ADMISSIBILITY OF EXPERT ECONOMIC TESTIMONY ON FUTURE INFLATIONARY TRENDS

Johnson v. Serra, 521 F.2d 1289 (8th Cir. 1975)

Plaintiff's husband was killed by a falling steel plate while assembling a massive steel sculpture. Plaintiff brought a diversity action under Minnesota's Wrongful Death Statute,[1] and a jury rendered a verdict for plaintiff in the amount of $505,092.[2] Defendant appealed, claiming that the admission of expert economic testimony about the impact of future inflation[3] resulted in an excessive verdict.[4] The Court of Appeals for the Eighth Circuit affirmed defendant's liability, but remanded the damages question[5] and *held*: Minnesota law excludes ex-

1. MINN. STAT. ANN. § 573.02 (1971).

2. The special jury verdict exculpated Serra, the designer, and Weidlinger Engineering, the developer of the construction plans. The jury found defendants Milgo Industrial, Inc., the steel fabricator, and Milgo Art(s) Systems, its broker (hereinafter referred to jointly as Milgo) 85 percent culpable for negligently fabricating the sculpture, and third party defendant Pratt's Express Company (Pratt's), decedent's employer, 15 percent culpable for failing to follow the Weidlinger assembly plans. The total judgment was assessed against Milgo, since Pratt's had previously settled a workmen's compensation claim in connection with the accident. Johnson v. Serra, 521 F.2d 1289, 1291, 1297-98 (8th Cir. 1975).

3. Dr. Edward M. Foster, Associate Professor of Economics at the University of Minnesota, testified that the average yearly interest on "safe" investments such as U.S. Treasury Bonds had been 4.1 percent since 1947. The average annual wage increase for decedent's union had been 5.6 percent during that same period. Dr. Foster testified that the 1.5 percent differential would remain fairly constant. At the time of trial, Treasury Bonds were yielding 6.5 percent per year, while Teamsters' wages were increasing by 8 percent. From Johnson's estimated 1971 gross income of $18,516 over a work-life expectancy of 28 years, Dr. Foster deducted 15 percent for taxes and found a total loss of earnings of $546,597. He then reduced this figure by 12 percent for Johnson's estimated personal consumption and arrived at a net future loss of $481,005. Johnson v. Serra, 521 F.2d 1289, 1293 n.5 (8th Cir. 1975).

4. Milgo also contended on appeal that it should not be held liable because Pratt's negligent failure to follow the assembly instructions was a superseding cause of the injury or, alternatively, that it should receive contribution from Pratt's. Brief for Appellants at 11, 19, Johnson v. Serra, 521 F.2d 1289 (8th Cir. 1975). The judgments against Milgo on liability and in favor of Pratt's on contribution were affirmed by the Eighth Circuit. Johnson v. Serra, 521 F.2d 1289, 1292, 1297 (8th Cir. 1975).

5. The Eighth Circuit vacated the judgment and gave the district court the option of holding a new trial on damages or remitting the excess of the jury award. Johnson v. Serra, 521 F.2d 1289, 1298 (8th Cir. 1975). The district court eventually exercised the latter option, entering a remittitur that reduced plaintiff's award to $390,000. Telephone interview with John E. Castor, Attorney for Appellant, Dec. 5, 1975.

pert testimony on future inflationary trends except for general predictions that wage gains are highly probable.[6]

The primary objective of tort compensation is "repairing plaintiff's injury or making him whole."[7] Since loss of earnings is susceptible to monetary valuation, it is the most justifiable element of compensation[8] from a strictly economic point of view. Determining the amount of lost future earnings is complicated, however, by the need to reduce the award to a single, presently payable lump sum.[9] In most cases this payment is discounted to present worth[10] to reflect the earning capacity of the money in hand.[11] Courts usually employ discounting methods postulating an economy with stable or declining prices.[12] Thus, rapid or sustained inflation will severely diminish the purchasing power of plaintiff's award, leaving him undercompensated.[13] In addition, lower

6. Johnson v. Serra, 521 F.2d 1289, 1297 (8th Cir. 1975).

7. 2 F. HARPER & F. JAMES, THE LAW OF TORTS § 25.1, at 1301 (1956) [hereinafter cited as HARPER & JAMES]; C. MCCORMICK, HANDBOOK ON THE LAW OF DAMAGES § 137 (1935).

8. R. HENDERSON & J. PEARSON, THE TORTS PROCESS 146 (1975).

9. Fetter v. Beale, 1 Ld. Raym. 339, 692, 91 Eng. Rep. 11, 1122 (1699, 1702); C. GREGORY & H. KALVEN, CASES AND MATERIALS ON TORTS 409 (2d ed. 1969); 2 HARPER & JAMES § 25.2; C. MCCORMICK, HANDBOOK ON THE LAW OF DAMAGES § 13 (1935); *cf.* Slater v. Mexican Nat'l R.R., 194 U.S. 120 (1904).

10. The federal courts and the courts of twenty-one states specifically require reduction to present worth. For citations of cases by jurisdiction, see S. SPEISER, RECOVERY FOR WRONGFUL DEATH § 8:11 (2d ed. 1975) [hereinafter cited as SPEISER].

11. In Chesapeake & O. Ry. v. Kelly, 241 U.S. 485 (1916), the Supreme Court stated:

> So far as the verdict is based upon the deprivation of future benefits, it will afford more than compensation if it be made up by aggregating the benefits without taking account of the earning power of the money that is presently to be awarded. It is self-evident that a given sum of money is worth more than the like sum payable in the future.

Id. at 489.

12. *See* Henderson, *The Consideration of Increased Productivity and the Discounting of Future Earnings to Present Value*, 20 S. DAKOTA L. REV. 307, 309 (1975):

> When future prices are expected to decline, or remain constant, there can be no economic disagreement with the theory of discounting as required in [Chesapeake & Ohio Ry. v.] *Kelly* [241 U.S. 485 (1916)]. The economic lag of judicial practice occurs, however, when courts continue to apply the rationale of 1916 to the economic realities of the 1970's. In addition, the error is raised to a still higher level when appellate courts refuse to permit the trier of facts to consider the probability that in the future wages and prices will rise. The claim that this assumption is speculative hardly rises to the dignity of an argument, when consideration is given to the fact that discounting itself is speculative, because it assumes prices will remain constant or possibly decline.

13. The rate of inflation need not be dramatic to erode the plaintiff's damage award:

> It does not take galloping inflation of 6% or more a year to drastically shrink

federal courts have virtually ignored the distinct phenomenon of wage growth, which is a function not only of inflation but of increased economic productivity.[14] In *Grunenthal v. Long Island Railroad*,[15] however, the Supreme Court upheld a damage award based upon projections of increased wage growth, without mention of inflation, in an opinion neither understood nor followed by lower federal courts.[16]

The presentation of evidence on future inflation raises several problems. First, since predicting economic trends is a matter of opinion,

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> the value of the damage award to the injured party. Assuming an annual decrease in purchasing power of only 3% a damage award given to a twenty year old permanently disabled plaintiff will, by his sixty-fifth birthday, will [sic] be reduced by 75% in real purchasing power. A 3% increase in the cost of living for twenty years, would shrink a $100,000.00 award down to $54,000.00 in value.

Note, *Future Inflation and the Undercompensated Plaintiff*, 4 LOYOLA U.L.J. 359, 360 (1973) (footnotes omitted). It has been argued, therefore, that the refusal to consider future inflation results in unequal treatment of the parties:

> As a matter of logic, fairness and justice, if in estimating pecuniary loss, the defendant in a death case gets the benefits of reduction to present value of future increments, then plaintiff should receive as an offsetting benefit, consideration of shrinkage from *future* inflation in the purchasing power of the dollars awarded for the future.

SPEISER § 8:9, at 728 (emphasis original).

14. Note, *Loss of Future Earnings: Present Worth v. Wage Growth*, 35 MONT. L. REV. 354, 358 (1974), *quoting* Henderson, *The New Economics and the Law of Damages* in EXPERTS IN LITIGATION 105, 106 (1973):

> In general, productivity and inflation are two primary causes for the increase in money earnings. Of the average annual increase in the hourly compensation of 5.4 per cent between 1946 and 1971, approximately 2.2 per cent results from increases in productivity and 3.2 per cent results from inflation.

15. 393 U.S. 156 (1968). In *Grunenthal*, an injury case arising under the Federal Employers' Liability Act (FELA), the Supreme Court reinstated a $150,000 award by the trial court because plaintiff had presented

> convincing testimony not refuted . . . demonstrating the steady wage increases in recent time for work equivalent to that rendered by plaintiff, and the strong likelihood that similar increases would continue.

Id. at 160. Since *Grunenthal* arose under the FELA, its relevance to an action arising under Minnesota law is limited. Nonetheless, if wage growth is admissible evidence in federal courts which have uniformly frowned upon proof of inflation, it should surely be admitted in states like Minnesota in which state law is ambiguous. *See* notes 35 & 37 *infra*.

16. *See* Henderson v. S.C. Loveland Co., 396 F. Supp. 658, 660 (N.D. Fla. 1975):

> [T]he court [in *Grunenthal*] approved an award of $150,000 for loss of future wages in light of convincing testimony not refuted demonstrating steady wage increases in recent time for work equivalent to that rendered by plaintiff and the strong likelihood that similar increases would continue. While not clear from the decision, that evidence may not have been tied to inflation. . . . [Johnson v.] *Penrod* [Drilling Co., 510 F.2d 234 (5th Cir. 1975) (en banc)] and the other recent Fifth Circuit decisions, though neither mentioning nor distinguishing *Grunenthal*, come several years after it. Without undertaking further to reconcile these decisions, if they need reconciliation, this court is

the witness must qualify as an expert for his testimony to be admitted.[17] Expert testimony is admissible only if the witness' special knowledge will aid the trier of fact.[18] Yet, while courts acknowledge that economic expertise is helpful in assessing some pecuniary losses,[19] many consider inflation a concept so familiar to the layman that expert testimony is unnecessary[20] and therefore inadmissible. Second, expert

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constrained to follow, and will follow, the categorical statement of these recent decisions of [sic] Fifth Circuit that the effect of future inflation is not to be considered . . . .

17. C. MCCORMICK, HANDBOOK OF THE LAW OF EVIDENCE § 69 (2d ed. 1972).

18. *Id.* § 13. McCormick adds as a separate requirement that the subject matter must be "beyond the ken" of the average layman. *Id.* This view has apparently been rejected in the federal courts under the new Federal Rules of Evidence. The Advisory Committee describes the test of rule 702, whether the expert's specialized knowledge "will assist the trier of fact," as "broadly phrased," necessitating a "common sense inquiry." FED. R. EVID. 702, Advisory Committee Note. Rule 702 reflects prior practice in the federal courts. *Compare* Chicago Great W. Ry. v. Beecher, 150 F.2d 394, 400 (8th Cir. 1945), *with* Lakota Girl Scout Council, Inc. v. Harvey Fund-Raising Management, Inc., 519 F.2d 634, 642 (8th Cir. 1975).

19. *See, e.g.*, Har-Pen Truck Lines, Inc. v. Mills, 378 F.2d 705 (5th Cir. 1967) (monetary value of services of deceased housewife and mother); Sheets v. Bowen, 318 F. Supp. 640 (D. Del. 1970) (estimated average savings of deceased); Merrill v. United Air Lines, Inc., 177 F. Supp. 704 (S.D.N.Y. 1959) (future pecuniary loss from death of mother); Krohmer v. Dahl, 145 Mont. 491, 402 P.2d 979 (1965) (probable future earnings of student); Turrieta v. Wyche, 54 N.M. 4, 212 P.2d 1041 (1949) (same).

An economist may be the only expert competent to present evidence of future inflation. *See* cases cited in notes 27 & 31 *infra.* An actuary may be of limited assistance in introducing mortality tables and calculations of present worth. *Cf.* Levin v. Trans World Air Lines, Inc., 201 F. Supp. 791 (W.D. Pa. 1962). *But see* Wetherbee v. Elgin, J. & E. Ry., 191 F.2d 302 (7th Cir. 1951). An actuary's testimony on future inflation has been held inadmissible. Magill v. Westinghouse Elec. Corp., 464 F.2d 294 (3d Cir. 1972).

20. For this reason, juries may consider, even without economic testimony, the "present low purchasing value of money and high cost of living." Johnson v. Serra, 521 F.2d 1289, 1295 (8th Cir. 1975), *citing inter alia*, Ranum v. Swenson, 220 Minn. 170, 178, 19 N.W.2d 327, 331 (1945). While similar references to inflation are legion, these statements are so general that it is difficult to ascertain whether the jury may consider inflation only from the time of the injury to the time of trial, the probability of future inflation, or both. *See, e.g.*, Tullos v. Corley, 337 F.2d 884, 887 (6th Cir. 1964); Southern Pac. Co. v. Zehnle, 163 F.2d 453, 454 (9th Cir. 1947); Alabam Freight Lines v. Thevenot, 68 Ariz. 260, 262, 204 P.2d 1050, 1052 (1949); State v. Daley, 153 Ind. App. 330, 337, 287 N.E.2d 552, 556 (1972); Moteberg v. Johnson, 297 Minn. 28, 34, 210 N.W.2d 27, 31 (1973); Kerzie v. Rodine, 216 Minn. 44, 48, 11 N.W.2d 771, 773 (1943); Johnson Testers v. Rangel, 435 S.W.2d 927, 932 (Tex. Civ. App. 1968); Texas Consol. Transp. Co. v. Eubanks, 340 S.W.2d 830, 837 (Tex. Civ. App. 1960). Some courts limit consideration of inflation to its ascertainable impact in the period between the injury and the trial. *See, e.g.*, Normand v. Thomas Theatre Corp., 349 Mich. 50, 84

N.W.2d 451 (1957). In Armentrout v. Virginia Ry., 72 F. Supp. 997, 1001 (S.D.W. Va. 1947), *rev'd on other grounds,* 166 F.2d 400 (4th Cir. 1948), the court stated:

> It may be argued that ordinary fluctuations in the purchasing power of money may not properly be considered by a jury in awarding damages. Perhaps not, as to the future; but the jury have the right, and it is their duty, to be realistic. They need not close their eyes to the economic facts of life.

Some juries have been allowed to speculate upon the likelihood of continued inflation. *See* Willmore v. Hertz Corp., 437 F.2d 357 (6th Cir. 1971); Nollenberger v. United Air Lines, Inc., 216 F. Supp. 734 (S.D. Cal. 1963). *Cf.* Bach v. Penn Cent. Transp. Co., 502 F.2d 1117, 1122 (6th Cir. 1974):

> Inflation is a fact of life within the common experience of all jurors. . . . [I]f jurors should be prohibited from applying their common knowledge of inflation in reaching a verdict, the party entitled to recovery could be grievously undercompensated.

See also Beanland v. Chicago, R.I. & P.R.R., 480 F.2d 109, 116-17 (8th Cir. 1973) (Bright, J., concurring). *Contra,* Johnson v. Penrod Drilling Co., 510 F.2d 234 (5th Cir. 1975) (en banc):

> [W]e still cannot so surely discern the shadow of inflation as a coming event as to warrant requiring its inclusion in a present rule for calculating future damages. . . . Then, too, if future inflation does cause higher wages, experience predictably demonstrates that higher interest rates on investments which have always accompanied inflation will also occur and this factor will mitigate the failure to include an inflationary surcharge in wage rate calculations.

Id. at 236. *Accord,* Robertson v. Douglas Steamship Co., 510 F.2d 829 (5th Cir. 1975); Williams v. United States, 435 F.2d 804 (1st Cir. 1970). Even when juries consider future inflation, however, courts have disagreed on the propriety of explicit instruction by the court. *See* Willmore v. Hertz Corp., 437 F.2d 357, 360 (6th Cir. 1971) (allowing jury instruction to consider future inflation); *cf.* Bach v. Penn Cent. Transp. Co., 502 F.2d 1117, 1122 (6th Cir. 1974). *Contra,* Murphy v. Eaton, Yale & Towne, Inc., 444 F.2d 317 (6th Cir. 1971); Segebart v. Gregory, 160 Neb. 64, 69 N.W.2d 315 (1955); Hodkinson v. Parker, 70 S.D. 272, 16 N.W.2d 924 (1944).

Courts may take judicial notice of past inflation either as an initial factfinding matter, *see* Edwards v. Sims, 294 So. 2d 611 (La. Ct. App. 1974); DeWitt v. Schuhbauer, 287 Minn. 278, 177 N.W.2d 790 (1970), or upon review of the excessiveness of a verdict. *See* Frasier v. Public Serv. Interstate Transp. Co., 244 F.2d 668 (2d Cir. 1957); Vaughn v. Southern Bakeries Co., 247 F. Supp. 782 (D.S.C. 1965); Hord v. National Homeopathic Hosp., 102 F. Supp. 792 (D.D.C. 1952); Mize v. Atchison, T. & S.F. Ry., 46 Cal. App. 3d 436, 120 Cal. Rptr. 787 (1975); Richey v. Service Dry Cleaners, 28 So. 2d 284 (La. Ct. App. 1946); Bergstrom v. Frank, 213 Minn. 9, 4 N.W.2d 620 (1942); Mudd v. Quinn, 462 S.W.2d 757 (Mo. 1971); Woodford v. Illinois Cent. G.R.R., 518 S.W.2d 712 (Mo. Ct. App. 1974); Scofield v. J.W. Jones Constr. Co., 64 N.M. 319, 328 P.2d 389 (1958); Melanson v. Turner, 436 S.W.2d 197 (Tex. Civ. App. 1968); Henwood v. Moore, 203 S.W.2d 973 (Tex. Civ. App. 1947); Borzea v. Anselmi, 71 Wyo. 348, 258 P.2d 796 (1952). Some courts also presume that the acknowledged inflationary trend will continue. *See* Feldman v. Allegheny Airlines, Inc., 382 F. Supp. 1271 (D. Conn. 1974), *aff'd in part, rev'd in part, and remanded,* 524 F.2d 382 (2d Cir. 1975), *noted in* 37 OHIO ST. L.J. 138 (1976); Curry v. United States, 338 F. Supp. 1219 (N.D. Cal. 1971); *In re* Sincere Navigation Corp., 329 F. Supp. 652 (E.D. La. 1971); Platis v. United States, 288 F. Supp. 254 (D. Utah 1968); Weadock v. Eagle Indem. Co., 15 So. 2d 132 (La. Ct. App. 1943).

For an example of the error caused by speculation based on economic facts within the purview of judicial notice, see Calihan v. Yellow Cab Co., 125 Cal. App. 649, 13

testimony on future inflation must also be relevant,[21] a determination made by the court under the law creating the substantive cause of action.[22] Federal courts adjudicating federal claims[23] have found economic prediction of inflationary trends too speculative to be admissible.[24] In a diversity action, however, the relevance of testimony is governed by applicable state law,[25] so that federal courts admit expert testimony when the state court would do so.[26] When state law is si-

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P.2d 931 (1932), where the defendant urged the court to consider that the purchasing power of the dollar had *increased* and the court responded:

> Changing conditions should be noted by the court. While it may be proper for defendant to point to the increased purchasing power of plaintiff's dollar, defendant's actual complaint is the scarcity of money. Our judicial knowledge having been invoked, we note signs of the country's gradual emergence from the depths of the depression; we may expect a return to normal conditions.

Id. at 651, 13 P.2d at 932.

21. Relevance in this context is a question of law rather than of logic. Evidence may be irrelevant either "because it is not probative of the proposition at which it is directed, or because that proposition is not provable in the case." C. MCCORMICK, HANDBOOK OF THE LAW OF EVIDENCE § 185 (2d ed. 1972), *quoting* James, *Relevancy, Probability and the Law*, 29 CALIF. L. REV. 689, 691 (1941). Testimony on future inflation is irrelevant when, because of the law giving rise to the particular action, it is not provable.

22. "[T]he proper measure of damages is inseparably connected with the right of action." Chesapeake & O. Ry. v. Kelly, 241 U.S. 485, 491 (1916). *See also* Johnson v. Serra, 521 F.2d 1289, 1294 (8th Cir. 1975); Willmore v. Hertz Corp., 437 F.2d 357, 360 (6th Cir. 1971).

23. Most typically involved are claims under the Federal Employers' Liability Act (FELA), 45 U.S.C. §§ 51-60 (1970), and the Jones Act, 46 U.S.C. § 688 (1970).

24. *See, e.g.*, Johnson v. Penrod Drilling Co., 510 F.2d 234 (5th Cir. 1975) (en banc) (Jones Act case); Bach v. Penn Cent. Transp. Co., 502 F.2d 1117 (6th Cir. 1974) (FELA death case); *cf.* Sleeman v. Chesapeake & O. Ry., 414 F.2d 305 (6th Cir. 1969) (FELA injury case).

25. Willmore v. Hertz Corp., 437 F.2d 357 (6th Cir. 1971); Southern Pac. Co. v. Zehnle, 163 F.2d 453 (9th Cir. 1947); Kowtko v. Delaware & H.R.R., 131 F. Supp. 95 (M.D. Pa. 1955); 1A J. MOORE, FEDERAL PRACTICE § 0.310, at 3403 n.17 (2d ed. 1974). *But see* Haddigan v. Harkins, 441 F.2d 844, 851 (3d Cir. 1970):

> [E]xpert testimony as to the value of services presents only an evidentiary question. . . . Thus we need not concern ourselves with how a Pennsylvania court would rule, but can look to federal authorities favoring admissibility.

The state view on damages will also be followed in actions brought under the Federal Torts Claims Act (FTCA), in which liability is predicated upon the "law of the place where the act or omission occurred." 28 U.S.C. § 1346(b) (1970).

26. *See, e.g.*, Turcotte v. Ford Motor Co., 494 F.2d 173 (1st Cir. 1974) (applying Rhode Island law); Perry v. Allegheny Airlines, Inc., 489 F.2d 1349 (2d Cir. 1974) (interpreting Connecticut law); Feldman v. Allegheny Airlines, Inc., 382 F. Supp. 1271 (D. Conn. 1974), *aff'd in part, rev'd in part, and remanded*, 524 F.2d 384 (2d Cir. 1975); Scruggs v. Chesapeake & O. Ry., 320 F. Supp. 1248 (W.D. Va. 1970); Brooks v. United States, 273 F. Supp. 619 (D.S.C. 1967); Levin v. Trans World Airlines, Inc.,

lent on the admissibility of the expert testimony, federal courts presume disallowance to be the majority rule and reject such testimony.[27] In fact, a majority of the relatively few states that have confronted the issue directly[28] have admitted the expert economic testimony.[29]

The final issue is the extent to which such testimony is admissible. This issue has been most closely addressed by the Court of Appeals for the Sixth Circuit, which initially excluded entirely testimony on future inflation as too speculative.[30] In *Bach v. Penn Central Transpor-*

201 F. Supp. 691 (W.D. Pa. 1962). *See also* United States v. English, 521 F.2d 63 (9th Cir. 1975) (FTCA death claim applying California law).

27. *See, e.g.*, Riha v. Jasper Blackburn Corp., 516 F.2d 840 (8th Cir. 1975) (interpreting Nebraska law); Hoffman v. Sterling Drug, Inc., 485 F.2d 132 (3d Cir. 1972) (interpreting Pennsylvania law); Magill v. Westinghouse Elec. Corp., 464 F.2d 294 (3d Cir. 1972) (interpreting Pennsylvania law); *cf.* Murphy v. Eaton, Yale & Towne, Inc., 444 F.2d 317 (6th Cir. 1971) (interpreting Michigan law). *See also* Frankel v. Heym, 466 F.2d 1226 (3d Cir. 1972) (FTCA injury claim interpreting Pennsylvania law); Williams v. United States, 435 F.2d 804 (1st Cir. 1970) (FTCA death claim interpreting Rhode Island law); Legare v. United States, 195 F. Supp. 557 (S.D. Fla. 1971) (FTCA death claim interpreting Florida law).

28. Only one state, Rhode Island, allows by statute testimony on future inflation:

> In determining said award evidence shall be admissible concerning economic trends, including but not limited to projected purchasing power of money, inflation, and projected increase or decrease in the cost of living.

R.I. GEN. LAWS § 10-7-1.1.3 (Supp. 1972).

In Turcotte v. Ford Motor Co., 494 F.2d 173, 183 (1st Cir. 1974), the Court of Appeals for the First Circuit noted that the Rhode Island statute was enacted in "apparent response" to its decision in Williams v. United States, 435 F.2d 804 (1st Cir. 1970), in which, purporting to apply Rhode Island law, the court excluded testimony on future inflation. *Williams* raises serious questions about the wisdom of the prevailing federal court view that judicial or legislative silence connotes disapproval of expert predictions of inflation.

29. *See, e.g.*, Schnebly v. Baker, 217 N.W.2d 708 (Iowa 1974); Schmitt v. Jenkins, 170 N.W.2d 632 (Iowa 1969); Resner v. Northern Pac. Ry., 161 Mont. 177, 505 P.2d 86 (1973); Tenore v. Nu Car Carriers, Inc., 67 N.J. 466, 341 A.2d 613 (1975) (adopting an approach similar to, though not citing, Bach v. Penn Cent. Transp. Co., 502 F.2d 1117 (6th Cir. 1974)); Plourd v. Southern Pac. Transp. Co., 266 Ore. 666, 513 P.2d 1140 (1973); Williams v. General Motors Corp., 501 S.W.2d 930 (Tex. Civ. App. 1973); *cf.* Hinzman v. Palmantier, 31 Wash. 2d 327, 501 P.2d 1228 (1972). *Contra,* Zaninovich v. American Airlines, Inc., 26 App. Div. 2d 155, 160, 271 N.Y.S.2d 866, 872 (1966) (citing as error the introduction of "amateurish speculation as to continuing inflation").

In Raines v. New York Cent. R.R., 129 Ill. App. 2d 294, 263 N.E.2d 895 (1970), *rev'd,* 51 Ill. 2d 428, 283 N.E.2d 230 (1972), the Illinois Court of Appeals held that expert testimony on future inflation was not properly admitted, thus resulting in an excessive verdict. The Illinois Supreme Court deliberately avoided the issue of admissibility, and reversed because other proper evidence showed the award was not excessive. 51 Ill. 2d at 437, 283 N.E.2d at 235.

30. Sleeman v. Chesapeake & O. Ry., 414 F.2d 305 (6th Cir. 1969). In *Sleeman,*

tation Co.,[31] the court modified its position by rejecting a specific projection of an economist but admitting his opinion that increases "in income or promotions would most probably occur."[32] *Bach* precludes expert testimony on future inflation but not on the probability of wage growth based upon other factors such as promotion or productivity gains.[33]

In *Johnson v. Serra*,[34] the Eighth Circuit determined that a Minnesota court would exclude specific expert predictions of future inflation.[35] The

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an FELA injury case, the district court reasoned that inflation would offset the present worth reduction and consequently did not reduce the award to present worth. *Id.* at 307. The Sixth Circuit noted that the district court's decision lacked evidentiary support and added:

> Nor do we encourage the trial courts of our circuit to explore such speculative influence on future damages as inflation and deflation.
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> . . . [T]he inflation versus deflation debate rages inconclusively at the highest policy levels of our government, in national electoral campaigns, in learned economic journals and is exemplified in the daily gyrations of the stock markets. The debate seems unlikely to be resolved in one personal injury trial. And if testimonial resolution of this factor bearing on the future is attempted, the door is opened to similarly speculative and debatable offsets . . . .

Id. at 308.

Sleeman has been cited for the proposition that testimony about future inflation is speculative per se. *See* Hoffman v. Sterling Drug, Inc., 485 F.2d 132, 143-44 (3d Cir. 1973), *on remand*, 374 F. Supp. 850, 853 (M.D. Pa. 1974). In Willmore v. Hertz Corp., 437 F.2d 357, 360 (6th Cir. 1971), the Sixth Circuit characterized this language as dicta. *See also* Henderson, *Some Recent Decisions on Damages; With Special Reference to Questions of Inflation and Income Taxes*, 40 INS. COUNSEL J. 423, 431 (1973):

> The *Sleeman* doctrine is predicated upon the assumption that the increases in prices and wages of the past three decades are aberrations that will wither away. Our economic and financial knowledge of the functioning of the economy tells us that this notion has a probability estimate which approaches zero.

31. 502 F.2d 1117 (6th Cir. 1974). In affirming the trial court's refusal to admit an economist's projections of decedent's wage growth through the year 2002, the court stated:

> [T]he predictive abilities of economists have not advanced so far that they can forecast with any certainty the existence and rate of inflation for the next thirty years. Limited use of economists and other experts may be appropriate in some cases to show that raises in income or promotions would most probably occur. [Citation omitted]. Yet testimony of the exact income that the decedent would have received through the year 2002 is so speculative in our view, that it is inadmissible.

Id. at 1122.

32. *Id.*

33. The crux of *Bach* is disallowance of testimony on the exact income that decedent would have received rather than a more generalized exposition of the economic factors involved. *Id.*

34. 521 F.2d 1289 (8th Cir. 1975).

35. *Id.* at 1296. Minnesota law is silent on the admissibility of future inflation tes-

defendant in *Johnson* argued that such testimony was too speculative and its admission led to an excessive verdict.[36] The court agreed,[37] observing that "economists have fared only slightly better than fortune tellers and soothsayers in foretelling the future."[38] The court did not dispute the expert's opinion that decedent's wages would have increased at a rate 1.5 percent per year greater than the return that the damage award would earn if "safely" invested. The ultimate question for the court was the "reasonableness"[39] of the award to plaintiff, since it found the jury had accepted the expert's analysis "without testing the reasonableness of its mathematically derived result."[40]

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timony, alluding only in general terms to the right of the factfinder to consider decreased purchasing power. *See* Minnesota cases cited in note 20 *supra.*

36. Brief for Appellant at 18, Johnson v. Serra, 521 F.2d 1289 (8th Cir. 1975).

37. 521 F.2d at 1297. *Johnson* was the second occasion for the Eighth Circuit to consider admission of evidence on future inflation. Two members of the *Johnson* panel, Justice Clark (sitting by designation) and Judge Lay, had discussed the question in Riha v. Jasper Blackburn Corp., 516 F.2d 840 (8th Cir. 1975), a personal injury case arising under Nebraska law. While both Minnesota and Nebraska allow juries to consider inflation in general terms, *see* Moteberg v. Johnson, 297 Minn. 28, 210 N.W.2d 27 (1973); Johnson v. Schrepf, 154 Neb. 317, 47 N.W.2d 853 (1951), Nebraska disapproves of jury instructions on inflation. *See* Segebart v. Gregory, 160 Neb. 64, 69 N.W.2d 315 (1955). Minnesota has not decided that issue. *See* notes 20 & 35 *infra.*

38. 521 F.2d at 1294. *But cf.* Henderson, *supra* note 12, at 311:

> Given the economic environment . . . over the last several decades, it does not appear to be very speculative to assume that in the future the earning capacity of the vast majority of individuals will rise. Any science, whether of the natural or social variety, is based upon estimating the probability of events. . . . In economics, as in the study of any aspect of human behavior, the rank order of probability and the corresponding confidence limits are of a different magnitude than those found in the more exact sciences. But this qualitative divergence should not lead to the conclusion that in the social arena the possibility and probability of an event are of equal weight. Estimates of the probability of economic occurrence are grounded in the economic reality and base from which such projections are made . . . .

39. 521 F.2d at 1294.

40. *Id.* at 1293. The court was impressed with the seemingly preposterous fact that although decedent's gross salary would have been $18,516 in 1974, plaintiff would, according to defendant's "undisputed calculations," receive $32,831 from an award of $482,000 in the first year alone. During the 28-year actuarial period, plaintiff would receive over $1,500,500 with a final payment of $125,724 in 2002, the last year. The source of these "undisputed calculations" was an arbitrary and unsupported assumption of an interest rate of 6.5 percent and a wage increase of 8 percent, the most current and inflationary figures. Brief for Appellants at 19-20, Johnson v. Serra, 521 F.2d 1289 (8th Cir. 1975). The expert testimony only proved, however, an average annual differential of 1.5 percent between wage increases and "safe" interest rates, at no time predicting a continuation of current inflation rates. Appendix to Brief for Appellant, Vol. II at 755-93, *quoting* Transcript of Record at 749-88. This observation indicates the danger that courts and juries alike will blindly accept mathematical formulae without regard

Relying heavily on the Sixth Circuit's treatment of the problem, the *Johnson* court endorsed the *Bach* rationale, and determined that admission of the expert's analysis, but not his computations, would accurately reflect the Minnesota view.[41] The *Johnson* holding may have been inappropriate to the exact issue presented by the case; the trial record suggests that plaintiff's expert did not testify about future inflation.[42] His analysis projected wage growth in decedent's industry based on past labor statistics but did not focus upon the economy as a whole. Inflation is an important, but not exclusive, element of wage growth.[43] Since

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to the reasonableness of the end result. Minnesota courts have been sensitive to the problem of undue influence of expert testimony upon the jury. *See, e.g.*, Sorenson v. Cargill, Inc., 281 Minn. 480, 163 N.W.2d 59 (1968); Hallada v. Great N. Ry., 244 Minn. 81, 69 N.W.2d 673, *cert. denied*, 350 U.S. 874 (1955).

41. The court's reliance on *Bach* may be unwarranted since *Bach* properly applied federal law to the federally created FELA right at issue in that case. *Compare* Sleeman v. Chesapeake & O. Ry., 414 F.2d 305 (6th Cir. 1969), *with* Willmore v. Hertz Corp., 437 F.2d 357 (6th Cir. 1971). ("[A]ppellants' reliance upon this court's decision in [*Sleeman*] with reference to future fluctuation in purchasing power is misplaced since we were there concerned with a federally created cause of action."). 437 F.2d at 360. *See also* note 30 *supra*. The *Johnson* court's approach, though not its reliance on *Bach*, may be justified by Minnesota's distrust of expert testimony. *See* cases cited at note 40 *supra*.

42. Before Dr. Foster took the stand, the following colloquy took place between the trial judge and plaintiff's attorney:

> THE COURT: [I]s he going to suggest a wage growth based on a historical pattern of 5½ percent, is he also going to talk about continued inflationary process?
>
> MR. HVASS: No, Your Honor.

Appendix to Brief for Appellants, Vol. II at 737-38, *quoting* Transcript of Record at 730-31.

The following exchange took place during cross-examination:

> Q. Did your calculations consider a continuing rise in inflation?
>
> A. No.
>
> Q. They did not?
>
> A. Well, the calculations were as defined by Mr. Hvass.
>
> Q. But you assumed a continuing rise in his wages, then, did you not?
>
> A. Yes.

Id. at 770-71, *quoting* Transcript of Record at 764-65.

43. *See* note 14 *supra* and accompanying text. The courts' tendency to use the terms "earnings increase factor" and "economic trends" interchangeably has resulted in confusion. Hoffman v. Sterling Drug, Inc., 374 F. Supp. 850, 853 (M.D. Pa. 1974). The issues would be presented at trial differently: future inflationary trends would be projected on the basis of changes in the national economy as reflected in the Consumer Price Index, while wage growth would be projected through changes in the hourly wages of laborers in a given industry.

The question arises whether a projection of wage growth is any less speculative than a projection of future inflationary trends. Perhaps so, since wage growth is at least par-

Bach dealt with future inflation rather than wage growth, the *Johnson* court's reliance upon that decision is misplaced. Furthermore, when the issue is properly viewed as wage growth rather than inflation, the *Johnson* holding may conflict with *Grunenthal.*[44] Assuming, however, that the *Johnson* court accurately characterized the issue to implicate future inflation, the decision is still questionable.[45] Projecting future economic loss is inherently speculative; future inflation is no more speculative than other damage elements on which the courts admit expert testimony.[46]

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tially a function of increased productivity, and it is highly probable that long-term increases in productivity will continue in the future since a "long-term negative or zero rate of productivity could exist only under conditions in which science, technology and the level of human skill failed to advance." Leonard, *Future Economic Value in Wrongful Death Litigation*, 30 OHIO ST. L.J. 502, 507 (1969). Whether the widespread realization that insatiable consumer demand may exhaust our finite resources requires a less optimistic appraisal of the economic future is beyond the scope of this Comment.

44. Grunenthal v. Long Island R.R., 393 U.S. 156 (1968). *See* notes 15-16 *supra* and accompanying text.

45. [I]nflation is undeniably a controversial topic but the controversy centers not on the issue of *whether* the price level will rise but on the *rate of increase* of prices . . . .

Note, *supra* note 14, at 358 n.32, *quoting* Henderson, *The New Economics and the Law of Damages* in EXPERTS IN LITIGATION 105, 113 (1973) (emphases original). *See also* SPEISER § 8:11, at 527:

> We may expect to hear the objection that such evidence is speculative. It is submitted that it is the very opposite of speculation; for without *any* evidence as to future wages and price levels a jury would be forced to speculate not only as to what the future earnings of deceased would have been but also as to how much they would buy . . . .

(emphasis original).

46. It has been argued that evidence about future inflation might open up a myriad of collateral and remote considerations. In Riha v. Jasper Blackburn Corp., 516 F.2d 840 (8th Cir. 1975), the court noted:

> Proof as to possible income tax, future inflation, attorney fees and cost of litigation are all generally held inadmissible. Yet it cannot be denied that all of these elements relate directly or indirectly to the computation of an injured party's actual loss. Once the door is opened to one contingency, it is necessary to consider as well all other factors which might affect actual loss. The primary reason for their exclusion is that they are not in a manageable form of proof

Id. at 844 n.4. *Cf.* Sleeman v. Chesapeake & O. Ry., 414 F.2d 305 (6th Cir. 1969); McWeeney v. New York, N.H. & H.R.R., 282 F.2d 34 (2d Cir.), *cert. denied*, 364 U.S. 870 (1960). *But see* Plourd v. Southern Pac. Transp. Co., 266 Ore. 666, 677, 513 P.2d 1140, 1146 (1973):

> In our opinion, however, it is no more speculative to assume that wage rates for plaintiff's employment will continue to increase at 5% per year . . . than it is to assume that the interest discount rate will remain stationary during the same . . . period.

See also Turcotte v. Ford Motor Co., 494 F.2d 173 (1st Cir. 1974); Schnebly v. Baker,

A court has several options in determining the scope and admissibility of an expert's prediction of inflation. It can (1) allow economic experts to present projections, subject to careful jury instruction concerning their probative value;[47] (2) allow the jury to consider future inflation based on its own knowledge or on general information supplied by an economist within the *Bach* limits;[48] (3) discard the requirement that judgments be reduced to present worth;[49] or, (4) shift

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217 N.W.2d 708 (Iowa 1974).

47. For the practical problems of expert economic advice in an adversary context, see Pyun, *The Role of Economist's Testimony in Perspective—An Economist's View*, 39 INS. COUNSEL J. 361, 362-63 (1972):

> [T]he economist's basic task in the valuation process . . . involves a considerable amount of highly enlightened guesswork. . . . [H]is conclusion . . . is necessarily a tentative one at best. However, . . . the tentative aspects of the economist's opinion on his projection are frequently underplayed in the midst of the dynamic verbatism of courtroom communication. The economist is likely to present his testimony . . . in a detached and convincing manner with a considerable air of authority and completeness. . . .
>
> As the trial proceeds, what began as the unbiased professional testimony by an economist frequently deteriorates to a somewhat contrary experience. . . . Irrespective of the accuracy and thoroughness of the work done in arriving at his projection, the economist must . . . defend the pertinence as well as the relevance of his projection during cross examination by the defense attorney. Often, as the unfriendly defense lawyer prods and excoriates the content of the economist's testimony, the task of defending his testimony becomes quite strenuous.

One court, however, wondered how the introduction of such testimony could make the jury's conclusion about the probability of wage increase any less valid than it would be without such testimony. Resner v. Northern Pacific Ry., 161 Mont. 177, 505 P.2d 86 (1973); *cf.* Lavender v. Kurn, 327 U.S. 645, 653 (1945). *See, e.g.*, Johnson v. Serra, 521 F.2d 1289 (8th Cir. 1975); Riha v. Jasper Blackburn Corp., 516 F.2d 840 (8th Cir. 1975); Bach v. Penn Cent. Transp. Corp., 502 F.2d 1117 (6th Cir. 1974); Tenore v. Nu Car Carriers, Inc., 67 N.J. 466, 341 A.2d 613 (1975).

48. The limits of the *Bach* rule refer to the court's unwillingness to accept precise computations of damages set forth by economic analysis. *See* note 33 *supra*. *But see* SPEISER § 8:11, at 741:

> It is easy to say that a slavish statistical exactitude is not to be sought. On the other hand, in measuring damages . . . we must strive to be accurate. Any tools that will aid us in this regard should not be ignored. The jurors are not expected to appreciate all the intricacies of economic theory. But they live with inflation every day of the year, and are well able to grasp the basic concepts involved. We do not want merely a reasonable approximation of plaintiff's loss—we want as accurate an approximation of that loss as possible!

49. The Supreme Court of Alaska has adopted this approach. Beaulieu v. Elliot, 434 P.2d 665 (Alaska 1967). There are two good reasons for eliminating the present worth rule: 1) it ignores the rate of wage growth and risks undercompensation, and 2) the jury's burden of determining damages will be considerably lightened. *See* Note, *supra* note 14, at 361. For offsets similar to *Beaulieu*, see Pierce v. New York Cent.

the emphasis of the controversy to methods of computing present worth that provide an "inflation-proof" discount rate.[50] By choosing the second alternative, the *Johnson* court failed to provide satisfactory guidance either to attorneys seeking to introduce expert testimony or to juries who must consider the impact of inflationary economic trends. It is difficult to understand how testimony that "raises in income . . . would most probably occur"[51] will reduce speculation in the fact-finding process. Unless economic forecasts rest upon no valid factual basis, the first and fourth alternatives provide important data to the jury with which it can more effectively undertake its task of making the plaintiff whole. The third alternative, discarding the present worth rule, incorporates a rough, uneducated sense of justice which may work to defendant's detriment,[52] but at least simplifies damage questions at trial. The *Bach* rule, as adopted by the *Johnson* court, promotes none of these objectives and will continue to confound plaintiffs' attorneys who try to inject the issues of wage growth or future inflation into the trial.

R.R., 304 F. Supp. 44 (W.D. Mich. 1969) (5 percent wage growth rate offset 5 percent discount); Brooks v. United States, 273 F. Supp. 619 (D.S.C. 1967) (court added 15 percent to total damage award); Gowdy v. United States, 271 F. Supp. 733 (W.D. Mich. 1967), *rev'd on other grounds*, 412 F.2d 525 (6th Cir.), *cert. denied*, 396 U.S. 960 (1969) (5 percent wage growth rate offset 5 percent discount rate); Nollenberger v. United Air Lines, Inc., 216 F. Supp. 734 (S.D. Cal. 1963) (1 percent inflation rate offset against 4 percent discount rate). *See also* Griffin v. United States, 500 F.2d 1059 (3d Cir. 1974) (court applied 2½ percent inflation factor to future medical expenses rather than lost future earnings).

50. *See* Feldman v. Allegheny Air Lines, Inc., 382 F. Supp. 1271, 1294-95 (D. Conn. 1974), *aff'd in part, rev'd in part, and remanded*, 524 F.2d 384 (2d Cir. 1975) where the court found

> [o]n the basis of the evidence and judicial notice of the continuing erratically inflationary behavior of the American economy, that 1.5 per cent per year is an appropriate figure by which to discount an award of damages based on the destruction of future earning capacity when that award has itself been computed without consideration of inflation . . . .

51. Bach v. Penn Cent. Transp. Co., 502 F.2d 1117, 1122 (6th Cir. 1974).

52. Particularly when runaway inflation is an omnipresent issue in the news media, the jury may tend to overestimate its long-term impact, thus penalizing the defendant.