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**COURT OF COMMON PLEAS  
WARREN COUNTY, OHIO**

Kevin Artl,	)	
	)	
	)	
Plaintiff,	)	
	)	Case No. 02CV59010
vs.	)	(Magistrate Fedders)
	)	
Bernard Wright	)	
aka Bernard Wright, Jr.,	)	
	)	
Defendant.	)	

**Affidavit of Anthony M. Gamboa, Jr., PhD, MBA**

COMES NOW, Anthony M. Gamboa, Jr., being first duly sworn upon his oath states the following:

Defense has filed a motion to exclude my testimony. This motion centers around the following key areas:

1. Use of statistical averages
2. Occupational disability
3. Second analysis assuming completion of a bachelor's degree

Each of these points is refuted in the discussion that follows.

**1. Use of statistical averages**

Defense objects to the earning capacity figures used in the vocational economic analysis of Mr. Artl's loss of lifetime earnings. The objections deal with the fact that national average figures were used, that they are higher than his actual earnings, and that the post-injury figures are averages for people with all types of disabilities. As will be shown in the sections that follow, the use of these figures is appropriate in a proper analysis of Mr. Artl's lifetime loss.

What the defense seems to want from me is absolute knowledge of Mr. Artl's future. This, of course, is not possible for anyone. Averages from various populations have long been accepted as a means for prediction – life expectancy, earnings, and others. No statistic, no matter how fine-tuned, can provide an exact predictor of an individual's future. In the absence of a crystal ball, it is necessary to estimate based on appropriate population statistics that are applied to the facts of Mr. Artl's case. As Marcia Angell noted in *Science on Trial* (1997, p.115):

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Courtroom trials are not about populations, they are about individuals. . . . We have no basis, at least in the current state of knowledge, for making a judgment about a particular woman. We therefore *must* appeal to epidemiological data – that is, studies of populations.

The United States Supreme Court addressed this very concern in *Jones and Laughlin Steel Corporation v. Howard E. Pfeifer* 462 U.S. 523 (1983), where they noted the impossibility of producing statistics that exactly match the plaintiff's future

By its very nature the calculation of an award for lost earnings must be a rough approximation. Because the lost stream can never be predicted with complete confidence, any lump sum represents only a “rough and ready” effort to put the plaintiff in the position he would have been in had he not been injured.

The Court went on to deride attempts at coming up with such statistics:

We do not suggest that the trial judge should embark on a search for “delusive exactness.” It is perfectly obvious that the most detailed inquiry can at best produce an approximate result.

Economists, actuaries, insurance companies, and gambling establishments use population averages when making rational bets on human outcomes. The basic belief is that in the absence of more specific and precise information, the best predictors of outcomes are statistical averages or relative frequencies.

To characterize the statistics I applied as overly broad, as Defense implies, is misleading. This ignores the following facts:

- The averages are specific to education level – a proven determinant of earnings and employment.
- The averages are specific to gender – also highly correlated with employment and earnings.
- The averages are specific to the labor market in which the plaintiff resides (see Section 1.1).
- The averages are specific to the disability status of the plaintiff as defined by the U.S. Census Bureau.

### **1.1. National vs. Cincinnati**

In conducting the vocational economic analysis for Mr. Artl, I used national average earnings figures to represent Mr. Artl's pre-injury and post-injury earning capacities. Based on information from the U.S. Bureau of Labor Statistics (see Attachment A), the average earnings in Cincinnati do not differ from the national average. In 2001, national average earnings were \$36,214. Average earnings in the same year were \$36,042 in the Metropolitan Area of Cincinnati, Ohio, only 0.5% less than the national average. Use of Cincinnati averages would not have made a substantial difference in the lifetime loss of earnings estimated for Mr. Artl.

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### 1.2. Earnings above actual

As part of their motion, Defense contends that since the earnings assigned to Mr. Artl in my analysis were above his actual earnings, they were speculative. At issue in this case is Mr. Artl's *lifetime* loss of earnings. Therefore, my analysis must encompass the statistically expected earnings for Mr. Artl through the remainder of his worklife.

Laypersons and scientists alike recognize that workers earn more as they mature and gain more experience and training. In fact, a Nobel Prize in economics has been awarded for the development of "age-earnings profiles" that recognize this phenomenon. Workers in their twenties typically earn only 50% - 60% of what similarly educated workers earn in their fifties and sixties. My analysis considered the fact that Mr. Artl is in his lower-earning years and encompassed an annual earnings estimate that represents his *lifetime* expected annual earnings. To restrict my analysis to the earnings of a 25-year-old would defy all existing scientific evidence. Indeed, I incorporated this averaging effect for both his pre-injury and post-injury annual earning capacity.

As evidence that the lifetime average of Mr. Artl's age-earnings profile is appropriate for this case, I note the \$32,000 annual earnings cited by Defense in their motion. Data from the 2000 United States Decennial Census shows that the average male of Mr. Artl's education who is 27 (the age at which this earnings figure was cited) earns \$32,538 almost exactly Mr. Artl's earnings.<sup>1</sup> If his earning experience so closely tracks that of the average male of Mr. Artl's education, what possible evidence does Defense offer that he will significantly deviate from that in the future? This same US government data source also shows males of this education level earning \$36,600 at the age of 30, \$47,400 at the age of 40, \$50,800 at the age of 50, and \$52,500 at the age of 60. It is this growth that leads to the lifetime average earnings in my analysis above the \$32,000 Mr. Artl earned at the age of 27.

Again, we do not have the ability to predict Mr. Artl's exact earnings at any point of time in the future. The best we can do is apply statistical expectations for a person similarly situated.

### 1.3. Average of all disabilities

Some of the Defense opposition centers on the fact that the data we used are derived from average earnings and employment rates from various disability category populations. The consternation seems to stem from a need for a very precise formula to apply these population statistics to an individual plaintiff.

I addressed the Supreme Court's criticism of a pursuit for "delusive exactness" earlier in this affidavit. That is precisely what Defense seems to seek. There is no known data on the averages for the specific injuries of somebody in Mr. Artl's situation. Thus derivation of such an average is impossible. Following this, it is not true that disability data would have to be disaggregated by type, severity, or duration of disability in order to be reliable or meaningful.

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<sup>1</sup> In fact, I note that this earning figure is three years *after* Mr. Artl's disability – a condition expected to reduce his actual earnings from the overall averages.

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Even if disaggregated data existed, its use would be limited at best. Persons with the same diagnosis and the same length of time since injury can have dramatically different experiences in terms of their experience in the workplace, especially when education level is factored in. Consider an example of two men with identical hand injuries resulting in reduced grip strength and limited range of motion. This injury would have an enormous impact on a carpenter, who would likely need to leave his employment. For an English professor, however, the effect may be minimal.

Obviously, it would be wonderful if sound data existed pertaining to 28-year-old males with some college who had sustained injuries similar to Mr. Artl's at the age of 24. If such data existed, estimating loss of lifetime earnings due to injury would be considerably easier and could eliminate the need for expert witnesses. Such data, though, do not exist and would be impossible to collect.

What this points to, however, is the fact that earnings statistics of all sorts must be used responsibly and applied by persons familiar with the world of work and career theory. When assessing persons with disability, the user must be familiar with the effects of impairment on ability to work and earn money as well as the experiences of disabled persons in the labor market. I have the knowledge and experience necessary for performing such a calculation (see Attachment B).

Finally, I note that the disability statistics I applied are refined and not an average of all persons with a disability, as Defense implies. The earnings data are for males with some college but no degree who have a work disability, but are capable of working year-round, full-time. This full-time ability guarantees that the data address only those with nonsevere disabilities. The employment (worklife) data is extracted from persons of Mr. Artl's age and education who are defined by the US Census Bureau as having a nonsevere work disability.

## **2. Occupational disability**

Defense criticizes my expertise, appearing to believe that, because I am not a medical doctor, I should not be allowed to testify regarding Mr. Artl's occupational disability. I, like any other vocational or economic expert, am not a medical doctor, and, therefore, cannot make a medical diagnosis. Testimony regarding occupational disability, however, is the province of a vocational expert, not a medical doctor.

Medical opinions cannot translate into vocational or economic opinions by themselves. They must be translated into vocationally-relevant data by experts knowledgeable about the world of work and the effects of impairments on ability to work. That is, based upon permanent physical restrictions (e.g., reduced lifting, bending, etc.) determined by a qualified medical expert, a vocational expert may opine on the impact of those restrictions in the workforce.

Medical evidence does exist stating that, not only are Mr. Artl's injuries permanent, but that he is restricted from lifting over 30 pounds, should not perform extended bending or stooping, or perform sustained exertional activity. In addition, he will suffer from permanent restrictions to

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his range of motion. This identifies permanent limitations for Mr. Artl without detailing the specific vocational impact.

Defense motion seems to require that this impact be analyzed only by a medical doctor – somebody that has no training in occupational or vocational analyses. I have experience working with people with disabilities and as a vocational expert with the U.S. Department of Health and Human Services, Social Security Administration (see Attachment B). It is with this experience that I examine the permanent limitations identified by medical experts to analyze their impact on the plaintiff’s ability to function in the workforce. These clearly help to define Mr. Artl as work disabled, a person to whom occupational disability statistics would apply.

**3. Second analysis assuming completion of a bachelor’s degree**

Defense also objects to my second analysis regarding Mr. Artl’s loss of lifetime earnings. This analysis is based on the assumption of completion of a college degree. During the interview with Mr. Artl on January 21, 2003, he stated that he wanted to return to school to complete his baccalaureate degree. In conducting my analysis, therefore, I considered two possibilities, the range of possibilities most reasonable in assessing Mr. Artl’s lifetime loss. The first assumes that he remains as he is, a male with some college completed, but no degree. The second assumes that he would have fulfilled his plan and completed the degree. From an occupational perspective and in considering his loss of earning capacity, Mr. Artl’s lifetime loss of earnings can reasonably expect to fall within these two points.

FURTHER, THE AFFIANT SAYETH NAUGHT.

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Anthony M. Gamboa, Jr., PhD, MBA  
Senior Vocational Economic Analyst

Subscribed and sworn to before me, a notary public, in this \_\_\_\_ of February 2004.

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Notary Public

My Commission Expires \_\_\_\_\_