

**Expert Economic Evaluation
of the
“Report of the Income Losses
of
Mr. José A. Aponte”
submitted by
Mr. Francisco E. Martínez Aponte**

José A. Aponte Dávila
v.
Municipality of Caguas, et al.
USDC PR Civil

Submitted March 24, 2014



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I. **Introduction**

We have been retained by Mr. Pablo Montero, Esq. to evaluate the alleged loss of earnings suffered by Mr. José A. Aponte Dávila as a result of the alleged injuries suffered on July 13, 2009 while “walking on the sidewalk in Dr. Rufo street inside the Caguas public transportation terminal” (Complaint, p.3, Section IV. The Facts, Allegation #9). Plaintiff alleges that as he “went by the dumpster he suddenly slipped and fell. His slip and fall was so fast and unexpected that plaintiff could not use his hands to break his fall and [his] body received the full impact of the fall” (Ibid. Allegation #10). It is also alleged that as a result of this pedestrian accident, Mr. Aponte Dávila suffered a list of traumas (Complaint, Section VI, Allegation 15, (a)-(v)). It is further alleged that “[a]s a result of the accident plaintiff Jose Aponte is **partially permanently disabled**.” (Complaint, p.6, Allegation #16. Emphasis added). Section VII of the Complaint (*Third Cause of Action for Plaintiff's Loss of Earnings*) alleges that:

- 18) At the time of the accident plaintiff was a truck driver and permanently employed. As a result of the injuries suffered in the accident, plaintiff is permanently unable to work.
- 19) Plaintiff's loss of earnings as a result of his disability are estimated in a sum not less than two million dollars.

This report offers an independent and objective economic evaluation of the estimate of Mr. Aponte Dávila' losses. No opinion is issued about negligence, responsibility, disability or plaintiff's right to compensation nor as to causality of the events that gave rise to the complaint. Our estimate will be based on the baseline assumption of Plaintiff's total and permanent disability. If evidence is submitted regarding Plaintiff's actual functional/occupational disability that differs from this assumption, these estimates can be adjusted accordingly.

Our evaluation will follow the commonly accepted and established methodology in forensic economics known as the ***Life-Participation and Employment*** methodology (***LPE***) and the established and applicable local Jurisprudence for the computation of loss of earnings due to personal injuries.

II. A critical assessment of Mr. Francisco Martínez's Report

Mr. Martínez begins his analysis by correctly asserting that at the time of the unfortunate accident Mr. Aponte Dávila was "an independent trucker" (*Report of the Income Losses...*, p. 3). For this statement Mr. Martínez quotes Mr. Aponte Dávila's Tax Returns.¹

Mr. Martínez calculates Mr. Aponte Dávila's alleged loss of earnings in an amount between **\$1,668,393** if a discount rate of 2.46% is used, or **\$1,355,750** if 6% is used. In both cases Mr. Martínez incorporated an interest amount for the past losses of years 2012 and 2013, and an annual average rate of increase of his earnings of 2.71%. He calculated a 0.09% interest for the May to December 2012 (58%) period he claims Mr. Aponte Dávila did not work, and 0.06% for the 2013 earnings.² As is well known, the addition of interest to past losses, although mathematically correct, is contrary to local jurisprudence (Suro vda. de García v ELA, 111 DPR 456 (1981)) and it is usually applied only in cases where the case has been litigated with "rashness", "boldness" or what in Spanish is called "*temeridad*" (2009 Rules of Civil Procedures, Rule 44.3 (b)). Otherwise interest is

1. Actually, the one-(long)-parragraph Section on "Baseline Wage Income", is the only section in which actual, historic (but partial) information on Mr. Aponte Dávila is used.

2. Unfortunately, Mr. Martínez does not state which T-Bill series he uses, nor does he state the source. We have briefly researched both the FED's website (<http://www.federalreserve.gov/econresdata/>) and the US Treasury Department's (<http://www.treasury.gov/resource-center/Pages/default.aspx>) but have been unable to locate Mr. Martínez's series.

computed over total compensation from the date of the judicial sentence (2009 Rules of Civil Procedures, Rule 44.3 (a))³. Therefore past losses should be computed at its nominal value, without including interest payment.

Furthermore, in Table 1 of his Report (p. 7) Mr. Martínez presents Mr. Aponte Dávila's "wages" and states he is quoting Mr. Aponte Dávila's tax returns. For Mr. Martínez, baseline income is **\$94,788**. This amount is the result of the 2008-2012 gross earnings average. In Table 1 overleaf we present Mr, Aponte Dávila's full **Schedule C** earnings form his Tax Returns.

First of all, we must mention that Mr. Martínez incorrectly refers to "wages" whe he should have clearly referred to "earnings". This, because as Mr. Martínez mentioned on page 3, Mr. Aponte Dávila was an independent trucker; he was not a salaried employee. Moreover, Mr. Martínez should have known that the information he gathered from Mr. Aponte Dávila is presented in Schedule C of the Tax Returns and that schedule refers to "Profit or Loss From Business (Sole Proprietorship)".

This fact should have alerted Mr. Martínez to the applicable local jurisprudence and also to basic economic theory, whereby the benefit of a business activity or profession is **net** income, not **gross** income. In Rodríguez v Nationwide Insurance (156 DPR 614

3. See also Martínez Cuevas, Ronald *Assessing Economic Damages in Personal Injury and Wrongful Death Litigation: The Commonwealth of Puerto Rico*, **Journal of Forensic Economics** 16(3), 2003, pp. 329-344

(2002)) the Supreme Court of Puerto Rico clearly stated that, in the case of a self employed professional:⁴

“Precisa que en la determinación de la pérdida económica de un agente de seguros no asalariado por concepto de lucro cesante, distingamos entre el ingreso bruto del negocio o industria y aquella partida que redunde en un beneficio real para el reclamante, en este caso el ingreso neto producto de la venta de seguros. Todo ingreso generado por un individuo en el curso de un negocio propio no constituye por sí mismo una ganancia atribuible a un perjudicado dentro del contexto de una determinación de lucro cesante.” (P. 628)

From Table 1 below we can clearly see that Mr. Martínez considered **gross** earnings and not **net** earnings as he should have. In our re-estimates, we will use **net profits** derived from his business, as the appropriate measure of earnings.

4. See also Álvarez González, José Julián, *Responsabilidad Civil Extracontractual*, Sumario Análisis del Término 2001-02 del Tribunal Supremo de Puerto Rico, 72 Revista Jurídica U.P.R. 615 (2003)

Table 1: José A. Aponte Dávila's Gross and Net Earnings

José A. Aponte's Tax Returns: Schedule C: Profit or Loss From Business (Sole Proprietorship)	2007	2008	2009	2010	2011	2012
I. Income						
Gross receipts or sales	\$1,650	\$87,501	\$81,804	\$74,549	\$113,781	\$48,460
Returns an allowances	\$0	\$0	\$0	\$0	\$0	\$0
Net receipts or sales	\$1,650	\$87,501	\$81,804	\$74,549	\$113,781	\$48,460
Costs of goods sold	\$0	\$0	\$0	\$0	\$0	\$0
Gross Profits	\$1,650	\$87,501	\$81,804	\$74,549	\$113,781	\$48,460
Other Income	\$0	\$0	\$0	\$0	\$0	\$0
Gross Income	\$1,650	\$87,501	\$81,804	\$74,549	\$113,781	\$48,460
II. Expenses						
Advertising	\$0	\$0	\$0	\$0	\$0	\$0
Car and Truck Expenses	0	\$57,296	\$51,535	\$41,411	\$63,818	\$16,540
Commissions and Fees	\$0	\$0	\$0	\$0	\$0	\$0
Contract Labor	\$0	\$0	\$0	\$0	\$0	\$0
Depletion	\$0	\$0	\$0	\$0	\$1,250	\$5,187
Depreciation and Section 179 expense deduction	\$0	\$0	\$0	\$0	\$0	\$0
Employee benefit programs	\$0	\$0	\$0	\$0	\$0	\$0
Insurance	\$0	\$0	\$0	\$488	\$2,397	\$0
Interest	\$0	\$0	\$0	\$0	\$0	\$0
Legal and Professional Services	\$0	\$500	\$500	\$510	\$500	\$500
Office Expense	\$0	\$0	\$0	\$64	\$0	\$0
Pension and profit-sharing plans	\$0	\$0	\$0	\$0	\$0	\$0
Rent or lease	\$0	\$0	\$0	\$0	\$0	\$0
Repairs and Maintenance	\$0	\$0	\$0	\$0	\$2,896	\$0
Supplies	\$0	\$0	\$0	\$256	\$2,807	\$219
Taxes and Licences	\$0	\$0	\$0	\$3,397	\$2,240	\$550
Travel, meals and entertainment	\$0	\$10,640	\$11,780	\$10,631	\$1,902	\$1,027
Utilities	\$0	\$0	\$975	\$0	\$0	\$0
Wages	\$0	\$0	\$0	\$0	\$0	\$0
Oter Expenses	0	\$0	\$0	\$2,380	\$19,610	\$8,983
Total Expenses before expenses for business use of home	0	\$68,436	\$64,790	\$59,137	\$97,420	\$33,006
Tentative Profits	\$1,650	\$19,065	\$17,014	\$15,412	\$16,361	\$15,454
Expenses for business use of your home	\$0	\$0	\$0	\$0	\$0	\$0
Net Profit (loss)	\$1,650	\$19,065	\$17,014	\$15,412	\$16,361	\$15,454

Another interesting fact not mentioned by Mr. Martínez is that, contrary to the allegations, Mr. Aponte Dávila did continue working from the date of the accident (July 13, 2009)⁵ until (at least)⁶ May 2012. That is, Mr. Aponte Dávila continued working during the following 34 months period. Moreover, Mr. Aponte Dávila's 2009 **gross** earnings is only \$5,697 (6.51%) less than that of the previous year, while in 2010 **gross** earnings decreased by \$7,255 (-8.87%) but in 2011 it increased by \$39,232 (52.63%).⁷ Actually, in terms of average monthly gross earning, if we consider as correcto Mr. Martínez claim that Mr. Aponte Dávila worked only 5 months in 2012, then his tax returns show an increase in his earnings from \$9,482 per month in 2011 to \$9,692 in 2012.

Another interesting fact that derives from the analysis of Mr. Aponte Dávila's tax returns is the fact that in 2007 he only declared \$1,750 in total **wage** income and \$1,650 in total **gross** and **net** earnings from his business activity. We have been furnished with no explanation for this low income for this year.⁸

This confusion between wages and earnings from business, makes Mr. Martínez incur in an additional methodological and data error, by using BLS' data on "Trucker Mean

5. Mr. Martínez states that the date of the accident was June 13. We will take the date in the Complaint as the correct date.

6. We say "at least" because we have no evidence, and Mr. Martínez presents none, to support his assumption that Mr. Aponte Dávila's 2012 earnings covers only the January-May period.

7. This data is inconsistent with an allegation of a causal relationship between the accident and an alleged decrease in the working potential of Mr. Aponte Dávila.

8. We have requested Mr. Aponte Dávila's tax returns for the years 2004 to 2006, so as to have a full five (5) years period prior to the accident. We have also inquired into 2013 tax returns. As an additional source of verification of Mr. Aponte Dávila's earning history, we have requested the Social Security Administration's earning and payment information, available immediately online at <http://www.ssa.gov/myaccount/>. As of the time of writing this report, we have received no answer to our requests.

Salary” (*sic*) to project Mr. Aponte Dávila’s future earnings. Since, as we have discussed above, Mr. Aponte Dávila’s earnings come from his own business and not from a salaried employment. In order to project Mr. Aponte Dávila’s earnings Mr. Martínez should have referred either to comparable industry-based data (i.e. net earnings from business) or, preferably, to Plaintiff’s own earnings history. Table 2 below show this later information.

Table 2

Mr. José A. Aponte Dávila’s Historic **net** earnings from his business activity

Year	Wages	Income	Total Income
2007	\$1,750	\$1,650	\$3,400
2008	\$0	\$19,065	\$19,065
2009	\$0	\$17,014	\$17,014
2010	\$0	\$15,412	\$15,412
2011	\$0	\$16,361	\$16,361
2012	\$0	\$15,454	\$15,454
		Total 2008-2012 Income	\$83,306
		Average 2008-2012 Income	\$16,661

Source: US Income Tax Returns, Schedule C, various years

It is clear to see that Mr. Aponte Dávila’s net earnings have been fluctuating around its mean, even during the years that his total gross earnings increased (2011 and annualized 2012). This data invalidates Mr. Martínez’s assumption regarding the 2.71% annual average increase in earnings, and on the contrary suggest that a constant net earnings is the most appropriate assumption.⁹

9. Bear in mind that assuming a constant average only means that in some years one could be underestimating earnings, but on others, one will be overestimating them. At the end, the sum of these deviations should tend to zero (0).

Finally, we should analyze Mr. Martínez's use of a 2.46% discount rate in his calculation of the present value of future earnings.¹⁰ Mr. Martínez begins by quoting the well established jurisprudence that in Puerto Rico the discount factor is 6%, and then goes on and mentions the Office of the Commissioner of Financial Institutions' (OCIF in Spanish) judicial interest rate on private debts¹¹ as the "legal rate in the settlement of claims". As we have already discussed before, this is the rate that applies between the date of the judicial sentence and the final payment of the claim (or for the case of *temeridad*), not the rate used to calculate present values. Then, by simply stating that "[i]f we follow the market, interest rates are markedly different from 6%" (p. 5) he quotes the average T-Bills for the preceding 17 years (1997-2013: 2.46%) and uses this rate in one of his present value calculations. It is well know that mathematically, the use of a lower interest rate has the effect of overestimating the present value calculation.

Mr. Martínez does not argue or demonstrate, first why one should disregard the statutory 6% discount rate and secondly, why does he understand that the T-Bill (the one he chose) would be the relevant (even familiar) investment tool for Mr. Aponte Dávila. The only basis for his disregard to the statutory 6% discount rate is his reliance on Jones & Laughlin Steel Corp. v. Pfeifer, 462 U.S. 523 (1983). Nevertheless on closer analysis of that case is solved within the parameters of the Longshoremen's and Harbor Workers' Compensation Act (33 U.S. Code Chapter 18), because it relates to a "longshoreman who

10. Although Mr. Martínez states that he is using 2.46% as discount rate his calculations show that he is actually using 3.16%. This has the effect os underestimating his own results. Had he correctly used 2.46% he would have arrived at a total loss of earnings, past and future of **\$1,922,077**.

11. Tasas de Interés Aplicable a Sentencias Judiciales: Obligaciones Privadas.
<http://www.ocif.gobierno.pr/tiposinteres.html>

was injured in course of his employment" (p. 523). The Supreme Court is very clear about this when, at the end of its analysis it states:

"These conclusions all counsel hesitation. Having surveyed the multitude of options available, we will do no more than is necessary to resolve the case before us. **We limit our attention to suits under § 5(b) of the Act**, noting that Congress has provided generally for an award of damages but has not given specific guidance regarding how they are to be calculated. Within that narrow context, we shall define the general boundaries within which a particular award will be considered legally acceptable.

The Court of Appeals correctly noted that respondent's cause of action "is rooted in federal maritime law." The fact that Pennsylvania has adopted the total offset rule for all negligence cases in that forum is therefore not of controlling importance in this case. **Moreover, the reasons which may support the adoption of the rule for a State's entire judicial system for a broad class of cases encompassing a variety of claims affecting a number of different industries and occupations-are not necessarily applicable to the special class of workers covered by this Act.**" (Page 547, Citations omitted. Emphases added.)

It is clear that the cited case is not applicable to Mr. Aponte Dávila's economic circumstances, nor it provides a justification (all the opposite) to the disregard for local jurisprudence. Thus, it is our opinion that the 2.46% (3.16% used) should be discarded and the 6% discount rate should be used.

III. Re-evaluation of the alleged losses

Apart from the data and methodological errors that we have already pointed out, in forensic terms, what Mr. Martínez has calculated are **projected earnings**. It is well established theory that economic agents operate under uncertainty. To consider uncertainty in a forensic analysis, one should consider the *probability* of occurrence of

certain events that might alter any future¹² economic outcomes. More specifically, any projection of future earnings must be adjusted for the probability of specific, relevant economic variables that might change the *expected value* of such projection. In this sense, we must transform projected values into probable values.

The computation of *probable* earnings forces the economist to consider the concepts of *worklife* and *life-employment and participation* probabilities. In forensic economics:¹³

“‘Worklife expectancy’ can be defined as the statistically average remaining years of participation in the labor force for a person of a **given age and demographics characteristics**. Participation includes those who are working plus those who are unemployed but either expecting to be called back to work or actively seeking employment, i.e., those who are described by the BLS as being “in the labor force”.

In ‘real life’, many people take breaks from periods of employment to further their education, raise families recuperate from severe illness, or temporarily drop out for other voluntary and involuntary reasons. Worklife expectancies, however combine all expected period of future participation into a single number.” (Emphasis added)

(Richards, Hugh (1999) **Life and Worklife Expectancies** Lawyers and Judges Publishing Co., Inc, Tucson AZ; Chapter 8, p. 51)

On the other hand the *Life-Participation and Employment (LPE)* methodology considers:

“The *LPE* approach sums *probable* earnings across all remaining years of a person’s life expectancy.

In the LPE methodology, estimated earnings at each age are dependent on three conditions: whether the person would have been alive, whether he or she would have been willing and able to work, and whether he or she would have actually been employed. These are described as the following probabilities:

12. Actually, uncertainty also affects present behavior, but for the purpose of our endeavor, only future actions are affected.

13. In pure economic theory, when referring to certain events, one has to consider the risks (uncertainties) associated to such events. Mathematically one would refer to the “expected value” of an event.

Overlooking these uncertainties would imply that one would be assuming perfect foresight or, what is the same, absolute certainty of the events.

Probability of life (L): probability that a person will survive through a subsequent age from the initial age.

Probability of labor force participation (P): percentage of living persons who are either employed or actively seeking work (i.e., the labor force participation rate for the appropriate sex, age, race, education, etc.)

Probability of employment (E): the percentage of persons in the labor force who are actually working (equivalent to one minus the unemployment rate)

These three probabilities when multiplied together provide a joint Life-Participation-Employment (LPE) probability. Expected earnings at each age are estimated as this joint probability multiplied by an earnings amount (which, for instance, can be based on projections of past earnings, statistical data, etc.) The present value of expected lifetime earnings is the summation of the present value for all ages.”

(Richards, Hugh (1999) **Life and Worklife Expectancies** Lawyers and Judges Publishing Co., Inc, Tucson AZ; p. 101)

Notice that *LPE* methodology considers not only the probability of surviving from one age to the next, which is a non-economic event, but also the economic event that a person *actively* participates in the labor market and that he or she finds an employment. In this way, this methodology accounts for periods of unemployment (understood as 'involuntary leisure'). These probabilities transform *projected* earnings into *probable* earnings. Moreover, although *LPE* methodology estimates probable income over the entire natural life of a person (or '*expected lifetime*'), it is common practice in Puerto Rico and the US to use approximate retirement age as the terminal age of any economic earnings projection.

Forensic economic methodology also recommends considering specific demographic and or health conditions that might affect the previously mentioned probabilities of events. For example, it is strongly recommended to consider previous health conditions (family related health conditions -high blood pressure, diabetes, cancer, etc.) or risky behavior (like smoking, drug addiction and others). In that respect, it is stated that:

"Practitioners may find it appropriate to make adjustments to the life tables for the general population for two reasons. First, as a result of an injury, an otherwise healthy individual may have a shortened life expectancy. Second, an individual who has been injured may have had a medical condition prior to the injury. For example the person may have suffered from heart disease, diabetes or have been a heavy smoker" (Slesnick & Thornton. *Life Expectancies for Persons with Medical Risks*, Chapter 5, §5.3, p.29, in Richards, Op. Cit.)

Moreover:

"In light of the above, it is probably good advice that the assistance of a qualified medical expert be sought when questions of life expectancy are raised or assumptions challenged in cases of persons with particular health or other medical problems.

[...] The life expectancy of a particular individual may be different than that indicated in the general life tables either because of the tort itself or due to a medical condition present prior to the tort. [...] If necessary, a range of economic losses can be estimated based upon various mortality rate assumptions" (Ibid, p. 33)

Considering the above arguments we will present our estimate of the present value of the probable earnings one might reasonably expect Mr. Aponte Dávila to have earned, had the accident that is claimed forced him to retire from active labor market participation not occurred. We can apply the **LPE** methodology to calculate Mr. Aponte Dávila's *probable* earnings throughout his remaining working life. Our date of valuation -our present- will be December 31, 2014. With the posited base constant-average earnings of \$16,661 we calculate the projected probable annual earnings, following the above analyzed **LPE** methodology.

Table 3

Estimate of probable loss of earnings of Mr. José A. Aponte Dávila

Age at end of year		Projected annual earnings	Intertemporal survival probability by age and sex (males)	Employment rate	Participation rate	Joint Life, Participation and Employment (LPE) probability	Present value of projected probable earnings	Annual cumulative earnings
46.95	2009	\$16,661	1.000000	100.00%	100.00%	1.000000	\$0	\$0
47.95	2010	\$16,661	1.000000	100.00%	100.00%	1.000000	\$0	\$0
48.95	2011	\$16,661	1.000000	100.00%	100.00%	1.000000	\$0	\$0
49.95	2012	\$16,661	1.000000	100.00%	100.00%	1.000000	\$0	\$0
50.95	2013	\$16,661	1.000000	100.00%	87.36%	0.873600	\$14,555	\$14,555
51.95	2014	\$16,661	1.000000	100.00%	87.36%	0.873600	\$13,731	\$28,287
52.95	2015	\$16,661	0.965454	100.00%	87.36%	0.843421	\$12,507	\$40,793
53.95	2016	\$16,661	0.965454	100.00%	87.36%	0.843421	\$11,799	\$52,592
54.95	2017	\$16,661	0.965454	100.00%	85.70%	0.827394	\$10,919	\$63,511
55.95	2018	\$16,661	0.965454	100.00%	85.70%	0.827394	\$10,301	\$73,812
56.95	2019	\$16,661	0.952703	100.00%	85.70%	0.816467	\$9,590	\$83,402
57.95	2020	\$16,661	0.952703	100.00%	85.70%	0.816467	\$9,047	\$92,449
58.95	2021	\$16,661	0.952703	100.00%	85.70%	0.816467	\$8,535	\$100,984
59.95	2022	\$16,661	0.952703	100.00%	85.70%	0.816467	\$8,052	\$109,036
60.95	2023	\$16,661	0.952703	100.00%	85.70%	0.816467	\$7,596	\$116,632
61.95	2024	\$16,661	0.935427	100.00%	85.70%	0.801661	\$7,036	\$123,668
62.95	2025	\$16,661	0.935427	100.00%	85.70%	0.801661	\$6,638	\$130,306
63.95	2026	\$16,661	0.935427	100.00%	85.70%	0.801661	\$6,262	\$136,568
64.95	2027	\$16,661	0.935427	100.00%	77.27%	0.722804	\$5,327	\$141,894
65.95	2028	\$16,661	0.935427	100.00%	77.27%	0.722804	\$5,025	\$146,919
66.95	2029	\$16,661	0.907348	100.00%	77.27%	0.701108	\$4,598	\$151,518
67.95	2030	\$16,661	0.907348	100.00%	77.27%	0.701108	\$4,338	\$155,856
		\$366,546					\$155,856	

Column 1 of Table 3 shows Mr. Aponte Dávila's age at the end of the (calendar) year, which is shown in column 2, beginning in 2009. As Mr. Martínez does, we have projected Mr. Aponte Dávila's earnings until year 2030, when he would turn 67 and is assumed to retire. Column 3 begins with Mr. Martínez's assumed -base year- (2009) earnings of \$16,661, and according to his earning history, is assumed to fluctuate around this average.

Columns 4 and 5 show the intertemporal probability of survival for men in Puerto Rico, from one group age to another (ρ_a^s , 2008-2010 Cohort), and the probability of being employed (ρ_a^e) and the probability of participating in the labor force (ρ_a^p) for males of a specific age group in Puerto Rico. These data are public data published by the Health Department and the Labor and Human Resources Department, respectively.

Notice that we have adjusted the intertemporal survival probability for the years 2009 to 2014 to 1.00 (absolute certainty) to reflect the **fact** that Mr. Aponte Dávila is alive today, and is expected to remain so until December 31, 2014. Likewise, the employment and participation rates probabilities have also been adjusted to 1.00 to reflect the fact that Mr. Aponte Dávila was self-employed, so he is not assumed to risk being "unemployed". Nevertheless, the intertemporal probability of participating in the labor force is adjusted annually at the appropriate rate for males in Puerto Rico.

Column 6 shows the joint probability of these events ($\rho_a^s \times \rho_a^e \times \rho_a^p = \rho_t^j$), while column 7 shows the probable earnings for each year ($\$E_t \times \rho_t^j$, where $\$E_t$ is projected earnings for year t). Probable earnings then is the projected earning of one year times the joint probability of a person being alive, employed and participating in the labor market. Finally, column 8 shows the cumulative losses, in case the Honorable Court finds that the interruption to Mr. Aponte Dávila' work life is neither **total** nor **permanent**. Therefore, if we consider all these data and follow, as we have done, the **LPE** methodology, we can reasonable calculate Mr. Aponte Dávila' total **probable earnings throughout his remaining (2009-2030) working life, assuming 100% permanent interruption of his productive capacity** be an amount not in excess of \$155,856.¹⁴

The partiality of the interruption can be 'adjusted' by multiplying the compensable loss by the percentage of the interruption, or mitigation. For example, if Mr. Aponte Dávila cannot work full time, but is found to be able to work part time (say half his usual time) in

14. If we use the two year 2008-2009 net income average (which by the way is the highest average that can be calculated from the whole series) of \$18,040, and use Mr. Martínez's 2.71% annual average rate of increase of income, this total would be \$226,606.

a comparable job, then we can multiply the loss by 50%, and total compensation would be \$77,928 ($\$155,856 \times 0.50 = \$77,928$).

On the other hand the duration of the interruption can be adjusted by truncating the compensation at the year it is found reasonable that Mr. Aponte Dávila can return to the labor market. That is, if, for example, it is considered reasonable that Mr. Aponte Dávila could be able to return to work in 10 years time from the date of his accident, while assuming complete disability throughout the period, cumulative compensation could end at year 2018 (2009 to 2018 inclusive) and total compensable loss would be \$73,812.

Obviously many other contingent scenarios for degree of occupational disability and of its duration can be constructed, and the calculation of the according compensation can be made. This is a matter of expert testimony from other professionals, and a legal determination of relevant evidence submitted throughout the proceedings.

IV. Certification

I hereby certify that I do not, or have not had any previous personal or professional relationship with the parties and that my fees are not contingent on the outcome of the case. I also certify that I do not have any interest or claim whatsoever on the estimate of the losses or final compensation if any, and that such estimates are the result of an objective and independent evaluation.

V. Statement of Qualification

The author of this report is a BA in Economics graduate from the University of Puerto Rico, M.Phil. in Economics and Politics of Development graduate from the

University of Cambridge in England and a Ph.D. in Economics graduate from the Victoria University of Manchester, also in England. He is currently a full professor at the Department of Economics, Río Piedras Campus, where he has been teaching since 1989. He is a current member of the **American Economics Association** and of the **National Association of Forensic Economics**. Doctor del Valle has been involved in over 175 cases as an expert witness ranging from loss of earnings, life care plan evaluations, distribution and representative laws (75, 21), and other general economic losses. He has been deposed and has testified in Court on several occasions.