a class period than they otherwise would have been without anti-competitive conduct.”); Processed Egg I, 312 F.R.D. 171, 193–95 (E.D. Pa. 2015) (“[R]egression analysis can be used to isolate the effect of an alleged conspiracy on price, taking into consideration other factors that might also influence price, like cost and demand.” (quoting In re Aftermarket Auto. Lighting Prods. Antitrust Litig., 276 F.R.D. 364, 371 (C.D. Cal. 2011))).


the change in consumer welfare from the introduction of minivans, and the effect of auction rules on winning bids. 67

In short, regression analyses are a mainstay in antitrust cases. 68 Given their near-universal acceptance as a valid evidentiary tool in antitrust cases, the recent attacks on regression and other statistical analyses based on the observations that they rely on averages or aggregate data shows a fundamental misunderstanding of the nature of regression analyses. 69

These analyses are, in reality, a collection of statistical methodologies that study the probability of relationships among numerous variables. They involve a variable to be explained or studied—known as the dependent variable—and additional variables postulated to be associated with or have an effect on the dependent variable, known as explanatory variables. 70 For example, in an antitrust case where the question at issue is the effect of cartel behavior on price, “price” would be the dependent variable—that is, the variable of interest. Explanatory variables could include supply and demand factors, such as raw material costs, inflation rates, fuel costs, or any number of items. 71 A


68. For example, the Federal Judicial Center’s Reference Manual on Scientific Evidence has a chapter entitled “Reference Guide on Multiple Regression” in which author Daniel L. Rubinfeld explains that “in an antitrust cartel damages case, the plaintiff’s expert might utilize multiple regression to evaluate the extent to which the price of a product increased during the period in which the cartel was effective, after accounting for costs and other variables unrelated to the cartel.” Daniel L. Rubinfeld, Reference Guide on Multiple Regression, in FED. JUDICIAL CTR., REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 303, 305 (3d ed. 2011); see also Kaiser Found. Health Plan, Inc. v. Pfizer, Inc. (In re Neurontin Mktg. & Sales Practices Litig.), 712 F.3d 21, 42 (1st Cir. 2013) (“[R]egression analysis is a well recognized and scientifically valid approach . . . and courts have long permitted parties to use statistical data to establish causal relationships.”).

69. There is a distinction between using average industry data regarding supply and demand factors and other industry characteristics, and using average prices to create the model of impact. Under some circumstances, averaging prices across different products or customer types (rather than using actual individual transaction data), might be subject to criticism where there may be substantial differences in prices and products. See In re Graphics Processing Units Antitrust Litig., 253 F.R.D. 478, 493–96 (N.D. Cal. 2008) (“[I]f data points are lumped together and averaged before the analysis, the averaging compromises the ability to tease meaningful relationships out of the data.”); AM. BAR ASS’N, ECONOMETRICS, supra note 66, at 359–60. Conversely, using averages may be helpful in illustrating price relationships across products. See, e.g., In re High-Tech Emp’t Antitrust Litig., 985 F. Supp. 2d 1167, 1218–19 (N.D. Cal. 2013) (asserting that with respect to both correlation and multiple regression analyses, while averaging the compensation of employees within each job title “may have masked some of the individual variations within each job title, it was necessary to determine whether there was a wage structure across job titles”). Still, in other contexts, industry-wide data may be perceived to be more reliable than defendant-specific data. See, e.g., In re Polypropylene Carpet Antitrust Litig., 93 F. Supp. 2d 1348, 1368 (N.D. Ga. 2000) (determining that the plaintiffs’ expert’s use of an industry index for polypropylene fiber had a reliable basis in the knowledge and experience of econometrics because prior case law “[d[id] not support the proposition that econometricians who wish to testify as experts in federal court must choose firm-specific data over industry-wide indices when such data is available”).

70. Rubinfeld, supra note 68, at 305; see also In re Capacitors Antitrust Litig. (No. III), No. 14-cv-03264-JD, 2018 WL 5980139, at *6 (N.D. Cal. Nov. 14, 2018) (“Multiple regression analysis is a type of statistical tool that tests the relationship between dependent and independent variables to determine how the variables might impact each other or are causally related.” (citing Dow Chem. Co. v. Seegott Holdings, Inc. (In re Urethane Antitrust Litig.), 768 F.3d 1245, 1260–61 (10th Cir. 2014))).

71. See, e.g., In re Air Cargo Shipping Servs. Antitrust Litig., No. 06-MD-1175 (JG)(VVP), 2014 WL 7882100, at *9–10 (E.D.N.Y. Oct. 15, 2014) (describing the data and variables employed by one of the plaintiffs’
regression analysis estimates the relationships between the explanatory variables included in the model and the dependent variable. The estimates isolate the effect of each explanatory variable on the dependent variable, holding all other explanatory variables constant, and can thereby isolate the effect of the alleged conduct on price.72

Regression analyses use relevant industry data.73 Aggregate industry data may reveal market trends and characteristics that might be highly relevant in litigation, such as movements in supply, demand, price, and other factors.74 Data often include transaction-level pricing information that may be condensed into, for example, monthly average prices. While opponents of class certification complain that these averages mask individual differences in prices paid by customers, use of these data in fact incorporates differences by capturing actual transaction prices.75

Regression analyses are an even more valuable tool in class actions in which individual claims are aggregated. This is because there is typically more data available in such cases and therefore more opportunity to draw conclusions from them.76 Because the law permits aggregation of claims for reasons of both efficiency and fairness, the use of such aggregated data and statistical tools is not only warranted but also extremely valuable. In fact, as more data become available for analysis, as is likely when multiple claims are aggregated, more questions can be answered better.77

A common misconception about regression analyses is that they are intended to prove a hypothesis—they are not.78 Regression techniques can, however, generate probabilities concerning relationships. In other words, properly specified regression techniques can generate a powerful probability that conduct would cause common impact on the class—a key issue in class certification.79

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73. See AM. BAR ASS’N, ECONOMETRICS, supra note 66, at 5.


75. See, e.g., In re Packaged Seafood Prods. Antitrust Litig., 332 F.R.D. 308, 323–24 (S.D. Cal 2019) (stating that the experts’ analyses used over 1.5 million data points), vacated sub nom. Olean Wholesale Grocery Coop., Inc. v. Bumble Bee Foods LLC, No. 19-56514, 2021 WL 1257845 (9th Cir. Apr. 6, 2021); Processed Egg I, 312 F.R.D. at 188 (“Dr. Rauser’s regressions were based on 32.7 million shell egg transactions and 1 million egg products transactions between 1997 and 2013.”).


77. Id.

78. See Rubinfeld, supra note 68, at 310; Johnson, supra note 63, at 548 (stating that empirical testing cannot prove a hypothesis, it can only reject or falsify it).

79. See Rubinfeld, supra note 68, at 310 (“There is a tension between any attempt to reach conclusions with near certainty and the inherently uncertain nature of multiple regression analysis. In general, the statistical analysis associated with multiple regression allows for the expression of uncertainty in terms of probabilities. The reality that statistical analysis generates probabilities concerning relationships rather than certainty should not be seen in itself as an argument against the use of statistical evidence, or worse, as a reason to not admit that there is uncertainty at all. The only alternative might be to use less reliable anecdotal evidence.”).
Regression techniques are a well-established methodology to calculate an average or aggregate overcharge to members of a class. But that is not all. They can also be used to link the aggregate overcharge over wide segments of the class to individual members so as to rule out any significant probability that a sizeable percentage of the class could have avoided the effect of the conduct and therefore would not have been injured. As antitrust economist Paul A. Johnson explains in his article, *The Economics of Common Impact in Antitrust Class Certification*, an economist may use econometric techniques to demonstrate the likelihood that common factors affecting price would impact all or most putative class members. This is sometimes described as a two-step approach where, in step one, a plaintiff’s expert demonstrates a generalized price effect caused by the conduct, and then, in step two, the expert models a pricing structure or uses other techniques to rule out the possibility that a significant portion of the class would have avoided the price effect.

Regression analyses can also be used to calculate overcharges through various time periods, distribution chains, and types of customers and products. If there are sufficient data, effects in each segment or element can be demonstrated through regression techniques. Thus, properly specified regression models of class-wide impact do not end with calculating overcharges. They can also be used to demonstrate the probability that the overcharge would affect all or most class members, to identify the amount of aggregate damages suffered by class members, and to exclude the purchases by uninjured class members from the aggregate damages calculation.

In opposing certification in antitrust class actions, a common tactic among defense experts is to run alternative econometric analyses on either subsets of the data or even to

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80. See, e.g., *Packaged Seafood*, 332 F.R.D. at 325–28 (approving the use of a “pooled” average overcharge to estimate class-wide damages); see also infra note 82.
82. See *Castro v. Sanofi Pasteur Inc.*, 134 F. Supp. 3d 820, 847–48 (D.N.J. 2015) (citing cases describing the two-step method to prove antitrust impact, including economic modeling to show artificially inflated prices plus a pricing structure study to show widespread harm); *Processed Egg I*, 312 F.R.D. 171, 183 (E.D. Pa. 2015) (explaining that a price correlation study that captures an economic linkage effect in shell egg prices is relevant to show injury to virtually all class members); *In re High-Tech Emp. Antitrust Litig.*, 985 F. Supp. 2d 1167, 1206 (N.D. Cal. 2013) (discussing plaintiffs’ expert’s approach, which followed a roadmap widely accepted in antitrust class actions that use evidence of general price effects plus evidence of a price structure, to conclude that common evidence is capable of showing widespread harm to the class).
83. See AM. BAR ASS’N, ECONOMETRICS, supra note 66, at 358 (“Further estimating the average effect of the alleged conspiracy separately for different products, geographies, time periods, suppliers, or purchaser types can yield additional insights into classwide impact and the existence and stability of a common method of proof.”).
84. See *supra* note 82.
85. See, e.g., *Blue Cross Blue Shield of Mass. v. AstraZeneca Pharm. LP (In re Pharm. Indus. Average Wholesale Price Litig.)*, 582 F.3d 156, 197 (1st Cir. 2009) (“The use of aggregate damages calculations is well established in federal court and implied by the very existence of the class action mechanism itself.” (citing 3 HERBERT B. NEWBERG & ALBA CONTE, NEWBERG ON CLASS ACTIONS § 10.5, at 483–86 (4th ed. 2002))); *In re Wellbutrin XL Antitrust Litig.*, 282 F.R.D. 126, 144 (E.D. Pa. 2011) (holding that the plaintiffs must show that there is a reliable means for measuring damages with reasonable accuracy in the aggregate).
86. See, e.g., *In re Restasis (Cyclosporine Ophthalmic Emulsion) Antitrust Litig.*, 335 F.R.D. 1, 12–13 (E.D.N.Y. 2020) (approving a methodology in which the plaintiffs’ expert removed a percentage of the purchases from the aggregate damages model to account for uninjured class members).
insist upon running individual regressions for each class member, so as to specify an individual overcharge for each.\textsuperscript{87} There are a number of issues with these approaches. First, as the class is divided into more and more subgroups, estimating a model that allows each purchaser to experience a different price increase requires an enormous amount of data that may not be available.\textsuperscript{88}

Second, regression analyses generate their reliable predictive power from having a lot of data points in the analysis. As the transactions are divided into more and more subgroups, the number of observations per grouping declines, which makes a test of coefficient stability or robustness less reliable.\textsuperscript{89} Thus, conducting numerous statistical tests for individual class members, many with relatively few transactions, increases the probability of false negatives, that is, failing to find impact when in fact class members were impacted.\textsuperscript{90} In other words, the less data, the more likely it is that anomalies or outliers will skew results.\textsuperscript{91}

Regression analyses are employed not only in antitrust class actions but also in individual antitrust cases.\textsuperscript{92} This is because in both a class action and an individual case

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\textsuperscript{87} See, e.g., Olean Wholesale Grocery Coop., Inc. v. Bumble Bee Foods LLC, No. 19-56514, 2021 WL 1257845, at *3 (9th Cir. Apr. 6, 2021) (describing defendants’ experts’ methodology, which allowed the coefficients in the regression to vary by customer, thus creating small sample sizes); In re Air Cargo Shipping Servs. Antitrust Litig., No. 06-MD-1175 (JG)(VVP), 2014 WL 7882100, at *16–17 (E.D.N.Y. Oct. 15, 2014) (discussing the reliability of the defendants’ sub-regressions), report and recommendation adopted, No. 06-MD-1775 (JG)(VVP), 2015 WL 5093503 (E.D.N.Y. July 10, 2015).
\textsuperscript{88} See In re Packaged Seafood Antitrust Litig., 332 F.R.D. 308, 325 (S.D. Cal. 2019) (“[V]irtually any regression model eventually will fail one or more tests if enough tests and specifications are run, even if nothing is wrong with the model.” (quoting AM. BAR ASS’N, ECONOMETRICS, supra note 66, at 324)), vacated sub nom. Olean Wholesale Grocery Coop., Inc. v. Bumble Bee Foods LLC, No. 19-56514, 2021 WL 1257845 (9th Cir. Apr. 6, 2021); AM. BAR ASS’N, ECONOMETRICS, supra note 66, at 359 (“The data demands become even more daunting if possible interactions between customer effects and other supply and demand variables (i.e., allowing coefficient on supply and demand variables to vary across customers) are considered.”).
\textsuperscript{89} AM. BAR ASS’N, ECONOMETRICS, supra note 66, at 359; see also Processed Egg I, 312 F.R.D. 171, 189 (E.D. Pa. 2015) (“[I]nappropriate data mining . . . involves applying a model to arbitrary subsets of the transactional data without an economic theory for selecting such subsets . . . [and] traditional statistical tests become unreliable under relentless searching to find patterns in data that may merely be the product of chance.” (citation omitted) (internal quotation marks omitted)); Air Cargo, 2014 WL 7882100, at *16–17 (finding that the defendants’ expert’s proffer of regressions that were run on subsets of the data were not “particularly compelling”).
\textsuperscript{90} Technically, statistical tests involving small numbers of observations are more likely to result in “false negatives,” known in the literature as Type II errors. See JAMES T. MCCRAVE, P. GEORGE BENSON & TERRY SINCICH, STATISTICS FOR BUSINESS AND ECONOMICS 405 (12th ed. 2014); ROBERT S. PINDYCK, & DANIEL L. RUBINFELD, ECONOMETRIC MODELS AND ECONOMETRIC FORECASTS 43–44 (4th ed. 1998).
\textsuperscript{91} See AM. BAR ASS’N, ECONOMETRICS, supra note 66, at 360; see also In re Capacitors Antitrust Litig. (No. III), No. 14-cv-03264-JD, 2018 WL 5980139, at *8 n.4 (N.D. Cal. Nov. 14, 2018) (criticizing the defendant’s expert’s regressions as suffering from sample sizes that are too small); CRT II, 308 F.R.D. 606, 628 (N.D. Cal. 2015) (“Further, the Ninth Circuit has recognized that the use of aggregate data in regression analysis is often appropriate ‘where [a] small sample size may distort the statistical analysis and may render any findings not statistically probative.’” (alteration in original) (quoting Pa. v. California, 291 F.3d 1141, 1148 (9th Cir. 2002))).
\textsuperscript{92} Olean Wholesale Grocery Coop., Inc. v. Bumble Bee Foods LLC, No. 19-56514, 2021 WL 1257845, at *7 (9th Cir. Apr. 6, 2021); see, e.g., Sitts v. Dairy Farmers of Am., Inc., 417 F. Supp. 3d 433, 475–76 (D. VI. 2019) (rejecting the defendants’ argument that the individual plaintiffs were not impacted by the defendants’ alleged anticompetitive conduct). In denying the defendants’ motion for summary judgment, the court relied
alleging price-fixing, plaintiffs will need to prove the “but for” price—namely, the price that would have existed in the absence of the alleged anticompetitive conduct.\textsuperscript{93} Regression or other statistical analyses based on transactional or other data are frequently used.\textsuperscript{94}

In summary, reliable statistical methodologies are valuable tools with which to make data-driven assessments in a variety of litigation contexts, and especially in antitrust class actions, where economics and its tools play a central role. Broadside attacks on these methods solely because they rely on aggregated data or industry averages are misguided as a matter of economics and wrong as a matter of law and public policy.

IV. IN ANTITRUST CLASS ACTIONS, COURTS FOLLOW TYSON FOODS TO ALLOW RELIABLE STATISTICAL ANALYSES AS PROOF OF IMPACT AND DAMAGES

Even after Tysong Foods, defendants have continued to argue that statistical analyses are unreliable and inappropriate at the class certification stage because of their use of averages.\textsuperscript{95} Pointing to the Court’s discussion of Anderson v. Mt. Clemens Pottery Co.,\textsuperscript{96} proponents of this argument assert that Tysong Foods’ holding is limited to the FLSA context, where the representative evidence is necessary to plug an evidentiary hole created by the defendant’s poor recordkeeping and would therefore be sufficient evidence in a plaintiff’s individual case.\textsuperscript{97} While some courts have accepted this argument,\textsuperscript{98} others have not.\textsuperscript{99}

\hspace{1cm} heavily on the plaintiffs’ expert’s regression analysis, which it described as “an accepted methodology” that “has become increasingly common in antitrust litigation . . . to show antitrust impact and as a method of determining damages.” \textit{Id.} at 475 (omission in original) (quoting \textit{In re Domestic Drywall Antitrust Litig.}, 322 F.R.D. 188, 213 (E.D. Pa. 2017)).

\textsuperscript{93} Oleen Wholesale Grocery Co., 2021 WL 1257845, at *7; see also \textit{In re Pool Prods. Distribution Mkt. Antitrust Litig.}, 166 F. Supp. 3d 654, 678 (E.D. La. 2016) (“Damages calculations in antitrust cases seek to compare plaintiffs’ actual experience in the real world with what the plaintiffs’ experience would have been, ‘but for’ the antitrust violation.”

\textsuperscript{94} See also \textit{Oleam Wholesale Grocery Co.}, supra note 93, at *7; see also \textit{In re Pool Prods. Distribution Mkt. Antitrust Litig.}, supra note 93, at *7.

\textsuperscript{95} See, e.g., Anderson v. Mt. Clemens Pottery Co., 451 U.S. 618 (1981).\textsuperscript{95}

\textsuperscript{96} See, e.g., \textit{In re Lamicital Direct Purchaser Antitrust Litig.}, 957 F.3d 184, 191–92 (3d Cir. 2020) (“Tysong Foods was discussing representative evidence in the FLSA context . . . due to inadequate record-keeping, a ‘representative sample [of employees] may be the only feasible way to establish liability.’” (alteration in original) (quoting Tysong Foods v. Boushakeo, 136 S. Ct. 1036, 1040 (2016))); United Food & Commercial Workers Unions v. Warner Chilcott Ltd. (\textit{In re Asacol Antitrust Litig.}), 907 F.3d 42, 54–56 (1st Cir. 2018) (“In Tysong Foods, the Court pointed out that under the controlling substantive law, the proffered representative evidence would be admissible and sufficient to prove injury in any individual class member’s individual trial.” (citing Tysong Foods, 136 S. Ct. at 1047)).

\textsuperscript{97} See, e.g., \textit{Lamicital}, 957 F.3d at 191–92; \textit{Asacol}, 907 F.3d at 54–56.

\textsuperscript{98} See infra notes 109–15 and accompanying text.
The Supreme Court did not limit its analysis or holding in *Tyson Foods* to the FLSA context but instead reiterated that statistical evidence “is used in various substantive realms of the law.”\textsuperscript{100} It further stated, “[w]hether and when statistical evidence can be used to establish classwide liability will depend on the purpose for which the evidence is being introduced.”\textsuperscript{101} Moreover, although *Mt. Clemens* was an FLSA case, its ruling that representative evidence may constitute sufficient proof “as a matter of just and reasonable inference”\textsuperscript{102} was based on antitrust decisions, which stand for the proposition that a defendant should not be permitted to benefit where its unlawful conduct makes a plaintiff’s damages uncertain.\textsuperscript{103}

The Ninth Circuit staked a middle ground in *Olean Wholesale Grocery Cooperative v. Bumble Bee Foods LLC.*\textsuperscript{104} While it read *Tyson Foods* to allow representative evidence to be used to establish predominance only where “each class member could have relied on that sample to establish liability” in an individual action,\textsuperscript{105} it also held that the representative evidence that plaintiffs presented satisfied that requirement.\textsuperscript{106} Noting that “[p]laintiffs’ statistical evidence is not materially different than the type of evidence that would be used against [d]efendants in individual cases,”\textsuperscript{107} it held that “[p]laintiffs’ representative evidence can prove the classwide impact element of [p]laintiffs’ price-fixing theory of liability and, thus, may be used to establish predominance.”\textsuperscript{108}

Other courts have approved the use of reliable statistical methodologies to demonstrate class-wide impact and have rejected defendants’ arguments that averages are inappropriate. For example, in *In re Suboxone (Buprenorphine Hydrochloride & Naloxone) Antitrust Litigation,*\textsuperscript{109} the Third Circuit, citing *Tyson Foods,* affirmed class certification, holding that “the Purchasers’ theory of injury and damages is provable and measurable by an aggregate model relying on class-wide data.”\textsuperscript{110} Similarly, in *In re Disposable Contact Lens Antitrust,*\textsuperscript{111} a district court stated:

The use of averages to prove common impact to a putative class is accepted. “[A]ttacking averaged data is a standard defense tactic in antitrust cases, so it is unsurprising that courts have often evaluated and approved the appropriate use of averages.” Indeed, “in a complicated antitrust case such as this, where

\textsuperscript{100} *Tyson Foods*, 136 S. Ct. at 1046.

\textsuperscript{101} Id.


\textsuperscript{103} Id. at 688 (first citing Story Parchment Co. v. Paterson Parchment Paper Co., 282 U.S. 555, 563 (1931); then citing Eastman Kodak Co. of N.Y. v. S. Photo Materials Co., 273 U.S. 359, 377–79 (1927); then citing Palmer v. Conn. Ry. & Lighting Co., 311 U.S. 544, 560–61 (1941); and then citing Bigelow v. RKO Radio Pictures, Inc., 327 U.S. 251, 263–66 (1946)).

\textsuperscript{104} See No. 19-56514, 2021 WL 1257845, at *5–7 (9th Cir. Apr. 6, 2021).

\textsuperscript{105} Id. at *7 (quoting *Tyson Foods*, 136 S. Ct. at 1046).

\textsuperscript{106} Id. at *7–8.

\textsuperscript{107} Id. at *8.

\textsuperscript{108} Id. at *7. The Ninth Circuit ultimately vacated the class certification and remanded the case for further proceedings. Id. at *12.

\textsuperscript{109} 967 F.3d 264 (3d Cir. 2020).

\textsuperscript{110} *Suboxone*, 967 F.3d at 272.

\textsuperscript{111} 329 F.R.D. 336 (M.D. Fla. 2018).
the theory of harm is that the entire market price of a product was inflated as a result of a conspiracy, ‘plaintiffs are permitted to use estimates and analysis to calculate a reasonable approximation of their damages.’”112

Likewise, in In re Mushroom Direct Purchaser Antitrust Litigation,113 a district court relied on Tyson Foods in holding that the plaintiff’s expert’s “average effects regression” coupled with his other industry analyses sufficiently demonstrated class-wide impact to satisfy the predominance requirement of Rule 23.114 In a number of other cases as well, district courts have approved the use of regression analyses and other statistical techniques under Tyson Foods, notwithstanding defendants’ arguments that the use of averages in the analyses masks individual differences.115 These courts have correctly recognized that Tyson Foods was not narrowly confined to the FLSA context but instead has far broader applicability.

V. THE STRONG PUBLIC POLICY IN FAVOR OF ENFORCEMENT OF ANTITRUST LAWS SUPPORTS THE ALLOWANCE OF STATISTICAL EVIDENCE TO PROVE CLASS-WIDE IMPACT AND DAMAGES

In Tyson Foods, the Supreme Court recognized that “[i]n many cases, a representative sample is ‘the only practicable means to collect and present relevant data’ establishing a defendant’s liability.”116 In fact, if statistical evidence could not be introduced to demonstrate predominance and prove class-wide impact in antitrust class actions, many fewer such actions would be certified, which would harm consumers and reduce the deterrence to engage in anticompetitive conduct.117

The Supreme Court has long emphasized that “the purposes of the antitrust laws are best served by insuring [sic] that the private action will be an ever-present threat to deter anyone contemplating business behavior in violation of the antitrust laws... . [T]he law encourages [plaintiff’s] suit to further the overriding public policy in favor of

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112. Disposable Contact Lens, 329 F.R.D. at 389 (alteration in original) (citations omitted).
114. Mushroom Direct Purchaser, 319 F.R.D. at 201–05.
competition.”118 The Court has recognized that “private suits provide a significant supplement to the limited resources available to the Department of Justice for enforcing the antitrust laws and deterring violations.”119

The Court has also stated that class actions “may enhance the efficacy of private actions by permitting citizens to combine their limited resources to achieve a more powerful litigation posture.”120 It has also noted that antitrust class actions are well suited for certification under Rule 23(b)(3): “[p]redominance is a test readily met in certain cases alleging consumer or securities fraud or violations of the antitrust laws.”121

The class action device is particularly important in antitrust cases, because antitrust violations often harm many purchasers of products or services and cause damages that are substantial in the aggregate but generally not large enough for each purchaser to pursue individual lawsuits.122 Antitrust lawsuits are very expensive to maintain on an individual basis.123 Therefore, it is usually not cost-effective to litigate an individual antitrust suit where the potential damages are comparatively small. As the Supreme Court observed in *California Public Employees’ Retirement System v. ANZ Securities, Inc.*, 124 “[t]he very premise of class actions is that ‘small recoveries do not provide the incentive for any individual to bring a solo action prosecuting his or her rights.’”125


122. *See, e.g., In re Disposable Contact Lens Antitrust Litig.*, 329 F.R.D. 336, 425 (M.D. Fla. 2018) (“[T]he class action device is particularly appropriate where, as here, it is necessary to ‘permit the plaintiffs to pool claims which would be uneconomical to litigate individually . . . .’ [P]laintiffs would not have the incentive or resources to prosecute relatively small claims in individual suits, leaving the defendant free from legal accountability.” (first quoting *Phillips Petroleum Co. v. Shutts*, 472 U.S. 797, 809 (1985); and then quoting *In re Checking Account Overdraft Litig.*, 367 F.R.D. 630, 649 (S.D. Fla. 2015))).


Class actions brought against violators of the antitrust laws not only enable those harmed by the violations to recover their damages, but they also create a strong disincentive to commit antitrust violations in the first place.\textsuperscript{126} As the Supreme Court has emphasized, “[p]rivate enforcement of the [Sherman] Act was in no sense an afterthought; it was an integral part of the congressional plan for protecting competition.”\textsuperscript{127}

Private enforcement is now more important than ever. Cartels continue to cause significant harm to the U.S. economy,\textsuperscript{128} and even significant fines and the threat of criminal penalties do not appear to deter companies from engaging in anticompetitive conduct.\textsuperscript{129} In fact, studies show that it may be more profitable to engage in such cartel behavior even in the face of criminal sanctions.\textsuperscript{130}

The most recent statistics from the Antitrust Division of the Department of Justice reveal that the number of criminal restraint of trade prosecutions filed under Section 1 of the Sherman Act\textsuperscript{131} has declined precipitously from sixty-three in 2011 to just twenty-five in 2019.\textsuperscript{132} Similarly, restitution imposed in criminal antitrust cases dropped from $24,271,000 in 2010 to only $690,000 in 2019.\textsuperscript{133} The steep decline in criminal antitrust enforcement clearly shows that the specter of treble damages class actions is needed to deter anticompetitive conduct.\textsuperscript{134}

\textsuperscript{126} See Laumann, 105 F. Supp. 3d at 407–08.


\textsuperscript{129} See Sherman Act Violations Resulting in Criminal Fines & Penalties of $10 Million or More, supra note 128.


\textsuperscript{132} U.S. DEP’T OF JUSTICE, supra note 10, at 7.

\textsuperscript{133} Id. at 12.

\textsuperscript{134} See Laumann v. NHL, 105 F. Supp. 3d 384, 407 (S.D.N.Y. 2015) (“[W]hile antitrust actions are very expensive to litigate [and] anticompetitive conduct can be highly lucrative[,] . . . it is this asymmetry—that the very same conduct can reap enormous gain for the perpetrators, while simultaneously causing every individual consumer a small amount of harm—that makes class actions such an important enforcement device.”).
Indeed, numerous antitrust class actions have resulted in substantial recoveries for victims of antitrust violations where no government action was brought. For example, *In re Urethane Antitrust Litigation* demonstrates clearly how private enforcement can step in to fill the void where the government has failed to act. In *Urethane*, a criminal investigation of the five major manufacturers of polyether polyols did not result in any indictments. Nevertheless, a price-fixing class action was filed, a class was certified (based in part on a multiple regression analysis), and pretrial settlements and a post-trial settlement resulted in a total recovery of $974 million, which was more than 2.4 times the $400 million damages found by the jury at trial.

Also, while criminal antitrust proceedings generally precede antitrust class actions, that is not invariably the case. For instance, class actions alleging price-fixing by broiler chicken producers were filed beginning in September 2016. It was not until nearly three years later that the Department of Justice revealed its own criminal investigation of broiler chicken companies and their executives.

Although defendants vigorously contest antitrust class actions brought against them, those actions nevertheless enable them to avoid the prospect of a multitude of costly and burdensome individual suits in the rare instances where damages to each victim of a conspiracy are high enough to make individual suits worthwhile. For example, in the wake of a D.C. Circuit affirmance of a denial of class certification in *In re Rail Freight Fuel Surcharge Antitrust Litigation*, over three hundred rail freight shippers filed individual suits against the four railroad company defendants, resulting in a new multi-district litigation proceeding. A class action provides defendants with a mechanism to achieve a single resolution that is far more efficient and economical than a plethora of individual suits, and a class action likewise imposes far less of a burden on the judicial system than a multitude of individual cases.

It remains to be seen whether the Supreme Court, with the newly added conservative Justice Amy Coney Barrett, will attempt to circumscribe the use of class

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135. 251 F.R.D. 629 (D. Kan. 2008), aff’d, 768 F.3d 1245 (10th Cir. 2014).


137. See Chow, supra note 136.

138. See *Urethane*, 251 F.R.D. at 639 (ruling on class certification).

139. See *In re Urethane Antitrust Litig.*, 768 F.3d 1245, 1249 (10th Cir. 2014) (holding that the jury award of $400,049,039 in damages was not speculative). The jury award would eventually be trebled to total over one billion dollars. *Id.* at 1252 (stating that the judgment amount after trebling damages and deducting prior settlements totaled $1,060,847,117).


142. 934 F.3d 619 (D.C. Cir. 2019).

actions. If so, that would be a serious blow to the free enterprise system, which is dependent upon vigorous marketplace competition and the deterrence of unlawful agreements and conspiracies.

**CONCLUSION**

The Supreme Court’s decision in *Tyson Foods* and the lower court decisions that have followed in its wake have recognized that if plaintiffs’ multiple regression analyses or other statistical evidence is relevant and reliable, it may be utilized in an antitrust class action both to demonstrate satisfaction of Rule 23(b)(3)’s predominance requirement and also to prove liability and damages at trial. So long as this evidence is admissible under *Daubert*, it is up to a jury to determine its persuasive value. Moreover, inasmuch as the utilization of regression analyses and other statistical techniques is often the only practicable means for plaintiffs to show predominance and to prove liability and damages in an antitrust class action, the allowance of such evidence promotes the strong public policy in favor of enforcement of the antitrust laws.