

## **CURRICULUM VITAE of Patrick Stephen CARROLL**

**BORN** 26 February 1945 in York.

**SCHOOLS:** St Gerard's School, Bray, Co Wicklow, Ireland 1953-58  
Ampleforth College, York 1958-63

**UNIVERSITY:** Trinity College, Cambridge 1963-67  
Prize: Rouse Ball Mathematical Essay Prize 1966  
(awarded for an essay on Mathematical Genetics)

### **PROFESSIONAL QUALIFICATIONS:**

Cambridge Diploma in Mathematical Statistics (with Sociology as field of application) 1967

Fellow of the Institute of Actuaries 1973

### **LANGUAGES:**

GCE "O Level" passes in French, Latin and Greek and GCE "A Level" pass in French. Competent French for technical purposes and some German is spoken and a little Russian.

### **EMPLOYMENT EXPERIENCE:**

Statistician in Market Research 1967-70. First post on leaving Cambridge with Research Services. At Research Services and at Unilever's Research Bureau, I was concerned with sampling for surveys of consumers employing questionnaires and also with product testing. I also worked on a major race relations survey at Research Services.

Actuary in Insurance 1970-1976 (Victory Reinsurance and Prudential Assurance Co) At the Victory I was concerned with Group and Individual Life Reinsurance. At the Prudential I had experience in the Actuary's office working on Individual Life Insurance and Group Pensions. For more than a year I was seconded to the Data Processing Department as a Systems Analyst and Programmer.

Lecturer in Statistics and Actuarial Science, The City University, London 1977-87. There were opportunities at The City University for me to introduce new courses to teach the application of Statistical Methods to Actuaries. Actuarial courses taught included Life Contingencies. Statistical courses taught at B.Sc. and M.Sc. levels included Multivariate Analysis.

## **PAPRI Pension And Population Research Institute**

Director of Research. PAPRI 1987-... PAPRI Pension And Population Research Institute is a charitable trust registered with educational aims. The charitable objects of PAPRI include research into Pensions, Demography, Insurance and Investment.

Significant research projects have been successfully completed by PAPRI. The project Retirement Age and Equalisation of Pension Benefits was funded by the Joseph Rowntree Memorial Trust with a budget of £50,000 and was completed in 1991 with the publication of the Final Report under the title Pension Age in a Changing Society. Financial and Demographic modelling for Home Concern's sheltered housing for the elderly was completed in the summer of 1992. In 1995 a project on Children's Family Circumstances involved secondary analysis of the General Household Survey for three years to 1992. Some results of this project have been published by the Family Education Trust in their publication Broken Homes and Battered Children.

Other projects completed have covered the impact on society in Great Britain of the 1967 Abortion Act. A 32 page paper was included by the 26th International Congress of Actuaries in Volume 8 of papers published in advance of the 1998 Congress in Birmingham in June 1998. In October 2007 on the 40<sup>th</sup> anniversary of the Act, Assessing the Damage was published jointly by PAPRI and The Medical Education Trust.

Epidemiological projects on Risk Factors in Female Breast Cancer were completed successfully. A paper was published by the 27th International Congress of Actuaries in Cancun, Mexico March 2002. The Breast Cancer Epidemic was published by the Journal of American Physicians and Surgeons, Fall 2007.

## **2002 PAPRI - WEBSITE**

Several recent publication and other items reporting on research done at PAPRI can be accessed via the PAPRI website: <http://home.btconnect.com/papri>

## **RISK RESEARCH SERVICES LIMITED**

Director of Risk Research Services Limited. 1987-... Risk Research Services is a limited company set up to run courses on Insurance Methodology for insurance professionals and to provide actuarial advice and consultancy services.

One speciality is to advise on the actuarial assessment of benefits that are compensation for accidents or personal injuries. Examples of cases advised include a coal miner injured in a colliery accident (near Newcastle) and unable to continue work, an Irish Building Society employee that has had to retire early following trauma in the course of robberies of the building society branch and a shipyard worker in Gibraltar injured by a falling piston, unable to work thereafter.

**PUBLICATIONS** include:

1. Life Insurance Product Development: A Transatlantic View. Proceedings of the First Actuarial Convention. Birmingham. The Institute of Actuaries. 1985 pp 150-159.
2. Statistical Aspects of Fire Insurance. Proceedings of 23rd International Congress of Actuaries. Helsinki. ICA 1988. pp557-569
3. Demographic Trends and Pension Implications. Proceedings of 23rd International Congress of Actuaries. ICA. 1988. pp 573-594
4. Pension Age in a Changing Society. PAPRI 1991.
5. Early Retirement. Proceedings of Joint Actuarial Convention. September 1991 Harrogate. pp 85-89 The Institute of Actuaries and the Faculty of Actuaries.
6. Retirement Age and Equalisation of Pension Benefits. Journal of the Staple Inn Actuarial Society Vol. 33. Dec 1993. pp 37-76.
7. Personal Injury Compensation. New Law Journal. Vol 144 pp 507-509. April 1994
8. Memorandum on Pensions Bill submitted by PAPRI. House of Commons Committee on Social Security. HMSO. April 1995.
9. Exposure to Risk in the London Market. General Insurance Convention. 1995 pp 247-268 Institute & Faculty of Actuaries. (as co-author with M Azzopardi & D Craighead)
10. Time Series in General Insurance. General Insurance Convention. 1995 pp 269-272 Institute & Faculty of Actuaries.
11. Personal Injury Compensation. General Insurance Convention. 1995 pp 273-276 Institute & Faculty of Actuaries.
12. Monitoring Personal Injury Compensation. General Insurance Convention 1996. Vol II pp 471-475 Inst.& Faculty of Actuaries.
13. The demographic impact and the implications for Pensions and National Insurance in Great Britain of the 1967 Abortion Act. Volume 5 Pensions & Social Security. Transactions of the 26th International Congress of Actuaries pp 283-316. Birmingham 1998
14. Risks to the Health of Women from Legally Induced Abortions. June 2000 on website of European Society for Population Economics [www.iza.org/ESPE2000/](http://www.iza.org/ESPE2000/)
15. Nuisance Pensions in report by House of Commons Select Committee. Social Security. Pensioner Poverty pp130-1 Aug 2000
16. Pregnancy Related Risk Factors in Female Breast Cancer Incidence. International Congress of Actuaries, Transactions (2002) 4:331-75
17. Pension Credit. Submission by PAPRI. Evidence pages 347-8 Volume II The Future of Pensions published by the House of Commons Select Committee on Work and Pensions. April 2003
18. Aspects of the Economics of An Ageing Population VOL II Evidence. House of Lords Select Committee on Economic Affairs. 5 November 2003. Memorandum by the Pensions and Population Research Institute: Saving for Retirement. Pp 464-5
19. Trends and reproductive risk factors in female breast cancer incidence in Great Britain. *Br J Cancer* 2004; *91(Suppl.1):S24, Poster 2*
20. Trends and risk factors in British female breast cancer. *Statistics in Epidemiology. Joint Statistical Meetings (JSM), American Statistical Association, Minneapolis, Minn; 2005:2511-2519.*

## **PUBLICATIONS continued:**

21. THE DECLINE OF FERTILITY IN SCOTLAND COMPARED WITH ENGLAND. Patrick Carroll. International Congress of Actuaries. Paris 2006 [available at this URL on the Congress website: http://www.ica2006.com/3071.html](http://www.ica2006.com/3071.html)
22. Assessing the Damage. The Demographic Impact on Society and Consequences for the Health of Women of the 1967 Abortion Act over 40 Years. *PAPRI and The Medical Education Trust, London 2007* <http://home.btconnect.com/papri> and [www.mededtrust.org.uk](http://www.mededtrust.org.uk)
23. The Breast Cancer Epidemic: Modeling and Forecasts Based on Abortion and Other Risk Factors. *JPANDS Journal of American Physicians and Surgeons, Fall 2007* 12: pp 72-78 <http://www.jpands.org/vol12no3/carroll.pdf>
24. Future pensions: future poverty? *Significance(magazine of the Royal Statistical Society). September 2008 volume 5 issue 3 pp100-103.* [www.interscience.wiley.com](http://www.interscience.wiley.com)
25. The Demographic Impact of Legally Induced Abortion after 40 Years in Great Britain. *Journal of Social Sciences* Vol. 19, Number 3 June 2009 pp 173-177. link to the paper is: <http://www.krepublishers.com/02-Journals/JSS/JSS-19-0-000-09-Web/JSS-19-3-000-09-Abst-PDF/JSS-19-3-173-2009-850-Carroll-P/JSS-19-3-173-2009-850-Carroll-P-Tt.pdf>
26. The Demographic Impact of Legally Induced Abortion after 40 Years in Great Britain. *Journal of Social Sciences* Vol. 19, Number 3 June 2009 pp 173-177. link: <http://www.krepublishers.com/02-Journals/JSS/JSS-19-0-000-09-Web/JSS-19-3-000-09-Abst-PDF/JSS-19-3-173-2009-850-Carroll-P/JSS-19-3-173-2009-850-Carroll-P-Tt.pdf>
27. Ireland's Gain. The Demographic Impact and Consequences for the Health of Women of the Abortion Laws in the Republic of Ireland and Northern Ireland since 1968. PAPRI 2011. [www.papriresearch.org](http://www.papriresearch.org) Published Papers.

## **CONFERENCES & COURSES** organised:

PAPRI held a conference in 1991 on Pensions in a Changing Society at The City University chaired by Clare Short MP.

In November 2001 a seminar on Flexible Retirement was held at Help the Aged in Pentonville Road organised by PAPRI. This was attended mainly by trade union pension officers and was reported on the PAPRI web site: <http://home.btconnect.com/papri>

RISK RESEARCH SERVICES LIMITED has held some well attended courses of one week's duration on General Insurance Methodology and General Reinsurance Methodology which have been attended by participants from five continents. Leading reinsurers and insurers including Munich Re, Cologne Re, Commercial Union, Royal Re, UAP Re, and Copenhagen Re used these courses.