

06-3337.091-JCD

September 28, 2009

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

LISA REED and CINDY)	
DIGIANNANTONIO, on behalf of)	
themselves and all others)	
similarly situated,)	
)	
Plaintiffs,)	
)	
v.)	No. 06 C 3337
)	
ADVOCATE HEALTH CARE, et al.,)	
)	
Defendants.)	

MEMORANDUM OPINION

Before the court are several motions: (1) plaintiffs' motion for class certification; (2) defendants' motion to strike the impact analyses in plaintiff's expert's declarations; (3) the motion of defendant University of Chicago Hospitals ("UCH") to strike the testimony of plaintiffs' expert, as applied to UCH's nurses; and (4) plaintiffs' motion to strike the report of UCH's expert. For the reasons explained below, all of the motions are denied.

BACKGROUND

Plaintiffs Lisa Reed and Cindy Digiannantonio are registered nurses ("RNs") who allege that defendants UCH, Advocate Health Care ("Advocate"), NorthShore University HealthSystem (formerly known as Evanston Northwestern Healthcare) ("ENH"), Children's Memorial

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Hospital, and Resurrection Health Care, who operate several hospitals in the Chicago area, have for a number of years conspired to suppress the wages of their RN employees and, in furtherance of the conspiracy, agreed to regularly exchange detailed and non-public information about the compensation each is paying or will pay to its RNs. Plaintiffs allege that defendants shared information about RN wages both directly and by obtaining and participating in compensation surveys disseminated by the Metropolitan Chicago Healthcare Council (the "MCHC") and that the exchange of information violates guidelines issued by the United States Department of Justice and the Federal Trade Commission for the lawful sharing of compensation data within the health care industry. According to plaintiffs, defendants' conspiracy has had the effect of suppressing compensation for hospital RNs in the Chicago area despite a national nursing shortage.

The Third Amended Complaint contains two claims: Count I alleges a conspiracy to depress wages, and Count II alleges a conspiracy to exchange compensation information, both in violation of § 1 of the Sherman Act, 15 U.S.C. § 1. The relief sought by plaintiffs consists of compensatory damages, treble damages pursuant to 15 U.S.C. § 15(a), interest, reasonable attorney's fees, and costs. Plaintiffs now seek to certify a class of "[a]ll persons employed by any defendant to work in a hospital in the

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Chicago area as a Staff RN at any time from June 20, 2002 until the present."¹ (Pls.' Mot. for Class Certification at 1.)

DISCUSSION

Federal Rule of Civil Procedure 23 allows a member of a class to sue as a representative of the class only if (1) joinder of all members is impractical because the class is so numerous, (2) questions of law or fact are common to the class, (3) the representative's claims are typical of those of the class, and (4) the representative will fairly and adequately protect the interests of the class. Fed. R. Civ. P. 23(a). "All of these elements are prerequisites to certification; failure to meet any one of them precludes certification as a class." Retired Chicago Police Ass'n v. City of Chicago, 7 F.3d 584, 596 (7th Cir. 1993).²

Plaintiffs also must show that the action is maintainable under one of the three categories of Rule 23(b). Here, class certification is sought under Rule 23(b)(3), which requires that common questions of law or fact predominate over questions

^{1/} We will refer to the time period from June 20, 2002 until the present as the "Class Period."

Plaintiffs define "Staff RNs" as "nurses who: (1) are hourly paid Registered Nurses; (2) who provide in-patient care at acute care hospitals in Cook, DuPage, and Lake Counties; and (3) hold positions not requiring an APN [Advanced Practice Nursing] certification or other advanced degree." (Pls.' Updated Proposed Findings of Fact and Conclusions of Law ¶ 5 n.2.)

^{2/} In addition to the four express requirements of Rule 23(a), there are two implied requirements: first, the class must be sufficiently defined so that it is identifiable; and second, the named representatives must fall within the putative class. Fournigault v. Independence One Mortgage Corp., 234 F.R.D. 641, 644 (N.D. Ill. 2006). It appears to us that plaintiffs have satisfied these implied requirements, and defendants do not argue otherwise.

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affecting only individual members and that a class action is the best method for fairly and efficiently adjudicating the controversy. The party seeking certification bears the burden of proving that all of Rule 23's requirements are satisfied. Trotter v. Klincar, 748 F.2d 1177, 1184 (7th Cir. 1984). "Class certification requires a rigorous investigation into the propriety of proceeding as a class." Livingston v. Associates Fin., Inc., 339 F.3d 553, 558 (7th Cir. 2003).

"[A] court may not refuse to certify a class on the ground that it thinks the class will eventually lose on the merits," Loeb Industries, Inc. v. Sumitomo Corp., 306 F.3d 469, 480 (7th Cir. 2002), but where a question of suitability for class treatment overlaps with a merits question, we must "make a preliminary inquiry into the merits." Szabo v. Bridgeport Machs., Inc., 249 F.3d 672, 676 (7th Cir. 2001); see also In re Hydrogen Peroxide Antitrust Litig., 552 F.3d 305, 307 (3d Cir. 2008) ("[T]he court must resolve all factual or legal disputes relevant to class certification, even if they overlap with the merits--including disputes touching on elements of the cause of action."). "Factual determinations supporting Rule 23 findings must be made by a preponderance of the evidence." Hydrogen Peroxide, 552 F.3d at 307.

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A. Rule 23(a) Requirements**1. Numerosity**

The proposed class must be so numerous that joinder of all members is impractical. Fed. R. Civ. P. 23(a)(1). Plaintiffs are not required to specify the exact number of persons in the class; a properly-supported estimate is sufficient, see Marcial v. Coronet Insurance Co., 880 F.2d 954, 957 (7th Cir. 1989), and the court may rely on common sense in order to determine numerosity, Grossman v. Waste Management, Inc., 100 F.R.D. 781, 785 (N.D. Ill. 1984).

As noted supra, plaintiffs seek to certify a class of all Staff RNs employed by any of the defendants at a hospital in the Chicago area at any time from June 20, 2002 until the present. Based on payroll and job-classification data they obtained from defendants through discovery, plaintiffs have estimated that the class consists of approximately 19,000 members. (Pls.' Updated Proposed Findings of Fact and Conclusions of Law ¶ 18, citing Supplementary Decl. of Gordon Rausser ¶ 104A.)³ Moreover, defendants do not dispute plaintiffs' ability to establish the requisite numerosity. Thus, we find that plaintiffs have established that the proposed class is so numerous that joinder is impracticable.

^{3/} After four days of oral argument on plaintiffs' motion for class certification, the parties submitted final proposed findings of fact and conclusions of law. Hereinafter, we will refer to plaintiffs' submission as "Pls.' Final Br." and to defendants' submission as "Defs.' Final Br."

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2. Commonality

A named class representative may sue on behalf of a class only if there are questions of law or fact common to the class. Fed. R. Civ. P. 23(a)(2). "The commonality requirement is not difficult to meet." Smith v. Aon Corp., 238 F.R.D. 609, 614 (N.D. Ill. 2006). "The fact that there is some factual variation among the class grievances will not defeat a class action. A common nucleus of operative fact is usually enough to satisfy the commonality requirement" Rosario v. Livaditis, 963 F.2d 1013, 1017-18 (7th Cir. 1992) (citation omitted). A common nucleus of fact is said to exist where a defendant has "engaged in standardized conduct towards members of the proposed class." Keele v. Wexler, 149 F.3d 589, 594 (7th Cir. 1998).

The standardized conduct alleged here is defendants' conspiracy to suppress the base wages⁴ paid to their Staff RNs. In addition to the existence and scope of a conspiracy, plaintiffs have identified a number of other common questions, such as whether the conspiracy was effective in suppressing wages and whether plaintiffs were damaged by the conspiracy. Defendants do not challenge plaintiffs' assertion that the commonality requirement has been met. We find that plaintiffs have satisfied this requirement.

^{4/} We will use the term "base wages" throughout this opinion to refer to base wages together with base-linked compensation.

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3. Typicality

The proposed class representatives' claims must be typical of the putative class. Fed. R. Civ. P. 23(a)(3). The typicality requirement is closely related to the commonality requirement, Rosario, 963 F.2d at 1018, and "is meant to ensure that the named representative's claims have the same essential characteristics as the claims of the class at large," Oshana v. Coca-Cola Co., 472 F.3d 506, 514 (7th Cir. 2006) (internal quotation marks omitted). A claim is typical if it arises from the same event or practice or course of conduct that gives rise to the claims of other class members and is based on the same legal theory. Id. Typicality is a "low hurdle" that "requires neither complete coextensivity nor even substantial identity of claims." Owner-Operator Indep. Drivers' Ass'n v. Allied Van Lines, Inc., 231 F.R.D. 280, 282 (N.D. Ill. 2005).

It is undisputed that plaintiffs, Reed and Digiannantonio, worked as Staff RNs at one of defendants' hospitals during the Class Period. Reed was employed by Advocate during the Class Period, although as a Staff RN only during certain portions of the period. (Defs.' App., Tab 100, at 6.) Digiannantonio was employed by ENH from 1991 through September 2005. (Third Am. Compl. ¶ 8.) But defendants contend that neither plaintiff is typical of the putative class because neither was a Staff RN during the entire Class Period and because, according to defendants, the "markets" of

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the named plaintiffs are "inconsistent" with the three-county hospital-only market plaintiffs have identified for the purpose of demonstrating defendants' market power, due to plaintiffs' unwillingness to commute throughout that entire region. (Defs.' Final Br. § 2 ¶ 52.) Defendants also argue that Digiannantonio is atypical because her wages fluctuated during the Class Period in accordance with her participation in a program as a "preceptor," or mentor, nurse.

In evaluating typicality, we are mindful that it is not a demanding standard. The claims of Reed and Digiannantonio and the claims of the unnamed class members all arise from the same course of conduct (the alleged conspiracy to suppress Staff RN base wages) and are based on the same legal theories that the conspiracy violated antitrust law. That the specific details of their employment situations--their particular lengths of employment, wages, and willingness to commute--may vary from those of other nurses poses no problem as to typicality because the essential characteristics of their claims are identical. See In re Playmobil Antitrust Litig., 35 F. Supp. 2d 231, 242 (E.D.N.Y. 1998) ("Typicality refers to the nature of the claims of the representative, not the individual characteristics of the plaintiff.") Defendants cite no case law that persuades us otherwise.

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Defendants also challenge plaintiffs' typicality as representatives of UCH's nurses. UCH's RNs are members of a union, and their wages and conditions of employment are determined by a collective bargaining agreement. According to defendants, because the wages of UCH's nurses were "determined through collective bargaining," "the course of conduct that allegedly caused them to be paid suppressed wages is not the same." (Defs.' Final Br. § 2 ¶ 54.) We disagree. Plaintiffs allege that UCH participated in the same single conspiracy to suppress Staff RN wages as did UCH's co-defendants and thereby violated antitrust law. Although UCH's defense throughout this litigation has been that it is distinguishable from its co-defendants because of the collective bargaining process, plaintiffs' claims against UCH nonetheless arise from the same alleged conduct that gives rise to the claims of UCH's nurses and are based on the same legal theories.⁵ See Playmobil, 35 F. Supp. 2d at 241-42 (for typicality purposes, "[i]f a central conspiracy is established, differences in the way in which the plan was manifested are unimportant").

We find that Reed and Digiannantonio satisfy the typicality requirement of Rule 23(a)(3).

^{5/} As to the UCH RNs, plaintiffs allege that the conspiracy artificially suppressed the starting point for each round of collective bargaining.

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4. Adequacy of Representation

The named plaintiffs must fairly and adequately protect the interests of the class. Fed. R. Civ. P. 23(a)(4). “[A]dequacy of representation is composed of two parts: the adequacy of the named plaintiff’s counsel, and the adequacy of representation provided in protecting the different, separate, and distinct interest of the class members. Therefore, a class is not fairly and adequately represented if class members have antagonistic or conflicting claims.” Retired Chicago Police Ass’n, 7 F.3d at 598 (internal quotation marks, brackets, and citation omitted).

Plaintiffs’ counsel is competent and experienced in antitrust litigation. Moreover, it appears that Reed and Digiannantonio have a sufficient interest in the outcome to ensure zealous advocacy, and there are no indications that their claims conflict with those of other class members. Defendants do not challenge plaintiffs’ showing of adequacy. Accordingly, we find that plaintiffs have demonstrated that they will fairly and adequately protect the interests of the class.

B. Rule 23(b) Requirements

Under Rule 23(b)(3), questions of law or fact common to class members must predominate over questions affecting only individual members, and a class action must be superior to other available methods for the fair and efficient adjudication of the controversy. These “twin requirements” are known as predominance and

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superiority. Hydrogen Peroxide, 552 F.3d at 310. When considering these factors, we examine the substantive elements of plaintiffs' claims, the proof necessary for those elements, and the manageability of trial on those issues. See Simer v. Rios, 661 F.2d 655, 672-73 (7th Cir. 1981).

1. Predominance

Predominance, which "tests whether proposed classes are sufficiently cohesive to warrant adjudication by representation," Amchem Products, Inc. v. Windsor, 521 U.S. 591, 623 (1997), is "a standard far more demanding than the commonality requirement of Rule 23(a)," Hydrogen Peroxide, 552 F.3d at 311 (internal quotation marks omitted). "Because the nature of the evidence that will suffice to resolve a question determines whether the question is common or individual, a district court must formulate some prediction as to how specific issues will play out in order to determine whether common or individual issues predominate in a given case." Hydrogen Peroxide, 552 F.3d at 311 (internal quotation marks omitted) (citing Blades v. Monsanto Co., 400 F.3d 562, 566 (8th Cir. 2005) and In re New Motor Vehicles Canadian Exp. Antitrust Litig., 522 F.3d 6, 20 (1st Cir. 2008)). "If proof of the essential elements of the cause of action requires individual treatment, then class certification is unsuitable." Hydrogen Peroxide, 552 F.3d at 311 (citing Newton v. Merrill Lynch, Pierce, Fenner & Smith, Inc., 259 F.3d 154, 172 (3d Cir. 2001)).

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Plaintiffs have two antitrust claims, both for violation of § 1 of the Sherman Act. In Count I, plaintiffs allege a "per se" violation based on defendants' alleged agreement to suppress wages by "keep[ing] their respective mean and median base wages for Staff RNs close to the median and mean reported by [the] MCHC at various times throughout the year." (Pls.' Final Br. ¶ 6.) In Count II, plaintiffs allege a "Rule of Reason" violation based on defendants' alleged agreement to regularly exchange detailed and non-public information about RN compensation.⁶ To prevail on their claims, plaintiffs must prove (1) a violation of antitrust law (here, § 1); (2) individual injury, or impact, caused by that violation; and (3) measurable damages. Hydrogen Peroxide, 552 F.3d at 311; Cordes & Co. Fin. Servs., Inc. v. A.G. Edwards & Sons, Inc., 502 F.3d 91, 105 (2d Cir. 2007). To obtain class certification, plaintiffs must show that common proof will predominate with respect to each of these elements of their claims. Weisfeld v. Sun Chem. Corp., 210 F.R.D. 136, 141 (D.N.J. 2002).

^{6/} "Section 1 of the Sherman Act proscribes 'every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations.'" 42nd Parallel N. v. E St. Denim Co., 286 F.3d 401, 404 (7th Cir. 2002) (citing 15 U.S.C. § 1). Restraints that do not involve an agreement on prices are not per se illegal and instead are subject to a "Rule of Reason" analysis. The Rule of Reason "requires a plaintiff to show that the challenged restraint has adversely impacted competition in the relevant market." Id.

There does not appear to be a dispute that if plaintiffs could prove an agreement among the defendants to fix Staff RN wages, such an agreement would constitute a per se violation, and if plaintiffs could prove an agreement merely to share information about wages, the Rule of Reason analysis would apply.

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a. Violation of Antitrust Law

To prove a violation of § 1, "a plaintiff must show (1) there was an agreement, conspiracy, or combination between two or more entities; (2) the agreement was an unreasonable restraint of trade under either a per se or rule of reason analysis; and (3) the restraint affected interstate commerce." American Ad Mgmt., Inc. v. GTE Corp., 92 F.3d 781, 784 (9th Cir. 1996).

Plaintiffs' allegations that defendants participated in a wage-fixing conspiracy, or, alternatively, a conspiracy to exchange information about wages, are clearly susceptible to common proof. See, e.g., Cordes, 502 F.3d at 105; Weisfeld, 210 F.R.D. at 142. During oral argument on the instant motion, defendants devoted a great deal of time to discussing the plausibility of a wage-fixing conspiracy. But whether plaintiffs can prove that a conspiracy existed is not an issue that we consider on class certification; rather, the question is whether plaintiffs can prove a conspiracy *with common proof*, and the answer is yes.

b. Antitrust Impact

In Hydrogen Peroxide, the Court of Appeals for the Third Circuit explained the element of antitrust impact as follows:

[I]ndividual injury (also known as antitrust impact) is an element of the cause of action; to prevail on the merits, every class member must prove at least some antitrust impact resulting from the alleged violation. 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

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claim that may call for individual, as opposed to common, proof. Plaintiffs' burden at the class certification stage is not to prove the element of antitrust impact, although in order to prevail on the merits each class member must do so. Instead, the 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. Deciding this issue calls for the district court's rigorous assessment of the available evidence and the method or methods by which plaintiffs propose to use the evidence to prove impact at trial.

552 F.3d at 311-12 (citations omitted). Put another way, "[e]stablishing causation, or "fact of damage," requires the plaintiff to demonstrate a causal connection between the specific antitrust violation at issue and an injury to the . . . antitrust plaintiff. . . . [W]here fact of damage cannot be established for every class member through proof common to the class, the need to establish antitrust liability for individual class members defeats Rule 23(b)(3) predominance." Bell Atl. Corp. v. AT&T Corp., 339 F.3d 294, 302 (5th Cir. 2003). Demonstrating that impact can be proved commonly is a separate showing from demonstrating that the amount of damages can be proved commonly. Id. at 302-03.

Whether plaintiffs have offered a reliable method of proving impact (as well as damages) with evidence common to the class is the crux of the parties' dispute on this motion.⁷ Both plaintiffs

⁷ Plaintiffs have made much of a recent Seventh Circuit decision in which the Court stated that the possibility, or even near-inevitability, of a class including persons who have not been injured by a defendant's conduct does not preclude class certification. See Kohen v. Pacific Inv. Mgmt. Co., 571 F.3d 672, 677 (7th Cir. 2009). But defendants do not quarrel with that principle; rather, they maintain that plaintiffs have failed to demonstrate that they have a reliable common method for determining injury.

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and defendants have presented the opinions of expert economists, who, predictably, disagree. Plaintiffs have submitted a series of declarations of their expert, Gordon Rausser, Ph.D., an economics professor at the University of California, Berkeley. Dr. Rausser ultimately concludes that a conspiracy to suppress Staff RN base wages "would have impacted class members in the same manner; proportionally reducing the compensation they received which was calculated as a function of their base wage rate." (Rausser Supplementary Decl. ¶ 118.) Defendants have countered with declarations prepared by their expert, Robert D. Willig, Ph.D., an economics professor at Princeton University. Dr. Willig disputes that there is any common impact on Staff RN wages and asserts that Dr. Rausser's reliance on average base wages is a fundamental flaw in plaintiffs' approach. Dr. Willig also points to the differences among defendants' compensation practices and the highly individual nature of RNs' compensation as factors that preclude plaintiffs' ability to prove class-wide impact with common evidence.

Before discussing the particulars of each expert's analysis, we will describe plaintiffs' approach to establishing common impact. Plaintiffs have identified "three types of related evidence" through which they seek to demonstrate common impact:

First, although the wages of individual Staff RNs involve different levels, Plaintiffs allege that each Defendant sets Staff RN wages by reference to a fixed pay structure or "wage grid" that determines base wages by job title, years of experience, or tenure. Second, Plaintiffs

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allege that Defendants set the level of their pay structures by reference to MCHC survey data. Finally, controlling for certain observable characteristics among the Staff RNs (*i.e.*, job title, experience or tenure), Dr. Rausser performed a multiple regression analysis to confirm that the common impact experienced through a wage suppression facilitated by the MCHC survey data and wage grids would not be overshadowed by individual wage variation.

(Pls.' Final Br. ¶ 32.) At oral argument, plaintiffs referred to this approach as a "three-legged stool." (Tr. of July 14, 2009 Hrg. at 646.) To show the wage suppression referred to by plaintiffs in the third prong of their approach, plaintiffs rely on an econometric⁸ model created by Dr. Rausser to which the parties have referred as his "wedge" analysis (or, more accurately, a series of four "wedge" analyses).⁹ The wedge analysis is described more fully infra.

^{8/} "Econometrics is the application of statistical techniques and inferences to observed data in order to evaluate economic theories and their predictions. Econometrics provides a means for determining whether a correlation, which may reflect a parallel, reciprocal, or causal relationship, may exist between various events that involve complex sets of facts. The principal value of econometrics for antitrust analysis and litigation lies in its use for developing an empirical foundation in order to prove or disprove assertions that are based on a particular economic theory." ABA Section of Antitrust Law, Econometrics: Legal, Practical, and Technical Issues 1 (2005).

^{9/} The first wedge is set forth in Dr. Rausser's initial Declaration; the second wedge is set forth in his Supplementary Declaration; and the third and fourth wedges are set forth in his Rebuttal Declaration. The second wedge was created with the defendants' payroll data, which was not available to Dr. Rausser before he submitted his initial Declaration. The third and fourth wedges were created in response to Dr. Willig's criticisms. In pre-hearing briefs and during oral argument, defendants asserted that there were problems with each of Dr. Rausser's wedge analyses. During oral argument, we asked plaintiffs' counsel whether plaintiffs are now relying solely on the fourth wedge ("Wedge 4"), the most recent of Dr. Rausser's analyses. In the interest of judicial economy, we did not want to discuss three obsolete wedge models. Counsel conceded that plaintiffs would choose Wedge 4 as the best of the four models, and accordingly, we indicated that Wedge 4 would be the model on which we would base our class certification decision. (Tr. of July 15, 2009 Hrg. at 764-65.)

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Dr. Rausser states that the plaintiffs retained him to determine whether members of the proposed class would have suffered a common economic impact as a result of an agreement by defendants to suppress RN wages or the exchange of detailed, confidential RN wage information among the defendants, whether that impact could be demonstrated using evidence common to the class, and whether there is a workable methodology for calculating damages on a class-wide basis. (Rausser Supplementary Decl. ¶ 8.)

Dr. Rausser further states that the first portion of his assignment required him "to determine whether defendants could feasibly have carried out the alleged conspiracy, with the effect of suppressing wages for hospital RNs," and for that determination, he analyzed the relevant market within which the alleged conduct occurred. He explains that the term "relevant market" refers to a set of goods and services that compete with, and may be substituted for, each other, and that a relevant market is typically defined by both its product scope and its geographic scope. (Id. ¶ 13.) For a host of reasons explained in detail in Dr. Rausser's Supplementary Declaration, he concludes that the product scope consists of "non-exempt RN patient care labor within the hospital setting [that does] not requir[e] an APN certification or other advanced degree."¹⁰ (Id. ¶ 29.) As for geographic scope, it

^{10/} "Non-exempt" refers to RNs who are not in administrative or management-type positions. (Id. ¶ 17.) "APN certification" refers to "Advanced Practice Nurse" certification; Dr. Rausser explains that this accreditation requires

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consists of the area in which those allegedly affected by wage suppression might go to obtain alternative employment, and Dr. Rausser concludes that the scope is limited to Cook, Lake, and DuPage counties in Illinois (the "three-county area"), for the reasons described in his declaration. (Id. ¶¶ 30, 43.)

Dr. Rausser then proceeds to consider the level of market power--the influence defendants were capable of exerting over RN wages within the market. Based on defendants' market share (33.7 percent of the total hospital RN employment), their broad array of services and status as "nurse magnets" that Dr. Rausser believes give them greater leverage in setting wages, and the inelastic supply of hospital RN services, he concludes that defendants had sufficient power within the relevant market to suppress RN wages "in a manner consistent with the allegations of conspiracy." (Id. ¶¶ 12, 44-60.) Dr. Rausser also maintains that "[w]hile the economic benefits to defendants of coordinated wage suppression are large, the costs of participating in the conspiracy are comparatively small" and that the MCHC surveys "provided a workable mechanism both to implement the conspiracy and to monitor co-conspirators' compliance with the wage setting arrangement." (Id. ¶ 12.)

additional training and education and qualifies RNs for greater responsibilities in a specialized field of care. (Id. ¶ 18.)

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Dr. Rausser explains his econometric "wedge" analysis in the section of his Supplementary Declaration titled "Benefits and Costs of Coordinated Wage Suppression" as follows:

In any analysis of wage suppression the fundamental economic principles turn on oligopsony or monopsony¹¹ pricing. For each of these two specifications, either a single buyer or a few buyers face many sellers of services. In both cases market power is exercised by affecting the market price of the factor purchased. In this matter, the wages paid are affected by the quantity of nurse services employed. The result is that a *wedge* is created between the wage determined from the available supply of nurse services versus the wage determined from the quantity of nurse services demanded. Equivalently, for a given suppression of wages, a *wedge* is determined between the quantity of nurse services demanded by hospitals and the quantity of nurse services supplied. To quantify either *wedge*, as well as to estimate the competitive wage determination, both the demand for RN services by the defendant hospitals as well as the supply of RN services are required. To determine the demand and supply of RNs I used estimates of the demand and supply equation focusing on the relevant geographic market (Cook, Lake, and DuPage counties). If, indeed, wages are suppressed, then the quantity of nurse services demanded should be larger than the quantity of nurse services supplied at current wages.

(Id. ¶ 71.)¹² Dr. Willig describes the purpose of the wedge analysis in a concise fashion: "[T]he purpose of the wedge analysis is to create a model for what a competitive average wage would be and compare it to what is actually being paid." (Decl. of Robert D. Willig ¶ 141.) The parties have referred to the scenario in

^{11/} The terms "oligopsony" and "monopsony" are the reverse of oligopoly and monopoly. They refer to an abuse of market power on the buyer side. See Todd v. Exxon Corp., 275 F.3d 191, 201 (2d Cir. 2001).

^{12/} The term "wedge" is derived from the shape that can be identified when a monopsony market is graphed.

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which competitive wages are paid and the alleged wage suppression does not exist as the "but-for world."

In the section of his Supplementary Declaration that addresses common impact, Dr. Rausser states:

In deposition testimony and documents, defendants have conceded that they routinely used the MCHC survey results to set their own employees' wages. Although the precise mechanism for incorporating this information into the compensation ladder varies somewhat from one defendant to another, the application is sufficiently mechanical to assure that base wages closely tracked each other.

. . .
The result of this systematic use of wage data from a defined "comparator" set was to standardize (and thus control) base wages across defendants. Although there were minor variations among the defendants, their base wages were arrayed in a relatively tight band exhibiting none of the over-bidding activity typically expected in an environment of scarce supply. . . . [T]he average wages paid by the defendants remained tightly arrayed and moved together throughout the proposed class period.

. . .
The limited variation in defendants' base wages, combined with the systematic way in which defendants relied upon the same information to set those base wages, indicates that all members of the proposed class would have suffered a common impact. To the extent that the base wages in the self-defined market were suppressed, that suppression would result in economic loss to each of the class members. That loss would be equivalent to the total base wages paid, together with any other compensation calculated as a fixed percent of base wages, multiplied by the percentage wage suppression.

(Id. ¶¶ 94, 99, 102.) Regarding individual RN characteristics, Rausser opines: "Although individual class members have different motivations for selecting their employer or specific job assignment, and may enjoy the benefit of different incremental compensation, there is no evidence that these attributes would have

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been any different in the "but-for" world in which there was no coordinated action. These individual variations are therefore irrelevant to the overall wage suppression alleged in the Complaint." (Id. ¶ 12.)

In the section of his Supplementary Declaration titled "Class-Wide Damage Methodology," Dr. Rausser proposes "[t]hree alternative frameworks" for computing class-wide damages. The first is based on his wedge analysis. The second would use base wages in non-conspiracy cities as benchmarks for computing base wages in the but-for world and then compare those to Chicago wages. The third would compare base wages in Chicago during an unspecified period of time unaffected by the conspiracy with base wages during the period allegedly affected by the conspiracy. In his Rebuttal Declaration, Dr. Rausser proposes a fourth alternative method called the "New Empirical Industrial Organization" (NEIO) approach, which he claims is a "simple" procedure for estimating class-wide damages. (Rebuttal Decl. of Gordon Rausser ¶¶ 152-157.) Dr. Rausser outlines the NEIO approach in the abstract, but fails to explain specifically how he would use it to measure the alleged wage suppression in this case or to determine class-wide damages. In any event, plaintiffs have relied almost exclusively on the method that is based on the wedge analysis. Dr. Rausser merely identifies the other three methods as possibilities, and plaintiffs have failed to develop any argument that those methods would be adequate

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to calculate damages on a class-wide basis; therefore, they will be disregarded.

To show that class members "would have suffered injury by virtue of the wage suppression conspiracy," Dr. Rausser performed a wedge analysis. (Decl. of Gordon Rausser ¶ 74.) It is an empirical analysis designed to estimate the supply and demand for RN services in Chicago-area hospitals and assess the difference between the actual wages defendants paid their RNs and the wages defendants would have been willing to pay given the actual supply of nursing hours. During oral argument, plaintiffs described the steps in Dr. Rausser's "wedge" technique as follows:

Isolate the effects of external factors on wages and nurse hours, and use these shifters to separately identify supply (nurse hours offered) and demand (nurse hours purchased)

1st Stage: Calculate the portion of wages explained by these shifters

2nd Stage: Estimate supply/demand by finding the relationship between the shifters and nurse hours, controlling for external factors that affect supply/demand

(Pls.' June 1, 2009 Presentation, Slide 89.) According to Dr. Rausser, the wedge analysis "demonstrate[s] behavior consistent with the facilitation of wage suppression and make[s] it possible to calculate the degree of such underpayment on a class wide basis which can then be applied to reported wages adjusted for factors which influence earnings such as age, tenure, employment status,

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job title/function and unit of care." (Rausser Supplementary Decl. ¶ 74A.)

In Dr. Rausser's fourth wedge analysis ("Wedge 4"), which is the analysis on which we will base our class certification decision, see note 9 supra, he estimates the supply curve in the but-for world with defendants' payroll data, and he estimates the demand curve in the but-for world with national public survey data pertaining to RNs. (Rausser Rebuttal Decl. ¶ 148.) Because Dr. Rausser was missing data for 35 of the 90 hospitals in the Chicago area, he had to estimate demand for those 35 hospitals. (Id.) With Wedge 4, Dr. Rausser found that the "average effective competitive wage" would be \$31.23 per hour, while the "actual average effective wage paid" was \$28.06 for the year 2004, with a resulting average wage suppression of 11.3 percent. (Id. ¶ 151.) During oral argument, plaintiffs represented that, using the wedge analysis, a separate wage suppression calculation could be performed for each year of the alleged conspiracy. (Tr. of July 15, 2009 Hrg. at 861.)

Another aspect of Dr. Rausser's methodology, as set forth in his Supplementary Declaration, is a "precursor" regression, which is the "adjust[ment] for factors which influence earnings" mentioned supra. (Rausser Supplementary Decl. ¶¶ 74A, 112A.) "Regression analysis is a commonly accepted statistical tool used to examine the effect of independent variables on a dependent

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variable." Freeland v. AT&T Corp., 238 F.R.D. 130, 144 (S.D.N.Y. 2006) at 20 (internal quotation marks omitted). Dr. Rausser explains the operation of his regression analysis as follows:

As a precursor to [his proposed damages methodologies], I wanted to assure myself that, given the available data, it was possible to quantify and control for the effects upon wages of various individual RN characteristics. In doing so, I specified a model in which the inflation adjusted base wage rate received by a class nurse (using 2000 as the base year) is taken to be a non-linear function of the nurse's age and tenure, and a linear function of the nurse's full time v. part time status, registry v. regular status,¹³ job title, unit of care and hospital location. I then econometrically estimated this equation using Feasible Generalized Least Squares.¹⁴ Using this method for each defendant and the entire dataset, I found that the model was able to explain between 48% and 63% of variance in base wages across class nurses using the entire data set. However, when I utilized only 2004 data which provided the largest number of observations with complete enumeration of employee characteristics of any year, a larger portion, 54% to 75%, of total variation in base wages could be explained. These are robust results, demonstrating that it is possible to accurately identify the influence of individual nurse attributes on base wages when estimating class wide damages.

(Rausser Supplementary Decl. ¶ 112A.) In Dr. Rausser's Rebuttal Declaration, he introduces a set of regressions in which he uses the wages defendants reported to the MCHC, along with other nurse-specific characteristics, to predict the base wages received by RNs at defendants' hospitals. (Rausser Rebuttal Decl. ¶¶ 116-126.)

¹³/ "Registry" nurses are RNs employed by hospitals to fill in as needed. Generally, registry nurses are paid an hourly rate and do not receive benefits. Registry Nurses make up about 20 percent of the proposed class. (Defs.' Final Br. § 1 ¶ 14.)

¹⁴/ "Feasible Generalized Least Squares" is a type of regression technique.

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Dr. Rausser performs this regression analysis in order to "explain" and control for variations in the base wages paid to defendants' RNs. He finds that his model is "generally able to explain between 51% and 97% of the individual wage variation in non-Registry nurses' base wages," id. ¶ 120, and "conclude[s] that wages at any given hospital have strong ties to MCHC reported wages for all other defendant hospitals. The common impact experienced through a wage suppression facilitated by these MCHC survey reports would therefore not be overshadowed by individual wage variation, most of which can be controlled for with other observable characteristics," id. ¶ 125.

Dr. Willig responds to and disputes many of Dr. Rausser's opinions. According to Dr. Willig, Dr. Rausser "commits several fundamental errors in all three of his declarations," including "errors of conception, errors of computation, and errors of interpretation." (Decl. of Robert D. Willig in Supp. of Defs.' Mot. to Strike the Impact Analyses in Gordon Rausser's Declarations ¶ 7.) Dr. Willig argues that Dr. Rausser's wedge approach suffers from "two basic conceptual flaws." The first is as follows:

[T]he wedge estimated by Professor Rausser, even if taken at face value, speaks to averages. Thus, the model proposed by Professor Rausser fails to answer the relevant question for purposes of class certification, which is whether the alleged suppression had an impact on virtually every class member. Averages mask what individual nurses were actually paid; virtually all nurses were paid more or less than the average. This reveals a fundamental flaw in Plaintiffs' class

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certification approach. Even if one assumes the average wage was reduced by the alleged conspiracy, that would not mean that all members of the proposed class suffered a reduced wage or that any reduction for an individual nurse could be calculated in a formulaic way by common proof.

(Willig Decl. in Supp. of Mot. to Strike ¶ 11.) Dr. Willig further explains:

To be precise, Professor Rausser uses individual-level data to estimate the parameters of his supply curve and hospital-level data to estimate the parameters of his demand curve. But he then uses average wages (and other characteristics) to compute the predicted hours that form the basis for his estimated wedge. Furthermore, he estimates a single wedge to be applied to all nurses in the class. In other words, his estimated wedge does not vary in any way based on differences in individual characteristics and wages across nurses.

(Id. ¶ 11 n.6.)

The second conceptual flaw with Dr. Rausser's approach to estimating a wedge wage, Dr. Willig opines, is a lack of basis in the economics literature. Dr. Willig observes that Dr. Rausser cites no literature, peer-reviewed or otherwise, in support of his approach, and Dr. Willig states that he is aware of no such articles. (Id. ¶ 12.)

Dr. Willig offers detailed criticisms of each of Dr. Rausser's wedge analyses, but we will focus on his criticisms of Wedge 4. As described supra, Dr. Rausser uses defendants' data to estimate a supply curve but uses national survey data to estimate a demand curve. Dr. Rausser notes that he must "limit" the defendants' dataset to full-time nurses in order to "achieve a consistent

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universe" with the national dataset. (Rausser Rebuttal Decl. ¶ 149 & n.126.) It is Dr. Willig's opinion that Dr. Rausser defines "full-time" differently across the two datasets and thus fails to create the necessary consistency in the data. According to Dr. Willig,

By including more nurses who work more hours in the demand data as compared to the supply data, Professor Rausser artificially inflates his estimates of demand relative to supply, thus creating a "wedge." These facts are not derived from Professor Rausser's econometric model, but rather reflect the fundamental inconsistencies between the different data sources that Professor Rausser relies upon. In effect, he compares an apple to an orange and, upon finding that they are not identical, attributes the difference to the conspiracy.

When I take straightforward steps to make the data more comparable, the estimated wage suppression virtually disappears. . . .

(Willig Decl. in Supp. of Mot. to Strike ¶¶ 44-45.)

Regarding the set of regressions set forth in Dr. Rausser's Rebuttal Declaration in which he uses the wages defendants reported to the MCHC, along with other nurse-specific characteristics, to predict the base wages received by RNs at defendants' hospitals, Dr. Willig states that "there is a wide range in the amount of explained variation captured by" Dr. Rausser's series of regressions. (Sur-Rebuttal Decl. of Robert D. Willig ¶ 6.) "For one particular hospital and job title, the regression explains 50 percent of the variation in wages while for another hospital and job title, the regression explains 97 percent of the variation in

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wages." (Id.) Dr. Willig disputes the conclusions Dr. Rausser draws from his regressions as follows:

Citing "the large predictive power that the addition of MCHC controls adds to [his] model," Professor Rausser concludes "that wages at any given hospital have strong ties to MCHC wages for all other Defendant hospitals." He also concludes that "[s]uch strong links between MCHC wages and base wages of all job titles confirm that the surveys are a plausible facilitating mechanism for coordination." That conclusion does not address the class certification question of whether the surveys could cause common impact to class members. In any event, that conclusion is wrong because the mere passage of time provides a better explanation for a correlation between the survey data and the Defendants' wage data. One would expect in any market of rising wages (including non-collusive, competitive markets) that as wages increase with time, surveys reporting the wages would reveal that wages are rising. This does not mean that surveys facilitate collusion, but rather that they reflect the trend of wages rising over time.

The "strong" links Professor Rausser finds between MCHC wages and nurses' base wages merely reflect the strong correlation between base wages and this time trend.

(Willig Sur-Rebuttal Decl. ¶¶ 7-8.)

Dr. Willig also contends that Dr. Rausser's model for calculating damages is "inherent[ly] unreliab[le]," and explains:

In his supplemental declaration, Professor Rausser estimates a wage regression, which he introduces as a precursor to three proposed methodologies for estimating damages. While each of those methodologies is fatally flawed for the reasons set forth in my class certification declaration, it is also worth noting that all three methodologies propose only to estimate damages on average. These models do not propose to take into account the individual characteristics of nurses in any way. To account for the fact that, for example, more experienced nurses tend to earn more money, Professor Rausser needs to estimate the relationship between wages and such individual characteristics.

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Professor Rausser attempts to do so by regressing the natural log of hourly base wage on age, age-squared, tenure, tenure-squared, an indicator for whether the nurse works full-time, indicators for standardized unit of care, indicators for standardized job title, and indicators for hospital location. Professor Rausser estimates this specification for different hospital systems and different time periods. He finds that his regression explains between 48 and 75 percent of the variation in base wages. He concludes from these results "that it is possible to accurately identify the influence of individual nurse attributes on base wages when estimating class wide damages."

However, measures of the percent of variation explained are abstract and Professor Rausser does not explain exactly how he proposes to use his precursor wage regression to estimate damages. . . .

Using Monte Carlo simulations,¹⁵ I demonstrate that, given the parameters of the estimation and the Plaintiffs' claims that wages were suppressed by 7 percent, the likelihood of false positives is approximately 20 percent. Further, there would be no way to discern, on the basis of Professor Rausser's statistical model and the underlying data, which RNs' wages in the but-for scenario would be prone to such errors of prediction and what would be the individual resulting distortions. As a result, I conclude that Professor Rausser's proposed model cannot be used reliably to provide common evidence of class-wide impact.

(Id. ¶¶ 50-54.)¹⁶

Before discussing our views of the experts' analyses, we note as a preliminary matter that the instant section of this opinion is

^{15/} "A Monte Carlo simulation is a generally accepted statistical tool that begins with a large number of variables with a specified range for each variable and runs all of the various permutations or possible outcomes for those various variables." In re Nanovation Techs., Inc., 364 B.R. 308, 336 (Bankr. N.D. Ill. 2007.)

^{16/} We have provided a very brief summary of the most salient points of Dr. Willig's declarations. Dr. Willig identifies what he believes are several other problems that render Dr. Rausser's analyses invalid--the errors of computation and interpretation referred to supra--but we do not find it necessary to discuss all of them. It suffices to say that Dr. Willig's declarations are extremely thorough.

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meant to be primarily a discussion of plaintiffs' showing of common impact, but it has necessarily involved some discussion of plaintiffs' damages-calculation method because Dr. Rausser has described the wedge analysis and his regression analyses as intertwined, although, as defendants observe, he has not specified exactly how they work together. Moreover, we agree with defendants that plaintiffs' description of the interaction between Dr. Rausser's regression and wedge analyses has been rather confusing throughout these proceedings.¹⁷ At oral argument, plaintiffs stated that they were offering the wedge analysis to prove damages, not impact, and that their showing of common impact would be "completely separate" from their damages showing. (Tr. of June 1, 2009 Hrg. at 130; Tr. of July 15, 2009 Hrg. at 720.) Plaintiffs contend that they can show common impact through Dr. Rausser's multiple regression analysis and that it "demonstrates a systematic relationship between base wages paid to Staff RNs at each Defendant hospital and MCHC survey data." (Pls.' Final Br. ¶ 47.) But in his initial Declaration, Dr. Rausser stated that the "implication" of his wedge analysis "is that not only class members, but hospital patients and the public at large, would have suffered injury by virtue of the wage suppression conspiracy." (Rausser Decl. ¶ 74.) And he discusses his precursor regression in the section of his

^{17/} Defendants maintain that "[p]laintiffs' descriptions are backward and mix up the various regressions run by Prof. Rausser." (Defs.' Final Br. § 1 ¶ 72.)

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Supplementary Declaration that addresses damages methodologies. (Rausser Supplementary Decl. ¶ 112A.)

In our view, plaintiffs have been coy about their theory of common impact and their proposed damages methodology. Perhaps this stems from their inability to articulate in a precise way how Dr. Rausser's wedge analysis and regressions work together and exactly what follows from his approach. For example, plaintiffs have described their approach to demonstrating common impact as a "three-legged stool" consisting of (1) defendants' "wage grids"; (2) a link between defendants' grids and the data reported by the MCHC; and (3) Dr. Rausser's regressions. (Tr. of July 14, 2009 Hrg. at 646, 653, 669, 677.) During oral argument, plaintiffs' counsel asserted that "if one leg were sawed off a bit, . . . the stool would [not] collapse" and that even without a valid regression analysis, common impact could be demonstrated "very easily with the other two legs of the stool." (Id. at 646.) But plaintiffs have not told us why that is so--how the wage grids and the purported link to the MCHC data demonstrate common impact standing alone--or how Dr. Rausser's regression analysis functions as a piece of their showing of common impact. Essentially, plaintiffs have made a superficial presentation that comes close to asking us to take Dr. Rausser's analysis on faith. But we cannot simply take his declarations on faith; Rule 23 requires us to conduct a "rigorous analysis." General Tel. Co. of the Sw. v.

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Falcon, 457 U.S. 147, 161 (1982); cf. Piggly Wiggly Clarksville, Inc. v. Interstate Brands Corp., 100 F. App'x 296, 299 (5th Cir. 2004) ("Class certification is a ultimately a legal determination for the court, based on the standards set forth in Rule 23, and the views of an expert in economics or any other field can at most inform that decision."). We have carefully reviewed Dr. Rausser's declarations in order to gain a better understanding of his econometric techniques, but with respect to the wedge model and regressions, his declarations are vague and inscrutable. Dr. Willig's declarations, on the other hand, are far more detailed and understandable; indeed, Dr. Willig describes Dr. Rausser's techniques in much clearer fashion than does Dr. Rausser himself.

There are fundamental problems with Dr. Rausser's analysis that go to the core of the predominance issue and persuade us that plaintiffs cannot meet their burden of demonstrating that they have a viable method of showing class-wide injury with common proof. Before we address those problems, though, we must address defendants' contention that individualized issues would predominate in plaintiffs' attempt to prove the relevant product and geographic markets for RN labor. The parties agree that defining the relevant market is necessary in order to determine whether defendants had market power to suppress RN wages.¹⁸ Defendants have argued

^{18/} Defendants' market power is relevant to plaintiffs' Rule of Reason claim in Count II.

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strenuously that there are "multiple" product and geographic markets, necessitating individual inquiries "to determine which alternative opportunities are feasible for each putative class member." (Defs.' Final Br. § 1 ¶ 57.) Defendants also contend that plaintiffs should have included non-hospital nursing positions in their definition of the relevant market. (Id. § 1 ¶ 61.)

In determining the relevant product market, Dr. Rausser examined a wide variety of data from many sources: defendants' human resources and payroll data; the deposition testimony of defendants' representatives; MCHC survey data; Illinois state licensing requirements for RNs, other nurses, and administrators; peer-reviewed literature on hospital nurse staffing; and national statistics. (Rausser Supplementary Decl. ¶¶ 14-29.) He concluded that excluding non-hospital RNs from the product market was appropriate for three reasons: (1) RN wages for non-hospital jobs are markedly lower than those paid to RNs working at hospitals; (2) there is insufficient capacity in non-hospital settings to accommodate class members, particularly if they seek equivalent or near-equivalent pay; and (3) movement in and out of the hospital setting is substantially less frequent in the Chicago area than in other large metropolitan areas; less than 3.5 percent of Chicago-area nurses moved from hospital employment to non-hospital employment during the 2003-2004 period. (Pls.' Final Br. ¶¶ 65-67.) This aspect of Dr. Rausser's opinion therefore appears to be

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well-founded. Defendants have argued that given a 3.5 percent annual migration, as many as 20 percent of RNs migrated from hospital employment during the Class Period, thus demonstrating that RNs view non-hospital employment as a good alternative. They also contend that MCHC data on hospital RN employment vacancy and turnover, when combined, shows that vacancy and turnover approximated 20 percent each year during the Class Period. We are not persuaded by these arguments because, as plaintiffs correctly recognize, one cannot simply add the 3.5 percent annual departure rate and claim that 20 percent of hospital RNs left hospital employment during the Class Period. Similarly, defendants seem to be double-counting the MCHC vacancy and turnover data, to some extent, to reach their 20 percent estimate.

In determining the relevant geographic market, Dr. Rausser analyzed the question of where those affected by the alleged wage suppression might go to seek alternative employment. (Rausser Supplementary Decl. ¶ 30.) Based on data regarding distance, population density, and transportation networks, he hypothesized that the region within which this movement would occur would be limited to Cook, DuPage, and Lake Counties in Illinois, and then examined the "opportunity cost of employment location for hospital RNs, relative to their earnings net of commute costs." (Id. ¶¶ 30-31.) Dr. Rausser analyzed census and survey data on wages, commute statistics (distance, time, and cost), job availability, and

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hospital capacity restrictions, and estimated that only 2.4 percent of the nurses employed in the three-county area would find it economically advantageous to accept alternative hospital employment in Kane, Will, or McHenry Counties (the adjoining counties). (Id. ¶¶ 31-42.) He concluded that the three-county area constitutes a separate relevant market that can operate without fear of significant labor loss to the surrounding areas. (Id. ¶ 42.)

Like Dr. Rausser's product-market analysis, this geographic-market analysis appears to be well-founded. Plaintiffs have demonstrated that about 84 percent of the proposed class members live in the three-county area, and many of the remaining members live close to the county boundaries. In addition, when compared with the number of hospital RNs who commute into the three-county area, the number of hospital RNs who commute out of the same area is very small. (Rausser Rebuttal Decl. ¶ 79.) Of course, the geographic market could never be perfectly defined, but we reject defendants' argument that each nurse defines her own individual market--as plaintiffs point out, the implication of this argument is that no group of employers could ever suppress these nurses' wages, which defies common sense. We find that plaintiffs have adequately demonstrated that defining the relevant market involves issues common to the members of the proposed class that predominate over individualized inquiries.

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Defendants assert that even accepting plaintiffs' proposed relevant market, their 33.7 percent market share (as computed by Dr. Rausser) would be insufficient to support a finding of market power. Plaintiffs acknowledge that 33.7 percent is "a little on the low side," Tr. of June 1, 2009 Hrg. at 104, but contend that if four non-defendant hospital groups that allegedly also participated in the conspiracy are considered, the market-share figure increases to 51.47 percent. (Pls.' Final Br. ¶ 88.) It seems somewhat arbitrary for plaintiffs to include these non-defendant groups in the mix, but it is significant that they allege that these non-defendant hospitals also were participants in the conspiracy, and there is evidence that these hospitals were chosen by defendants as "comparators" for their wage data to be reported in customized MCHC surveys. Moreover, plaintiffs have presented evidence that defendants have greater leverage in setting wages than market share alone would suggest, due to their elite status as "Magnet Hospitals" and their broad range of services provided. Considering these factors along with defendants' market share, we disagree with defendants that there is "no evidence" that defendants had the market power required to suppress wages across the putative class.

We turn now to the problems with Dr. Rausser's analysis. The first, and critical, flaw is his reliance on averages.¹⁹ As noted

^{19/} This problem is not unique to Wedge 4. It is inherent in each of Dr. Rausser's wedges.

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by Dr. Willig, Dr. Rausser uses average wages to estimate his wedge, and the wedge model results in a single estimated average percentage of suppression to be applied to all nurses in the class. We agree with Dr. Willig that this is a "fundamental flaw" in Dr. Rausser's approach. As Dr. Willig explains: "Even if one assumes the average wage was reduced by the alleged conspiracy, that would not mean that all members of the proposed class suffered a reduced wage or that any reduction for an individual nurse could be calculated in a formulaic way by common proof." (Willig Decl. in Supp. of Mot. to Strike ¶ 11.) Measuring average base wage suppression does not indicate whether each putative class member suffered harm from the alleged conspiracy. In other words, it is not a methodology common to the class that can determine impact with respect to each class member.

With respect to the use of averages as a basis for econometric analyses, the American Bar Association has observed:

Sometimes the prices used by economists are averages of a number of different prices charged to different customers or for somewhat different products. Using such averages can lead to serious analytical problems. For example, averages can hide substantial variation across individual cases, which may be key to determining whether there is common impact. In addition, average prices may combine the prices of different package sizes of the same product or of somewhat different products. When this happens, the average price paid by a customer can change when the mix of products that the customer buys changes-- even if the price of single product changed.

ABA Section of Antitrust Law, Econometrics: Legal, Practical, and Technical Issues 220 (2005).

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Other courts considering common proof of impact have recognized this problem with econometric analyses that rely on averages. In Blades, 400 F.3d at 573, the Eighth Circuit held that "evidence suggesting that [defendants] adhered to a price-fixing agreement that raised the average price of" genetically-modified corn and soybean seeds was insufficient to show common impact, where there were many hybrids of seeds involved and list prices varied widely among hybrids. In re Graphics Processing Units Antitrust Litigation, 253 F.R.D. 478, 493-97 (N.D. Cal. 2008), is another case that involved the use of averages in econometric analysis. The district court found that by resorting to averaging in his analysis of the prices of graphics cards, plaintiffs' expert "evaded the very burden that he was supposed to shoulder," id. at 493, and it accordingly held that plaintiffs did not provide a viable method of demonstrating class-wide injury with common proof. The court explained that averaging "by definition glides over what may be important differences." 253 F.R.D. at 494. And in Freeland, 238 F.R.D. at 151-52, the district court rejected a methodology that used an average overcharge for cellular phones to show class-wide impact.

The evidence presented at the class certification hearing shows that there is substantial variation in the compensation of the individual RNs. Defendants have submitted numerous "scatterplots" that illustrate this dramatic variance. An example

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of these scatterplots appears on page 12 of defendants' final brief; it plots the mean hourly base wage of ENH RNs in the fourth quarter of 2004 against the age of the RNs, which the parties have used as a proxy for experience. (Defs.' Slide C19892-006-0003.) Although the mean hourly base wage depicted on the scatterplot is \$29.55, several RN hourly base wages are as low as \$21 or \$22, several are \$40 or more, and the remainder are scattered at many different points in between. Plaintiffs maintain that the scatterplots are "misleading" because they are plotted against a single RN characteristic, age, and when other nurse characteristics are "controlled for" by Dr. Rausser's regression analysis, much of the scatter "disappears." (Pls.' Final Br. ¶ 43.) But Dr. Rausser's regression does not, in fact, "control for" all of the wide variance in RN base wages, as we discuss infra. Moreover, defendants presented evidence that with respect to average annual base wage increases, some nurses in the class received no pay increases, and others received increases of over 15 percent, with particular percentage increases varying greatly among the defendant hospitals. (Defs.' Slide C19892-016-0001.) Defendants also presented evidence that the changes in defendants' average base wages did not move in parallel during the Class Period; they increased at very different rates and at different times. (Defs.' Slide C19892-014-0001.)

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Plaintiffs' (and Dr. Rausser's) use of averages, when applied to these facts, unacceptably masks the significant variation in RN base wages during the Class Period. As Dr. Willig explains, "the relative movements of mere averages (means) do not prove common impact to individual RNs. For example, mean wages for Defendants' RNs could move together even though particular Defendants gave larger increases to certain, hard to find nurses, and smaller increases to others. The issue is the feasibility of common proof regarding individual nurses, not a hypothetical 'average' nurse." (Willig Decl. ¶ 95.) The reasons for this kind of wide variation were found to prevent class certification as to the issue of common impact in an analogous case, Fleischman v. Albany Medical Center, No. 1:06-CV-765, 2008 WL 2945993 (N.D.N.Y. July 28, 2008). The Fleischman plaintiffs are RNs in the Albany, New York area who allege that their employer hospitals conspired to suppress their wages. The district court held that plaintiffs failed to show that impact was amenable to common proof, noting that "[i]nterchangeability and job mobility in the nursing profession, and the reasons affecting the wage of a particular nurse or class of nurses, though contested, involve too many variables and provide too much ambiguity to carry a motion for class certification on the issue of injury-in-fact." Id. at *6.

Again, we acknowledge that plaintiffs do not profess to rely on the wedge to establish a method of proving class-wide impact;

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they contend that they can show common impact with evidence that defendants maintained wage grids and "set their wages off" the MCHC data, Tr. of July 15, 2009 Hrg. at 921, combined in some way with Dr. Rausser's regressions. This argument has merely superficial appeal; on closer examination, it does not take plaintiffs very far in establishing a method of proving common impact. There is evidence, of course, that defendants considered the MCHC data, to some extent, in setting their wages. That makes sense; why else would the hospitals ask the MCHC for, and pay for, the data? But Dr. Rausser makes an unsupported leap in citing "the systematic way in which defendants relied upon the same information to set those base wages" as support for his finding of common impact. (Rausser Supplementary Decl. ¶ 102.) To begin with, "systematic way" is an overly vague phrase. Furthermore, the evidence is that defendants did not use the MCHC data in a "systematic way." The graph that appears on page 61 of defendants' final brief, which represents the distribution of rates at which average annual base wages increased by defendant, is a powerful illustration of the highly varying rates of change in individual nurses' base wages, both within and across the defendant hospitals. What is more, with the exception of UCH, plaintiffs concede that defendants' "wage grids" apply only to starting salaries. (Tr. of July 14, 2009 Hrg. at 650.) Plaintiffs have failed to present any evidence that defendants actually used the MCHC data in any uniform way, which is a critical

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showing for common impact. Plaintiffs point to Dr. Rausser's graph that purportedly shows a "tight band of wages," but, as we have explained supra, Dr. Rausser improperly relies on averages in order to achieve this semblance of a tight band. And plaintiffs' reliance on Dr. Rausser's regression in order to "explain away" the variance is insufficient, as addressed infra.

A second fundamental flaw in Dr. Rausser's analysis is the imprecise nature of his multiple regression. According to plaintiffs, Dr. Rausser's regression model "was able to explain between 48% and 63% of the variance in base wages across Staff RNs," and when Dr. Rausser "included as variables summary statistics of MCHC wages for *other* Defendant hospitals, the model was able to explain between 51% and 97% of the individual wage variation in non-registry nurse base wages." (Pls.' Final Br. ¶¶ 39-40.) Plaintiffs characterize these results as "robust," "[b]ased on peer-reviewed labor economics literature," and contend that "Dr. Rausser demonstrated that it is indeed possible to accurately identify the influence of individual nurse attributes on Staff RN base wages when estimating Class-wide damages." (Id. ¶ 39.)

We think not. "Multiple regression analysis is not a magic formula. It is simply a mathematical tool for estimating a dependent variable based on a number of independent variables, which may or may not yield statistically significant results."

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Piggly Wiggly, 100 F. App'x at 299. Even the "improved" version of Dr. Rausser's regression model leaves up to half of the causes of the differences in real-world wages unexplained. Perhaps this rate is sufficient for the "economics literature," but it falls far short of satisfying plaintiffs' legal burden to establish a means of demonstrating by common proof that the members of the putative class were injured, and if so, by how much. Dr. Rausser's regression is plainly too imprecise to avoid the need for individualized hearings on impact and damages. Dr. Willig's conclusion that the mere passage of time provides a better explanation for a correlation between the MCHC data and the defendants' wage data is another indication that Dr. Rausser's "improved" regressions are unreliable.

Another glaring problem with Dr. Rausser's analysis is his treatment of registry nurses. A scatterplot chart appears at page 45 of defendants' final brief that illustrates the regression's high error rate for registry nurses. The regression explains only about 5 to 30 percent of the causes in wage variation, and for many registry nurses, the errors are over \$10 per hour. Professor Rausser concedes that "[a] different approach must be used for Registry nurses, as their base wages are usually constant or two tiered, taking little or no account of age, tenure or unit of care assignment." (Rausser Rebuttal Decl. ¶ 124.) But nowhere does he offer such an approach or suggest any method for determining impact

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or damages for this category of RNs, who comprise 20 percent of the putative class. For reasons that are not evident to the court, plaintiffs have included registry nurses in the putative class but fail to explain why they can be treated like non-registry nurses when the evidence indicates otherwise.

Dr. Willig has numerous additional criticisms of Dr. Rausser's analysis, most of which go to Dr. Rausser's implementation of his models or his computation. We need not discuss these criticisms because those we have addressed are structural and spell doom for any method of proving common impact.

Plaintiffs have repeatedly asserted throughout these proceedings that defendants are merely disputing the results of Dr. Rausser's analysis and not his method, invoking the mantra that they are not required to show that Dr. Rausser's analysis "works," but that it is "workable." (Pls.' Final Br. ¶ 46; Tr. of June 1, 2009 Hrg. at 151; Tr. of July 14, 2009 Hrg. at 683.) We do not find the "works versus workable" conception of the issue to be of much utility. The essence of plaintiffs' argument seems to be that we should not subject Dr. Rausser's models to rigorous analysis, which is simply contrary to the law. A rigorous analysis of the expert opinion is not only appropriate, it is necessary. See Graphics Processing, 253 F.R.D. at 492-93 ("[I]t is essential that plaintiffs establish that the requirements of Rule 23 have been met. This inquiry necessarily touches on evidence relating to the

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merits of the case, namely, the proposed methodology of [plaintiffs' expert].") In addition, when a Rule 23 requirement relies on a "novel or complex theory as to injury, . . . the district court must engage in a searching inquiry into the viability of that theory and the existence of the facts necessary for the theory to succeed." New Motor Vehicles, 522 F.3d at 26. Plaintiffs have not identified a single case in which their multi-step theory of proving common impact was used in an antitrust case involving labor, let alone found to warrant class certification. The issue is not whether Dr. Rausser has shown just *any* method for proving impact and damages on a class-wide basis; it is whether the method he proposes is a *reliable* means of common proof. We have concluded that it is not.

Plaintiffs also have repeatedly suggested that the "battle of experts" here is strictly for the jury. (E.g., Tr. of July 15, 2009 Hrg. at 923-24.) When it comes to the reliability of an expert's methods, this is incorrect. "Weighing conflicting expert testimony at the certification stage is not only permissible; it may be integral to the rigorous analysis Rule 23 demands." Hydrogen Peroxide, 552 F.3d at 323. In a similar vein, plaintiffs have also argued that we should steer clear of the merits of this action. (E.g., Tr. of July 14, 2009 Hrg. at 635.) However, a concern for merits avoidance "should not be talismanically invoked to artificially limit a trial court's examination of the factors

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necessary to a reasoned determination of whether a plaintiff has met her burden of establishing each of the Rule 23 class action requirements." Hydrogen Peroxide, 552 F.3d at 317 n.17 (quoting Castano v. American Tobacco Co., 84 F.3d 734, 744 n.17 (5th Cir. 1996)). We have delved into the merits only to the extent necessary to make this reasoned determination.

Nor are we persuaded by plaintiffs' insistence that Dr. Rausser's opinions are based on a generally accepted econometric technique, multiple regression analysis, and that a graph depicting a "wedge" illustration of a monopsony market can be found in Judges Posner and Easterbrook's Antitrust casebook. The critical issue is not whether Dr. Rausser's techniques are generally accepted; it is whether they are appropriate when applied to the facts and data *in this case*.

Defendants have moved to exclude Dr. Rausser's wedge analyses as unreliable and thus inadmissible under Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993). Pursuant to Daubert, we must act as a "gatekeeper" to ensure that expert testimony satisfies the admissibility requirements of Federal Rule of Evidence 702.²⁰ Rule 702 states that an expert may offer an opinion

^{20/} Plaintiffs contend that a "full-blown" Daubert inquiry is "not appropriate at the class certification stage." (Pls.' Final Br. ¶ 57.) We disagree. In Mars Steel Corp. v. Continental Bank N.A., 880 F.2d 928, 938 (7th Cir. 1989), which involved a fairness hearing, the Seventh Circuit found that the Federal Rules of Evidence apply to proceedings under Rule 23. Furthermore, in deciding whether plaintiffs have demonstrated predominance, we have necessarily had to conduct a "full-blown" inquiry into the reliability of Dr. Rausser's analysis.

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if "(1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case." In the court's view, Dr. Rausser's analysis primarily fails to satisfy the third prong of Rule 702; for the reasons discussed supra, we find that he has not applied econometric principles and methods reliably to the facts of this case. Therefore, we regard his testimony as essentially inadmissible. Nevertheless, we will deny defendants' Daubert motion because, in order to reach this conclusion, we had to examine the weight of Dr. Rausser's analysis to the same extent we would have had we ruled it to be admissible. Because we have examined its weight in great detail and concluded that his method fails to provide a reliable basis for plaintiffs to show common impact or damages, we hold against plaintiffs on the substance of Dr. Rausser's analysis and not merely on the question of whether it passes muster under Daubert. We hope that this explanation will avoid the necessity of a remand should the Court of Appeals find Dr. Rausser's analysis sufficient under Daubert and therefore eligible for consideration on its merits.

Plaintiffs have failed to meet their burden of establishing that common proof concerning the fact of injury will predominate.

c. Damages

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The third element of plaintiffs' claims is measurable damages. Plaintiffs propose to calculate damages by using the wedge model "to determine the competitive wage that Defendants would have paid 'but for' the alleged conspiracy. . . . [O]nce the percentage difference between actual and 'but for' compensation is determined, Class-wide damages can be readily determined by multiplying that number by the total base-linked wages paid to each Class member during the Class Period. Similarly, individual damages may be computed by applying that percentage to the individual Class member's base-linked wages during the Class Period." (Pls.' Final Br. ¶ 49 (citations omitted).)

We have already found that plaintiffs have not shown that common proof can establish impact across the class; moreover, we believe that plaintiffs have failed to show that a *reliable* formula for calculating damages can be devised. As an initial matter, Dr. Rausser's declarations do not explain in any detail how he would actually calculate damages for each member of the putative class. He does not even provide an example by computing damages for any individual RN. What is more, as discussed supra, plaintiffs' "percentage wage suppression" formula unacceptably relies on averages. It fails to account for the host of factors that affects RN wages. Dr. Willig's criticisms of Dr. Rausser's proposed damages calculation and his conclusion that it is unreliable are well-taken. As the court in Fleischman found, plaintiffs' reliance

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on averages ignores "differences over time, nurse performance and merit, sign-on or retention bonuses, or other factors that may play into an individual nurse's (or class of nurses') wage" as well as "non-wage compensation, such as employee benefits, overtime and other factors." 2008 WL 2945993, at *7. Defendants are correct that "[e]ven if one could derive a total damages pool, it could not be apportioned without reviewing information specific to each nurse." (Defs.' Final Br. § 2 ¶ 40.) The amount of damages suffered by each RN plaintiff will necessitate individualized inquiries, which could mean as many as 19,000 mini-trials.

Plaintiffs point out that several courts have certified classes of antitrust plaintiffs even where individualized damages determinations must be made. The Court of Appeals for the Fifth Circuit acknowledged as much in Bell Atlantic (a decision ultimately concluding that class certification was inappropriate because plaintiffs had failed to demonstrate that common issues of fact predominated over individual issues of fact that were necessary to render a just estimate of antitrust damages).²¹ The Fifth Circuit then went on to state:

Class treatment, however, may not be suitable where the calculation of damages is not susceptible to a mathematical or formulaic calculation, or where the formula by which the parties propose to calculate individual damages is clearly inadequate. Thus the Fourth Circuit held in Windham v. American Brands, Inc.

^{21/} The proposed classes consisted of plaintiffs allegedly injured by the defendant's refusal to permit the transmission of caller identification data across its long-distance telephone network. 339 F.3d at 296.

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that where the issue of damages "does not lend itself to ... mechanical calculation, but requires 'separate "mini-trial[s]"' of an overwhelmingly large number of individual claims," the need to calculate individual damages will defeat predominance, 565 F.2d 59, 68 (4th Cir. 1977) (internal quotations and alterations omitted), a holding reiterated in Broussard v. Meineke Discount Muffler Shops, Inc., 155 F.3d 331, 342-343 (4th Cir. 1998), in which the Fourth Circuit again noted that where the claims of the members of a putative class of antitrust plaintiffs are "inherently individualized," "the need for individual proof of damages" will bar class certification.

339 F.3d at 307; see also Rodney v. Northwest Airlines, Inc., 146 F. Appx. 783, 791 (6th Cir. 2005) ("A plaintiff seeking class certification must present a damages model that functions on a class-wide basis."); Piggly Wiggly Clarksville, Inc. v. Interstate Brands Corp., 215 F.R.D. 523, 531 (E.D. Tex. 2003) ("Predominance and manageability may be destroyed solely by the complexity of determining damages when that determination does not lend itself to a mathematical calculation that can be applied to all the class members."). We believe that the instant case falls into the category of cases where the formula by which the plaintiffs propose to calculate individual damages is "clearly inadequate," not to mention that plaintiffs have failed to show that the fact of injury can be proved commonly, and thus class treatment is not suitable.

2. Superiority

Under Rule 23(b)(3), a class action must be "superior to other available methods for fairly and efficiently adjudicating the controversy." In light of the foregoing discussion, we need not

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discuss this requirement at great length. "If individual issues predominate, then class certification is usually not a superior method for resolving the controversy, since management of such issues by a court will not be efficient." Murry v. America's Mortgage Banc, Inc., Nos. 03 C 5811 & 03 C 6186, 2005 WL 1323364, at *3 (N.D. Ill. May 5, 2005). We have concluded that because plaintiffs have not shown that impact can be proved commonly or that there is a reliable mathematical formula for calculating damages, many thousands of individual inquiries will be required, which could not manageably be accomplished in a class proceeding. There would be no judicial efficiency whatsoever in certifying a class.

Plaintiffs have failed to demonstrate that common questions of law or fact predominate over questions affecting only individual members and that the class action is the best method for fairly and efficiently adjudicating this controversy. In light of the fact that this holding applies to all of the defendants, there is no need to discuss the arguments that are particular to UCH, nor is there need to discuss the cross-motions to strike that are particular to UCH. Those motions will be denied.

CONCLUSION

For the reasons set forth above, the following motions are denied: (1) plaintiffs' motion for class certification [476]; (2) defendants' motion to strike the impact analyses in plaintiff's

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expert's declarations [540]; (3) UCH's motion to strike the testimony of plaintiffs' expert, as applied to UCH's nurses [548]; and (4) plaintiffs' motion to strike the report of UCH's expert [566, 573].

DATE: September 28, 2009

ENTER:



John F. Grady, United States District Judge