

**ON THE STATISTICAL RELATIONSHIP BETWEEN  
LOUISIANA'S RIGHT-TO-WORK LAW AND  
EMPLOYMENT IN THE STATE OF LOUISIANA**

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**before**

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**State of Louisiana**

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**My name is Edward J. O'Boyle. I have been a research associate and associate professor at economics at Louisiana Tech University for the past 15 years. Prior to that, I was the director of a health manpower project at the Ohio Department of Health (1974-76), a senior research associate at the Ohio State University Center for Human Resource Research (1972-74), a labor economist at the U.S. Department of Labor, Bureau of Labor Statistics (1967-70), and a research analyst at the Illinois State Employment Service (1964-67). My undergraduate degree in economics was awarded by DePaul University (1960). I have a master's degree and a doctoral degree in economics from Saint Louis University (1964, 1972). My primary field of study as a graduate student was labor economics, specifically unemployment insurance and training for the unemployed.**

**Over the years I have published more than 35 articles in various professional journals and other publications and I have presented more than 20 papers at various professional meetings. Over the past eight years, I have personally visited and prepared confidential written reports on 25 private companies in Louisiana as part of the information necessary for a blue-ribbon selection board to recommend the one firm in the State each year that is to receive the U.S. Senate Productivity Award. Over the past four years, I have done the same for six private establishments in order to recommend the one to receive the U.S. Senate Innovation Award.**

**I am here today as a witness at the request of the chairman of this committee and I am making available to the committee members copies of my prepared comments. My comments here closely parallel what I said last week before the House Committee on Labor and Industrial Relations. I have added some statistical information that was not available to me last week but these additions are entirely consistent with my earlier comments.**

**Some 30 years ago my graduate-school mentor warned me about the tendency of the newly-minted Ph.D. to make statements that cannot be fully supported by the evidence. It is advice that applies as well to those of us who are more experienced. I confess that, at times, it is a struggle to submit to that wisdom for "the intellect is amenable, but the will is weak".**

**In a related matter, my mentor asserted candidly that "it is precisely at this point ... that the rabbit gets into the hat". That is, value judgments matter importantly in matters such as the agency-shop question and no doubt my own have influenced what I am about to say. My views are entirely my own and not necessarily the views of Louisiana Tech University. Even so, they very likely were shaped long ago by my father who was a member of the AFL-CIO Amalgamated Association of Street, Electric Railway, and Motor Coach Employees of America (1943-1968). In my home, "union" was not a four-letter word. Additionally, I feel**

**obliged to tell the committee that I have discussed this question with several officials of the AFL-CIO in Louisiana prior to today's hearings. Nevertheless, I have made it clear to them that I do not speak for them. In addition, I have not been retained by anyone or any organization, including organized labor, to supply testimony today and I am not being compensated in any way for my testimony.**

**I affirm the right of association in the workplace because it derives in principle from human material need -- both physical need and the need for work as such -- and I support working men and women in that regard as expressed through specific labor organizations insofar as those organizations are mindful and respectful of the authentic needs of others who are affected directly or indirectly by what happens in the workplace: owners, managers, suppliers, customers, and neighbors.**

**Labor and management, for sure, disagree from time to time and frequently find themselves at cross purposes. On occasion, their clashes become rather heated. Nevertheless, adversarial relations between the two are not inevitable. Each one needs the other and each one is more likely to serve its own individual purposes best when both accept the other as a partner with a common purpose.**

**For the most part, my comments are directed at the reliability of two estimates in Timothy Ryan's study: (1) that the passage of right-to-work legislation in 1977 added some 93,272 jobs to the Louisiana economy; and (2) that the passage of the proposed "Fair Share Plan" would result in a loss to the State's economy of some 33,575 jobs over a five-year period.**

**My review began with Ryan's data set and estimating procedure for the first estimate (+93,272 jobs). The reliability of this estimate depends on:**

- (1) the type of regression model;**
- (2) the quality of the data;**
- (3) the variables or factors incorporated in the model;**
- (4) the stability of the model.**

**Ryan could have used either a linear or a nonlinear regression model to estimate the impact of the 1975 right-to-work legislation on total employment. Ryan selected a nonlinear regression model. Whether he has made the right choice is a technical question that relates to the underlying relationships between (a) the independent variables and the dependent variable and (b) the various coefficients. If one uses instead a linear regression model along with**

Ryan's own data, one can easily produce different estimates of the employment impact of the 1975 right-to-work legislation.

Ryan's employment data may not be comparable over all the years -- 1963-1991 -- included in his analysis. In reviewing various data sources I was able to find nonagricultural employment data on the *same benchmark* for 1960-1988. For that reason I question whether the data he used for 1989-1991, strictly speaking, are comparable to the data for the earlier years included in his analysis.

I have serious reservations about estimating employment in terms of just three variables or factors: the price of crude oil, lagged employment, and a dummy variable for the passage of right-to-work law in Louisiana in 1977. Ryan could have lagged employment by one year, two years, or three or more years. He used a two-year lag but his estimate would have been different with a different lag. Additionally, other relevant factors have been left out which has an important bearing on his estimate of the impact of the right-to-work law on employment in the State of Louisiana.

The stability of the model signifies the model's ability to produce the same estimates when one subdivides the time period covered in the analysis (in the case of Ryan's estimates, 1963-1991). An unstable model is one that yields different estimates for shorter time segments within the longer period covered in the analysis.

I ran six regressions, each one for a different time period, using Ryan's own data with the same two-year lag in a linear regression model and making the necessary corrections for autocorrelation<sup>1</sup> in the case of a lagged variable (see Table A). All six estimates of the impact of the 1975 right-to-work law are smaller than Ryan's and all six differ. For that reason, Ryan's model is unstable. None of the six estimates are shown on Table A because none passed the test of statistical significance and, therefore, none of them are reliable. For that reason, Ryan's first estimate (+93,272 jobs) is questionable.

Table B (Items 7 and 8) shows the results obtained substituting my own data for Ryan's in an ordinary least squares model and changing the time period covered in the analysis. As I suggested previously, my principal reason for substituting data is that 1988 is the latest year for which data are available based on same benchmark. In both regressions the estimate of the

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<sup>1</sup> A "disturbance" occurring at one time period that carries over into another period.

**impact of the 1975 right-to-work law on total employment is not reliable.**

**Table B (Items 9, 10, 11, and 12) also displays the results obtained when natural gas prices are added to the regression model and the convention hotels built in New Orleans for the 1984 World Exposition are included as a dummy variable. Adding natural gas prices produces an estimate that is quite close to Ryan's for the period 1962-88 (see Item 9). Running the same regression for the period 1968-88 (see Item 10) produces a higher estimate of the impact of the 1975 right-to-work law on total employment in the State. The addition of the hotel dummy variable produces estimates for 1962-88 and 1968-88 (see Items 11 and 12) which, strictly speaking, are not reliable.**

**These results indicate that the estimate of the impact of the 1977 right-to-work legislation on total employment in Louisiana is sensitive not only to the type of regression model used and the time period included in the analysis but also to differences in the data one uses and to other factors that are included in the regression model.<sup>2</sup>**

**In reviewing Ryan's estimate that the passage of the "Fair Share Plan" would cost the State 33,575 additional jobs over a five-year period, I found similar problems. Table C displays the results I obtained using his data for the factors or independent variables included in his regression plus my own data for certain factors which I introduced in a regression model that I presume is no different than his. Adding productivity in manufacturing and infant mortality<sup>3</sup> as two other factors affecting the growth of jobs in the manufacturing sector produced a smaller estimate (see Item 13). Further, and importantly, adding crime and the cost of new housing as factors that influence the growth of the manufacturing sector produced estimates for the effect of right to work on the growth of manufacturing employment that are not reliable (see Item 14).**

**Replacing Ryan's right-to-work dummy variable with another measure of the influence of unionization on manufacturing employment -- the number of union members in manufacturing as a percent of total manufacturing employment -- produces results that are not reliable (Item 15). Further, it is especially instructive that, when this unionization variable**

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<sup>2</sup> Substituting a dummy variable for the opening of the Super Dome in New Orleans in 1975 for the right-to-work dummy variable produces a statistically significant estimate which is very close to Ryan's own estimate of 93,272 jobs.

<sup>3</sup> An approximation of the health and physical well-being of the Louisiana labor force.

is substituted in Ryan's regression which otherwise is the same as his original specification (see Item 16), the estimate is not reliable.

The results shown in Table C indicate that the estimated impact of any change permitting agency shop in Louisiana, as obtained through a regression model, depends on the specific factors bearing upon growth in the manufacturing sector that one chooses to include in the model.

The first 12 regressions that I am presenting to you today contest Ryan's claim that he has "definitively" addressed the impact of the 1977 passage of right to work legislation in Louisiana and that it "unequivocally" influenced total employment in Louisiana. Ryan may indeed be correct but the statistical evidence is inconclusive. Similarly, the last 4 regressions that I am submitting raise some doubt as to the reliability of his statement that the passage of the "Fair Share Plan" would cost Louisiana 33,575 jobs.

Any investigator (myself included) in a matter such as this is able to find whatever "rabbit" he/she put into the hat at the start. To illustrate, the night before I appeared as a witness before the House of Representatives Labor and Industrial Relations committee I had to decide whether to delete the results from two regressions which had been constructed improperly knowing that leaving them in would make my presentation the next day appear to be more convincing. There was no time to make the necessary corrections and to re-run the regressions. I decided to leave those two "rabbits" in the hat. I have since made the necessary corrections and those two regressions appear as Items 15 and 16 in Table C.

I propose that unless Ryan is able to supply evidence -- particularly evidence from specific Louisiana companies as to the determinants of real, not hypothetical, plant (re-)location and plant expansion decisions -- that is more convincing than the results obtained from regressions, it seems unwise to hang your decision on the estimates which he published in March 1992.

In closing, several brief remarks seem to be most appropriate. First, most new jobs in the U.S. are created by small or start-up businesses. Second, about 80-90 percent of all new businesses fail by the end of five years. Third, internationally known and respected management consultant Edward Deming has stated on numerous occasions that about 90 percent of all problems in the workplace originate with poor management.

**Finally, in terms of human material need, what does freedom of choice really mean when employment security is fleeting and earnings are inadequate? Isn't it time for both organized labor and the representatives of management to set aside their differences and to begin to address the task of finding ways to improve the survivability and the productivity of those small enterprises and start-ups which in fact provide most of the new jobs in Louisiana? Our children, I suggest, are waiting for both parties to display the same kind of responsibility that adults continuously demand of their children as a sign of their maturity.**

TABLE A. STATISTICAL RELATIONSHIP BETWEEN TOTAL EMPLOYMENT & ...

Ryan's Own Estimates: 1963 - 1991

RTW taking into account crude oil prices..... + 93,272 jobs \*

(1) Ryan's Data/O'Boyle's Estimates: 1963 - 1991 \*\*

RTW taking into account crude oil prices ..... estimate not reliable \*

(2) Ryan's Data/O'Boyle's Estimates: 1964 - 1991 \*\*

RTW taking into account crude oil prices ..... estimate not reliable \*

(3) Ryan's Data/O'Boyle's Estimates: 1965 - 1991

RTW taking into account crude oil prices ..... estimate not reliable \*

(4) Ryan's Data/O'Boyle's Estimates: 1963 - 1990 \*\*

RTW taking into account crude oil prices ..... estimate not reliable \*

(5) Ryan's Data/O'Boyle's Estimates: 1964 - 1990 \*\*

RTW taking into account crude oil prices..... estimate not reliable \*

(6) Ryan's Data/O'Boyle's Estimates: 1965 - 1990

RTW taking into account crude oil prices ..... estimate not reliable \*

\*: More than 94 percent of the difference in total employment is accounted for by differences in crude oil prices and the RTW variable.

\*\* : Ryan's published data set does not include total employment data for 1961 and 1962. The data for those years are estimated in order to run the regressions beginning in the years 1963 and 1964.



TABLE B. STATISTICAL RELATIONSHIP BETWEEN TOTAL EMPLOYMENT & ...

Ryan's Own Estimates: 1963 - 1991	
RTW taking into account crude oil prices .....	+ 93,272 jobs *
(7) O'Boyle's Data and Estimates: 1962 - 1988	
RTW taking into account crude oil prices .....	estimate not reliable *
(8) O'Boyle's Data and Estimates: 1968 - 1988	
RTW taking in account crude oil prices .....	estimate not reliable *
(9) O'Boyle's Data and Estimates: 1962 - 1988	
RTW taking into account crude oil and natural gas prices.....	+ 93,731 jobs *
(10) O'Boyle's Data and Estimates: 1968 - 1988	
RTW taking into account crude oil and natural gas prices.....	+ 114,419 jobs *
(11) O'Boyle's Data and Estimates: 1962 - 1988	
RTW taking into account crude oil prices and convention hotels built for 1984 World Exposition .....	estimate not reliable *
(12) O'Boyle's Data and Estimates: 1968 - 1988	
RTW taking into account crude oil prices and convention hotels built for 1984 World Exposition .....	estimate not reliable *

\* More than 93 percent of the difference in total employment is accounted for by differences in crude oil prices, the right-to-work variable, and the other two variables -- natural gas prices and convention hotels -- that were included.

TABLE C. STATISTICAL RELATIONSHIP BETWEEN GROWTH IN MFG EMPLOYMENT,  
& ...

Additional (hypothetical) jobs in  
Louisiana over 5 years due to RTW

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Ryan's Own Estimates: 1985-1989 RTW taking into account business taxes, state capital outlay, illiteracy rate, population .....	33,575
(13) Ryan's & O'Boyle's Data/O'Boyle's Estimates: 1985-1989 RTW taking into account same factors as Ryan + productivity and infant mortality.....	27,355
(14) Ryan's & O'Boyle's Data/O'Boyle's Estimates: 1985-1989 RTW taking into account same factors as Ryan + productivity, infant mortality, crime, cost of new housing .....	estimate not reliable
(15) Ryan's & O'Boyle's Data/O'Boyle's Estimates: 1985-1989 union membership taking into account same factors as Ryan + productivity, infant mortality, crime, cost of new housing .....	estimate not reliable
(16) Ryan's & O'Boyle's Data/O'Boyle's Estimates: 1985-1989 union membership taking into account same factors as Ryan.....	estimate not reliable

#### O'BOYLE'S DATA SOURCES

Crude Oil Prices and Natural Gas Prices:

U.S. Department of Energy, *Annual Energy Review: 1983* and *Monthly Energy Review: January 1992*.

Total Employment and Manufacturing Employment:

U.S. Department of Labor, *Handbook of Labor Statistics*, Bulletin 2340, August 1989

Productivity in Manufacturing:

U.S. Bureau of the Census, *1987 Census of Manufacturers: General Summary*, March 1991.

Infant Mortality:

U.S. Bureau of the Census, *Statistical Abstract of the United States 1988*, 108th edition.

Crime:

Federal Bureau of Investigation: *Uniform Crime Report for the United States* (for 1985).

Cost of New Housing:

U.S. Bureau of the Census, *Housing Units Authorized by Building Permits and Public Contracts: Annual 1985*, June 1986.

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U.S. Bureau of the Census, *Statistical Abstract of the United States 1990*, 110th edition.